

Product Range International 2016

# PVDF SYGEF



## Introduction

# The best choice for you

## Corrosion and chemical resistant system solutions

### + Georg Fischer

Georg Fischer focuses on three core businesses: GF Piping Systems, GF Automotive and GF Machining Solutions. The industrial corporation founded in 1802 headquarters in Switzerland and operates approximately 130 companies with more than 14 000 employees across 30 countries.

GF Piping Systems is a leading supplier of plastic and metal piping systems with global market presence. For the treatment and distribution of water and chemicals, as well as the safe transport of liquids and gases in industry, we have the corresponding jointing technologies, fittings, valves, automation products and pipes in our portfolio.



GF Piping Systems headquarters in Schaffhausen, Switzerland.

### + Our market segments

Being a strong partner, GF Piping Systems supports its customers in every phase of the project. No matter which processes and applications are planned in the following market segments:

- Building Technology
- Chemical Process Industry
- Energy
- Food & Beverage / Cooling

- Microelectronics
- Marine
- Water & Gas Utilities
- Water Treatment

### + Global presence

Our global presence ensures customer proximity worldwide. Sales companies in over 26 countries and representatives in another 80 countries provide customer service around the clock. With 48 production sites in Europe, Asia and the USA we are close to our customers and comply with local standards. A modern logistics concept with local distribution centers ensures highest product availability and short delivery times. GF Piping Systems specialists are always close by.

### + Complete solutions provider

Our extensive product range represents a unique form of product and competence bundling. With over 60 000 products, allied with a broad range of services, we offer individual and comprehensive system solutions for a variety of industrial applications. Our automation offering perfectly fits into our complete system approach and is thus an integral part of our portfolio. Having the profitability of the project in focus, we optimize processes and applications that are integrated into the whole system.

Continually setting standards in the market, we directly provide our customers with technological advantages. Due to our worldwide network customers benefit directly from over 50 years of experience in plastics.

From start to finish, we support our customers as a competent, reliable and experienced partner, actively contributing the know-how of an industrial company that has been successful in the market for over 200 years.

The system

# The System for Highly Demanding Applications

## Superior purity, outstanding chemical and temperature resistance

We are dedicated to designing, manufacturing and marketing piping systems for the safe and secure treatment or conveyance of different qualities of water, liquids and chemicals. Customers rely on our 40+ years experience in Fluoropolymers, our state-of-the-art production technology and our global presence with a worldwide service and training offering. In close collaboration with end-customers and based on their high requirements, GF Piping Systems introduced the SYGEF family – specified PVDF system based on certified raw material. SYGEF is the optimal choice for highly demanding applications on the industrial field.



## + Individuality – From the planning stage to installation

### SYGEF Standard (PVDF)

The single-bagged and reliable transport solution for chemical and water applications – even at high temperatures. Defined manufacturing conditions and a high performance raw material ensure the suitability for harsh environments as encountered in disinfection and chemical transport.

### SYGEF Plus (PVDF HP)

The double-bagged, high purity (HP) piping system offers additional opportunities for highly demanding applications like conveying hot ultrapure water (HUPW) for microelectronic industries. By manufacturing, cleaning and packing under cleanroom conditions up to ISO class 5 (100), SYGEF Plus achieves an excellent surface finish, superior leach out characteristics and stringent particle control combined with high reliability and product lifetime.



Pipes



Fittings



Valves

### Quality control and assurance

SYGEF systems warrant 100% traceability through our computer aided quality production, packaging and labeling from raw material to the end product.

### Temperature and chemical resistance

SYGEF systems are reliable for difficult applications with high temperatures and aggressive chemicals. Through our service team we offer individual support to match your material requirements.



## + Main benefits

### Complete system range

- One-stop-shopping
- Including pipes, fittings, valves and automation
- Proven jointing technologies
- Worldwide service: customizing, machine rental pool, training and sales support
- System lifetime warranty\*

### Total plastic solution

- Outstanding temperature range
- Excellent chemical resistance and purity
- Extremely smooth surface finish
- Rouging- and corrosion-free
- Excellent abrasion resistance
- UV and weather resistant
- No electric conductivity
- Low thermal conductivity

### High purity application

- Virgin raw materials
- No additives, stabilizers or pigments
- Outstanding leach-out values
- Fully controlled clean room production
- 100 % traceability and audited by an independent external company



Automation



Joining technology



Customizing and training

### Technical support

For any successful installation a good technical support is the key factor. A team of experts is available for individual assistance all around the world.

### Customizing

The focus of our worldwide located customizing teams is manufacturing custom parts for special systems. Standardized processes guarantee the highest level of quality.

### Technical documentation

Our extensive expertise of more than 50 years is fully documented in detail in our technical manuals, planning fundamentals and application guides.

### Training courses and on-site training

We offer a wide range of training courses that provide participants an excellent opportunity to gain confidence in working with our products and proven jointing technologies.

### Online and mobile calculation tools

Our numerous online and mobile calculation tools in many different languages support our customers in configuring and commissioning automation products.

### CAD library

The extensive CAD library is the most frequently used planning tool. Our online database comprises over 30 000 drawings as well as technical data for our customers. Many formats are available.

\* Detailed information regarding the warranty can be found under: [www.gfps.com](http://www.gfps.com) – Planning Fundamentals

Completely controlled process

# The SYGEF High Purity Chain

## 1 Raw material

SYGEF starts the journey with the highest available quality raw materials. Our suppliers provide analytical proof of compliance with the highest specifications for every shipment. Once the raw materials enter our plant, GF performs extensive incoming goods inspection. This assures that only raw materials fulfilling the strict requirements are released for production.

## 2 Manufacturing

Manufacturing of the SYGEF Plus products is done in a clean room class 7 (10000) or better using completely controlled processes. During the complete production process the inner surface area of the pipes, fittings and valves are in contact with air up to class 5 (100).

## 3 Quality control

A very detailed and unique QS-system has been implemented to ensure the highest level of quality. It is directly linked to the manufacturing of the complete SYGEF range and includes a 100% inspection of every product to ensure maximum performance including visual inspection, valve packaging and valve seat-tests.

# The high purity chain is made up of six links. Each one plays its important role

Manufacturing a product that achieves the lowest possible levels of particle contamination, TOC, anionic and cationic contamination, ultimate surface finish is the result of the relevant links. But it does not stop here. When the product leaves our state-of-the-art warehouse it is delivered to you in protective packaging.

Finally the installation is supported by the most advanced and established welding technology in existence. This technology combined with years of installation training experience make the most of the product when it is installed.

## 4

### Cleaning & packing

Highest purity through consistent cleaning of all SYGEF Plus products is achieved in clean rooms up to class 5 (100), using 18MΩ pure water and special cleaning devices. All products are packaged under selected and strictly monitored process conditions to avoid contamination. Pipes are capped and all SYGEF Plus components are double bagged with a high quality, certified clean bagging material.

## 6

### Installation & services

With broad selection of system specific state-of-the-art welding equipment GF is offering proprietary IR welding technology up to d450mm. Enhanced by industry leading weld bead inspection the highest quality and most reliable system is ensured. Project support including design, installation training and worldwide located service centers completing the high purity chain.

## 5

### Logistics

SYGEF products are stored in a separate warehouse for pipes, fittings and valves with distribution centers located worldwide. To avoid damage of SYGEF pipes GF has designed special wooden boxes for storage and transportation. This ensures that the highest possible quality and safety during transportation to the customer is ensured.

High tech factory Ettenheim / Germany

# SYGEF Cleanroom Production

All SYGEF components are manufactured in the world's largest cleanroom factory for fluoropolymer products in Ettenheim

GF Piping Systems played a major role in establishing the relevant standards SEMI F40, F48 and F57 for polymer component testing. Due to long experience and continuous improvements SYGEF Plus pipes, fittings and valves are exceeding these requirements to increase our customers' yield. SYGEF Plus products are strictly fulfilling the strong requirements of the ITRS\* roadmap in order to be prepared for upcoming, even more demanding processes in the future.



## Fully controlled environment

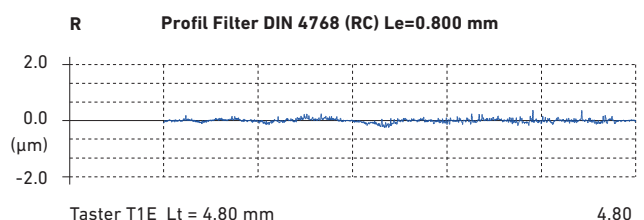
The SYGEF production area includes 5600m<sup>2</sup> cleanroom: 4000m<sup>2</sup> class 7 (10 000), 1000m<sup>2</sup> class 6 (1 000) and 600m<sup>2</sup> class 5 (100) in operation. All cleanrooms are continuously monitored and audited internally and by external companies. The microbiological and specified particle measurements are fully documented with a unique quality assurance (QA) system.

## Ultrapure water plant

Cleaning and rinsing of components with water of impeccable quality assures a constantly high level of cleanliness. SYGEF Plus products are subject to regular leach-out controls. Elementary system impurities like metals, anions and TOC\*\* are constantly monitored to exceed SEMI F57 requirements to warrant the highest possible system performance in use.

## Surface quality

Smooth surfaces are achieved due to special equipment design, proper tooling material's selection, mirror finish surface of inner cores and preventive maintenance schedule. Thereby for all SYGEF Plus products the inner surface roughness according SEMI F57 is surpassed.



Inner surface roughness measured at a SYGEF Plus T90° equal d250 SDR33/PN10



### Process expertise

Operating staff has in-depth process knowledge and over 40 years of experience in manufacturing products under strictly controlled cleanroom conditions. With regular internal trainings we ensure that our production team keeps always the highest performance and has the latest insights. All the injection molding machines and extrusion lines are developed by using the latest innovations and technologies.

### Quality Assurance

The safe delivery to jobsite and traceability of the finished product back to the raw material batch are ensured through completely controlled processes. All relevant data are archived in an internal QA database and electronically available for statistical researches.

### Safe and reliable system

Quality control is an integral part in every step of the high purity chain. Therefore each SYGEF Plus component is 100 % visually inspected, including overall cleanliness, surface appearance and imperfections in accordance to internal specifications.

All mechanical testing takes place in matchless Swiss federally accredited lab facility and external certificated labs. Together with unsurpassed installation equipment GF Piping Systems is superior regarding ovality, internal stress level and warpage. These key factors are able to influence the weld strength which leads to a longer system lifetime and a higher safety.



\* ITRS: International Technology Roadmap for Semiconductors

\*\* TOC: Total Organic Carbon



## System range

# More Than a System

With a constant focus on maximum reliability and safety the SYGEF system assures a sustained high level of product quality and outstanding performance for high-end applications. By using certified and completely controlled manufacturing processes the SYGEF products are manufactured according to all relevant specifications and these procedures are regularly audited and evaluated to achieve continuous improvement. Our customers can be assured that their needs are met or exceeded and that the products comply with all necessary standards.

### SYGEF Standard and SYGEF Plus system range

Products	SDR	DN	d																		
			16	20	25	32	40	50	63	75	90	110	125	140	160	200	225	250	280	315	355
Pipes	21	16	SYGEF Standard																		
	33	10	SYGEF Plus																		
Socket fusion fittings		16	SYGEF Standard																		
Butt fusion fittings (IR and BCF compatible)	21	16	SYGEF Standard																		
	33	10	SYGEF Plus																		
Ball valves		16	SYGEF Standard																		
		10	SYGEF Plus																		
Diaphragm valves		16	SYGEF Standard																		
		10	SYGEF Plus																		
Butterfly valves		16	SYGEF Standard																		
		10	SYGEF Plus																		
Check valves		16	SYGEF Standard																		
		10	SYGEF Plus																		
Pressure regulating valves		10	SYGEF Standard																		
Ventilating- and bleed valves		16	SYGEF Standard																		
Automation			SYGEF Plus																		
Flanges			SYGEF Plus																		
Flange seal			SYGEF Plus																		
Pipe clips			SYGEF Plus																		
IR fusion machine			SYGEF Plus																		
BCF fusion machine			SYGEF Plus																		
Butt fusion machine*			SYGEF Plus																		
Socket fusion machine			SYGEF Plus																		

SYGEF Standard SYGEF Plus

\* Technically possible but not recommended for SYGEF Standard

# System specifications



## Standards:



	SYGEF Standard	SYGEF Plus
<b>Material</b>	PVDF	virgin High Purity PVDF (PVDF-HP)
<b>Color</b>	opaque	opaque
<b>Density</b>	~1.78 g / cm <sup>3</sup> (EN ISO 1183)	~1.78 g / cm <sup>3</sup> (EN ISO 1183)
<b>Thermal expansion coefficient</b>	0.12–0.18 mm / m K (DIN 53752)	0.12–0.18 mm / m K (DIN 53752)
<b>Thermal conductivity at 23 °C</b>	0.19 W / m K (EN 12664)	0.19 W / m K (EN 12664)
<b>Yield stress at 23 °C</b>	≥ 50 N / mm <sup>2</sup> (EN ISO 527)	≥ 50 N / mm <sup>2</sup> (EN ISO 527)
<b>Tensile E-modul at 23 °C</b>	≥ 1 700 N / mm <sup>2</sup> (EN ISO 527/ASTM D790)	≥ 1 700 N / mm <sup>2</sup> (ISO 527/ASTM D790)
<b>Charpy notched impact strength at 23 °C</b>	≥ 8 kJ / m <sup>2</sup> (EN ISO 179)	≥ 8 kJ / m <sup>2</sup> (EN ISO 179)
<b>Dimensions</b>	d16–d315 in accordance to ISO 10931	d20–d450 in accordance to ISO 10931
<b>Temperature rating</b>	from -20 °C to 140 °C (-4 °F to 284 °F)	
<b>Production</b>	<ul style="list-style-type: none"> <li>- Pipes: extruded</li> <li>- Fittings: injection moulded / machined</li> <li>- Valves: injection moulded (additional oil free treated and paint compatible / silicon free)</li> </ul>	<ul style="list-style-type: none"> <li>- Pipes: extruded</li> <li>- Fittings / Valves: injection moulded / machined</li> <li>- Produced under clean room class 7 (10 000) conditions. Subsequent assembling, quality inspection and cleaning is carried out using 18 MΩ pure water under clean room class 5-6 (100 -1 000) conditions</li> </ul>
<b>Surface finish</b>	Inner surface Ra < 0.5 µm (20µin) for injection moulded and extruded components	Inner surface (PN10/ SDR33): d ≤ 225 Ra ≤ 0.2 µm (8µin) d = 250 Ra ≤ 0.3 µm (12µin) d280–315 Ra ≤ 0.4 µm (16µin) d355–450 Ra ≤ 0.65 µm (26µin) for injection moulded and extruded components
<b>Compliant to Semi F57</b>		
<b>Internal stress</b>	Pipes: ≤ 2.5 N / mm <sup>2</sup> ; stress relieved by thermal annealing during manufacturing	
<b>Material and product approvals</b>	DIBt FM-4910 listed cleanroom material FDA CFR 21 177.2510 USP 25 class VI (physiological non-toxic) ASME BPE	SEMI F57 FM-4910 listed cleanroom material DIBt FDA CFR 21 177.2510 USP 25 class VI (physiological non-toxic) ASME BPE
<b>Packing</b>	Pipes capped and multiple components single bagged in a specified bag	Pipes capped and each component double bagged in a specific inner bag and outer bag under clean room Class 6 (1 000) conditions
<b>Marking and labeling</b>	All components are embossed with a permanent identification during the production process to ensure full traceability: <ul style="list-style-type: none"> <li>- Brand name</li> <li>- Material</li> <li>- Dimensions</li> <li>- Pressure rating</li> <li>- Lot No.</li> <li>- Product description</li> <li>- Article number</li> <li>- Standard and approvals</li> </ul>	

## Approvals / Acceptance:



ISPE | ASME BPE | FM-4910

## Joining methods

# Convincing Welding Technologies

A diverse range of innovative and intelligent welding solutions is enriched with global training and service offerings

As a pioneer in the field, GF Piping Systems has always placed a very high priority on developing innovative joining techniques to fulfill specific requirements and materials in use. Simplicity in application, chemical resistance, thermal stability and long-term weld strength are the key drivers in our joining technologies. With a global joining training program, international machine rental and a worldwide network of service centers, our customers benefit from our expertise and practical experience.

### Welding technology

#### Socket fusion – the strong connection

The fast and reliable solution to produce heavy-duty connections, in the workshop or the field.

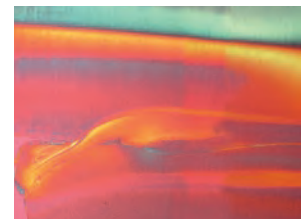
### Welding machine



### Joint cross-section

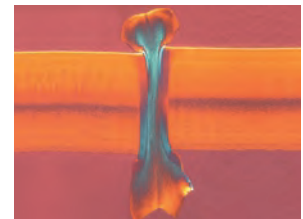


### Microscopy



#### Butt fusion – the economical connection

Economical and flexible fusion especially for larger diameters. From manual machines to full CNC control with traceability.



#### IR-Plus (Infrared) fusion – the fast, clean connection

Fast, repeatable and clean welds via non-contact heating. Full traceability of the welding process, with user guidance.



#### BCF-Plus fusion – the smooth connection

Bead and Crevice Free joining with the highest weld factor, lowest stress and completely smooth fusion zone without any intrusions.



For more information about training courses from GF Piping Systems please contact our local sales companies.

SYGEF system

# Key Products Specially Designed for You

Continuous improvements and new developments assure a maximum level of quality to our customers. The SYGEF Plus system offers very unique key products which are specially designed by GF Piping Systems to fulfill even the highest requirements in segments like Micro-electronic, Energy and Chemical Process Industry.



## System up to d450

- Completely controlled processes from raw material to installation
- Overall system reliability, purity and safety
- Wide range of pipes, fittings, valves, automation and accessories
- Stress reduced pipes
- SEMI F57 conformity



## High purity union

- Special HP design with unique positioning of the sealing
- Defined tightening for optimal deforming of the O-ring
- Crevice and dead space free to avoid bacterial growth
- Full plastic design without metal parts
- In accordance with ASME-BPE



## High purity diaphragm valves

- Maintenance free during temperature cycles due to full plastic design
- Maximized purity due to minimized dead legs and manufacturing in clean room class 5 (100)
- Double flow rate compared to other diaphragm valves



## Pressure regulating valves (PRV)

- Special HP-version with patented elastomer-free piston – no abrasion
- Valve assembly without metal screws for safer operation
- Compact and intelligent modular design
- Easy maintenance through replaceable cartridge



## Automated IR welding machine

- Advanced QA/QC technology and monitored jointing work
- Minimized operator errors by automated welding process
- Full horizontal freedom for complex installation
- State-of-the-art, man-machine interface with user friendly touchscreen display



## Ultrasonic flowmeter

- Noninvasive clamp-on design enables contamination free flow measurement
- Easy to retrofit – minimum downtime
- Real time monitoring
- Clean solution – no contact with medium
- Economic solution

## Specifications

# Exceeding Your Standards of Quality

## Technical specifications with focus on pressure, temperature and high purity attributes

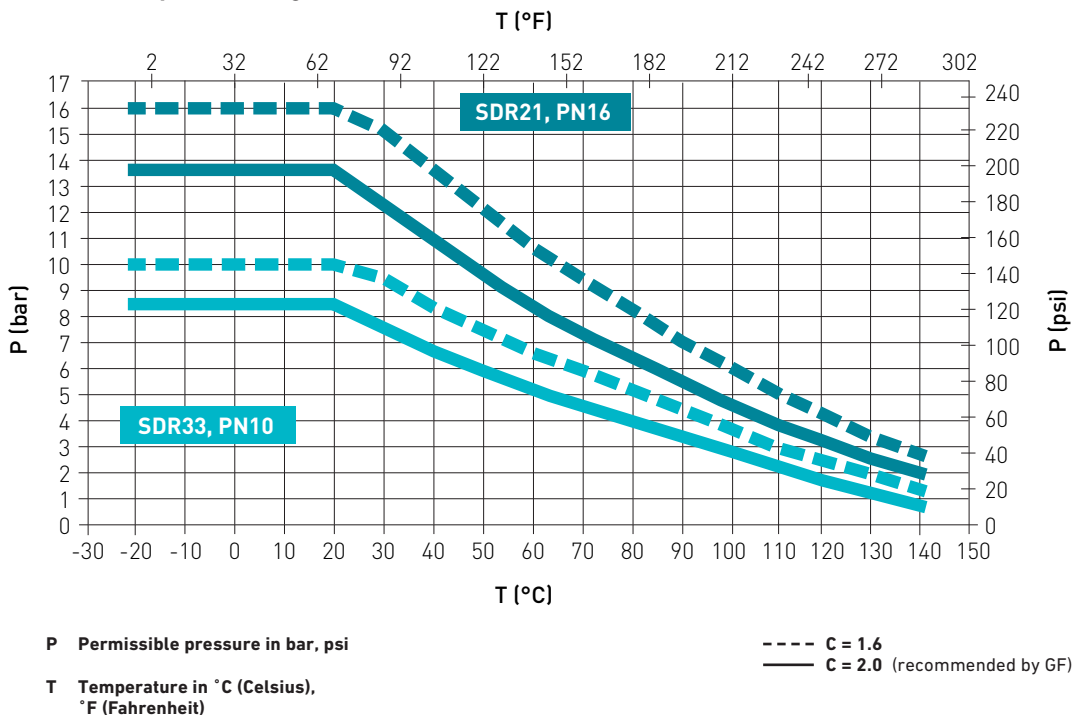
### Excellent pressure/temperature performance

SYGEF PVDF is a thermoplastic fluoropolymer with a melting point above 175 °C and a wide service temperature range from -20 °C to 140 °C. SYGEF systems are ideal for use in aggressive chemical or ultrapure water systems since they are generally considered inert, have high strength and stiffness, and are readily weldable into system components.

### Sterilization / sanitization / cleaning

Due to its outstanding material properties, our SYGEF systems are suitable for a broad range of sterilization or cleaning methods using steam, hot water, ozone and chemicals.

### Pressure-temperature diagram



The pressure/ temperature curve based on medium water, operating temperature of 20°C, valid life time of 25 years and the design factor of C = 2.0 or C = 1.6 respectively

Chemical resistance

# For Your Operational Safety



Professional material technology

## Polyvinylidene fluoride (PVDF) – a high quality material

### Chemical resistance at 20 °C

(Applications can be very dependent on the concentration)

Media	Chemicals	Partially crystalline thermoplastics			Amorphous thermoplastics		Stainless steel	
		PVDF	PE	PP	PVC-U	PVC-C	1.4401 316	1.4301 304
<b>Oxidizing acids</b> (HNO <sub>3</sub> , H <sub>2</sub> CrO <sub>4</sub> , H <sub>2</sub> SO <sub>4</sub> , etc.)	HNO <sub>3</sub> ≤ 25 %	+	0	0	+	+	0	0
	25 % ≤ HNO <sub>3</sub> ≤ 65 %	+	0	-	0	+	0	0
	H <sub>2</sub> CrO <sub>4</sub> aqueous solution	+	0	0	0	0	0	0
	H <sub>2</sub> SO <sub>4</sub> ≤ 70%	+	+	+	+	+	-	-
	70 % ≤ H <sub>2</sub> SO <sub>4</sub> ≤ 96 %	+	-	-	+	+	-	-
<b>Non oxidizing acids</b> (HCl, HF, etc.)	HCl ≤ 30 %	+	+	+	+	+	0	-
	HF ≤ 40 %	+	+	+	+	-	0	-
	40 % ≤ HF ≤ 75 %	+	+	+	-	-	-	-
<b>Organic</b> (formic acid, acetic acid, citric acid, etc.)	HCOOH ≤ 25 %	+	+	+	+	+	0	-
	25 % ≤ HCOOH ≤ tech. pure	+	+	+	+	-	0	-
	CH <sub>3</sub> COOH ≤ 50 %	+	+	+	+	+	0	-
	50 % ≤ CH <sub>3</sub> COOH ≤ tech. pure	+	+	+	0	-	0	-
	C <sub>3</sub> H <sub>4</sub> OH (COOH) <sub>3</sub>	+	+	+	+	+	0	-
<b>Bases</b>	Inorganic (NaOH, KOH, etc.)	-	+	+	+	0	+	+
	Organic (amine, imidazole, etc.)	-	+	+	0	-	0	0
<b>Salts</b>	NaCl, FeCl <sub>2</sub> , FeCl <sub>3</sub> , CaCl <sub>2</sub> , etc.	+	+	+	+	+	0	0
<b>Halogens</b>	Chlorine, bromine, iodine, (no fluorine)	0	-	-	0	0	0	-
<b>Fuels / oils</b>	Aliphatic hydrocarbons	+	0	0	+	0	+	+
	Aromatic hydrocarbons	+	-	-	-	-	+	+
	Chlorinated hydrocarbons	0	-	-	-	-	0	0
<b>Solvents</b>	Ketones	0	+	+	-	-	+	+
	Alcohols	+	+	+	0	-	+	+
	Esters	0	0	0	-	-	+	+
	Aldehydes	-	+	+	-	-	+	+
	<b>Phenols</b>	Phenol, Cresol, etc.	+	+	+	-	-	+

+ resistant   0 conditionally resistant, please consult us   - not resistant

Please note: The above list is only intended as a guideline and does not replace an indepth review of material suitability for the particular application. The information is based on our experience and is state of the art. These data are general indicators only. In practice, however, other factors such as concentration, pressure and jointing technology must also be taken into consideration. The technical data are not binding and are not expressly warranted characteristics of the goods.

Please contact us for help in selecting the right materials.

The smarter way of automation

# Automation Made Easy

**A unique system-based approach that bundles and integrates competencies, knowledge, best-in-class resources and technologies**

With an innovative product portfolio in the field of measurement, control and actuation devices, GF Piping Systems consistently follows its system approach. The complete solution combines measurement, control and actuation technology together with high quality piping systems and represents a unique form of product and competence bundling. The system-integrated devices that measure values such as temperature, pressure and flow delivering accuracy, productivity, reliability and safety to customers in a wide range of industries. Providing the entire range of automation technology from simple instrument panels to complex measurement installations, GF Piping Systems has not only the product resources and the technical expertise, but also the global service and support infrastructure needed to meet the high customer requirements.



## Applications

# As Versatile as Your Applications

### Leading applications enabled by safe and reliable systems adapted to fit the needs of highly demanding industries

GF Piping Systems develops customized best-in-class solutions, aligned to the specific requirements of our customers in various sectors of industry, enabling profitable operation. With our system knowledge and product expertise, we support our customers during the planning process, the sustainable realization of the projects and provide valuable added services. Expertise in developing and producing piping systems, combined with profound industry and market knowledge, based on long-standing experience, makes GF Piping Systems an uniquely qualified and professional partner for our customers.

#### Microelectronics

Ultrapure water (UPW) is the lifeblood of semiconductor wet processing. SYGEF Plus system manufactured out of PVDF high purity material added with latest IR welding technology offers an industrial benchmark solution with excellent leach-out values and no rouging.



#### Energy

High voltage direct current (HVDC) transmission is used because of its efficiency with less power loss. Through its thermal resistivity SYGEF systems are well suited to conduct the deionized water in cooling systems to dissipate the generated heat. Custom solutions offered by GF Piping Systems.



#### Food & beverage

Lighter and corrosion-resistant compared to stainless steel SYGEF is ideal for the conveyance of food. With FDA conform BCF-welding a smooth and reliable connection is warranted. Maintenance cycles and lifetime are maximized to achieve highest system efficiency.



#### Chemical process industry

SYGEF is uniquely equipped to provide a broad and versatile solution for the safe conveyance of aggressive chemicals in extreme conditions. The excellent life span for temperatures up to 140°C including UV-resistance even allows outside installation.

#### Water treatment

With noticeably better water balance compared to steel, SYGEF enables the right water quality for any WT application like drinking water, industrial effluent treatment or filling and emptying of tanks which are required in manufacturing and processing plants to store liquid media.



#### Pharmaceutical

Down to the lowest pH values the excellent chemical resistance of SYGEF provides a high-quality and cost-effective alternative even to high-performance stainless steel or Titanium alloys. With BCF welding purest water conveyance, minimal microbiological growth and endotoxin risk is ensured.







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# SYGEF Standard

Piping systems in PVDF



# SYGEF Standard – System Specification

<b>Material</b>	Polyvinylidene fluoride (PVDF)
Colour	opaque
Density	~1.78 g/cm <sup>3</sup> (ISO 1183 / ASTM D 792)
Surface tension	30–35 mJ/m <sup>2</sup>
Thermal expansion coefficient	0.12–0.18 mm/mK (DIN 53752)
E-modulus	≥1700 N/mm <sup>2</sup> (EN ISO 527 / ASTM D 790)
Thermal conductivity	0.19 W/mK (EN12664)
Surface resistivity	5 x 10 <sup>14</sup> Ωcm (IEC 60093)
<b>Dimension</b>	d16 (3/8")–d315 (12") in accordance to ISO 10931
<b>Pressure rating</b>	Pipes/fittings: PN16 (d16–d 315), PN10 (d90–d315) Valves: separate specification
<b>Temperature rating</b>	From –20 °C to +140 °C (–4 °F to +284 °F)
<b>Production</b>	Fittings/valves: injection moulded Pipes: extruded Valves: injection moulded (additional available oil free treated and paint compatible / silicon free)
<b>Surface finish</b>	Inner surface Ra ≤ 0.5 µm (20 µin) for injection moulded and extruded components
<b>Marking</b>	All components are embossed with a permanent identification during the production process to ensure full traceability. Lot No Material Dimension Pressure Rating
<b>Testing and inspection</b> (ISO 10931)	Inclusions Visual inspection Surface finish Dimension tolerance Pressure testing
<b>Approvals/conformance</b>	DIBt ASME BPE FDA CFR 21 177.2510 USP 25 class VI (physiological non-toxic) FM-4910 listing
<b>Welding technology</b>	BCF Plus, bead and crevice free fusion, size d20 (1/2")–d110 (4") IR Plus, infrared fusion (DVS 2207-6), size d20 (1/2")–d315 (12") Butt fusion (DVS 2207-15), size d20 (1/2")–d315 (12") Socket fusion (DVS 2207-15), size d16 (3/8")–d63 (2")
<b>Documentation*</b>	Certificate of Conformance with FDA, USP EN 10204 2.2 EN 10204 3.1
<b>Packing**</b>	Multiple components single bagged in specified bag
<b>Labeling</b>	Brand Name Product Description Code Number Material Dimension
<b>Main applications</b>	Uses include delivery of pharmaceutical grade purified water (PW) and DI water, using hot water, steam chemical or ozone sanitisation. Due to its excellent chemical resistance it is widely used in chemical distribution systems.

\* On request

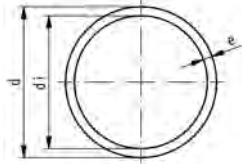
\*\* Not for socket fusion products

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# Pipes

## Pipes



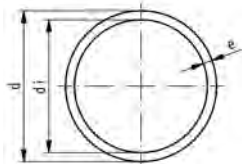
### SYGEF Standard pipe SDR33/PN10

**Model:**

- Material: PVDF
- Length: Lengths of 5 m

**Inflation surcharges for pipes are possible, they follow the current purchase of materials price.**

d (mm)	PN (bar)	FM	Code	Weight (kg/m)	e (mm)	di (mm)
90	10	BCF, IR	<b>175 480 665</b>	1.480	2.8	84.4
110	10	BCF, IR	<b>175 480 666</b>	2.200	3.4	103.2
125	10	IR	<b>175 480 667</b>	2.840	3.9	117.2
140	10	IR	<b>175 480 673</b>	3.520	4.3	131.4
160	10	IR	<b>175 480 668</b>	4.540	4.9	150.2
200	10	IR	<b>175 480 669</b>	7.190	6.2	187.6
225	10	IR	<b>175 480 670</b>	8.950	6.9	211.2
250	10	IR	<b>175 480 671</b>	11.100	7.7	234.6
280	10	IR	<b>175 480 656</b>	13.900	8.6	262.8
315	10	IR	<b>175 480 674</b>	17.600	9.7	295.6



### SYGEF Standard pipe SDR21/PN16

**Model:**

- Material: PVDF
- Length: Lengths of 5 m

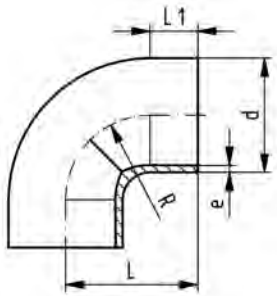
**Inflation surcharges for pipes are possible, they follow the current purchase of materials price.**

\*Available as from Q2, 2016

d (mm)	PN (bar)	FM	Code	Weight (kg/m)	e (mm)	di (mm)
16	16	BCF, IR	<b>175 480 202</b>	0.171	1.9	12.2
20	16	BCF, IR	<b>175 480 203</b>	0.210	1.9	16.2
25	16	BCF, IR	<b>175 480 204</b>	0.269	1.9	21.2
32	16	BCF, IR	<b>175 480 205</b>	0.435	2.4	27.2
40	16	BCF, IR	<b>175 480 206</b>	0.563	2.4	35.2
50	16	BCF, IR	<b>175 480 207</b>	0.850	3.0	44.0
63	16	BCF, IR	<b>175 480 208</b>	1.090	3.0	57.0
75	16	BCF, IR	<b>175 480 209</b>	1.550	3.6	67.8
90	16	BCF, IR	<b>175 480 210</b>	2.230	4.3	81.4
110	16	BCF, IR	<b>175 480 211</b>	3.330	5.3	99.4
140	16	IR	<b>175 480 213</b>	5.312	6.7	126.6
160	16	IR	<b>175 480 214</b>	6.961	7.7	144.6
200	16	IR	<b>175 480 216</b>	10.862	9.6	180.8
225	16	IR	<b>175 480 217</b>	13.700	10.8	203.4
*	250	IR	<b>175 480 218</b>	17.150	11.9	226.2
*	280	IR	<b>175 480 219</b>	21.660	13.4	253.2
*	315	IR	<b>175 480 220</b>	27.220	15.0	285.0

# Fittings

## Butt fusion fittings

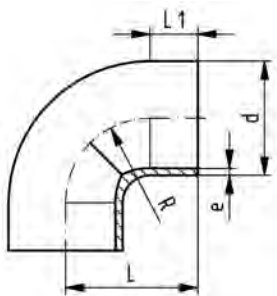


### SYGEF Standard bend 90° SDR21/PN16

**Model:**

- Material: PVDF
- \*Available as from Q2, 2016

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
20	16	BCF, IR	735 018 706	0.016	1.9	38	23	15
25	16	BCF, IR	735 018 707	0.022	1.9	42	23	19
32	16	BCF, IR	735 018 708	0.038	2.4	46	22	24
40	16	BCF, IR	735 018 709	0.055	2.4	51	21	30
50	16	BCF, IR	735 018 710	0.094	3.0	58	21	37
63	16	BCF, IR	735 018 711	0.151	3.0	66	21	45
75	16	BCF, IR	735 018 712	0.285	3.6	75	23	62
90	16	BCF, IR	735 018 713	0.449	4.3	90	23	77
110	16	BCF, IR	735 018 714	0.736	5.3	110	23	98
140	16	IR	735 018 716	1.584	6.7	140	33	121
160	16	IR	735 018 717	2.258	7.7	160	33	141
200	16	IR	735 018 719	3.798	9.6	200	33	181
225	16	IR	735 018 720	5.726	10.8	220	33	200
*	250	IR	735 018 721	6.536	11.9	254	48	232
*	280	IR	735 018 722	9.182	13.4	283	48	262
*	315	IR	735 018 723	13.031	15.0	321	48	297



### SYGEF Standard bend 90° SDR33/PN10

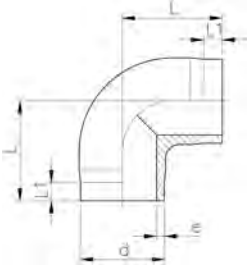
**Model:**

- Material: PVDF
- \*Available as from Q2, 2016

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
90	10	BCF, IR	735 018 513	0.352	2.8	90	23	77
110	10	BCF, IR	735 018 514	0.605	3.4	110	23	98
125	10	IR	735 018 515	0.670	3.9	125	28	112
140	10	IR	735 018 516	1.238	4.3	140	33	121
160	10	IR	735 018 517	1.738	4.9	160	33	141
200	10	IR	735 018 519	2.730	6.2	200	33	181
225	10	IR	735 018 520	4.094	6.9	220	33	200
*	250	IR	735 018 521	4.304	7.7	254	48	232
*	280	IR	735 018 522	6.370	8.6	283	48	262
*	315	IR	735 018 523	9.032	9.7	321	48	297



### SYGEF Standard elbow 90° SDR21/PN16



**Model:**

- Material: PVDF

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	<b>735 108 606</b>	0.022	1.9	38	25
25	16	BCF, IR	<b>735 108 607</b>	0.030	1.9	42	26
32	16	BCF, IR	<b>735 108 608</b>	0.049	2.4	46	26
40	16	BCF, IR	<b>735 108 609</b>	0.069	2.4	51	28
50	16	BCF, IR	<b>735 108 610</b>	0.119	3.0	58	28
63	16	BCF, IR	<b>735 108 611</b>	0.198	3.0	66	28

### SYGEF Standard elbow 45° SDR21/PN16

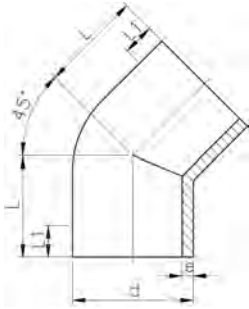


**Model:**

- Material: PVDF
- \*Available as from Q2, 2016

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	<b>735 158 606</b>	0.019	1.9	32	25
25	16	BCF, IR	<b>735 158 607</b>	0.025	1.9	34	26
32	16	BCF, IR	<b>735 158 608</b>	0.038	2.4	36	26
40	16	BCF, IR	<b>735 158 609</b>	0.054	2.4	39	28
50	16	BCF, IR	<b>735 158 610</b>	0.084	3.0	42	30
63	16	BCF, IR	<b>735 158 611</b>	0.121	3.0	47	31
75	16	BCF, IR	<b>735 158 612</b>	0.160	3.6	49	32
90	16	BCF, IR	<b>735 158 613</b>	0.294	4.3	57	37
110	16	BCF, IR	<b>735 158 614</b>	0.480	5.3	70	46
140	16	IR	<b>735 158 616</b>	1.000	6.7	88	57
160	16	IR	<b>735 158 617</b>	1.470	7.7	100	62
200	16	IR	<b>735 158 619</b>	2.800	9.6	124	77
225	16	IR	<b>735 158 620</b>	4.000	10.8	140	88
*	250	IR	<b>735 158 621</b>	3.669	11.9	120	47
*	280	IR	<b>735 158 622</b>	5.099	13.4	133	47
*	315	IR	<b>735 158 623</b>	7.162	15.0	147	47

### SYGEF Standard elbow 45° SDR33/PN10



**Model:**

- Material: PVDF
- \*Available as from Q2, 2016

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
90	10	BCF, IR	<b>735 158 513</b>	0.219	2.8	57	37
110	10	BCF, IR	<b>735 158 514</b>	0.379	3.4	70	46
125	10	IR	<b>735 158 515</b>	0.490	3.9	79	51
140	10	IR	<b>735 158 516</b>	0.680	4.3	88	57
160	10	IR	<b>735 158 517</b>	0.990	4.9	100	62
200	10	IR	<b>735 158 519</b>	2.060	6.2	124	77
225	10	IR	<b>735 158 520</b>	2.923	6.9	140	88
*	250	IR	<b>735 158 521</b>	2.402	7.7	120	47
*	280	IR	<b>735 158 522</b>	3.518	8.6	133	47
*	315	IR	<b>735 158 523</b>	4.923	9.7	147	47

### SYGEF Standard T 90° equal SDR21/PN16

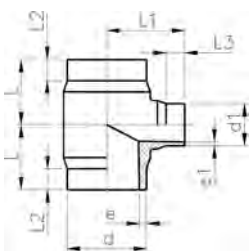


**Model:**

- Material: PVDF
- \*Available as from Q2, 2016

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	<b>735 208 606</b>	0.028	1.9	38	25
25	16	BCF, IR	<b>735 208 607</b>	0.040	1.9	42	27
32	16	BCF, IR	<b>735 208 608</b>	0.065	2.4	46	27
40	16	BCF, IR	<b>735 208 609</b>	0.095	2.4	51	28
50	16	BCF, IR	<b>735 208 610</b>	0.156	3.0	58	28
63	16	BCF, IR	<b>735 208 611</b>	0.270	3.0	66	28
75	16	BCF, IR	<b>735 208 612</b>	0.364	3.6	75	32
90	16	BCF, IR	<b>735 208 613</b>	0.628	4.3	90	39
110	16	BCF, IR	<b>735 208 614</b>	1.122	5.3	110	48
140	16	IR	<b>735 208 616</b>	2.600	6.7	140	62
160	16	IR	<b>735 208 617</b>	3.500	7.7	160	71
200	16	IR	<b>735 208 619</b>	6.725	9.6	200	80
225	16	IR	<b>735 208 620</b>	8.986	10.8	220	86
*	250	IR	<b>735 208 621</b>	10.823	11.9	223	70
*	280	IR	<b>735 208 622</b>	16.061	13.4	256	74
*	315	IR	<b>735 208 623</b>	21.422	15.0	274	74

### SYGEF Standard T 90° reduced SDR21/PN16



**Model:**

- Material: PVDF

d - d1 (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L1 (mm)	L2 (mm)	L (mm)	L3 (mm)
160 - 90	16	IR	<b>735 208 662</b>	3.200	7.7	4.3	130	60	155	25
160 - 110	16	IR	<b>735 208 661</b>	3.300	7.7	5.3	130	60	155	25
225 - 90	16	IR	<b>735 208 670</b>	6.000	10.8	4.3	160	60	155	25
225 - 110	16	IR	<b>735 208 669</b>	6.100	10.8	5.3	160	60	155	25

### SYGEF Standard T 90° equal SDR33/PN10



**Model:**

- Material: PVDF
- \*Available as from Q2, 2016



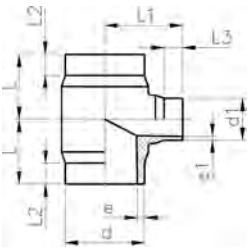
d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
90	10	BCF, IR	735 208 513	0.397	2.8	90	39
110	10	BCF, IR	735 208 514	0.714	3.4	110	48
125	10	IR	735 208 515	1.280	3.9	125	56
140	10	IR	735 208 516	1.611	4.3	140	62
160	10	IR	735 208 517	2.385	4.9	160	71
200	10	IR	735 208 519	4.297	6.2	200	80
225	10	IR	735 208 520	6.900	6.9	220	86
*	250	IR	735 208 521	6.939	7.7	223	70
*	280	IR	735 208 522	10.475	8.6	256	74
*	315	IR	735 208 523	13.882	9.7	274	74

### SYGEF Standard T 90° reduced SDR33/PN10



**Model:**

- Material: PVDF



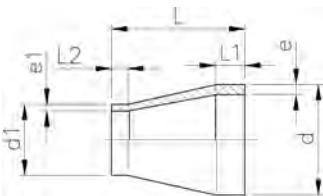
d - d1 (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
160 - 90	10	IR	735 208 562	2.300	4.9	4.3	155	130	60	25
160 - 110	10	IR	735 208 561	2.300	4.9	5.3	155	130	60	25
225 - 90	10	IR	735 208 570	4.400	6.9	4.3	155	160	60	25
225 - 110	10	IR	735 208 569	4.286	6.9	5.3	155	160	60	25
225 - 160	10	IR	735 208 568	4.239	6.9	4.9	155	170	60	35

### SYGEF Standard reducer SDR21/PN16



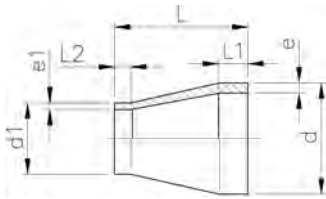
**Model:**

- Material: PVDF



d - d1 (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
25 - 20	16	BCF, IR	735 908 637	0.012	1.9	1.9	50	22	22
32 - 20	16	BCF, IR	735 908 642	0.017	2.4	1.9	50	22	22
32 - 25	16	BCF, IR	735 908 641	0.018	2.4	1.9	50	22	22
40 - 20	16	BCF, IR	735 908 648	0.024	2.4	1.9	58	22	24
40 - 25	16	BCF, IR	735 908 647	0.025	2.4	1.9	55	22	24
40 - 32	16	BCF, IR	735 908 646	0.029	2.4	2.4	55	22	24
50 - 25	16	BCF, IR	735 908 654	0.046	3.0	1.9	60	22	25
50 - 32	16	BCF, IR	735 908 653	0.050	3.0	2.4	60	22	25
50 - 40	16	BCF, IR	735 908 652	0.040	3.0	2.4	60	22	25
63 - 32	16	BCF, IR	735 908 660	0.066	3.0	2.4	65	22	25
63 - 40	16	BCF, IR	735 908 659	0.078	3.0	2.4	65	22	25
63 - 50	16	BCF, IR	735 908 658	0.076	3.0	3.0	65	22	25
75 - 40	16	BCF, IR	735 908 666	0.097	3.6	2.4	68	24	25
75 - 50	16	BCF, IR	735 908 665	0.100	3.6	3.0	65	24	25
75 - 63	16	BCF, IR	735 908 664	0.080	3.6	3.0	65	24	25
90 - 63	16	BCF, IR	735 908 671	0.150	4.3	3.0	75	25	30
90 - 75	16	BCF, IR	735 908 670	0.164	4.3	3.6	75	25	35
110 - 63	16	BCF, IR	735 908 678	0.257	5.3	3.0	90	30	30
110 - 75	16	BCF, IR	735 908 677	0.213	5.3	3.6	90	30	35

table continued on the next page



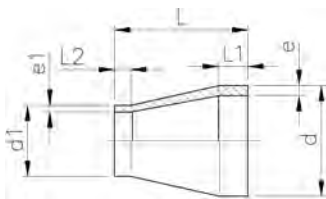
d - d1 (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
110 - 90	16	BCF, IR	<b>735 908 676</b>	0.282	5.3	4.3	90	30	35
140 - 110	16	IR	<b>735 908 685</b>	0.450	6.7	5.3	110	40	40
160 - 110	16	IR	<b>735 908 690</b>	0.650	7.7	5.3	160	40	40
160 - 140	16	IR	<b>735 908 688</b>	0.450	7.7	6.7	120	40	40
200 - 160	16	IR	<b>735 908 692</b>	1.340	9.6	7.7	120	40	35
225 - 110	16	IR	<b>735 908 695</b>	1.540	10.8	5.3	160	50	40
225 - 160	16	IR	<b>735 908 696</b>	1.730	10.8	7.7	160	50	40
225 - 200	16	IR	<b>735 908 697</b>	1.980	10.8	9.6	160	55	50

### SYGEF Standard reducer SDR33/PN10



#### Model:

- Material: PVDF



d - d1 (mm)	FM	PN (bar)	SDR	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
90 - 63	BCF, IR	10	33 - 21	<b>735 908 551</b>	0.124	2.8	3.0	75	25	30
110 - 63	BCF, IR	10	33 - 21	<b>735 908 553</b>	0.196	3.4	3.0	90	30	30
110 - 90	BCF, IR	10	33 - 33	<b>735 908 555</b>	0.197	3.4	2.8	90	30	35
125 - 110	IR	10	33 - 21	<b>735 908 580</b>	0.270	3.9	5.3	100	35	40
140 - 110	IR	10	33 - 21	<b>735 908 585</b>	0.385	4.3	5.3	110	40	40
140 - 125	IR	10	33 - 33	<b>735 908 584</b>	0.340	4.3	3.9	110	40	40
160 - 110	IR	10	33 - 33	<b>735 908 561</b>	0.516	4.9	3.4	120	40	40
160 - 110	IR	10	33 - 21	<b>735 908 590</b>	0.573	4.9	5.3	120	40	40
160 - 140	IR	10	33 - 33	<b>735 908 588</b>	0.568	4.9	4.3	120	40	40
200 - 160	IR	10	33 - 33	<b>735 908 592</b>	0.830	6.2	4.9	145	50	40
225 - 110	IR	10	33 - 33	<b>735 908 566</b>	1.120	6.9	3.4	160	55	35
225 - 110	IR	10	33 - 21	<b>735 908 595</b>	0.940	6.9	5.3	160	55	35
225 - 160	IR	10	33 - 33	<b>735 908 596</b>	1.140	6.9	4.9	160	55	40
225 - 200	IR	10	33 - 33	<b>735 908 597</b>	1.200	6.9	6.2	160	55	50

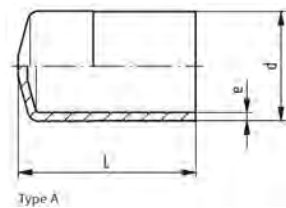
### SYGEF Standard end cap SDR21/PN16



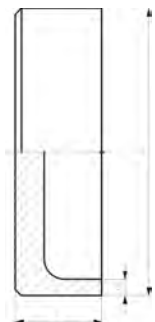
#### Model:

- Material: PVDF
- Type A: injection molded; Type B: machined

\*Available as from Q2, 2016



Type A



Type B

d (mm)	PN (bar)	FM	Code	L (mm)	e (mm)	Type
25	16	BCF, IR	<b>735 968 007</b>	47	1.9	A
20	16	BCF, IR	<b>735 968 006</b>	47	1.9	A
32	16	BCF, IR	<b>735 968 008</b>	52	2.4	A
*	40	BCF, IR	<b>735 968 309</b>	30	2.4	B
*	50	BCF, IR	<b>735 968 310</b>	30	3.0	B
*	63	BCF, IR	<b>735 968 311</b>	30	3.0	B
*	75	BCF, IR	<b>735 968 312</b>	30	3.6	B
*	90	BCF, IR	<b>735 968 313</b>	30	4.3	B
*	110	BCF, IR	<b>735 968 314</b>	31	5.3	B
*	140	IR	<b>735 968 316</b>	34	6.7	B
*	160	IR	<b>735 968 317</b>	36	7.7	B
*	200	IR	<b>735 968 319</b>	44	9.6	B
*	225	IR	<b>735 968 320</b>	50	10.8	B

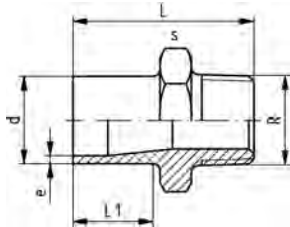
# Transition fittings butt fusion



## SYGEF Standard adaptor nipple male thread R SDR21/PN16

### Model:

- Avoid stresses when installing and large changes in temperature
- Material: PVDF
- With butt fusion spigot and BSP tapered male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF



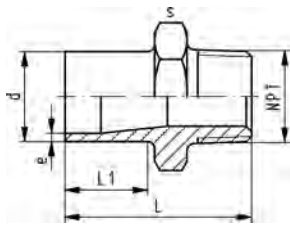
d	R	PN	FM	Code	Weight	e	L	s	L1
(mm)	(inch)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)
20	¾	16	BCF, IR	<b>735 910 555</b>	0.023	1.9	50	32	26
20	½	16	BCF, IR	<b>735 910 556</b>	0.032	1.9	53	32	26
25	¾	16	BCF, IR	<b>735 910 557</b>	0.032	1.9	55	36	26
32	1	16	BCF, IR	<b>735 910 558</b>	0.051	2.4	57	46	26
40	1 ¼	16	BCF, IR	<b>735 910 559</b>	0.075	2.4	60	55	26
50	1 ½	16	BCF, IR	<b>735 910 560</b>	0.123	3.0	63	65	26
63	2	16	BCF, IR	<b>735 910 561</b>	0.175	3.0	69	75	27



## SYGEF Standard adaptor nipple male thread NPT SDR21/PN16

### Model:

- Material: PVDF
- With butt fusion spigot and tapered male thread
- Avoid stresses when installing and large changes in temperature
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF



d	NPT	PN	FM	Code	Weight	e	L	s	L1
(mm)	(inch)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)
20	¾	16	BCF, IR	<b>735 914 555</b>	0.023	1.9	50	32	26
20	½	16	BCF, IR	<b>735 914 556</b>	0.030	1.9	53	32	26
25	¾	16	BCF, IR	<b>735 914 557</b>	0.032	1.9	55	36	26
32	1	16	BCF, IR	<b>735 914 558</b>	0.052	2.4	57	46	26
40	1 ¼	16	BCF, IR	<b>735 914 559</b>	0.075	2.4	60	55	26
50	1 ½	16	BCF, IR	<b>735 914 560</b>	0.122	3.0	63	65	26
63	2	16	BCF, IR	<b>735 914 561</b>	0.176	3.0	69	75	27



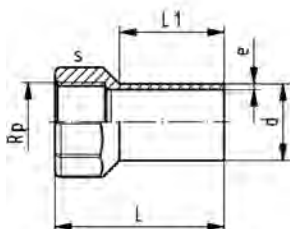
## SYGEF Standard adaptor socket female thread Rp SDR21/PN16

### Model:

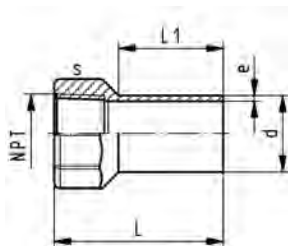
- Material: PVDF
- With butt fusion spigot and parallel female thread Rp
- Avoid stresses when installing and large changes in temperature
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF

### Note:

\* Please keep strictly to the GF internal installation preferences



d	Rp	PN	FM	Code	Weight	e	L	s	L1	
(mm)	(inch)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)	
20	¾	16	BCF, IR	<b>735 910 585</b>	0.030	1.9	54	32	30	
20	½	16	BCF, IR	<b>735 910 586</b>	0.026	1.9	54	32	30	
25	¾	16	BCF, IR	<b>735 910 587</b>	0.032	1.9	58	38	30	
32	1	16	BCF, IR	<b>735 910 588</b>	0.065	2.4	63	48	30	
40	1 ¼	16	BCF, IR	<b>735 910 589</b>	0.092	2.4	67	58	30	
50	1 ½	16	BCF, IR	<b>735 910 590</b>	0.108	3.0	67	65	30	
*	63	2	16	BCF, IR	<b>735 910 591</b>	0.195	3.0	73	80	30



### SYGEF Standard adaptor socket female thread NPT SDR21/PN16

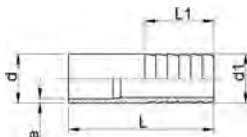
**Model:**

- Material: PVDF
- With butt fusion spigot and taper female thread NPT
- Avoid stresses when installing and large changes in temperature
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF

**Note:**

\* Please keep strictly to the GF internal installation preferences

d	NPT	PN	FM	Code	Weight	e	L	s	L1	
(mm)	(inch)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)	
20	¾	16	BCF, IR	<b>735 914 585</b>	0.029	1.9	54	32	30	
20	½	16	BCF, IR	<b>735 914 586</b>	0.027	1.9	54	32	30	
25	¾	16	BCF, IR	<b>735 914 587</b>	0.033	1.9	58	38	30	
32	1	16	BCF, IR	<b>735 914 588</b>	0.066	2.4	63	48	30	
40	1 ¼	16	BCF, IR	<b>735 914 589</b>	0.085	2.4	67	58	30	
50	1 ½	16	BCF, IR	<b>735 914 590</b>	0.108	3.0	67	65	30	
*	63	2	16	BCF, IR	<b>735 914 591</b>	0.190	3.0	73	80	30

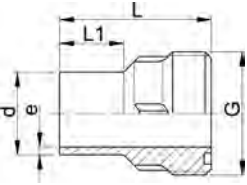


### SYGEF Standard hose adaptor SDR21/PN16

**Model:**

- Material: PVDF

d - d1	PN	FM	Code	Weight	e	L	L1
(mm)	(bar)			(kg)	(mm)	(mm)	(mm)
20 - 20	16	BCF, IR	<b>735 968 606</b>	0.015	1.9	64	27
25 - 25	16	BCF, IR	<b>735 968 607</b>	0.027	1.9	75	36
32 - 32	16	BCF, IR	<b>735 968 608</b>	0.042	2.4	82	36
40 - 40	16	BCF, IR	<b>735 968 609</b>	0.063	2.4	84	42
50 - 50	16	BCF, IR	<b>735 968 610</b>	0.084	3.0	90	48
63 - 60	16	BCF, IR	<b>735 968 611</b>	0.118	3.0	100	50

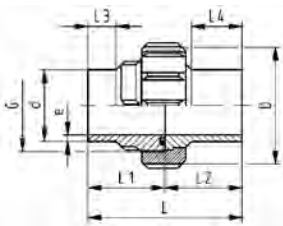


### SYGEF Standard union bush PN16

**Model:**

- Material: PVDF
- Suitable for SYGEF Standard Union Butt Fusion
- d75, d90 and d100 with buttress shaped thread

d (mm)	FM	Code	Weight (kg)	G (inch)	e (mm)	L (mm)	L1 (mm)
20	BCF, IR	<b>735 648 606</b>	0.025	1	1.9	53	25
25	BCF, IR	<b>735 648 607</b>	0.039	1 1/4	1.9	56	25
32	BCF, IR	<b>735 648 608</b>	0.055	1 1/2	2.4	59	25
40	BCF, IR	<b>735 648 609</b>	0.081	2	2.4	62	25
50	BCF, IR	<b>735 648 610</b>	0.110	2 1/4	3.0	65	25
63	BCF, IR	<b>735 648 611</b>	0.158	2 3/4	3.0	68	25
75	BCF, IR	<b>735 648 612</b>	0.277	S 107.5 x 3.6	3.6	66	24
90	BCF, IR	<b>735 648 613</b>	0.275	S 107.5 x 3.6	4.3	65	24
110	BCF, IR	<b>735 648 614</b>	0.343	S 127.5 x 3.6	5.3	65	25

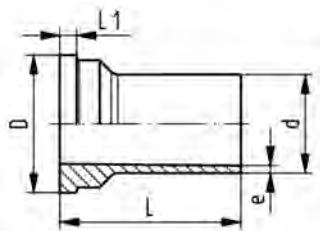


### SYGEF Standard union (FPM black) SDR21/PN16

**Model:**

- Material: PVDF
- d75, d90 and d100 with buttress shaped thread

d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	e (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	G (inch)
20	16	<b>735 528 606</b>	0.074	43	1.9	106	53	53	25	37	1
25	16	<b>735 528 607</b>	0.110	53	1.9	112	56	56	25	38	1 1/4
32	16	<b>735 528 608</b>	0.153	60	2.4	118	59	59	25	40	1 1/2
40	16	<b>735 528 609</b>	0.220	74	2.4	124	62	62	25	41	2
50	16	<b>735 528 610</b>	0.293	82	3.0	130	65	65	25	43	2 1/4
63	16	<b>735 528 611</b>	0.449	100	3.0	136	68	68	25	44	2 3/4
75	16	<b>735 528 612</b>	0.740	133	3.6	132	66	66	24	34	S107.5x3.6
90	16	<b>735 528 613</b>	0.773	133	4.3	130	65	65	24	48	S107.5x3.6
110	16	<b>735 528 614</b>	1.054	155	5.3	130	65	65	25	45	S127.5x3.6

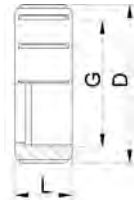


### SYGEF Standard union end SDR21/PN16

**Model:**

- Material: PVDF
- Suitable for SYGEF Standard Union Butt Fusion

d (mm)	PN (bar)	FM	Code	Weight (kg)	D (mm)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	<b>735 608 606</b>	0.020	30	1.9	53	5
25	16	BCF, IR	<b>735 608 607</b>	0.030	39	1.9	56	5
32	16	BCF, IR	<b>735 608 608</b>	0.044	45	2.4	59	6
40	16	BCF, IR	<b>735 608 609</b>	0.069	57	2.4	62	6
50	16	BCF, IR	<b>735 608 610</b>	0.082	63	3.0	65	7
63	16	BCF, IR	<b>735 608 611</b>	0.127	78	3.0	68	8
75	16	BCF, IR	<b>735 608 612</b>	0.209	101	3.6	66	9
90	16	BCF, IR	<b>735 608 613</b>	0.187	101	4.3	65	9
110	16	BCF, IR	<b>735 608 614</b>	0.263	121	5.3	65	10



### SYGEF Standard union nut PN16

**Model:**

- Material: PVDF
- d75, d90 and d100 with buttress shaped thread

**Note:**

For the dimensions d75-110 please see instructions for the installation

Socket Fusion d (mm)	Butt Fusion d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	G (inch)	L (mm)
16	16	16	<b>735 690 405</b>	0.011	35	3/4	21
20	20	16	<b>735 690 406</b>	0.021	43	1	22
25	25	16	<b>735 690 407</b>	0.030	53	1 1/4	24
32	32	16	<b>735 690 408</b>	0.035	60	1 1/2	26
40	40	16	<b>735 690 409</b>	0.065	74	2	29
50	50	16	<b>735 690 410</b>	0.093	82	2 1/4	33
63	63	16	<b>735 690 411</b>	0.144	100	2 3/4	35
	75 - 90	16	<b>735 690 422</b>	0.289	133		40
	110	16	<b>735 690 423</b>	0.403	155		42

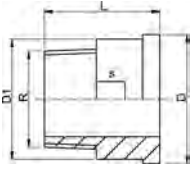




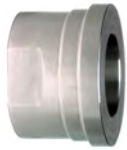
### Union end stainless steel R

**Model:**

- Material: stainless steel 1.4404 (316L)
- Taper male thread R



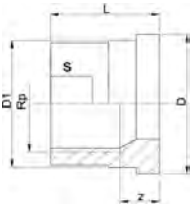
R (inch)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	L (mm)	s (mm)
3/8	16	<b>724 600 705</b>	0.052	24	22	30	19
1/2	16	<b>724 600 706</b>	0.083	30	28	34	24
3/4	16	<b>724 600 707</b>	0.125	39	36	36	32
1	16	<b>724 600 708</b>	0.189	45	42	40	37
1 1/4	16	<b>724 600 709</b>	0.356	57	53	46	48
1 1/2	16	<b>724 600 710</b>	0.407	63	59	48	54
2	16	<b>724 600 711</b>	0.668	78	74	55	69



### Union end stainless steel Rp

**Model:**

- Material: stainless steel 1.4404 (316L)
- Parallel female thread Rp



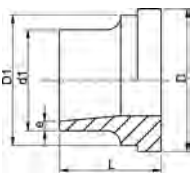
Rp (inch)	PN (bar)	Code	Weight (kg)	z (mm)	D (mm)	D1 (mm)	L (mm)	s (mm)
3/8	16	<b>724 600 655</b>	0.030	9	24	22	19	19
1/2	16	<b>724 600 656</b>	0.060	11	30	28	24	24
3/4	16	<b>724 600 657</b>	0.092	11	39	36	26	29
1	16	<b>724 600 658</b>	0.137	12	45	42	29	36
1 1/4	16	<b>724 600 659</b>	0.226	14	57	53	33	45
1 1/2	16	<b>724 600 660</b>	0.314	15	63	59	34	54
2	16	<b>724 600 661</b>	0.438	15	78	74	39	63



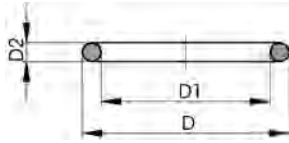
### Union end stainless steel Welding end

**Model:**

- Material: stainless steel 1.4404 (316L)



d1 (mm)	d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	L (mm)	e (mm)
17	16	16	<b>724 605 505</b>	0.029	24	22	18	1.6
21	20	16	<b>724 605 506</b>	0.046	30	28	22	2.0
26	25	16	<b>724 605 507</b>	0.080	39	36	23	2.0
33	32	16	<b>724 605 508</b>	0.112	45	42	26	2.0
42	40	16	<b>724 605 509</b>	0.188	57	53	26	2.0
48	50	16	<b>724 605 510</b>	0.222	63	59	28	2.0
60	63	16	<b>724 605 511</b>	0.361	78	74	32	2.6

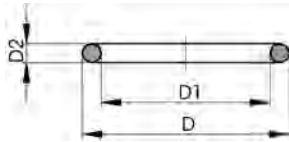


### O-Ring Gaskets

**Model:**

- For unions and adaptor unions
- Hardness approx. 75° shore
- FPM minimum temperature -20°C

d (mm)	DN (mm)	FFPM Code	Weight (kg)	D1 (mm)	D2 (mm)	D (mm)
20	15	<b>700 245 481</b>	0.002	20	4	27
25	20	<b>700 245 482</b>	0.002	28	4	35
32	25	<b>700 245 483</b>	0.002	33	4	40
40	32	<b>700 245 484</b>	0.006	41	5	51
50	40	<b>700 245 485</b>	0.007	47	5	58
63	50	<b>700 245 486</b>	0.010	60	5	70

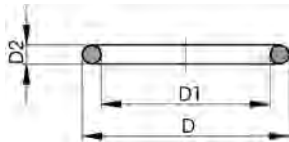


### O-ring black

**Model:**

- Hardness approx. 65° Shore
- FPM minimum temperature -15°C

d (mm)	DN (mm)	FPM Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)
16	10	<b>749 410 005</b>	0.002	21	16	2.62
20	15	<b>749 410 006</b>	0.002	27	20	3.53
25	20	<b>749 410 007</b>	0.002	35	28	3.53
32	25	<b>749 410 008</b>	0.002	40	33	3.53
40	32	<b>749 410 009</b>	0.007	51	41	5.34
50	40	<b>749 410 010</b>	0.060	58	47	5.34
63	50	<b>749 410 011</b>	0.003	70	60	5.34



### O-ring black d75 - d110

**Model:**

- Hardness approx. 65° Shore
- FPM minimum temperature -15°C

d-d (mm)	DN (mm)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	closest inch (inch)
75	50	<b>749 410 013</b>	0.011	80	69	5.34	2
75 - 90	65	<b>749 410 014</b>	0.012	93	82	5.34	2 ½
90 - 110	80	<b>749 410 015</b>	0.015	112	101	5.34	3

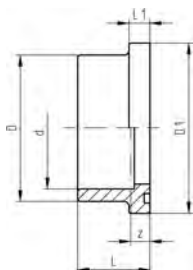
# Flange Adaptors, Flanges and Gaskets for Butt Fusion



## SYGEF Standard flange adaptor with groove PN16

### Model:

- Material: PVDF
- Jointing face: With O-ring groove
- Counterpart: flange adaptor metric or ANSI
- Gasket: O-ring EPDM No. 48 41 01, FPM No. 49 41 01



d	DN	PN	Code	Weight	D	D1	L	L1	z
(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
20	15	16	<b>735 810 106</b>	0.015	27	34	22	9	8
25	20	16	<b>735 810 107</b>	0.022	33	41	24	10	8
32	25	16	<b>735 810 108</b>	0.035	41	50	26	10	8
40	32	16	<b>735 810 109</b>	0.055	50	61	30	13	10
50	40	16	<b>735 810 110</b>	0.080	61	73	33	13	10
63	50	16	<b>735 810 111</b>	0.134	76	90	37	14	10

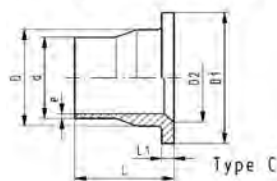
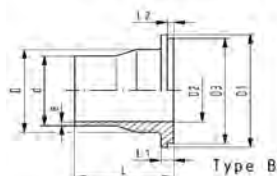
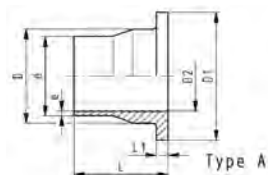
## SYGEF Standard flange adaptor Jointing face serrated SDR21/PN16

### Model:

- Material: PVDF

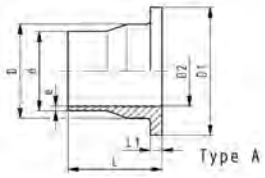


d	DN	PN	FM	Code	Weight
(mm)	(mm)	(bar)			(kg)
20	15	16	BCF, IR	<b>735 798 806</b>	0.029
25	20	16	BCF, IR	<b>735 798 807</b>	0.047
32	25	16	BCF, IR	<b>735 798 808</b>	0.080
40	32	16	BCF, IR	<b>735 798 809</b>	0.110
50	40	16	BCF, IR	<b>735 798 810</b>	0.146
63	50	16	BCF, IR	<b>735 798 811</b>	0.215
75	65	16	BCF, IR	<b>735 798 812</b>	0.325
90	80	16	BCF, IR	<b>735 798 813</b>	0.397
110	100	16	BCF, IR	<b>735 798 814</b>	0.573
140	125	16	IR	<b>735 798 816</b>	0.906
160	150	16	IR	<b>735 798 817</b>	1.200
200	200	16	IR	<b>735 798 819</b>	1.900
225	200	16	IR	<b>735 798 820</b>	2.000
250	250	16	IR	<b>735 798 821</b>	3.541
280	250	16	IR	<b>735 798 822</b>	3.583
315	300	16	IR	<b>735 798 823</b>	5.040

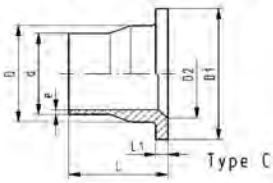
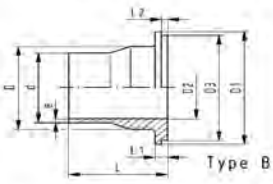


d	e	D	D1	D2	D3	L	L1	L2	Type
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
20	1.9	26	45	15		54	6		A
25	1.9	32	58	20	54	56	7	4	B
32	2.4	40	68	26	63	58	7	4	B
40	2.4	49	78	34	73	68	8	4	B
50	3.0	60	88	43	82	69	8	4	B
63	3.0	75	102	56		72	9		A
75	3.6	89	122	66		80	10		A
90	4.3	105	138	78	133	81	12	4	B
110	5.3	125	158	100		81	13		C
140	6.7	155	188	127		90	16		C
160	7.7	175	212	151		93	17		C
200	9.6	232	268	207		102	22		C

table continued on the next page



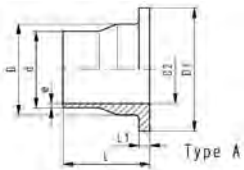
d	e	D	D1	D2	D3	L	L1	L2	Type
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
225	10.8	235	268	207		102	22		C
250	11.9	285	320	249		122	25		C
280	13.4	291	320	249		122	25		C
315	15.0	335	320	370		124	28		C



**SYGEF Standard flange adaptor ANSI**  
**Jointing face serrated SDR21/PN16**

**Model:**

- Material: PVDF
- Other dimensions identical with metric version



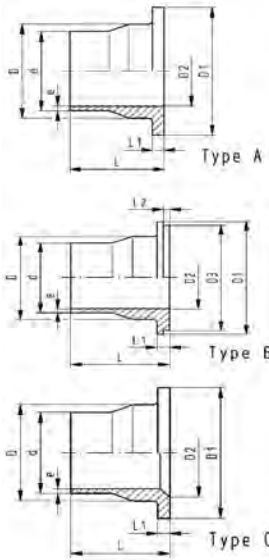
d	d	PN	FM	Code	Weight	L1	D2	D1	L	D	e	Type
(inch)	(mm)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
¾	25	16	BCF, IR	<b>735 798 857</b>	0.043	7	20	54	56	32	1.9	A
1	32	16	BCF, IR	<b>735 798 858</b>	0.063	7	26	63	58	40	2.4	A
1 ¼	40	16	BCF, IR	<b>735 798 859</b>	0.105	8	34	73	68	49	2.4	A
1 ½	50	16	BCF, IR	<b>735 798 860</b>	0.140	8	43	82	69	60	3.0	A
3	90	16	BCF, IR	<b>735 798 861</b>	0.389	12	78	133	81	105	4.3	A



**SYGEF Standard flange adaptor**  
**Jointing face serrated SDR33/PN10**

**Model:**

- Material: PVDF



d (mm)	DN (mm)	PN (bar)	FM	Code	Weight (kg)
90	80	10	BCF, IR	<b>735 798 863</b>	0.380
110	100	10	BCF, IR	<b>735 798 864</b>	0.493
125	100	10	IR	<b>735 798 565</b>	0.453
140	125	10	IR	<b>735 798 866</b>	0.733
160	150	10	IR	<b>735 798 867</b>	0.972
200	200	10	IR	<b>735 798 869</b>	1.682
225	200	10	IR	<b>735 798 870</b>	1.687
250	250	10	IR	<b>735 798 871</b>	2.730
280	250	10	IR	<b>735 798 872</b>	2.715
315	300	10	IR	<b>735 798 873</b>	3.657

d (mm)	e (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Type
90	2.8	105	138	78	133	81	12	4	B
110	3.4	125	158	100		81	13		A
125	3.9	132	158	114		82	14		A
140	4.3	155	188	127		90	16		A
160	4.9	175	212	151		93	17		C
200	6.2	232	268	207		102	22		C
225	6.9	235	268	207		102	22		A
250	7.7	285	320	249		120	22		C
280	8.6	291	320	249		120	22		A
315	9.7	335	370	300		120	22		C



**Backing flange PP-V metric**  
For butt fusion systems metric

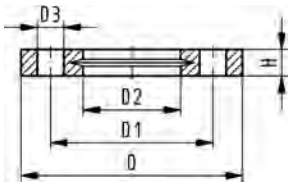
**Model:**

- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

<sup>1)</sup> Suitable for socket- and butt fusion systems

\* Combined version, metric-ANSI



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
1	20	15	16	<b>727 700 406</b>	0.093	95	65	28	14	16	4	M12
1	25	20	16	<b>727 700 407</b>	0.120	105	75	34	14	17	4	M12
1	32	25	16	<b>727 700 408</b>	0.151	115	85	42	14	18	4	M12
1	40	32	16	<b>727 700 409</b>	0.244	140	100	51	18	20	4	M16
1	50	40	16	<b>727 700 410</b>	0.297	150	110	62	18	22	4	M16
1	63	50	16	<b>727 700 411</b>	0.362	165	125	78	18	24	4	M16
1	75	65	16	<b>727 700 412</b>	0.487	185	145	92	18	26	4	M16
	90	80	16	<b>727 700 513</b>	0.544	200	160	108	18	27	8	M16
	110	100	16	<b>727 700 514</b>	0.643	220	180	128	18	28	8	M16
	125	100	16	<b>727 700 515</b>	0.635	220	180	135	18	28	8	M16
	140	125	16	<b>727 700 516</b>	0.842	250	210	158	18	30	8	M16
*	160	150	16	<b>727 700 517</b>	1.200	285	241	178	22	32	8	M20
	180	150	16	<b>727 700 518</b>	1.200	285	240	188	22	32	8	M20
*	200	200	16	<b>727 700 519</b>	1.400	340	297	235	22	34	8	M20
*	225	200	16	<b>727 700 520</b>	1.400	340	297	238	22	34	8	M20
	250	250	16	<b>727 700 521</b>	2.052	395	350	288	22	38	12	M20
	280	250	16	<b>727 700 522</b>	1.700	395	350	294	22	38	12	M20
	315	300	16	<b>727 700 523</b>	2.400	445	400	338	22	42	12	M20
	355	350	10	<b>727 700 524</b>	4.440	515	460	376	22	46	16	M20
	400	400	10	<b>727 700 525</b>	5.624	574	515	430	26	50	16	M24



**Backing flange PP-V Inch ANSI**  
For butt fusion systems metric

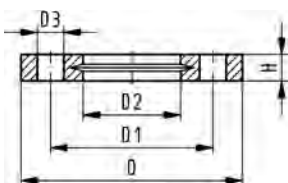
**Model:**

- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- Special flange adapter ANSI for d25 - d50 and d90 required

AL: number of holes

<sup>1)</sup> Suitable for socket- and butt fusion systems

\* Combined version, metric-ANSI



	Size (inch)	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
1	½	20	15	16	<b>727 701 406</b>	0.091	95	60	28	16	16	4	M12
1	¾	25	20	16	<b>727 701 407</b>	0.120	105	70	34	16	17	4	M12
1	1	32	25	16	<b>727 701 408</b>	0.147	115	79	42	16	18	4	M12
1	1 ¼	40	32	16	<b>727 701 409</b>	0.246	140	89	51	16	20	4	M16
1	1 ½	50	40	16	<b>727 701 410</b>	0.299	150	98	62	16	22	4	M16
1	2	63	50	16	<b>727 701 411</b>	0.361	165	121	78	19	24	4	M16
1	2 ½	75	65	16	<b>727 701 412</b>	0.492	185	140	92	19	26	4	M16
	3	90	80	16	<b>727 701 513</b>	0.607	200	152	108	19	27	4	M16
	4	110	100	16	<b>727 701 514</b>	0.736	229	190	128	19	28	8	M16
*	6	160	150	16	<b>727 700 517</b>	1.200	285	241	178	22	32	8	M20
*	8	200	200	16	<b>727 700 519</b>	1.400	340	297	235	22	34	8	M20
*	8	225	200	16	<b>727 700 520</b>	1.400	340	297	238	22	34	8	M20
	10	250	250	16	<b>727 701 521</b>	2.241	406	362	288	26	38	12	M20
	10	280	250	16	<b>727 701 522</b>	2.173	406	362	294	26	38	12	M20
	12	315	300	16	<b>727 701 523</b>	3.627	483	432	338	26	42	12	M20



### Backing flange PP-Steel For butt fusion systems metric

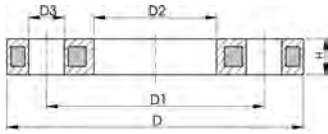
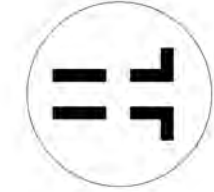
**Model:**

- Bolt circle PN 10
- Material: PP (30% glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

AL: number of holes

\*Combined version, bolt circle metric - ANSI

\*\*Galvanized steel; suitable for underground laying



d (mm)	d (inch)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC	
20		15	16	<b>727 700 206</b>	0.216	95	65	28	14	12	4	M12	
25		20	16	<b>727 700 207</b>	0.279	105	75	34	14	12	4	M12	
32		25	16	<b>727 700 208</b>	0.429	115	85	42	14	16	4	M12	
40		32	16	<b>727 700 209</b>	0.621	140	100	51	18	16	4	M16	
50		40	16	<b>727 700 210</b>	0.722	150	110	62	18	20	4	M16	
63		50	16	<b>727 700 211</b>	1.084	165	125	78	18	20	4	M16	
75		65	16	<b>727 700 212</b>	1.349	185	145	92	18	20	4	M16	
90		80	16	<b>727 700 313</b>	1.390	200	160	108	18	20	8	M16	
110		100	16	<b>727 700 314</b>	1.407	220	180	128	18	20	8	M16	
125		100	16	<b>727 700 315</b>	1.408	220	180	135	18	20	8	M16	
140		125	16	<b>727 700 716</b>	2.318	250	210	158	18	26	8	M16	
*	160	6	150	16	<b>727 700 717</b>	3.491	285	241	178	22	26	8	M20
	180		150	16	<b>727 700 718</b>	3.108	285	241	188	22	26	8	M20
*	200	8	200	16	<b>727 700 719</b>	5.600	340	297	235	22	29	8	M20
*	225	8	200	16	<b>727 700 720</b>	5.533	340	297	238	22	29	8	M20
	250		250	16	<b>727 700 721</b>	6.632	395	350	288	22	32	12	M20
	280		250	16	<b>727 700 722</b>	6.573	395	350	294	22	32	12	M20
	315		300	16	<b>727 700 723</b>	7.903	445	400	338	22	36	12	M20
	355		350	16	<b>727 700 724</b>	14.587	515	460	376	23	42	16	M20
	400		400	16	<b>727 700 725</b>	20.034	574	515	430	26	42	16	M24
**	450		450	10	<b>724 705 026</b>	38.000	615	565	470	26	36	20	M24



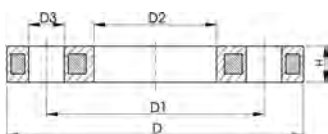
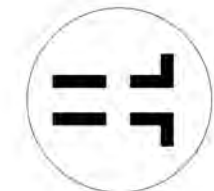
### Backing flange PP-Steel Inch/ANSI For butt fusion systems metric

**Model:**

- Material: PP (30% glass-fibre reinforced) with steel ring
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- Bolt circle class 150
- Special flange adapter ANSI for d25 - d50 and d90 required

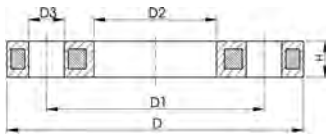
\*Combined version, bolt circle metric - ANSI

AL: number of holes

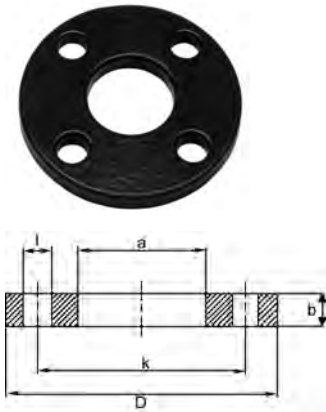


d (inch)	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC	
½	20	15	16	<b>727 701 206</b>	0.213	95	60	28	16	12	4	M12	
¾	25	20	16	<b>727 701 207</b>	0.260	105	70	34	16	12	4	M12	
1	32	25	16	<b>727 701 208</b>	0.416	115	79	42	16	16	4	M12	
1 ¼	40	32	16	<b>727 701 209</b>	0.730	140	89	51	16	16	4	M16	
1 ½	50	40	16	<b>727 701 210</b>	0.809	150	98	62	16	18	4	M16	
2	63	50	16	<b>727 701 211</b>	0.866	165	121	78	19	18	4	M16	
2 ½	75	65	16	<b>727 701 212</b>	1.117	185	140	92	19	18	4	M16	
3	90	80	16	<b>727 701 313</b>	1.499	200	152	108	19	20	4	M16	
4	110	100	16	<b>727 701 314</b>	1.739	229	190	128	19	20	8	M16	
*	6	160	150	16	<b>727 700 717</b>	3.491	285	241	178	22	26	8	M20
*	8	200	200	16	<b>727 700 719</b>	5.600	340	297	235	22	29	8	M20
*	8	225	200	16	<b>727 700 720</b>	5.533	340	297	238	22	29	8	M20
	10	250/280	250	10	<b>727 701 321</b>	6.000	406	362	293	25	30	12	M24

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d (inch)	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
12	315	300	10	<b>727 701 322</b>	11.800	483	432	338	25	34	12	M24
14	355	350	10	<b>727 701 323</b>	17.900	540	476	376	29	42	12	M27
16	400	400	10	<b>727 701 324</b>	24.500	597	539	429	29	44	16	M27
20	450/500	500	10	<b>727 701 325</b>	33.600	712	635	540	32	53	20	M30

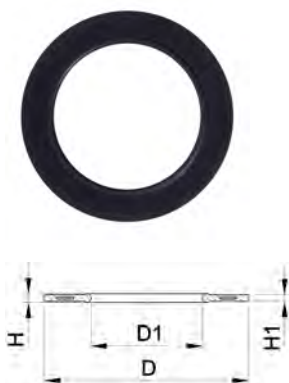


### PVDF Coated Steel for Butt Fusion Systems Inch/ANSI Flange Ring blue coated steel

**Material: PVDF blue coated steel**

Bolt holes drilled in accordance with ANSI B16.5, Class 150 pattern

d (mm)	Size (inch)	Code	D (inch)	a (inch)	k (inch)	b (inch)	l (inch)	Bolt Holes
20	¾	<b>155 701 806</b>	3.50	1.10	2.36	0.28	0.63	4
25	1	<b>155 701 807</b>	3.86	1.34	2.76	0.28	0.63	4
32	1 ¼	<b>155 701 808</b>	4.25	1.65	3.11	0.28	0.63	4
40	1 ½	<b>155 701 809</b>	4.61	2.01	3.50	0.32	0.63	4
50	2	<b>155 701 810</b>	5.00	2.44	3.86	0.32	0.63	4
63	2 ½	<b>155 701 811</b>	5.98	3.07	4.76	0.39	0.75	4
75	3	<b>155 701 812</b>	7.01	3.62	5.51	0.39	0.75	4
90	3 ½	<b>155 701 813</b>	7.48	4.33	5.98	0.39	0.75	4
110	4 ¼	<b>155 703 814</b>	9.02	5.24	7.48	0.39	0.75	8
160	6	<b>155 701 917</b>	10.98	7.05	9.48	0.50	0.88	8
200	8	<b>155 701 919</b>	13.50	9.30	11.73	0.63	0.88	8
225	9	<b>155 701 920</b>	13.50	9.42	11.73	0.63	0.88	8
250	10	<b>155 701 921</b>	16.00	11.35	14.25	0.88	0.88	12
315	12	<b>155 701 923</b>	19.00	13.31	17.00	1.00	1.00	12
355	14	<b>155 701 924</b>	21.00	14.80	18.75	1.00	1.00	12
400	16	<b>155 701 925</b>	23.50	16.93	21.25	1.13	1.13	16



### Profile Flange Gasket, metric EPDM / FPM

**Model:**

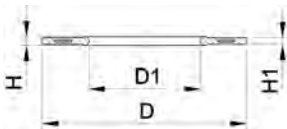
- For all metric GF Flange Adaptors
- Profile Gasket with carbon steel insert (type G-ST-P/K)
- Hardness: 70° Shore EPDM, 75° Shore FPM
- EPDM: approved acc. to DVGW W 270, KTW recommendation
- Centering on the inner diameter of the screw crown
- material steel insert: carbon steel

di FA are the suitable inner diameters of flanges adaptors

d (mm)	PN (bar)	DN (mm)	EPDM Code	FPM Code	Weight (kg)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	di FA (mm)
16	16	10	<b>748 440 705</b>	<b>749 440 705</b>	0.012	46	16	4	3	6 - 16
20	16	15	<b>748 440 706</b>	<b>749 440 706</b>	0.013	51	20	4	3	10 - 20
25	16	20	<b>748 440 707</b>	<b>749 440 707</b>	0.014	61	22	4	3	12 - 22
32	16	25	<b>748 440 708</b>	<b>749 440 708</b>	0.019	71	28	4	3	18 - 28
40	16	32	<b>748 440 709</b>	<b>749 440 709</b>	0.026	82	40	4	3	30 - 40
50	16	40	<b>748 440 710</b>	<b>749 440 710</b>	0.039	92	46	4	3	36 - 46
63	16	50	<b>748 440 711</b>	<b>749 440 711</b>	0.050	107	58	5	4	48 - 58
75	16	65	<b>748 440 712</b>	<b>749 440 712</b>	0.082	127	69	5	4	59 - 69
90	16	80	<b>748 440 713</b>	<b>749 440 713</b>	0.083	142	84	5	4	73 - 84
110	16	100	<b>748 440 714</b>	<b>749 440 714</b>	0.127	162	104	6	5	94 - 104
125	16	100	<b>748 440 715</b>	<b>749 440 715</b>	0.105	162	123	6	5	113 - 123
140	16	125	<b>748 440 716</b>	<b>749 440 716</b>	0.173	192	137	6	5	127 - 137
160 - 180	16	150	<b>748 440 717</b>	<b>749 440 717</b>	0.207	218	160	8	6	150 - 160
200	16	200	<b>748 440 719</b>	<b>749 440 719</b>	0.263	273	203	8	6	192 - 203
225	16	200	<b>748 440 720</b>	<b>749 440 720</b>	0.255	273	220	8	6	207 - 220
250	16	250	<b>748 440 721</b>	<b>749 440 721</b>	0.462	328	252	8	6	238 - 252
280	16	250	<b>748 440 722</b>	<b>749 440 722</b>	0.323	328	274	8	6	264 - 274

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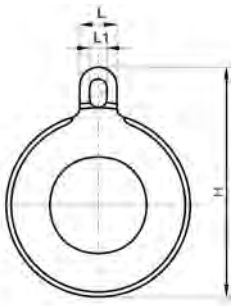


d (mm)	PN (bar)	DN (mm)	EPDM Code	FPM Code	Weight (kg)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	di FA (mm)
315	16	300	<b>748 440 723</b>	<b>749 440 723</b>	0.549	378	306	8	6	296 - 306
355	16	350	<b>748 440 724</b>	<b>749 440 724</b>	0.870	438	355	10	7	340 - 355
400	16	400	<b>748 440 725</b>	<b>749 440 725</b>	1.088	489	400	10	7	385 - 400
450	16	500	<b>748 440 726</b>	<b>749 440 726</b>	0.718	594	403	10	7	393 - 403

### SYGEF Plus Gasket

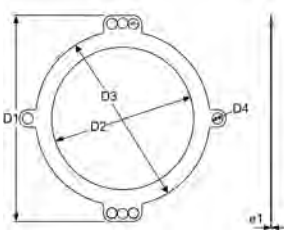
#### Model:

- For Use with Steel Flange Rings
- \* Non-Returnable/Non-Cancelable



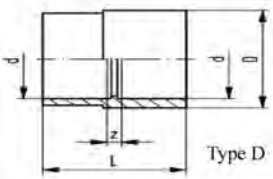
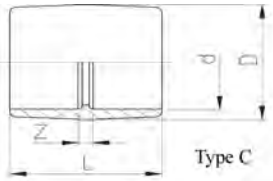
d (mm)	Pipe Size (inch)	Code	Weight (lb)	H (inch)	L (inch)	L1 (inch)
25	3/4	<b>731 400 753</b>	0.002	2.99	0.79	0.51
32	1	<b>731 400 755</b>	0.053	3.58	0.98	0.63
40	1 1/4	<b>731 400 757</b>	0.079	3.98	0.98	0.63
50	1 1/2	<b>731 400 759</b>	0.084	4.33	0.98	0.63
63	2	<b>731 400 760</b>	0.132	5.04	0.98	0.63
75	2 1/2	<b>731 400 761</b>	0.179	5.83	0.98	0.63
90	3	<b>731 400 763</b>	0.132	6.34	0.98	0.63
110	4	<b>731 400 764</b>	0.220	7.44	0.98	0.63
160	6	<b>731 400 667</b>	0.309	9.61	1.18	0.79
200/225	8/9	<b>731 400 670</b>	0.441	11.81	1.18	0.79
250	10	<b>731 400 671</b>	0.002	14.17	1.38	0.87
315	12	<b>731 400 672</b>	0.650	16.50	1.38	0.87

### SYGEF Plus 355-450 ePTFE Gasket ANSI



d (mm)	Pipe Size (inch)	Code	Weight (lb)	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	e1 (mm)
355	14	<b>155 400 674</b>	0.661	524	329	430	48	3.2
400	16	<b>155 400 675</b>	0.882	587	396	482	51	3.2
450	18	<b>155 400 676</b>	1.102	625	432	530	51	3.2

# Socket fusion fittings

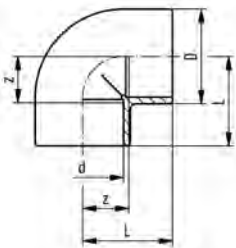


## SYGEF Standard socket equal PN16

### Model:

- Material: PVDF
- d25 - d50: combination type reducing bush/socket equal

d (mm)	D-d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	L (mm)	z (mm)	Type
16	-	16	<b>735 910 105</b>	0.020	26	33	7	C
20	-	16	<b>735 910 106</b>	0.013	27	35	7	C
25	32 - 25	16	<b>735 910 107</b>	0.023	32	39	7	C
32	40 - 32	16	<b>735 910 108</b>	0.038	40	43	7	C
40	50 - 40	16	<b>735 910 109</b>	0.062	50	48	8	D
50	63 - 50	16	<b>735 910 110</b>	0.102	63	54	8	D
63	-	16	<b>735 910 111</b>	0.146	75	62	8	C

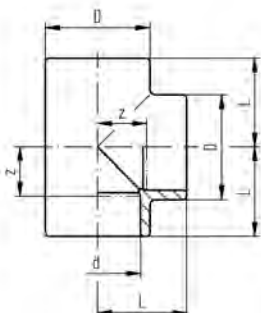


## SYGEF Standard elbow 90° PN16

### Model:

- Material: PVDF

d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	L (mm)	z (mm)
16	16	<b>735 100 105</b>	0.030	26	25	12
20	16	<b>735 100 106</b>	0.026	27	28	14
25	16	<b>735 100 107</b>	0.039	32	32	16
32	16	<b>735 100 108</b>	0.066	40	38	20
40	16	<b>735 100 109</b>	0.103	49	44	24
50	16	<b>735 100 110</b>	0.164	60	51	28
63	16	<b>735 100 111</b>	0.287	75	62	35



## SYGEF Standard T 90° equal PN16

### Model:

- Material: PVDF

d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	L (mm)	z (mm)
16	16	<b>735 200 105</b>	0.039	26	25	12
20	16	<b>735 200 106</b>	0.034	27	28	14
25	16	<b>735 200 107</b>	0.052	32	32	16
32	16	<b>735 200 108</b>	0.092	40	38	20
40	16	<b>735 200 109</b>	0.136	49	44	24
50	16	<b>735 200 110</b>	0.210	60	51	28
63	16	<b>735 200 111</b>	0.371	75	62	35



### SYGEF Standard elbow 45° PN16

**Model:**

- Material: PVDF



d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	L (mm)	z (mm)
16	16	<b>735 150 105</b>	0.017	23	20	7
20	16	<b>735 150 106</b>	0.020	27	21	7
25	16	<b>735 150 107</b>	0.032	32	24	8
32	16	<b>735 150 108</b>	0.050	40	28	10
40	16	<b>735 150 109</b>	0.081	49	33	13
50	16	<b>735 150 110</b>	0.119	60	36	13
63	16	<b>735 150 111</b>	0.211	75	43	16



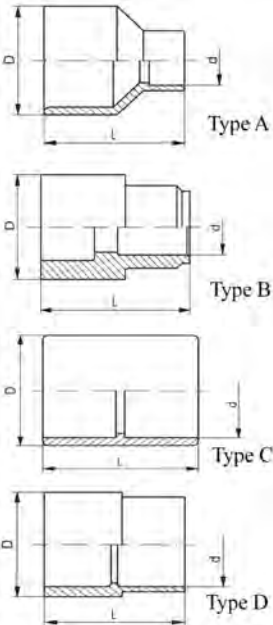
### SYGEF Standard reducing bush PN16

**Model:**

- Material: PVDF

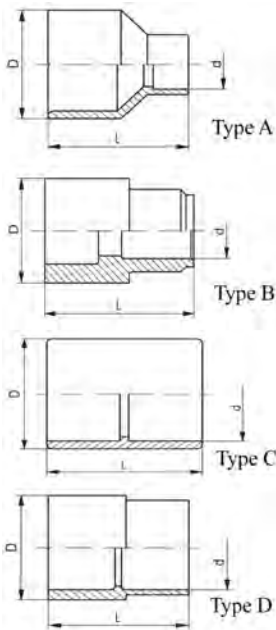
**Attention:**

- to determine the z-measure please consider the overview of functionality



D-d (mm)	PN (bar)	Code	Weight (kg)	L (mm)	Type
20 - 16	16	<b>735 910 334</b>	0.017	35	B
25 - 20	16	<b>735 910 337</b>	0.016	37	A
32 - 20	16	<b>735 910 342</b>	0.023	43	A
32 - 25	16	<b>735 910 107</b>	0.023	39	C
40 - 20	16	<b>735 910 348</b>	0.034	48	A
40 - 25	16	<b>735 910 347</b>	0.035	48	A
40 - 32	16	<b>735 910 108</b>	0.038	43	C
50 - 20	16	<b>735 910 355</b>	0.059	54	A
50 - 25	16	<b>735 910 354</b>	0.059	54	A
50 - 32	16	<b>735 910 353</b>	0.061	54	A
50 - 40	16	<b>735 910 109</b>	0.062	48	D
63 - 20	16	<b>735 910 362</b>	0.102	64	A

table continued on the next page



D-d	PN	Code	Weight	L	Type
(mm)	(bar)		(kg)	(mm)	
63 - 25	16	<b>735 910 361</b>	0.105	64	A
63 - 32	16	<b>735 910 360</b>	0.108	64	A
63 - 40	16	<b>735 910 359</b>	0.118	64	A
63 - 50	16	<b>735 910 110</b>	0.102	54	D

overview about functionality

							main function		additional functions											
							reduction spigot - socket		reduction socket - socket				reduction spigot - spigot				reduction socket - spigot			
Code	PN	L	spigot D	socket d	L	Z	socket D	socket d	L	Z	spigot D	spigot d	L	Z	socket D	spigot d	L	Z		
735 910 334	16	35	20	16	35	22														
735 910 337	16	37	25	20	37	23														
735 910 342	16	43	32	20	43	29	25	20	43	13										
735 910 107	16	39	32	25	39	23														
735 910 348	16	48	40	20	48	34	32	20	48	16										
735 910 347	16	48	40	25	48	32	32	25	48	14	40	32	48	48						
735 910 108	16	43	40	32	43	25														
735 910 355	16	54	50	20	54	40	40	20	54	20										
735 910 354	16	54	50	25	54	38	40	25	54	18	50	32	54	54	40	32	54	34		
735 910 353	16	54	50	32	54	36	40	32	54	16	50	40	54	54						
735 910 109	16	48	50	40	48	28														
735 910 362	16	64	63	20	64	50	50	20	64	27										
735 910 361	16	64	63	25	64	48	50	25	64	25	63	32	64	64	50	32	64	41		
735 910 360	16	64	63	32	64	46	50	32	64	23	63	40	64	64	50	40	64	41		
735 910 359	16	64	63	40	64	44	50	40	64	21	63	50	64	64						
735 910 110	16	54	63	50	54	31														

please note: illustration of the functions not inevitably conform to respective type!

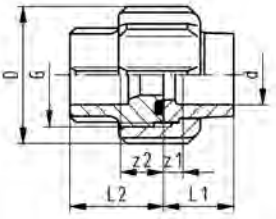


SYGEF Standard end cap PN16

Model:

- Material: PVDF

d	PN	Code	Weight	D	L
(mm)	(bar)		(kg)	(mm)	(mm)
16	16	<b>735 960 105</b>	0.013	25	24
20	16	<b>735 960 106</b>	0.010	27	23
25	16	<b>735 960 107</b>	0.017	32	26
32	16	<b>735 960 108</b>	0.029	40	30
40	16	<b>735 960 109</b>	0.045	49	34
50	16	<b>735 960 110</b>	0.074	60	39
63	16	<b>735 960 111</b>	0.126	75	46

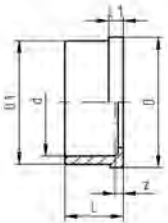


### SYGEF Standard union (FPM black) PN16

**Model:**

- Material: PVDF
- With fusion socket metric
- Jointing face: With O-ring groove
- **Supplied with:** O-Ring No. 49 41 00 FPM
- Please see installation instruction

d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	G (inch)	L1 (mm)	L2 (mm)	z1 (mm)	z (mm)
16	16	<b>735 510 105</b>	0.025	35	¾	18	24	5	11
20	16	<b>735 510 106</b>	0.057	43	1	19	26	5	12
25	16	<b>735 510 107</b>	0.090	53	1 ¼	21	28	5	12
32	16	<b>735 510 108</b>	0.118	60	1 ½	23	30	5	12
40	16	<b>735 510 109</b>	0.195	74	2	25	34	5	14
50	16	<b>735 510 110</b>	0.244	82	2 ¼	28	39	5	16
63	16	<b>735 510 111</b>	0.403	100	2 ¾	32	47	5	20

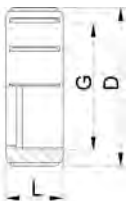


### SYGEF Standard union end PN16

**Model:**

- Material: PVDF
- Suitable for SYGEF Standard Union Socket Fusion

d (mm)	PN (bar)	Code	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
16	16	<b>735 600 105</b>	24	22	18	4	5
20	16	<b>735 600 106</b>	30	28	19	5	5
25	16	<b>735 600 107</b>	39	36	21	5	5
32	16	<b>735 600 108</b>	45	42	23	6	5
40	16	<b>735 600 109</b>	57	53	25	6	5
50	16	<b>735 600 110</b>	63	59	28	7	5
63	16	<b>735 600 111</b>	78	74	32	7	5



### SYGEF Standard union nut PN16

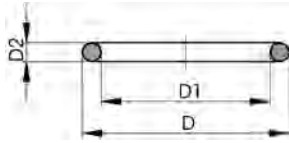
**Model:**

- Material: PVDF
- d75, d90 and d100 with buttress shaped thread

**Note:**

For the dimensions d75-110 please see instructions for the installation

Socket Fu- sion d (mm)	Butt Fusion d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	G (inch)	L (mm)
16	16	16	<b>735 690 405</b>	0.011	35	¾	21
20	20	16	<b>735 690 406</b>	0.021	43	1	22
25	25	16	<b>735 690 407</b>	0.030	53	1 ¼	24
32	32	16	<b>735 690 408</b>	0.035	60	1 ½	26
40	40	16	<b>735 690 409</b>	0.065	74	2	29
50	50	16	<b>735 690 410</b>	0.093	82	2 ¼	33
63	63	16	<b>735 690 411</b>	0.144	100	2 ¾	35
	75 - 90	16	<b>735 690 422</b>	0.289	133		40
	110	16	<b>735 690 423</b>	0.403	155		42

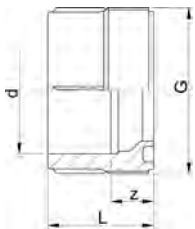


### O-ring black

**Model:**

- Hardness approx. 65° Shore
- FPM minimum temperature -15°C

d (mm)	DN (mm)	FPM Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)
16	10	749 410 005	0.002	21	16	2.62
20	15	749 410 006	0.002	27	20	3.53
25	20	749 410 007	0.002	35	28	3.53
32	25	749 410 008	0.002	40	33	3.53
40	32	749 410 009	0.007	51	41	5.34
50	40	749 410 010	0.060	58	47	5.34
63	50	749 410 011	0.003	70	60	5.34

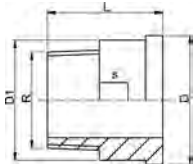


### SYGEF Standard union end socket fusion PN16

**Model:**

- Material: PVDF
- Suitable for SYGEF Standard Union Socket Fusion

d (mm)	PN (bar)	Code	Weight (kg)	G (inch)	L (mm)	z (mm)
16	16	735 640 105	0.011	3/4	24	11
20	16	735 640 106	0.019	1	26	12
25	16	735 640 107	0.027	1 1/4	28	12
32	16	735 640 108	0.040	1 1/2	30	12
40	16	735 640 109	0.068	2	34	14
50	16	735 640 110	0.090	2 1/4	39	16
63	16	735 640 111	0.159	2 3/4	47	20

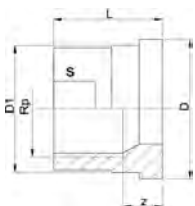


### Union end stainless steel R

**Model:**

- Material: stainless steel 1.4404 (316L)
- Taper male thread R

R (inch)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	L (mm)	s (mm)
3/8	16	724 600 705	0.052	24	22	30	19
1/2	16	724 600 706	0.083	30	28	34	24
3/4	16	724 600 707	0.125	39	36	36	32
1	16	724 600 708	0.189	45	42	40	37
1 1/4	16	724 600 709	0.356	57	53	46	48
1 1/2	16	724 600 710	0.407	63	59	48	54
2	16	724 600 711	0.668	78	74	55	69



### Union end stainless steel Rp

**Model:**

- Material: stainless steel 1.4404 (316L)
- Parallel female thread Rp

Rp (inch)	PN (bar)	Code	Weight (kg)	z (mm)	D (mm)	D1 (mm)	L (mm)	s (mm)
3/8	16	724 600 655	0.030	9	24	22	19	19
1/2	16	724 600 656	0.060	11	30	28	24	24
3/4	16	724 600 657	0.092	11	39	36	26	29

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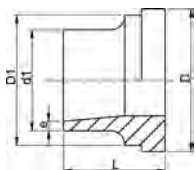
Rp (inch)	PN (bar)	Code	Weight (kg)	z (mm)	D (mm)	D1 (mm)	L (mm)	s (mm)
1	16	<b>724 600 658</b>	0.137	12	45	42	29	36
1 ¼	16	<b>724 600 659</b>	0.226	14	57	53	33	45
1 ½	16	<b>724 600 660</b>	0.314	15	63	59	34	54
2	16	<b>724 600 661</b>	0.438	15	78	74	39	63



### Union end stainless steel Welding end

#### Model:

- Material: stainless steel 1.4404 (316L)



d1 (mm)	d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	L (mm)	e (mm)
17	16	16	<b>724 605 505</b>	0.029	24	22	18	1.6
21	20	16	<b>724 605 506</b>	0.046	30	28	22	2.0
26	25	16	<b>724 605 507</b>	0.080	39	36	23	2.0
33	32	16	<b>724 605 508</b>	0.112	45	42	26	2.0
42	40	16	<b>724 605 509</b>	0.188	57	53	26	2.0
48	50	16	<b>724 605 510</b>	0.222	63	59	28	2.0
60	63	16	<b>724 605 511</b>	0.361	78	74	32	2.6



### Union nut stainless steel 1.4404 (316L)

\* Octagon union nut



d (mm)	PN (bar)	Code	Weight (kg)	G (inch)	closest inch (inch)	L (mm)	s (mm)
16	16	<b>724 690 105</b>	0.060	¾	¾	19	32
20	16	<b>724 690 106</b>	0.105	1	½	21	41
25	16	<b>724 690 107</b>	0.091	1 ¼	¾	23	46
32	16	<b>724 690 108</b>	0.170	1 ½	1	24	55
*	40	<b>724 690 109</b>	0.218	2	1 ¼	27	68
*	50	<b>724 690 110</b>	0.316	2 ¼	1 ½	31	74
*	63	<b>724 690 111</b>	0.364	2 ¾	2	35	88

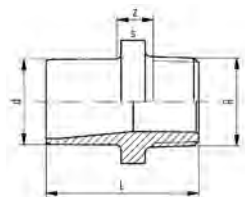
## Transition fittings socket fusion



### SYGEF Standard adaptor nipple male thread metric R PN16

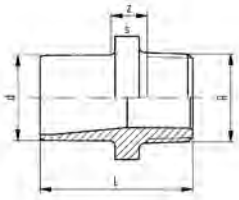
#### Model:

- Material: PVDF
- With socket fusion spigot metric and BSP tapered male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature



R (inch)	d (mm)	PN (bar)	Code	Weight (kg)	z (mm)	L (mm)	s (mm)
¾	16	16	<b>735 910 505</b>	0.015	12	37	27
½	20	16	<b>735 910 506</b>	0.025	25	53	32
¾	25	16	<b>735 910 507</b>	0.033	24	55	36

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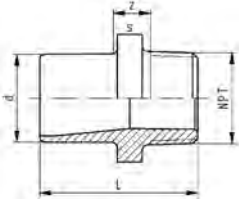
R	d	PN	Code	Weight	z	L	s
(inch)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)
1	32	16	<b>735 910 508</b>	0.056	22	57	46
1 ¼	40	16	<b>735 910 509</b>	0.082	21	60	55
1 ½	50	16	<b>735 910 510</b>	0.113	19	63	65
2	63	16	<b>735 910 511</b>	0.166	18	69	75



### SYGEF Standard adaptor nipple male thread NPT PN 16

#### Model:

- Material: PVDF
- With socket fusion spigot and taper male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature



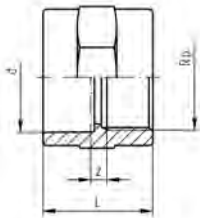
d	NPT	PN	Code	Weight	L	s	z
(mm)	(inch)	(bar)		(kg)	(mm)	(mm)	(mm)
16	¾	16	<b>735 914 505</b>	0.014	37	27	12
20	½	16	<b>735 914 506</b>	0.024	53	32	25
25	¾	16	<b>735 914 507</b>	0.032	55	36	24
32	1	16	<b>735 914 508</b>	0.057	57	46	22
40	1 ¼	16	<b>735 914 509</b>	0.075	60	55	21
50	1 ½	16	<b>735 914 510</b>	0.120	63	65	19
63	2	16	<b>735 914 511</b>	0.163	69	75	18



### SYGEF Standard adaptor socket female thread Rp PN16

#### Model:

- Material: PVDF
- With socket fusion end and parallel female thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature



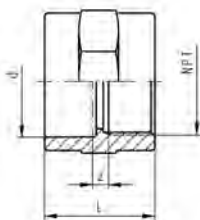
d	Rp	PN	Code	Weight	L	s	z
(mm)	(inch)	(bar)		(kg)	(mm)	(mm)	(mm)
20	½	16	<b>735 910 206</b>	0.030	34	32	5
25	¾	16	<b>735 910 207</b>	0.036	38	36	6
32	1	16	<b>735 910 208</b>	0.067	43	46	7
40	1 ¼	16	<b>735 910 209</b>	0.100	47	55	7
50	1 ½	16	<b>735 910 210</b>	0.135	54	65	9
63	2	16	<b>735 910 211</b>	0.217	62	80	9



### SYGEF Standard adaptor socket female thread metric NPT PN16

#### Model:

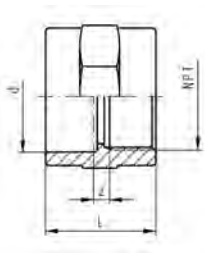
- Material: PVDF
- With socket fusion end and taper female thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature



d	NPT	PN	Code	Weight	L	s	z
(mm)	(inch)	(bar)		(kg)	(mm)	(mm)	(mm)
16	¾	16	<b>735 914 205</b>	0.016	29	27	3
20	½	16	<b>735 914 206</b>	0.030	34	32	5
25	¾	16	<b>735 914 207</b>	0.036	38	36	6

table continued on the next page





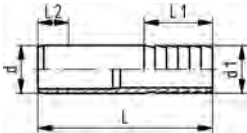
d	NPT	PN	Code	Weight	L	s	z
(mm)	(inch)	(bar)		(kg)	(mm)	(mm)	(mm)
32	1	16	<b>735 914 208</b>	0.067	43	46	7
40	1 ¼	16	<b>735 914 209</b>	0.100	47	55	7
50	1 ½	16	<b>735 914 210</b>	0.140	54	65	9
63	2	16	<b>735 914 211</b>	0.220	62	80	9



### SYGEF Standard hose adaptor SDR21/PN16

**Model:**

- Material: PVDF
- With socket fusion spigot metric and parallel hose connection



d - d1	PN	Code	Weight	L	L1	L2
(mm)	(bar)		(kg)	(mm)	(mm)	(mm)
16 - 16	16	<b>735 960 405</b>	0.008	50	27	13
20 - 20	16	<b>735 960 406</b>	0.018	78	27	14
25 - 25	16	<b>735 960 407</b>	0.028	91	36	16
32 - 32	16	<b>735 960 408</b>	0.050	100	36	18
40 - 40	16	<b>735 960 409</b>	0.078	104	42	20
50 - 50	16	<b>735 960 410</b>	0.089	90	48	23
63 - 60	16	<b>735 960 411</b>	0.126	100	50	27

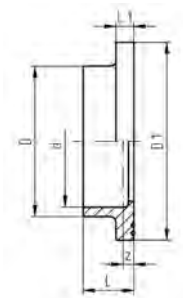
## Flange Adaptor, Flanges and Gaskets for Socket Fusion



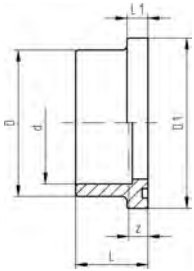
### SYGEF Standard flange adaptor Metric jointing face serrated PN16

**Model:**

- Material: PVDF
- Suitable for flange adaptor with groove
- Gasket: profile flange gaskets **FPM** or **EPDM**



d	DN	PN	Code	Weight	L1	z	D1	D	L
(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
20	15	16	<b>735 790 206</b>	0.019	6	3	45	27	19
25	20	16	<b>735 790 207</b>	0.037	7	3	58	33	21
32	25	16	<b>735 790 208</b>	0.047	7	3	68	41	23
40	32	16	<b>735 790 209</b>	0.073	8	3	78	50	25
50	40	16	<b>735 790 210</b>	0.096	8	3	88	61	28
63	50	16	<b>735 790 211</b>	0.141	9	3	102	76	32

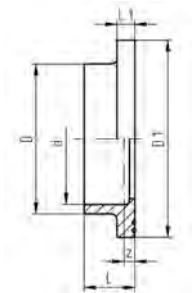


### SYGEF Standard flange adaptor with groove PN16

**Model:**

- Material: PVDF
- Jointing face: With O-ring groove
- Counterpart: flange adaptor metric or ANSI
- Gasket: O-ring EPDM No. 48 41 01, FPM No. 49 41 01

d	DN	PN	Code	Weight	D	D1	L	L1	z
(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
20	15	16	<b>735 810 106</b>	0.015	27	34	22	9	8
25	20	16	<b>735 810 107</b>	0.022	33	41	24	10	8
32	25	16	<b>735 810 108</b>	0.035	41	50	26	10	8
40	32	16	<b>735 810 109</b>	0.055	50	61	30	13	10
50	40	16	<b>735 810 110</b>	0.080	61	73	33	13	10
63	50	16	<b>735 810 111</b>	0.134	76	90	37	14	10

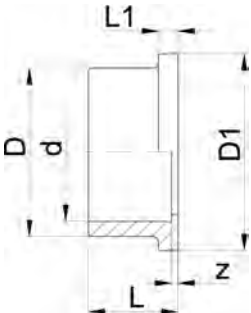


### SYGEF Standard flange adaptor ANSI Jointing face serrated PN16

**Model:**

- Material: PVDF
- Suitable for flange adaptor with groove
- Face dimension ANSI
- Gasket: flat gasket **FPM** or **EPDM**
- Gasket: profile flange gaskets **FPM** or **EPDM**
- Dimensions d20 and d63 are identical to metric version

d	PN	d	Code	Weight	D	D1	L	L1	z
(mm)	(bar)	(inch)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
25	16	¾	<b>735 790 257</b>	0.037	33	54	21	7	3
32	16	1	<b>735 790 258</b>	0.051	41	63	23	7	3
40	16	1 ¼	<b>735 790 259</b>	0.073	50	73	25	8	3
50	16	1 ½	<b>735 790 260</b>	0.095	61	82	28	8	3

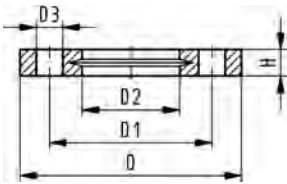


### SYGEF Standard flange adaptor JIS Jointing face flat PN16

**Model:**

- Material: PVDF

d	Code	Weight	D	L	z	D1
(mm)		(kg)	(mm)	(mm)	(mm)	(mm)
20	<b>735 800 106</b>	0.013	27	19	3	34
25	<b>735 800 107</b>	0.020	33	21	3	41
32	<b>735 800 108</b>	0.030	41	23	3	50
40	<b>735 800 109</b>	0.047	50	25	3	60
50	<b>735 800 110</b>	0.070	61	28	3	72
63	<b>735 800 111</b>	0.115	75	32	3	89



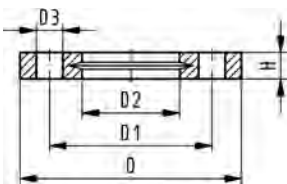
### Backing flange PP-V metric For socket systems metric and BS

#### Model:

- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**
- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- <sup>1)</sup> Suitable for socket- and butt fusion systems
- <sup>2)</sup> Not for BS
- \* Combined version, metric-ANSI

AL: number of holes

	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
1	20	15	16	<b>727 700 406</b>	0.093	95	65	28	14	16	4	M12
1	25	20	16	<b>727 700 407</b>	0.120	105	75	34	14	17	4	M12
1	32	25	16	<b>727 700 408</b>	0.151	115	85	42	14	18	4	M12
1	40	32	16	<b>727 700 409</b>	0.244	140	100	51	18	20	4	M16
1	50	40	16	<b>727 700 410</b>	0.297	150	110	62	18	22	4	M16
1	63	50	16	<b>727 700 411</b>	0.362	165	125	78	18	24	4	M16



### Backing flange PP-V Inch ANSI For socket systems metric and BS

#### Model:

- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- Special flange adapter ANSI for d25 - d50 and d90 required

AL: number of holes

\* Combined version, metric-ANSI

<sup>1)</sup> Suitable for socket- and butt fusion systems

<sup>2)</sup> Not for BS

	Size (inch)	DN (mm)	d (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
1	½	15	20	16	<b>727 701 406</b>	0.091	95	60	28	16	16	4	M12
1	¾	20	25	16	<b>727 701 407</b>	0.120	105	70	34	16	17	4	M12
1	1	25	32	16	<b>727 701 408</b>	0.147	115	79	42	16	18	4	M12
1	1 ¼	32	40	16	<b>727 701 409</b>	0.246	140	89	51	16	20	4	M16
1	1 ½	40	50	16	<b>727 701 410</b>	0.299	150	98	62	16	22	4	M16
1	2	50	63	16	<b>727 701 411</b>	0.361	165	121	78	19	24	4	M16



### Backing flange PP-Steel For socket systems metric

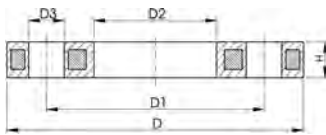
**Model:**

- Bolt circle PN 10
- PP-GF (30% glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

AL: number of holes

<sup>1)</sup> Connecting dimension: ISO 2536, bolt circle acc. DN125, suitable for flange adaptor d125/ DN100

<sup>2)</sup> Connecting dimension: ISO 2536, bolt circle acc. DN225, suitable for flange adaptor d250/ DN250



PN (bar)	DN (mm)	d (mm)	Code	Weight (kg)	D1 (mm)	D3 (mm)	D2 (mm)	D (mm)	H (mm)	AL	SC
16	15	20	<b>727 700 206</b>	0.216	65	14	28	95	12	4	
16	20	25	<b>727 700 207</b>	0.279	75	14	34	105	12	4	
16	25	32	<b>727 700 208</b>	0.429	85	14	42	115	16	4	
16	32	40	<b>727 700 209</b>	0.621	100	18	51	140	16	4	
16	40	50	<b>727 700 210</b>	0.722	110	18	62	150	20	4	
16	50	63	<b>727 700 211</b>	1.084	125	18	78	165	20	4	



### Backing Flange PP-Steel Inch/ANSI For socket systems metric and BS

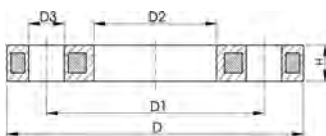
**Model:**

- Material: PP (30% glass-fibre reinforced) with steel ring
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- Bolt circle class 150
- Special flange adapter ANSI for d25 - d50 and d90 required

<sup>1)</sup> Not for BS

\*Combined version, bolt circle metric - ANSI

AL: number of holes



d (inch)	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
1/2	20	15	16	<b>727 701 206</b>	0.213	95	60	28	16	12	4	M12
3/4	25	20	16	<b>727 701 207</b>	0.260	105	70	34	16	12	4	M12
1	32	25	16	<b>727 701 208</b>	0.416	115	79	42	16	16	4	M12
1 1/4	40	32	16	<b>727 701 209</b>	0.730	140	89	51	16	16	4	M16
1 1/2	50	40	16	<b>727 701 210</b>	0.809	150	98	62	16	18	4	M16
2	63	50	16	<b>727 701 211</b>	0.866	165	121	78	19	18	4	M16

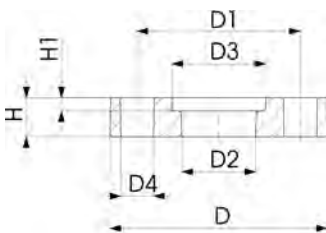


### Backing flange PP-GF JIS

**Model:**

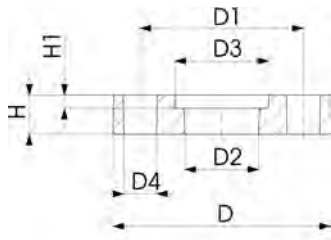
- Only use with flange adaptor JIS 27 80 02
- PP-GF (30% glass-fibre reinforced)
- Connecting dimensions: JIS B 2220, 10K

AL: number of holes



Inch (inch)	DN (mm)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	H (mm)	H1 (mm)	AL	SC
1/2	15	<b>727 705 006</b>	0.083	95	70	28	36	15	16	5	4	M12
3/4	20	<b>727 705 007</b>	0.101	100	75	34	43	15	18	6	4	M12
1	25	<b>727 705 008</b>	0.168	125	90	42	52	19	20	6	4	M16

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Inch	DN	Code	Weight	D	D1	D2	D3	D4	H	H1	AL	SC
(inch)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
1 1/4	32	<b>727 705 009</b>	0.195	135	100	51	63	19	21	7	4	M16
1 1/2	40	<b>727 705 010</b>	0.196	140	105	62	76	19	21	7	4	M16
2	50	<b>727 705 011</b>	0.228	155	120	78	92	19	21	8	4	M16
2 1/2	65	<b>727 705 012</b>	0.367	175	140	92	108	19	29	9	4	M16

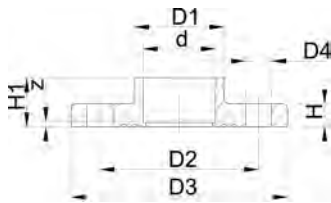


**SYGEF Standard fixed flange**  
**For socket fusion metric**  
**Combined jointing face: flat and serrated**

**Model:**

- Material: PVDF
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

AL: number of holes



d	DN	Inch	PN	Code	Weight	D1	D2	D3	D4	H	H1	AL	z
(mm)	(mm)	(inch)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)
20	15	1/2	16	<b>735 740 106</b>	0.121	27	65	93	14	12	19	4	5
25	20	3/4	16	<b>735 740 107</b>	0.162	33	75	103	14	13	21	4	4
32	25	1	16	<b>735 740 108</b>	0.229	40	85	115	14	14	23	4	4
40	32	1 1/4	16	<b>735 740 109</b>	0.340	50	100	137	18	15	25	4	4
50	40	1 1/2	16	<b>735 740 110</b>	0.409	61	110	147	18	16	27	4	4
63	50	2	16	<b>735 740 111</b>	0.551	76	125	162	18	18	31	4	4

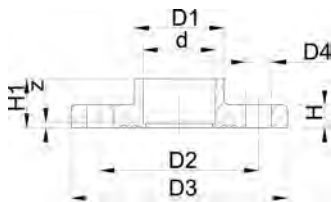


**SYGEF Standard fixed flange**  
**For socket fusion metric**  
**Jointing face flat**

**Model:**

- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

AL: number of holes



d	DN	Inch	PN	Code	Weight	D1	D2	D3	D4	H	H1	AL	z
(mm)	(mm)	(inch)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)
20	15	11/2	16	<b>735 730 106</b>	0.137	27	65	93	14	12	19	4	5
25	20	13/4	16	<b>735 730 107</b>	0.185	33	75	103	14	13	21	4	5
32	25	1	16	<b>735 730 108</b>	0.255	40	85	115	14	14	23	4	5
40	32	11/4	16	<b>735 730 109</b>	0.355	50	100	137	18	15	25	4	5
50	40	11/2	16	<b>735 730 110</b>	0.486	61	110	147	18	16	27	4	5
63	50	2	16	<b>735 730 111</b>	0.653	76	125	162	18	18	31	4	5

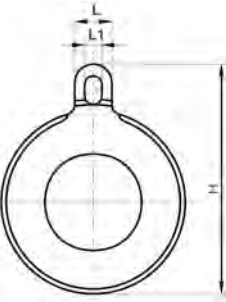


### SYGEF Plus Gasket

**Model:**

- For Use with Steel Flange Rings
- \* Non-Returnable/Non-Cancelable

d	Pipe Size	Code	Weight	H	L	L1
(mm)	(inch)		(lb)	(inch)	(inch)	(inch)
25	3/4	<b>731 400 753</b>	0.002	2.99	0.79	0.51
32	1	<b>731 400 755</b>	0.053	3.58	0.98	0.63
40	1 1/4	<b>731 400 757</b>	0.079	3.98	0.98	0.63
50	1 1/2	<b>731 400 759</b>	0.084	4.33	0.98	0.63
63	2	<b>731 400 760</b>	0.132	5.04	0.98	0.63

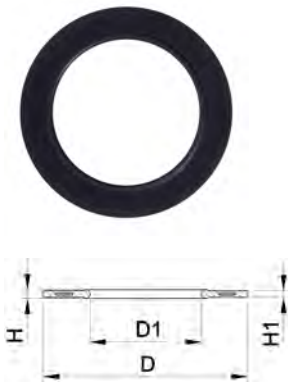


### Profile Flange Gasket, metric EPDM / FPM

**Model:**

- For all metric GF Flange Adaptors
- Profile Gasket with carbon steel insert (type G-ST-P/K)
- Hardness: 70° Shore EPDM, 75° Shore FPM
- EPDM: approved acc. to DVGW W 270, KTW recommendation
- Centering on the inner diameter of the screw crown
- material steel insert: carbon steel

di FA are the suitable inner diameters of flanges adaptors



d	PN	DN	EPDM Code	FPM Code	Weight	D	D1	H	H1	di FA
(mm)	(bar)	(mm)			(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
20	16	15	<b>748 440 706</b>	<b>749 440 706</b>	0.013	51	20	4	3	10 - 20
25	16	20	<b>748 440 707</b>	<b>749 440 707</b>	0.014	61	22	4	3	12 - 22
32	16	25	<b>748 440 708</b>	<b>749 440 708</b>	0.019	71	28	4	3	18 - 28
40	16	32	<b>748 440 709</b>	<b>749 440 709</b>	0.026	82	40	4	3	30 - 40
50	16	40	<b>748 440 710</b>	<b>749 440 710</b>	0.039	92	46	4	3	36 - 46
63	16	50	<b>748 440 711</b>	<b>749 440 711</b>	0.050	107	58	5	4	48 - 58

### O-Ring gasket

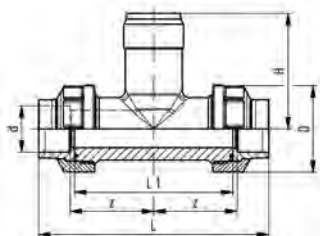
**Model:**

- For flange adaptors
- Hardness approx. 65° Shore



d	DN	EPDM Code	Weight	FPM Code	Weight	D	D1	D2	closest inch
(mm)	(mm)		(kg)		(kg)	(mm)	(mm)	(mm)	(inch)
20	15	<b>748 410 001</b>	0.002	<b>749 410 001</b>	0.002	31	23	3.53	1/2
25	20	<b>748 410 007</b>	0.002	<b>749 410 007</b>	0.002	35	28	3.53	3/4
32	25	<b>748 410 002</b>	0.003	<b>749 410 002</b>	0.003	43	36	3.53	1
40	32	<b>748 410 003</b>	0.004	<b>749 410 003</b>	0.002	55	44	5.34	1 1/4
50	40	<b>748 410 012</b>	0.004	<b>749 410 012</b>	0.008	64	53	5.34	1 1/2
63	50	<b>748 410 013</b>	0.006	<b>749 410 013</b>	0.011	80	69	5.34	2

## Installation fittings



### SYGEF Standard installation fitting type 310 (FPM black) PN16 for socket fusion systems

#### Range of use:

- Compatible Signet pH/ORP sensors: type 2724, 2725, 2726, 2734, 2736, 2735
- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512

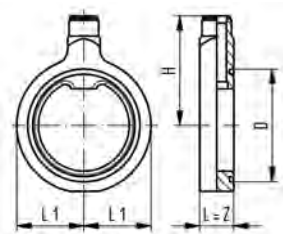
#### Model:

- Union end with fusion socket PVDF
- Material: PVDF
- Threaded outlet 1 ¼" NPSM
- supplied with sealing

#### Attention:

- sensor length depends on installation fitting

d (mm)	PN (bar)	Code	Weight (kg)	L1 (mm)	D (mm)	H (mm)	L (mm)	z (mm)	Sensor Type
20	16	<b>735 310 036</b>	0.250	90	45	76	128	50	flow X0, pH XX
25	16	<b>735 310 037</b>	0.355	100	55	78	142	55	flow X0, pH XX
32	16	<b>735 310 038</b>	0.427	110	62	81	156	60	flow X0, pH XX
40	16	<b>735 310 039</b>	0.540	110	75	85	160	60	flow X0, pH XX
50	16	<b>735 310 040</b>	0.850	120	84	89	176	65	flow X0, pH XX
63	16	<b>735 310 041</b>	1.182	130	101	95	194	70	flow X0, pH XX



### SYGEF Standard installation fitting type 311 (FPM black)

#### Range of use:

- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512

#### Attention:

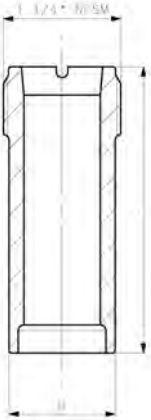
- sensor length depends on installation fitting

#### Model:

- Material: PVDF
- Threaded outlet 1 ¼" NPSM
- Suitable for backing flanges metric and inch
- Delivered with profile O-ring

d (inch)	DN (mm)	PN (bar)	d (mm)	Code	Weight (kg)	Sensor Type	D (mm)	H (mm)	L (mm)	L1 (mm)
2 ½	65	10 - 16	75	<b>735 311 042</b>	0.845	flow X1	88	135	48	61
3	80	10 - 16	90	<b>735 311 043</b>	1.020	flow X1	102	141	48	69
4	100	10 - 16	110	<b>735 311 044</b>	1.192	flow X1	132	152	48	79
	100	10 - 16	125	<b>735 311 045</b>	0.990	flow X1	132	147	48	79
5	125	10 - 16	140	<b>735 311 046</b>	1.473	flow X1	157	153	48	94
6	150	10 - 16	160	<b>735 311 047</b>	1.742	flow X1	182	161	48	106
8	200	10 - 16	200	<b>735 311 049</b>	2.643	flow X1	236	175	48	134
8	200	10 - 16	225	<b>735 311 050</b>	2.074	flow X1	236	185	48	134

### SYGEF Standard installation fitting type 314



**Attention:**

- pressure rate depends on quality of hot gas back welding
- please consult the instruction manual
- Installation by trained and certified welders only
- only for pressureless or low pressure application

**Range of use:**

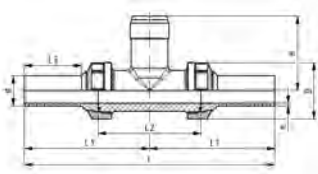
- Compatible Signet pH/ORP sensors: type 2724, 2725, 2726, 2734, 2736, 2735
- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512

**Model:**

- For conventional hot gas back welding according to DVS 2207 part 3
- Threaded outlet 1 1/4" NPSM
- Material: PVDF

DN	d	PN*	Code	Weight	Sensor Type	D	L
	(mm)	(bar)		(kg)		(mm)	(mm)
65 - 150	75 - 180	-	<b>735 314 000</b>	0.069	flow X0, pH XX	38	68
200 - 350	200 - 355	-	<b>735 314 001</b>	0.100	flow X1	38	102
350 - 600	400 - 630	-	<b>735 314 002</b>	0.173	flow X2	38	178

### SYGEF Standard installation fitting type 318 (FPM black) PN16 for butt fusion systems



**Model:**

- Material: PVDF
- Threaded outlet 1 1/4" NPSM
- Union end with butt fusion spigot PVDF

**Range of use:**

- Compatible Signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- Compatible Signet pH/ORP sensors: type 2724, 2725, 2726, 2734, 2736, 2735

**Attention:**

- sensor length depends on installation fitting
- supplied with sealing

FM	d	DN	PN	Code	Weight
	(mm)	(mm)	(bar)		(kg)
BCF, IR	20	15	16	<b>735 318 036</b>	0.240
BCF, IR	25	20	16	<b>735 318 037</b>	0.318
BCF, IR	32	25	16	<b>735 318 038</b>	0.427
BCF, IR	40	32	16	<b>735 318 039</b>	0.588
BCF, IR	50	40	16	<b>735 318 040</b>	0.719
BCF, IR	63	50	16	<b>735 318 041</b>	1.088

L3	L2	e	Sensor Type	H	L	L1	D
(mm)	(mm)	(mm)		(mm)	(mm)	(mm)	(mm)
37	90	2	flow X0, pH XX	76	196	98	45
37	100	2	flow X0, pH XX	78	212	106	55
40	110	2	flow X0, pH XX	81	228	114	62
40	110	2	flow X0, pH XX	85	234	117	75
43	120	3	flow X0, pH XX	89	250	125	84
43	130	3	flow X0, pH XX	95	266	133	101



# SYGEF Standard

## Valves

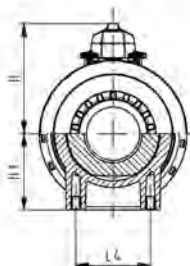
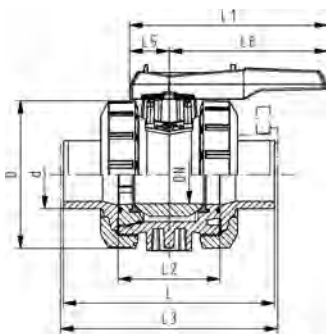
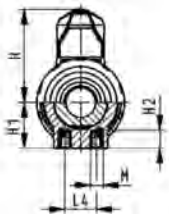
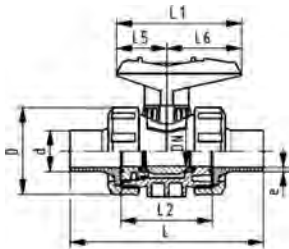


# Valves SYGEF Standard

## Hand operated valves Ball valves



DN10/15 - 50



**SYGEF Standard**  
**Ball valve type 546**  
**With mounting inserts**  
**With butt fusion spigots IR-Plus metric**

**Model:**

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	16	185	175 546 272	0.201
25	20	16	350	175 546 273	0.301
32	25	16	700	175 546 274	0.438
40	32	16	1000	175 546 275	0.780
50	40	16	1600	175 546 276	1.110
63	50	16	3100	175 546 277	1.958
75	65	16	5000	175 546 278	7.600
90	80	16	7000	175 546 279	7.457
110	100	16	11000	175 546 280	17.400

d (mm)	DN (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)	closest inch (inch)
20	15	50	57	27	12	130	77	56	25	32	45	M6	1.9	1/2
25	20	58	67	30	12	143	97	65	25	39	58	M6	1.9	3/4
32	25	68	73	36	12	150	97	71	25	39	58	M6	2.4	1
40	32	84	90	44	15	171	128	85	45	54	74	M8	2.4	1 1/4
50	40	97	97	51	15	191	128	89	45	54	74	M8	3.0	1 1/2
63	50	124	116	64	15	220	152	101	45	66	87	M8	3.0	2
75	65	166	149	85	15	266	270	136	70	64	206	M8	3.6	2 1/2
90	80	200	161	105	15	264	270	141	70	64	206	M8	4.3	3
110	100	238	178	123	22	301	320	164	120	64	256	M12	5.3	4



DN10/15 - 50



DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 546**  
**With butt fusion spigots IR-Plus metric**

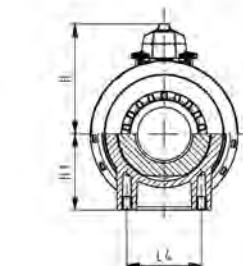
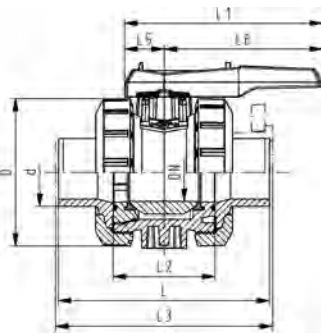
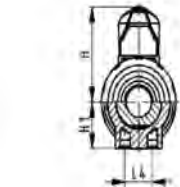
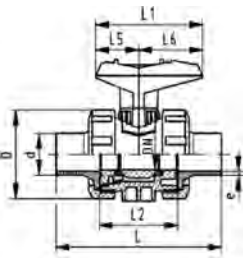
**Model:**

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Without mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

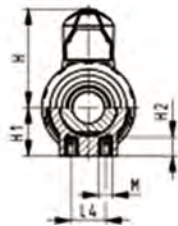
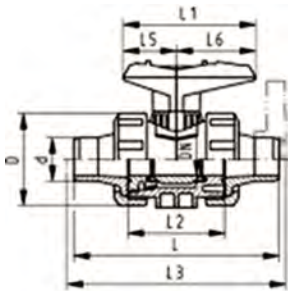
d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	16	185	<b>175 546 092</b>	0.205
25	20	16	350	<b>175 546 093</b>	0.307
32	25	16	700	<b>175 546 094</b>	0.434
40	32	16	1000	<b>175 546 095</b>	0.760
50	40	16	1600	<b>175 546 096</b>	1.049
63	50	16	3100	<b>175 546 097</b>	1.947
75	65	16	5000	<b>175 546 098</b>	6.600
90	80	16	7000	<b>175 546 099</b>	9.700
110	100	16	11000	<b>175 546 100</b>	15.300



d (mm)	D (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	e (mm)	closest inch (inch)
20	50	57	27	130	77	56	25	32	45	1.9	½
25	58	67	30	143	97	65	25	39	58	1.9	¾
32	68	73	36	150	97	71	25	39	58	2.4	1
40	84	90	44	171	128	85	45	54	74	2.4	1 ¼
50	97	97	51	191	128	89	45	54	74	3.0	1 ½
63	124	116	64	220	152	101	45	66	87	3.0	2
75	166	149	85	266	270	136	70	64	206	3.6	2 ½
90	200	161	105	264	270	141	70	64	206	4.3	3
110	238	178	123	301	320	164	120	64	256	5.3	4



DN10/15 - 50



**SYGEF Standard**  
**Ball valve type 546**  
**With mounting inserts**  
**With socket fusion spigots metric**

**Model:**

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

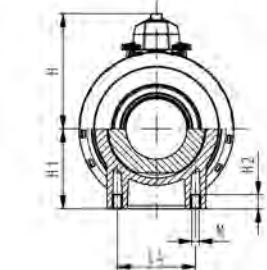
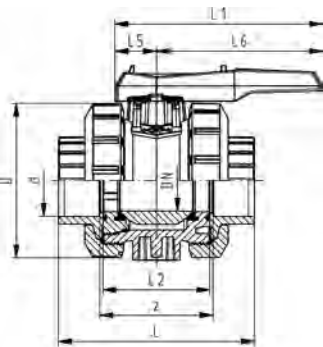
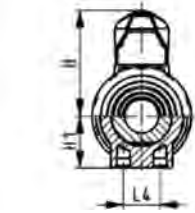
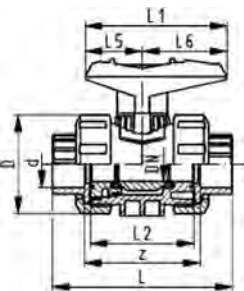
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	16	71	<b>175 546 051</b>	0.200
20	15	16	185	<b>175 546 052</b>	0.205
25	20	16	350	<b>175 546 053</b>	0.310
32	25	16	700	<b>175 546 054</b>	0.460
40	32	16	1000	<b>175 546 055</b>	0.780
50	40	16	1600	<b>175 546 056</b>	1.110
63	50	16	3100	<b>175 546 057</b>	2.150

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
16	50	57	27	12	110	77	56		25	32	45	M6	$\frac{3}{8}$
20	50	57	27	12	120	77	56	130	25	32	45	M6	$\frac{1}{2}$
25	58	67	30	12	139	97	65	150	25	39	58	M6	$\frac{3}{4}$
32	68	73	36	12	150	97	71	160	25	39	58	M6	1
40	84	90	44	15	170	128	85	180	45	54	74	M8	1 $\frac{1}{4}$
50	97	97	51	15	190	128	89	200	45	54	74	M8	1 $\frac{1}{2}$
63	124	116	64	15	220	152	101	230	45	66	87	M8	2



DN10/15 - 50



**SYGEF Standard**  
**Ball valve type 546**  
**With fusion sockets metric**

**Model:**

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Without mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	16	71	<b>175 546 011</b>	0.195
20	15	16	185	<b>175 546 012</b>	0.121
25	20	16	350	<b>175 546 013</b>	0.297
32	25	16	700	<b>175 546 014</b>	0.427
40	32	16	1000	<b>175 546 015</b>	0.760
50	40	16	1600	<b>175 546 016</b>	1.060
63	50	16	3100	<b>175 546 017</b>	1.855
75	65	16	5000	<b>175 546 018</b>	6.300
90	80	16	7000	<b>175 546 019</b>	9.500
110	100	16	11000	<b>175 546 020</b>	15.000

d (mm)	D (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	z (mm)	closest inch (inch)
16	50	57	27	93	77	56	25	32	45	67	3/4
20	50	57	27	95	77	56	25	32	45	66	1/2
25	58	67	30	109	97	65	25	39	58	77	3/4
32	68	73	36	119	97	71	25	39	58	83	1
40	84	90	44	135	128	85	45	54	74	99	1 1/4
50	97	97	51	147	128	89	45	54	74	105	1 1/2
63	124	116	64	168	152	101	45	66	87	117	2
75	166	149	85	233	270	136	70	64	206	167	2 1/2
90	200	161	105	254	270	141	70	64	206	180	3
110	238	178	123	301	320	164	120	64	256	215	4



DN10/15 - 50



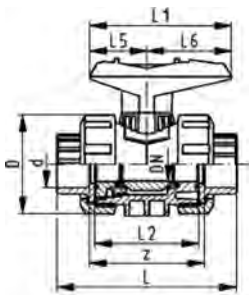
**SYGEF Standard**  
**Ball valve type 546**  
**With mounting inserts**  
**With fusion sockets metric**

**Model:**

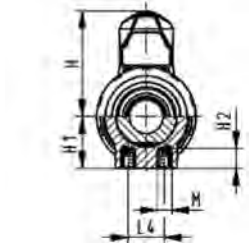
- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

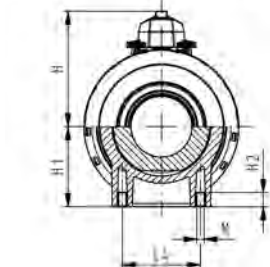
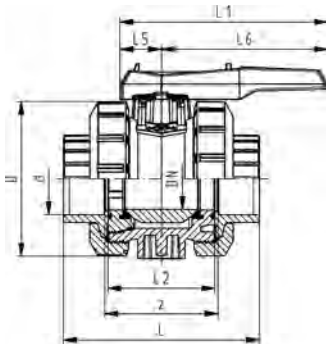
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	16	71	<b>175 546 411</b>	0.195
20	15	16	185	<b>175 546 412</b>	0.197
25	20	16	350	<b>175 546 413</b>	0.302
32	25	16	700	<b>175 546 414</b>	0.431
40	32	16	1000	<b>175 546 415</b>	0.760
50	40	16	1600	<b>175 546 416</b>	1.011
63	50	16	3100	<b>175 546 417</b>	1.856
75	65	16	5000	<b>175 546 418</b>	6.300
90	80	16	7000	<b>175 546 419</b>	9.500
110	100	16	11000	<b>175 546 420</b>	15.000

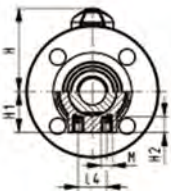
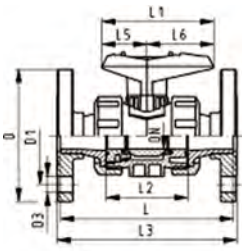


d (mm)	DN (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)	closest inch (inch)
16	10	50	79	27	12	93	77	56	25	32	45	M6	67	3/8
20	15	50	57	27	12	95	77	56	25	32	45	M6	66	1/2
25	20	58	67	30	12	109	97	65	25	39	58	M6	77	3/4
32	25	68	73	36	12	119	97	71	25	39	58	M6	83	1
40	32	84	90	44	15	135	128	85	45	54	74	M8	99	1 1/4
50	40	97	97	51	15	147	128	89	45	54	74	M8	105	1 1/2
63	50	124	116	64	15	168	152	101	45	66	87	M8	117	2
75	65	166	149	85	15	233	270	136	70	64	206	M8	167	2 1/2
90	80	200	161	105	15	254	270	141	70	64	206	M8	180	3
110	100	238	178	123	22	301	320	164	120	64	256	M12	215	4





DN10/15 - 50



**SYGEF Standard**  
**Ball valve type 546**  
**With mounting inserts**  
**With fixed flanges PVDF serrated metric**

**Model:**

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346
- Overall length EN 558

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	16	185	<b>175 546 192</b>	0.470
25	20	16	350	<b>175 546 193</b>	0.650
32	25	16	700	<b>175 546 194</b>	0.940
40	32	16	1000	<b>175 546 195</b>	1.489
50	40	16	1600	<b>175 546 196</b>	1.889
63	50	16	3100	<b>175 546 197</b>	3.097

d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
20	93	65	14	57	27	12	120	77	56	130	25	32	45	M6	½
25	103	75	14	67	30	12	140	97	65	150	25	39	58	M6	¾
32	115	85	14	73	36	12	150	97	71	160	25	39	58	M6	1
40	137	100	18	90	44	15	170	128	85	180	45	54	74	M8	1 ¼
50	147	110	18	97	51	15	190	128	89	200	45	54	74	M8	1 ½
63	162	125	18	116	64	15	220	152	101	230	45	66	87	M8	2



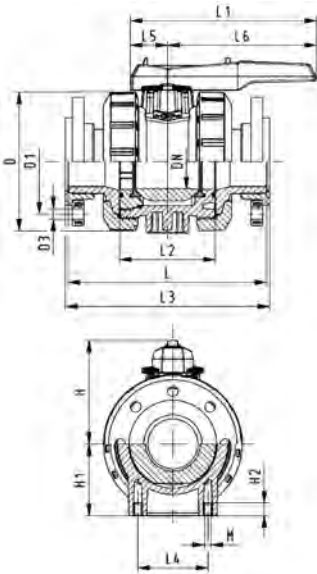
**SYGEF Standard**  
**Ball valve type 546**  
 With mounting inserts  
 With backing flanges PP-st metric

**Model:**

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
75	65	16	5000	<b>175 546 808</b>	11.700
90	80	16	7000	<b>175 546 809</b>	16.000
110	100	16	11000	<b>175 546 810</b>	23.900

d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
75	166	145	18	149	85	280	270	136	290	70	64	206	8	2 ½
90	200	160	18	161	105	296	270	141	310	70	64	206	8	3
110	238	180	18	178	123	336	320	164	350	120	64	256	12	4



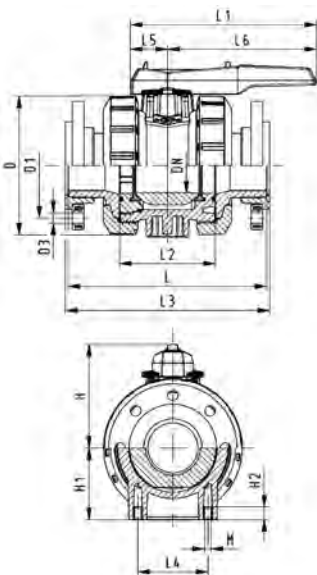
**SYGEF Standard**  
**Ball valve type 546**  
 With mounting inserts  
 With backing flanges PP-st Inch ANSI

**Model:**

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Ball seals PVDF
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

**Option:**

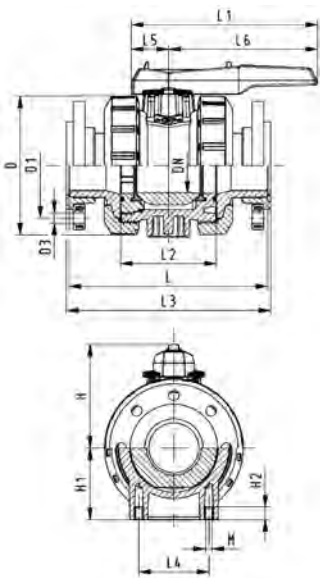
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
2 ½	65	16	5000	<b>175 546 818</b>	11.700
3	80	16	7000	<b>175 546 819</b>	16.000
4	100	16	11000	<b>175 546 820</b>	23.900

table continued on the next page





Size (inch)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
2 ½	166	140	19	149	85	280	270	136	290	70	64	206	8	2 ½
3	200	152	19	161	105	296	270	141	310	70	64	206	8	3
4	238	191	19	178	123	336	320	164	350	120	64	256	12	4



DN10/15 - 50

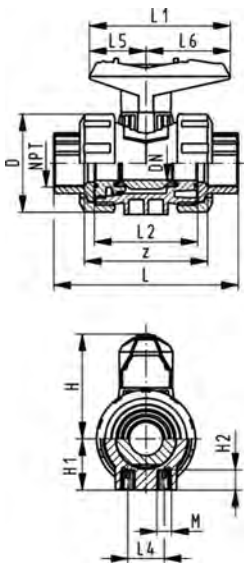
**SYGEF Standard  
Ball valve type 546  
With mounting inserts  
With threaded sockets NPT**

**Model:**

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



NPT (inch)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
¾	10	10	71	<b>175 546 331</b>	0.205
½	15	10	185	<b>175 546 332</b>	0.205
¾	20	10	350	<b>175 546 333</b>	0.325
1	25	10	700	<b>175 546 334</b>	0.490
1 ¼	32	10	1000	<b>175 546 335</b>	0.820
1 ½	40	10	1600	<b>175 546 336</b>	1.135
2	50	10	3100	<b>175 546 337</b>	2.150

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)
¾	50	57	27	12	96	77	56	25	32	45	M6	69
½	50	57	27	12	99	77	56	25	32	45	M6	64
¾	58	67	30	12	111	97	65	25	39	58	M6	76
1	68	73	36	12	127	97	71	25	39	58	M6	83
1 ¼	84	90	44	15	146	128	85	45	54	74	M8	101
1 ½	97	97	51	15	157	128	89	45	54	74	M8	111
2	124	116	64	15	183	152	101	45	66	87	M8	135

**SYGEF Standard**  
**Ball valve type 546**  
**With lockable handle**  
**With butt fusion spigots IR-Plus metric**



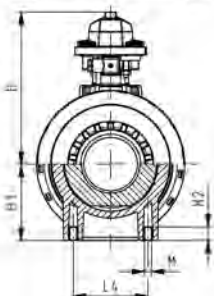
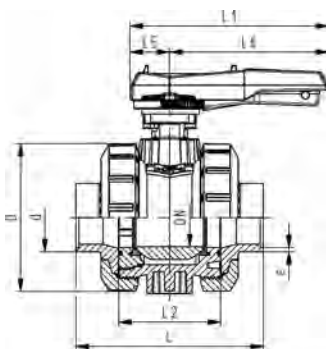
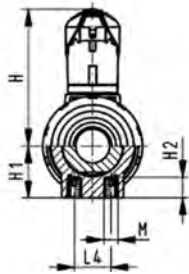
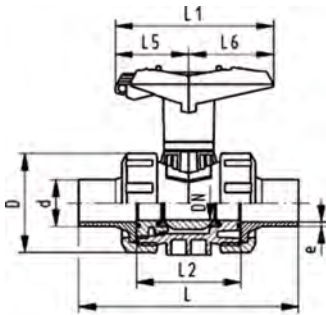
**Model:**

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Lockable hand lever with ratchet settings

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

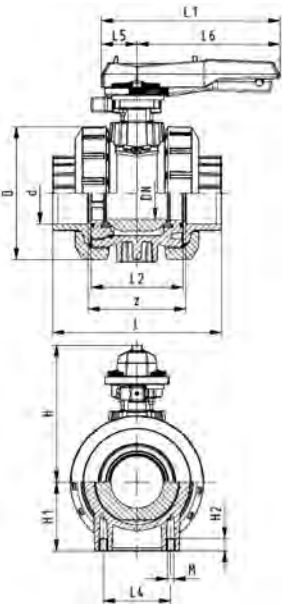
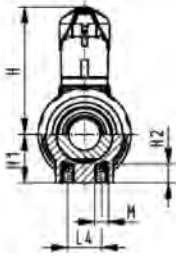
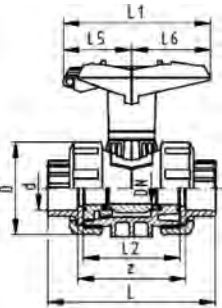
d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	16	185	<b>175 546 442</b>	0.205
25	20	16	350	<b>175 546 443</b>	0.310
32	25	16	700	<b>175 546 444</b>	0.460
40	32	16	1000	<b>175 546 445</b>	0.780
50	40	16	1600	<b>175 546 446</b>	1.110
63	50	16	3100	<b>175 546 447</b>	2.150
75	65	16	5000	<b>175 546 448</b>	7.000
90	80	16	7000	<b>175 546 449</b>	10.200
110	100	16	11000	<b>175 546 450</b>	15.800



d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)	closest inch (inch)
20	50	79	27	12	130	87	56	25	42	45	M6	1.9	½
25	58	88	30	12	143	108	65	25	50	58	M6	1.9	¾
32	68	94	36	12	150	108	71	25	50	58	M6	2.4	1
40	84	113	44	15	171	140	85	45	66	75	M8	2.4	1 ¼
50	97	119	51	15	191	140	89	45	66	75	M8	3.0	1 ½
63	124	141	64	15	220	165	101	45	78	87	M8	3.0	2
75	166	224	85	15	266	270	136	70	64	206	M8	3.6	2 ½
90	200	235	105	15	264	270	141	70	64	206	M8	4.3	3
110	238	245	123	22	301	320	164	120	64	256	M12	5.3	4



DN10/15 - 50



**SYGEF Standard**  
**Ball valve type 546**  
**With lockable handle**  
**With fusion sockets metric**

**Model:**

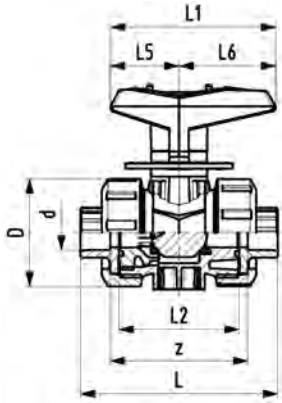
- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346
- Lockable hand lever with ratchet settings

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	16	71	<b>175 546 431</b>	0.206
20	15	16	185	<b>175 546 432</b>	0.210
25	20	16	350	<b>175 546 433</b>	0.315
32	25	16	700	<b>175 546 434</b>	0.455
40	32	16	1000	<b>175 546 435</b>	0.785
50	40	16	1600	<b>175 546 436</b>	1.085
63	50	16	3100	<b>175 546 437</b>	1.903
75	65	16	5000	<b>175 546 438</b>	6.800
90	80	16	7000	<b>175 546 439</b>	10.000
110	100	16	11000	<b>175 546 440</b>	15.600

D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)	closest inch (inch)
50	79	27	12	93	77	56	25	32	45	M6	67	3/8
50	79	27	12	95	77	56	25	32	45	M6	66	1/2
58	88	30	12	109	97	65	25	39	58	M6	77	3/4
68	94	36	12	119	97	71	25	39	58	M6	83	1
84	113	44	15	135	128	85	45	54	74	M8	99	1 1/4
97	119	51	15	147	128	89	45	54	74	M8	105	1 1/2
124	141	64	15	168	152	101	45	66	87	M8	117	2
166	224	85	15	233	270	136	70	64	206	M8	167	2 1/2
200	235	105	15	254	270	141	70	64	206	M8	180	3
238	245	123	22	301	320	164	120	64	256	M12	215	4



**SYGEF Standard**  
**Linear ball valve type 546**  
**With mounting inserts**  
**With fusion sockets metric**

**Model:**

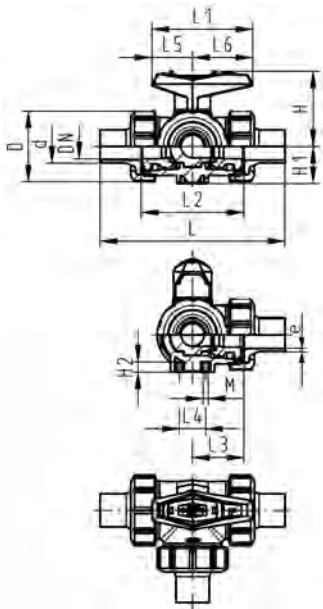
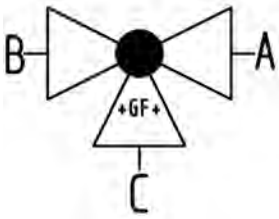
- Material: PVDF
- Excellent control characteristics
- Designed for easy installation and removal
- Ball seals PTFE
- Angle of operation 90° with scale
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)
- Pneumatic or electric actuators from +GF+
- Other materials on demand

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	185	<b>800 052 632</b>	0.197
25	20	10	350	<b>800 052 633</b>	0.302
32	25	10	700	<b>800 052 634</b>	0.431
40	32	10	1000	<b>800 052 635</b>	0.760
50	40	10	1600	<b>800 052 636</b>	1.011
63	50	10	3100	<b>800 052 637</b>	1.856

d (mm)	D (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	z (mm)	closest inch (inch)
20	50	57	27	95	77	56	25	32	45	66	1/2
25	58	67	30	109	97	65	25	39	58	77	3/4
32	68	73	36	119	97	71	25	39	58	83	1
40	84	90	44	135	128	85	45	54	74	99	1 1/4
50	97	97	51	147	128	89	45	54	74	105	1 1/2
63	124	116	64	168	152	101	45	66	87	117	2



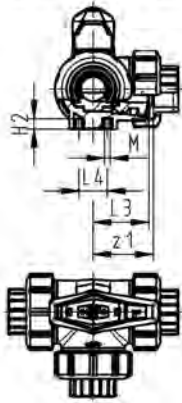
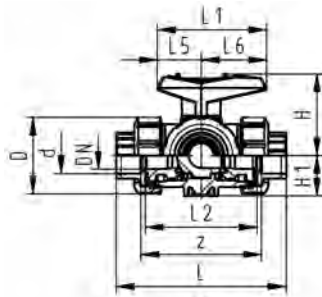
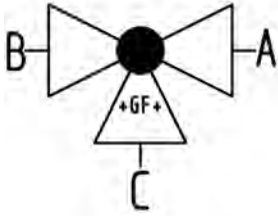
**SYGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With butt fusion spigots IR-Plus metric**

**Model:**

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
20	15	10	75	<b>175 543 052</b>	0.332
25	20	10	150	<b>175 543 053</b>	0.480
32	25	10	280	<b>175 543 054</b>	0.735
40	32	10	480	<b>175 543 055</b>	1.226
50	40	10	620	<b>175 543 056</b>	1.859
63	50	10	1230	<b>175 543 057</b>	3.370

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	146	77	72	36	25	32	45	6	1.9	1/2
25	58	67	32	8	163	97	85	43	25	39	58	6	1.9	3/4
32	68	73	36	8	178	97	98	49	25	39	58	6	2.4	1
40	84	90	45	9	204	128	118	59	45	54	74	8	2.4	1 1/4
50	97	97	51	9	237	128	135	68	45	54	74	8	3.0	1 1/2
63	124	116	65	9	296	152	176	88	45	66	87	8	3.0	2



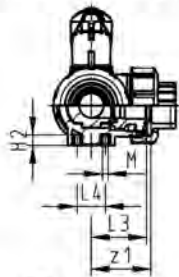
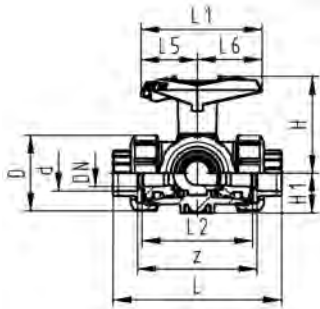
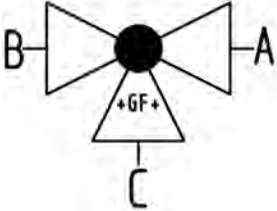
**SYGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With fusion sockets metric**

**Model:**

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	50	<b>175 543 011</b>	0.281
20	15	10	75	<b>175 543 012</b>	0.290
25	20	10	150	<b>175 543 013</b>	0.461
32	25	10	280	<b>175 543 014</b>	0.654
40	32	10	480	<b>175 543 015</b>	1.199
50	40	10	620	<b>175 543 016</b>	1.647
63	50	10	1230	<b>175 543 017</b>	3.227

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 $\frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 $\frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



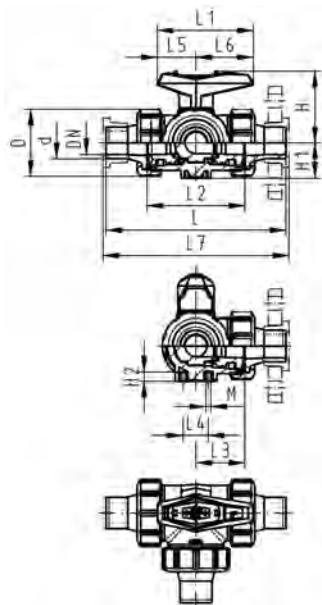
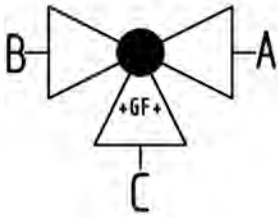
**SYGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With lockable handle**  
**With fusion sockets metric**

**Model:**

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	50	<b>175 543 641</b>	0.330
20	15	10	75	<b>175 543 642</b>	0.338
25	20	10	150	<b>175 543 643</b>	0.483
32	25	10	280	<b>175 543 644</b>	0.726
40	32	10	480	<b>175 543 645</b>	1.229
50	40	10	620	<b>175 543 646</b>	1.808
63	50	10	1230	<b>175 543 647</b>	3.502

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	79	28	8	110	87	72	36	25	42	45	6	82	41	3/8
20	50	79	28	8	112	87	72	36	25	42	45	6	82	41	1/2
25	58	88	32	8	129	108	85	43	25	50	58	6	97	49	3/4
32	68	94	36	8	146	108	98	49	25	50	58	6	110	55	1
40	84	113	45	9	170	141	118	59	45	66	75	8	132	66	1 1/4
50	97	119	51	9	193	141	135	68	45	66	75	8	151	76	1 1/2
63	124	141	65	9	244	165	176	88	45	78	87	8	188	94	2



**SYGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With socket fusion spigots metric**

**Model:**

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	50	<b>175 543 031</b>	0.320
20	15	10	75	<b>175 543 032</b>	0.296
25	20	10	150	<b>175 543 033</b>	0.480
32	25	10	280	<b>175 543 034</b>	0.735
40	32	10	480	<b>175 543 035</b>	1.226
50	40	10	620	<b>175 543 036</b>	1.859
63	50	10	1230	<b>175 543 037</b>	3.624

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	M	closest inch (inch)
16	50	57	28	8	126	77	72	36	25	32	45	133	6	$\frac{3}{8}$
20	50	57	28	8	136	77	72	36	25	32	45	144	6	$\frac{1}{2}$
25	58	67	32	8	159	97	85	43	25	39	58	170	6	$\frac{3}{4}$
32	68	73	36	8	178	97	98	49	25	39	58	191	6	1
40	84	90	45	9	204	128	118	59	45	54	74	223	8	1 $\frac{1}{4}$
50	97	97	51	9	237	128	135	68	45	54	74	256	8	1 $\frac{1}{2}$
63	124	116	65	9	296	152	176	88	45	66	87	319	8	2

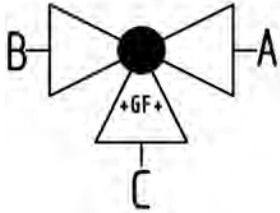




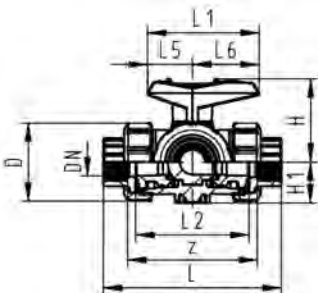
**SYGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/L-port**  
**With threaded sockets NPT**

**Model:**

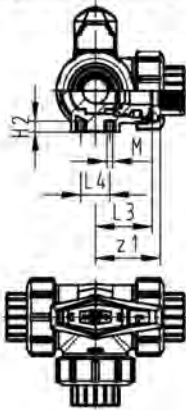
- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

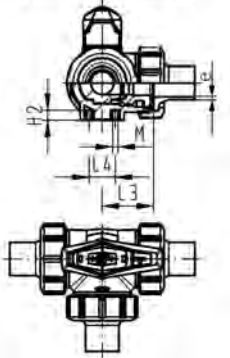
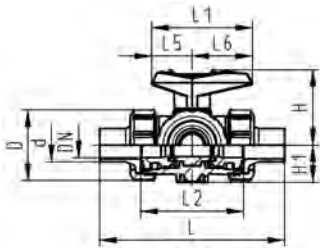
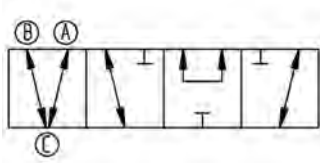
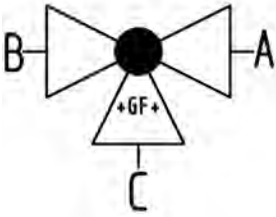


NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
3/8	10	10	50	<b>175 543 071</b>	0.312
1/2	15	10	75	<b>175 543 072</b>	0.320
3/4	20	10	150	<b>175 543 073</b>	0.461
1	25	10	280	<b>175 543 074</b>	0.704
1 1/4	32	10	480	<b>175 543 075</b>	1.199
1 1/2	40	10	620	<b>175 543 076</b>	1.778
2	50	10	1230	<b>175 543 077</b>	3.462



NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	50	57	28	8	112	77	72	36	25	32	45	6	86	43
1/2	50	57	28	8	114	77	72	36	25	32	45	6	80	40
3/4	58	67	32	8	131	97	85	43	25	39	58	6	95	48
1	68	73	36	8	154	97	98	49	25	39	58	6	110	55
1 1/4	84	90	45	9	180	128	118	59	45	54	74	8	132	66
1 1/2	97	97	51	9	203	128	135	68	45	54	74	8	157	79
2	124	116	65	9	258	152	176	88	45	66	87	8	210	105





**SYGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With butt fusion spigots IR-Plus metric**

**Model:**

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	200	<b>175 543 152</b>	0.321
25	20	10	470	<b>175 543 153</b>	0.478
32	25	10	793	<b>175 543 154</b>	0.655
40	32	10	1290	<b>175 543 155</b>	1.212
50	40	10	1910	<b>175 543 156</b>	1.832
63	50	10	3100	<b>175 543 157</b>	3.566

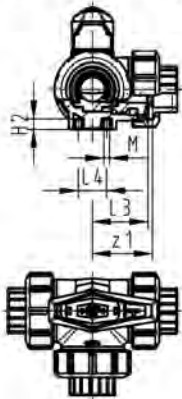
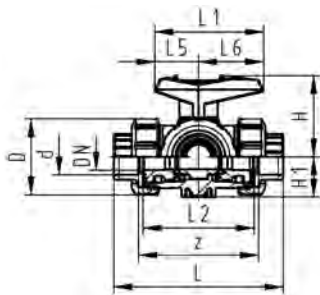
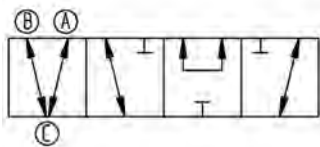
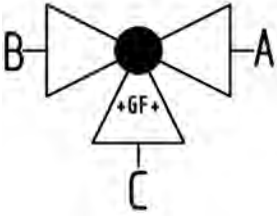
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	146	77	72	36	25	32	45	6	1.9	½
25	58	67	32	8	163	97	85	43	25	39	58	6	1.9	¾
32	68	73	36	8	178	97	98	49	25	39	58	6	2.4	1
40	84	90	45	9	204	128	118	59	45	54	74	8	2.4	1 ¼
50	97	97	51	9	237	128	135	68	45	54	74	8	3.0	1 ½
63	124	116	65	9	296	152	176	88	45	66	87	8	3.0	2



**SYGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With fusion sockets metric**

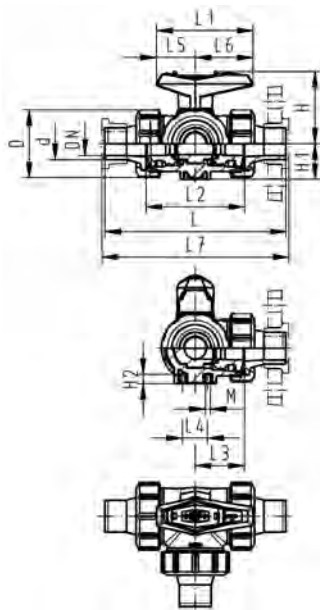
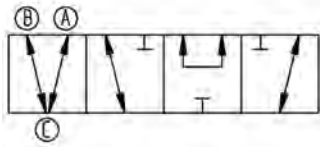
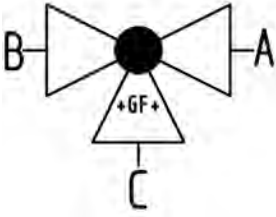
**Model:**

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	140	<b>175 543 111</b>	0.283
20	15	10	200	<b>175 543 112</b>	0.288
25	20	10	470	<b>175 543 113</b>	0.417
32	25	10	793	<b>175 543 114</b>	0.644
40	32	10	1290	<b>175 543 115</b>	1.185
50	40	10	1910	<b>175 543 116</b>	1.613
63	50	10	3100	<b>175 543 117</b>	3.405

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 $\frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 $\frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



**SYGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With socket fusion spigots metric**

**Model:**

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	140	<b>175 543 131</b>	0.287
20	15	10	200	<b>175 543 132</b>	0.330
25	20	10	470	<b>175 543 133</b>	0.478
32	25	10	793	<b>175 543 134</b>	0.726
40	32	10	1290	<b>175 543 135</b>	1.212
50	40	10	1910	<b>175 543 136</b>	1.832
63	50	10	3100	<b>175 543 137</b>	3.566

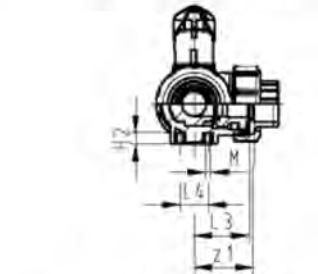
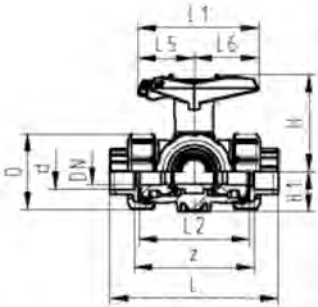
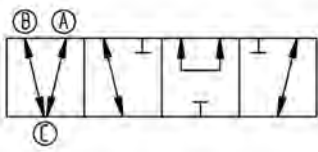
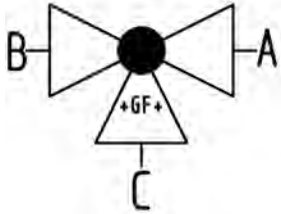
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	M	closest inch (inch)
16	50	57	28	8	126	77	72	36	25	32	45	133	6	3/8
20	50	57	28	8	136	77	72	36	25	32	45	144	6	1/2
25	58	67	32	8	159	97	85	43	25	39	58	170	6	3/4
32	68	73	36	8	178	97	98	49	25	39	58	191	6	1
40	84	90	45	9	204	128	118	59	45	54	74	223	8	1 1/4
50	97	97	51	9	237	128	135	68	45	54	74	256	8	1 1/2
63	124	116	65	9	296	152	176	88	45	66	87	319	8	2



**SYGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With lockable handle**  
**With fusion sockets metric**

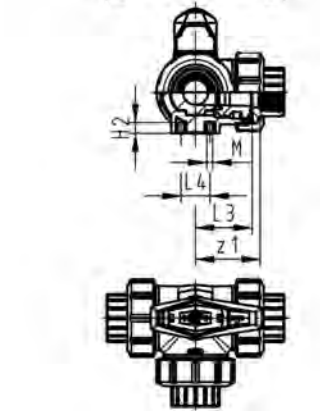
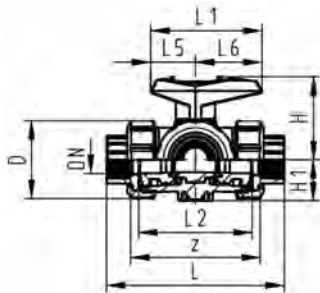
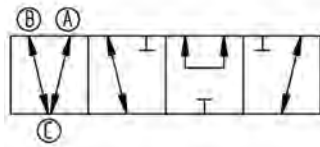
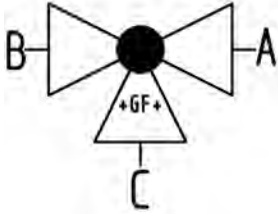
**Model:**

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-B-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	140	<b>175 543 651</b>	0.329
20	15	10	200	<b>175 543 652</b>	0.337
25	20	10	470	<b>175 543 653</b>	0.480
32	25	10	793	<b>175 543 654</b>	0.717
40	32	10	1290	<b>175 543 655</b>	1.215
50	40	10	1910	<b>175 543 656</b>	1.781
63	50	10	3100	<b>175 543 657</b>	3.444

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	79	28	8	110	87	72	36	25	42	45	6	82	41	3/8
20	50	79	28	8	112	87	72	36	25	42	45	6	82	41	1/2
25	58	88	32	8	129	108	85	43	25	50	58	6	97	49	3/4
32	68	94	36	8	146	108	98	49	25	50	58	6	110	55	1
40	84	113	45	9	170	141	118	59	45	66	75	8	132	66	1 1/4
50	97	119	51	9	193	141	135	68	45	66	75	8	151	76	1 1/2
63	124	141	65	9	244	165	176	88	45	78	87	8	188	94	2



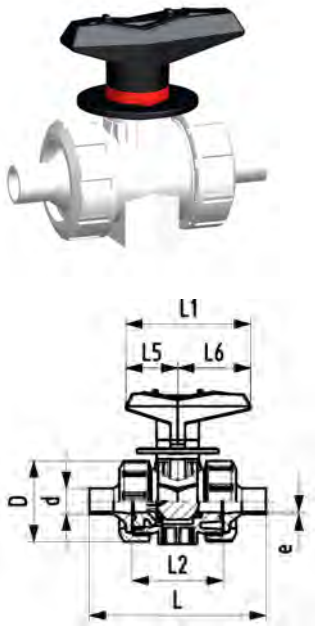
**SYGEF Standard**  
**3-Way ball valve type 543**  
**Horizontal/T-port**  
**With threaded sockets NPT**

**Model:**

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
3/8	10	10	140	<b>175 543 171</b>	0.311
1/2	15	10	200	<b>175 543 172</b>	0.319
3/4	20	10	470	<b>175 543 173</b>	0.458
1	25	10	793	<b>175 543 174</b>	0.695
1 1/4	32	10	1290	<b>175 543 175</b>	1.185
1 1/2	40	10	1910	<b>175 543 176</b>	1.751
2	50	10	3100	<b>175 543 177</b>	3.405

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	50	57	28	8	112	77	72	36	25	32	45	6	86	43
1/2	50	57	28	8	114	77	72	36	25	32	45	6	80	40
3/4	58	67	32	8	131	97	85	43	25	39	58	6	95	48
1	68	73	36	8	154	97	98	49	25	39	58	6	110	55
1 1/4	84	90	45	9	180	128	118	59	45	54	74	8	132	66
1 1/2	97	97	51	9	203	128	135	68	45	54	74	8	157	79
2	124	116	65	9	258	152	176	88	45	66	87	8	210	105



**SYGEF Standard**  
**Metering ball valve type 523**  
**With mounting inserts**  
**With butt fusion spigots IR-Plus metric**

**Model:**

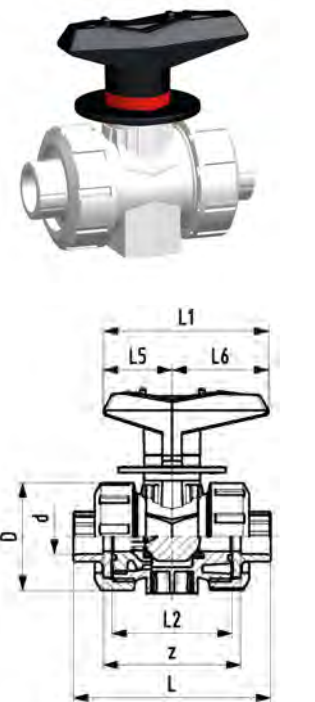
- Material: PVDF
- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Ball seals PTFE
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Z-length, end connectors and union nuts **not compatible** to Type 323

**Option:**

- Other materials on demand

d	DN	PN	kv-value	FPM	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
			(L/min)		
20	15	16	11	<b>175 523 492</b>	0.200

d	D	H	H1	H2	L	L1	L2	L4	L5	L6	M	e	closest
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	inch
													(inch)
20	50	68	27	12	130	77	56	25	32	45	M6	1.9	½



**SYGEF Standard**  
**Metering ball valve type 523**  
**With mounting inserts**  
**With fusion sockets metric**

**Model:**

- Material: PVDF
- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Ball seals PTFE
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Z-length, end connectors and union nuts **not compatible** to Type 323

**Option:**

- Other materials on demand

d	DN	PN	kv-value	FPM	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
			(L/min)		
16	10	16	11	<b>175 523 411</b>	0.200
20	15	16	20	<b>175 523 412</b>	0.200

d	D	H	H1	H2	L	L1	L2	L4	L5	L6	M	z	closest
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	inch
													(inch)
16	50	68	27	12	93	77	56	25	32	45	M6	67	¾
20	50	68	27	12	95	77	56	25	32	45	M6	66	½

## Diaphragm Valve Type 604 / 605

# Packs a punch



The full-plastic diaphragm valve 604 / 605 with integrated pneumatic actuator from GF Piping Systems ensures best flow performance in compact design. With this corrosion free valve we offer an additional product with the most economic price-performance ratio which is suitable for many applications.

### Easy installation and operation

- The compact design enables installation in limited spaces
- No re-torquing needed due to full plastic design without metal parts and screws
- Radially dismountable due to true unions
- Maintenance free
- Same installation length as all GF diaphragm valves and market standard valves
- Integrated optical position feedback
- QR-Code on valve leads to online available product documents

### High safety

- Uniform temperature expansion of plastic/plastic connection prevents leakages
- High chemical resistance due to large material range

### High Flexibility

- Operation options: FC, FO, DA
- Diaphragms available in PTFE, FPM, EPDM for neutral and aggressive media
- Various connection options with true union or spigot version
- Available Standards: Metric, ASTM, BS, JIS
- Best quality and reliability for high number of cycles
- Long lifetime



### Best flow performance

- Linear flow characteristic for simple valve control
- Optimized flow geometry with soft transitions and radii doubles the flow rate
- Suitable for media with low number of particles/solids

### Applications

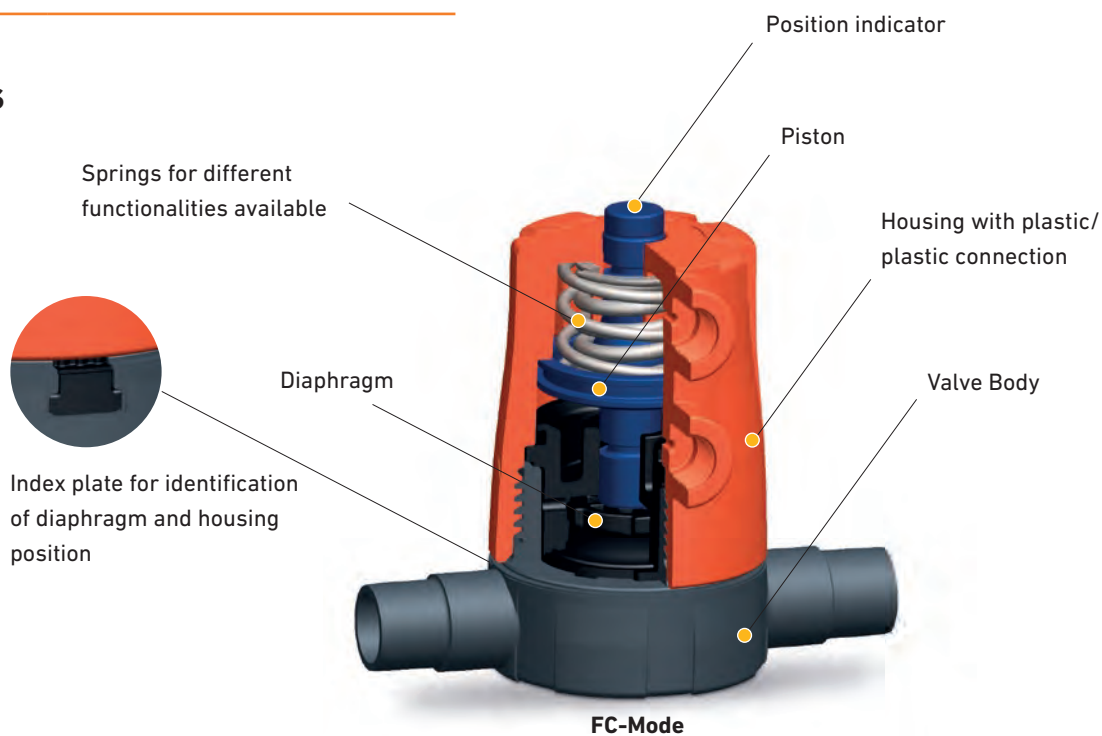
- Chemical Process Industry
- Dosing
- Water Treatment



## + Technical Data

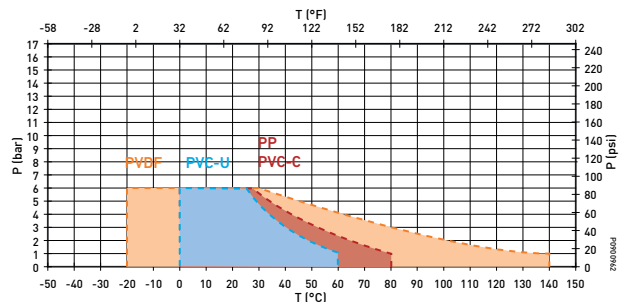
<b>Dimension</b>	DN 15 (1/2")
<b>Pressure Rating</b>	PN 6
<b>Body</b>	PVC-U / CPVC (Polyvinylchlorid) PP-H (Polypropylen) PVDF (Polyvinylidenfluorid) Other materials on request
<b>Diaphragms</b>	PTFE with EPDM Backing Diaphragm PTFE with FPM Backing Diaphragm EPDM FPM
<b>Valve Housing</b>	PP-GF (orange)
<b>Connections</b>	<b>Type 604:</b> Body with true union connection to match all standard GF unions and end-connections  <b>Type 605:</b> Body with cementing resp. welding spigots  Available on request: Various inserts from the GF range
<b>Mounting</b>	Threaded inserts for safe mounting on valve body
<b>Flow</b>	Double flow rate compared to a typical diaphragm valve
<b>Standards</b>	ISO 9393 EN 12266

## + Features



### Pressure-Temperature Diagram

The following Pressure-Temperature Diagram is based on a lifetime of 25 years with water or similar media.



### Diaphragm Valve Type 604 / 605

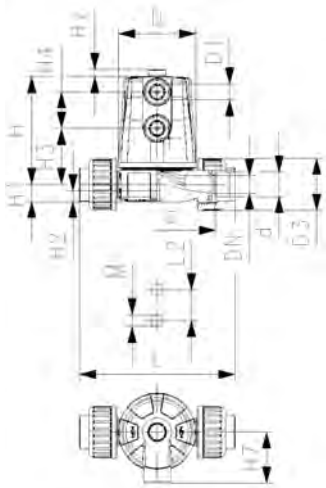
DN	d	inch	Kv 100 l/min	m <sup>3</sup> /h	Cv100 gpm
15	20	1/2"	125	7,5	0,55

#### Kv Values

KV 100 at pressure differential p = 1 bar

CV100 at pressure differential p = 1 psi

# Type 604 / 605



## SYGEF Standard Diaphragm valve type 604 Unions with fusion socket metric

### Model:

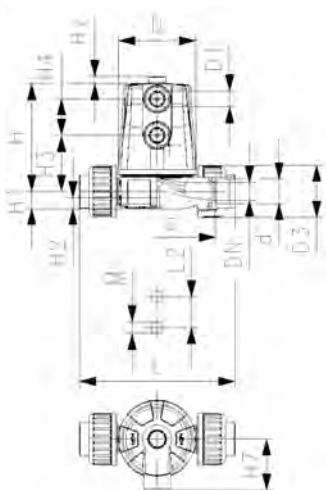
- Material: PVDF
- Compact full plastic design without screws
- High flow rate
- Actuator housing with thread for easy maintenance
- Quick opening & closing times
- For easy installation and removal
- Market standard installation length

### Option:

- Individual configuration of the valve (see diagram)

Actuator	d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	PTFE/EPDM Code
FC	20	15	6	125	<b>185 604 062</b>	0.45	<b>185 604 032</b>
FO	20	15	6	125	<b>185 604 064</b>	0.42	<b>185 604 034</b>
DA	20	15	6	125	<b>185 604 065</b>	0.40	<b>185 604 035</b>

D (mm)	D1_G (inch)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
65	¼	43	89	14	12	46	30	42	128	25	M6	96	6
65	¼	43	89	14	12	46	30	42	128	25	M6	96	6
65	¼	43	89	14	12	46	30	42	128	25	M6	96	6



## SYGEF Standard Diaphragm valve type 604 Unions with butt fusion spigot metric

### Model:

- Material: PVDF
- Compact full plastic design without screws
- High flow rate
- Actuator housing with thread for easy maintenance
- Quick opening & closing times
- For easy installation and removal
- Market standard installation length

### Option:

- Individual configuration of the valve (see diagram)

Actuator	d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	PTFE/EPDM Code
FC	20	15	6	125	<b>185 604 162</b>	0.45	<b>185 604 132</b>
FO	20	15	6	125	<b>185 604 164</b>	0.42	<b>185 604 134</b>
DA	20	15	6	125	<b>185 604 165</b>	0.40	<b>185 604 135</b>

D (mm)	D1_G (inch)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
65	¼	43	89	14	12	46	30	42	196	25	M6	100	6
65	¼	43	89	14	12	46	30	42	196	25	M6	100	6
65	¼	43	89	14	12	46	30	42	196	25	M6	100	6



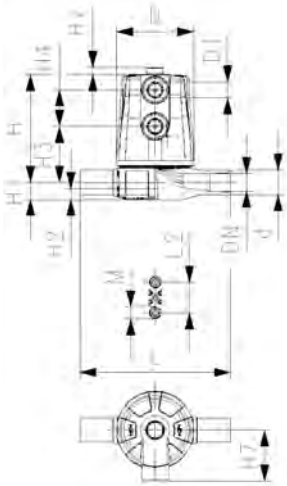
**SYGEF Standard**  
**Diaphragm valve type 605**  
**With butt fusion spigot metric**

**Model:**

- Material: PVDF
- Compact full plastic design without screws
- High flow rate
- Actuator housing with thread for easy maintenance
- Quick opening & closing times
- For easy installation and removal
- Market standard installation length

**Option:**

- Individual configuration of the valve (see diagram)



Actuator	d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	PTFE/EPDM Code
FC	20	15	6	125	<b>185 605 162</b>	0.37	<b>185 605 132</b>
FO	20	15	6	125	<b>185 605 164</b>	0.34	<b>185 605 134</b>
DA	20	15	6	125	<b>185 605 165</b>	0.35	<b>185 605 135</b>

D	D1_G	D3	H	H1	H2	H3	H4	H7	L	L2	e	M	Lift = Hx
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)
65	¼	43	89	14	12	46	30	42	124	25	1.9	M6	6
65	¼	43	89	14	12	46	30	42	124	25	1.9	M6	6
65	¼	43	89	14	12	46	30	42	124	25	1.9	M6	6

## Diaphragm valves



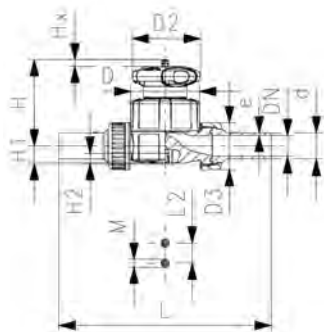
**SYGEF Standard**  
**Diaphragm valve type 514**  
**With butt fusion spigots metric**

**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

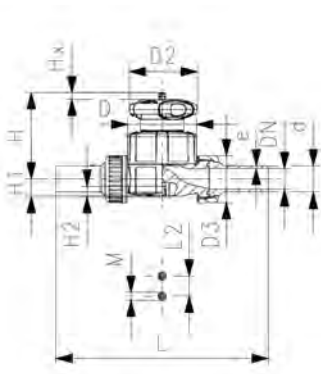
**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code
20	15	10	125	<b>185 514 132</b>	0.381	<b>185 514 152</b>
25	20	10	271	<b>185 514 133</b>	0.555	<b>185 514 153</b>
32	25	10	481	<b>185 514 134</b>	1.048	<b>185 514 154</b>
40	32	10	759	<b>185 514 135</b>	1.401	<b>185 514 155</b>
50	40	10	1263	<b>185 514 136</b>	2.036	<b>185 514 156</b>
63	50	10	1728	<b>185 514 137</b>	3.395	<b>185 514 157</b>

table continued on the next page



d (mm)	D (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	43	73	14	12	196	25	M6	1.9	7	½
25	80	65	53	81	18	12	221	25	M6	1.9	10	¾
32	88	87	60	107	22	12	234	25	M6	2.4	13	1
40	101	87	74	115	26	15	260	45	M8	2.4	15	1 ¼
50	117	135	82	148	32	15	284	45	M8	3.0	19	1 ½
63	144	135	100	166	39	15	321	45	M8	3.0	25	2



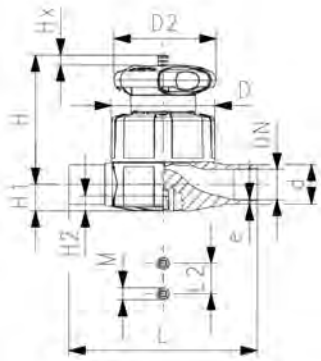
**SYGEF Standard**  
**Diaphragm valve type 515**  
**With butt fusion spigots metric**

**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d (mm)	PTFE/EPDM Code	Weight (kg)
20	<b>185 515 132</b>	0.280
25	<b>185 515 133</b>	0.514
32	<b>185 515 134</b>	0.677
40	<b>185 515 135</b>	0.942
50	<b>185 515 136</b>	2.492
63	<b>185 515 137</b>	2.465

d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	73	14	12	124	25	M6	1.9	7	½
25	80	65	81	18	12	144	25	M6	1.9	10	¾
32	88	87	107	22	12	155	25	M6	2.4	13	1
40	101	87	115	26	15	176	45	M8	2.4	15	1 ¼
50	117	135	148	32	15	193	45	M8	3.0	19	1 ½
63	144	135	166	39	15	223	45	M8	3.0	25	2



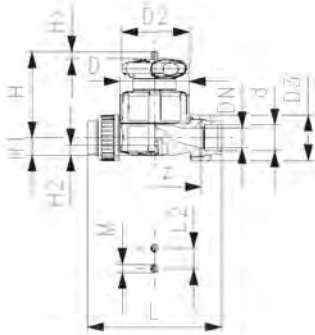
**SYGEF Standard**  
**Diaphragm valve type 514**  
**With fusion sockets metric**

**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (lb)	PTFE/FPM Code	Weight (kg)
20	15	10	125	<b>185 514 032</b>	0.789	<b>185 514 052</b>	0.349
25	20	10	271	<b>185 514 033</b>	1.204	<b>185 514 053</b>	0.546
32	25	10	481	<b>185 514 034</b>	2.136	<b>185 514 054</b>	0.969
40	32	10	759	<b>185 514 035</b>	3.710	<b>185 514 055</b>	1.683
50	40	10	1263	<b>185 514 036</b>	6.464	<b>185 514 056</b>	2.932
63	50	10	1728	<b>185 514 037</b>	6.603	<b>185 514 057</b>	2.995

d (mm)	D (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	43	73	14	12	128	25	M6	100	7	½
25	80	65	53	81	18	12	150	25	M6	118	10	¾
32	88	87	60	107	22	12	162	25	M6	126	13	1
40	101	87	74	115	26	15	184	45	M8	144	15	1 ¼
50	117	135	82	148	32	15	210	45	M8	164	19	1 ½
63	144	135	100	166	39	15	248	45	M8	194	25	2



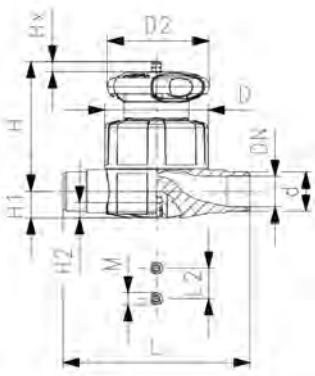
**SYGEF Standard**  
**Diaphragm valve type 515**  
**With socket fusion spigots metric**

**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d (mm)	PTFE/EPDM Code	Weight (kg)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	<b>185 515 032</b>	0.273	65	65	73	14	12	124	25	M6	7	½
25	<b>185 515 033</b>	0.426	80	65	81	18	12	144	25	M6	10	¾
32	<b>185 515 034</b>	0.684	88	87	107	22	12	154	25	M6	13	1
40	<b>185 515 035</b>	1.415	101	87	115	26	15	174	45	M8	15	1 ¼
50	<b>185 515 036</b>	1.652	117	135	148	32	15	194	45	M8	19	1 ½
63	<b>185 515 037</b>	2.569	144	135	166	39	15	223	45	M8	25	2



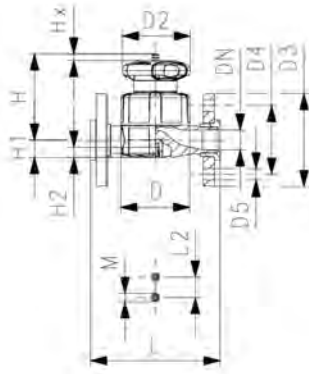
**SYGEF Standard**  
**Diaphragm valve type 517**  
**With backing flanges PP-V metric/BS**

**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	½	10	125	<b>185 517 132</b>	0.586	<b>185 517 152</b>	0.586
25	20	¾	10	271	<b>185 517 133</b>	0.796	<b>185 517 153</b>	0.796
32	25	1	10	481	<b>185 517 134</b>	1.064	<b>185 517 154</b>	1.064
40	32	1 ¼	10	759	<b>185 517 135</b>	2.001	<b>185 517 155</b>	2.001
50	40	1 ½	10	1263	<b>185 517 136</b>	2.369	<b>185 517 156</b>	2.369
63	50	2	10	1728	<b>185 517 137</b>	3.586	<b>185 517 157</b>	3.586

D (mm)	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)
65	65	95	65	14	73	14	12	130	25	M6	7
80	65	105	75	14	81	18	12	150	25	M6	10
88	87	115	85	14	107	22	12	160	25	M6	13
101	87	140	100	18	115	26	15	180	45	M8	15
117	135	150	110	18	148	32	15	200	45	M8	19
144	135	165	125	18	166	39	15	230	45	M8	25



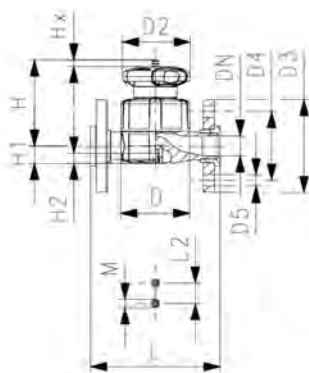
**SYGEF Standard**  
**Diaphragm valve type 517**  
**With backing flanges PP-V Inch ANSI**

**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Jointing face serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

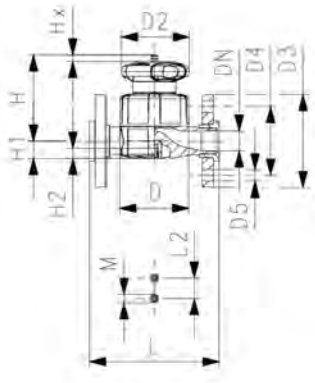
**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code
½	15	10	125	<b>185 517 732</b>	0.586	<b>185 517 752</b>
¾	20	10	271	<b>185 517 733</b>	0.796	<b>185 517 753</b>
1	25	10	481	<b>185 517 734</b>	1.050	<b>185 517 754</b>
1 ¼	32	10	759	<b>185 517 735</b>	2.001	<b>185 517 755</b>
1 ½	40	10	1263	<b>185 517 736</b>	3.147	<b>185 517 756</b>
2	50	10	1728	<b>185 517 737</b>	3.514	<b>185 517 757</b>

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Size (inch)	D (mm)	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)
½	65	65	95	60	16	73	14	12	130	25	M6	7
¾	80	65	105	70	16	81	18	12	150	25	M6	10
1	88	87	115	79	16	107	22	12	160	25	M6	13
1 ¼	101	87	140	89	16	115	26	15	180	45	M8	15
1 ½	117	135	150	98	16	148	32	15	200	45	M8	19
2	144	135	165	121	19	166	39	15	230	45	M8	25

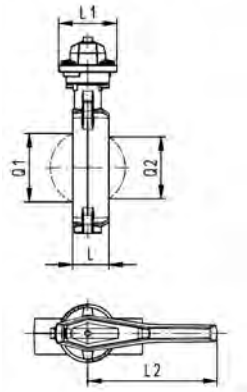
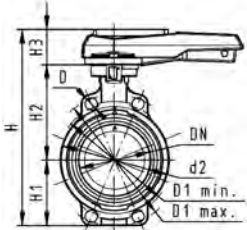
# Butterfly valves



## SYGEF Standard Butterfly valve type 567 Hand lever with ratchet settings

### Model:

- Material: PVDF
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version



d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	PTFE Code	Weight (kg)
63	50	2	10	1470	<b>175 567 002</b>	<b>175 567 202</b>	1.080
75	65	2 1/2	10	2200	<b>175 567 003</b>	<b>175 567 203</b>	1.192
90	80	3	10	3000	<b>175 567 004</b>	<b>175 567 204</b>	1.992
110	100	4	10	6500	<b>175 567 005</b>	<b>175 567 205</b>	2.072
140	125	5	10	11500	<b>175 567 006</b>	<b>175 567 206</b>	2.667
160	150	6	10	16600	<b>175 567 007</b>	<b>175 567 207</b>	3.887
225	200	8	10	39600	<b>175 567 008</b>	<b>175 567 208</b>	7.242
280	250	10	10	55200	<b>175 567 009</b>	<b>175 567 209</b>	14.623
315	300	12	10	80000	<b>175 567 010</b>	<b>175 567 210</b>	19.513

d (mm)	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	104	19	120	125	264	77	134	54	45	106	205	40	
75	115	19	140	145	277	83	140	54	46	106	205	54	35
90	131	19	150	160	289	89	146	54	49	106	205	67	50
110	161	19	175	191	325	104	167	55	56	106	255	88	74
140	187	23	210	216	352	117	181	55	64	106	255	113	97
160	215	24	241	241	373	130	189	55	72	106	255	139	123
225	267	23	290	295	435	158	210	67	73	140	408	178	169
280	329	25	353	362	554	205	264	85	113	149	408	210	207
315	379	25	400	432	598	228	285	85	113	149	408	256	253

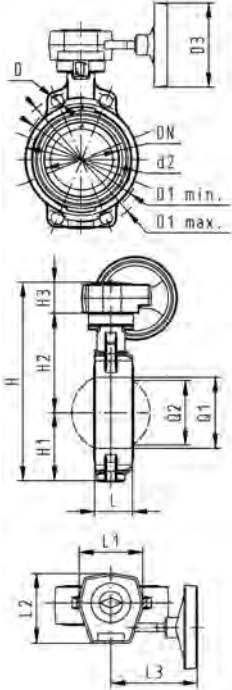




**SYGEF Standard**  
**Butterfly valve type 567**  
**Reduction gear with handwheel**

**Model:**

- Material: PVDF
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220



d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	PTFE Code	Weight (kg)
63	50	2	10	1470	<b>175 567 022</b>	3.118	<b>175 567 222</b>	3.118
75	65	2 ½	10	2200	<b>175 567 023</b>	3.230	<b>175 567 223</b>	3.230
90	80	3	10	3000	<b>175 567 024</b>	3.410	<b>175 567 224</b>	3.534
110	100	4	10	6500	<b>175 567 025</b>	4.062	<b>175 567 225</b>	4.062
140	125	5	10	11500	<b>175 567 026</b>	4.657	<b>175 567 226</b>	4.657
160	150	6	10	16600	<b>175 567 027</b>	5.974	<b>175 567 227</b>	5.877
225	200	8	10	39600	<b>175 567 028</b>	7.797	<b>175 567 228</b>	7.810
280	250	10	10	55200	<b>175 567 029</b>	15.441	<b>175 567 229</b>	15.410
315	300	12	10	80000	<b>175 567 030</b>	20.763	<b>175 567 230</b>	36.000

d (mm)	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)
63	104	19	120	125	150	278	77	134	50	45	110	120	155	40
75	115	19	140	145	150	291	83	140	50	46	110	120	155	54
90	131	19	150	160	150	303	89	146	50	49	110	120	155	67
110	160	19	175	191	150	339	104	167	50	56	110	120	155	88
140	187	23	210	216	150	365	117	181	50	64	110	120	155	113
160	215	24	241	241	150	387	130	189	50	72	110	120	155	139
225	267	23	290	295	150	436	158	210	50	73	110	120	155	178
280	329	25	353	362	200	529	205	264	55	113	130	140	200	210
315	379	25	400	432	200	573	228	285	55	113	130	140	200	256

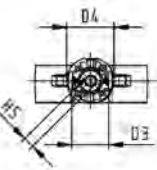
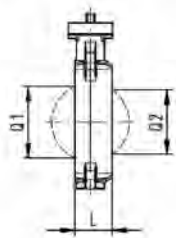
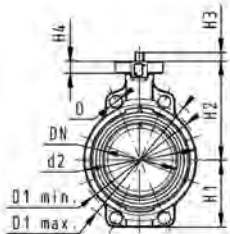
d (mm)	Q2 (mm)
63	
75	35
90	50
110	74
140	97
160	123
225	169
280	207
315	253



**SYGEP Standard**  
**Butterfly valve type 567**  
**Bare shaft**

**Model:**

- Material: PVDF
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Interface F07 for the dimensions DN50-200 according to DIN/ISO 5211
- Interface F10 for the dimensions DN250-300 according to DIN/ISO 5211



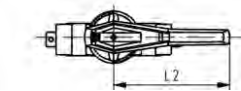
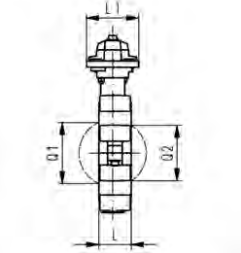
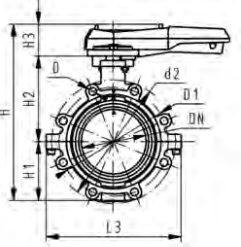
d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	PTFE Code	Weight (kg)
63	50	2	10	1470	<b>175 567 822</b>	0.858	<b>175 567 842</b>	0.858
75	65	2 ½	10	2200	<b>175 567 823</b>	0.970	<b>175 567 843</b>	0.970
90	80	3	10	3000	<b>175 567 824</b>	1.162	<b>175 567 844</b>	1.150
110	100	4	10	6500	<b>175 567 825</b>	1.802	<b>175 567 845</b>	1.802
140	125	5	10	11500	<b>175 567 826</b>	2.397	<b>175 567 846</b>	2.397
160	150	6	10	16600	<b>175 567 827</b>	3.617	<b>175 567 847</b>	3.617
225	200	8	10	39600	<b>175 567 828</b>	5.738	<b>175 567 848</b>	5.738
280	250	10	10	55200	<b>175 567 829</b>	12.673	<b>175 567 849</b>	12.673
315	300	12	10	80000	<b>175 567 830</b>	17.563	<b>175 567 850</b>	17.563

d (mm)	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	D3 (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	Q1 (mm)
63	104	19	120	125	70	90	222	77	134	27	23	11	45	40
75	115	19	140	145	70	90	235	83	140	27	23	11	46	54
90	131	19	150	160	70	90	247	89	146	27	23	11	49	67
110	161	19	175	191	70	90	287	104	167	16	23	14	56	88
140	187	23	210	216	70	90	313	117	181	16	23	14	64	113
160	215	24	241	241	70	90	335	130	189	19	23	17	72	139
225	267	23	290	295	70	90	387	158	210	19	23	17	73	178
280	329	25	353	362	102	125	509	205	264	40	23	22	113	210
315	379	25	400	432	102	125	553	228	285	40	23	22	113	256

d (mm)	Q2 (mm)
63	
75	35
90	50
110	74
140	97
160	123
225	169
280	207
315	253

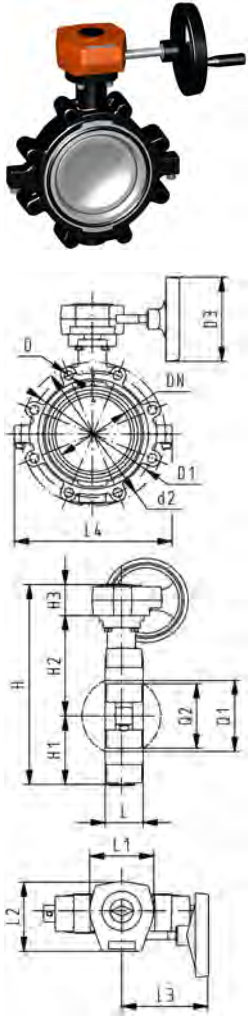


**SYGEF Standard**  
**Lugstyle butterfly valve type 568**  
**Hand lever with ratchet settings**



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	PTFE Code	Weight (lb)
63	2	50	10	1470	<b>175 568 002</b>	<b>175 568 202</b>	6.989
75	2 ½	65	10	2200	<b>175 568 003</b>	<b>175 568 203</b>	7.789
90	3	80	10	3000	<b>175 568 004</b>	<b>175 568 204</b>	10.119
110	4	100	10	6500	<b>175 568 005</b>	<b>175 568 205</b>	13.603
140	5	125	10	11500	<b>175 568 006</b>	<b>175 568 206</b>	17.970
160	6	150	10	16600	<b>175 568 007</b>	<b>175 568 207</b>	22.862
225	8	200	10	39600	<b>175 568 008</b>	<b>175 568 208</b>	36.423

d (mm)	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	150	M16	125	265	77	134	54	45	106	205	150	40	
75	170	M16	145	277	83	140	54	46	106	205	160	54	35
90	184	M16	160	289	89	146	54	49	106	205	205	67	50
110	216	M16	180	326	104	167	55	56	106	255	244	88	74
140	246	M16	210	353	117	181	55	64	106	255	272	113	97
160	273	M20	240	374	130	189	55	72	106	255	297	139	123
225	334	M20	295	435	158	210	67	73	140	408	360	178	169



**SYGEF Standard**  
**Lugstyle butterfly valve type 568**  
**Reduction gear with handwheel**

d	Size	DN	PN	kv-value	FPM	PTFE	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	Code	(lb)
				(l/min)			
63	2	50	10	1470	<b>175 568 022</b>	<b>175 568 222</b>	11.482
75	2 ½	65	10	2200	<b>175 568 023</b>	<b>175 568 223</b>	12.282
90	3	80	10	3000	<b>175 568 024</b>	<b>175 568 224</b>	14.612
110	4	100	10	6500	<b>175 568 025</b>	<b>175 568 225</b>	17.990
140	5	125	10	11500	<b>175 568 026</b>	<b>175 568 226</b>	22.357
160	6	150	10	16600	<b>175 568 027</b>	<b>175 568 227</b>	27.249
225	8	200	10	39600	<b>175 568 028</b>	<b>175 568 228</b>	39.626

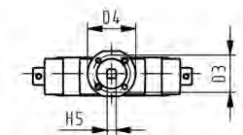
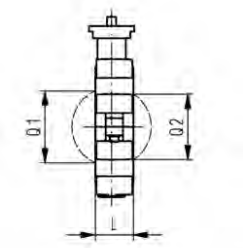
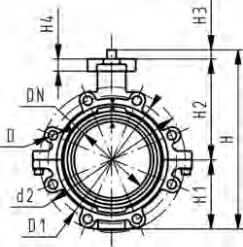
d	d2	D	D1	D3	H	H1	H2	H3	L	L1	L2	L3	L4	Q1	Q2
(mm)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	150	M16	125	150	279	77	134	50	45	110	120	155	150	40	
75	170	M16	145	150	291	83	140	50	46	110	120	155	160	54	35
90	184	M16	160	150	303	89	146	50	49	110	120	155	205	67	50
110	216	M16	180	150	339	104	167	50	56	110	120	155	244	88	74
140	246	M16	210	150	366	117	181	50	64	110	120	155	272	113	97
160	273	M20	240	150	387	130	189	50	72	110	120	155	297	139	123
225	334	M20	295	150	436	158	210	50	73	110	120	155	360	178	169



**SYGEF Standard**  
**Lugstyle butterfly valve type 568**  
**Bare shaft**

**Model:**

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Interface F07 according to DIN/ISO 5211



d	Size	DN	PN	kv-value	FPM	Weight	PTFE	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)	Code	(kg)
				(l/min)				
63	2	50	10	1470	<b>175 568 822</b>	2.948	<b>175 568 842</b>	2.948
75	2 ½	65	10	2200	<b>175 568 823</b>	3.311	<b>175 568 843</b>	3.311
90	3	80	10	3000	<b>175 568 824</b>	4.368	<b>175 568 844</b>	4.368
110	4	100	10	6500	<b>175 568 825</b>	5.900	<b>175 568 845</b>	5.900
140	5	125	10	11500	<b>175 568 826</b>	7.881	<b>175 568 846</b>	7.881
160	6	150	10	16600	<b>175 568 827</b>	10.100	<b>175 568 847</b>	10.100
225	8	200	10	39600	<b>175 568 828</b>	15.714	<b>175 568 848</b>	15.714

d	d2	D	D1	D3	D4	H	H1	H2	H3	H4	L	Q1	Q2
(mm)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	150	M16	125	70	90	238	77	134	27	23	45	40	
75	170	M16	145	70	90	250	83	140	27	23	46	54	35
90	184	M16	160	70	90	262	89	146	27	23	49	67	50
110	216	M16	180	70	90	287	104	167	16	23	56	88	74
140	246	M16	210	70	90	314	117	181	16	23	64	113	97
160	273	M20	240	70	90	338	130	189	19	23	72	139	123
225	334	M20	295	70	90	387	158	210	19	23	73	178	169

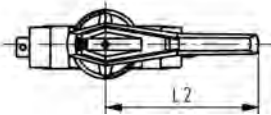
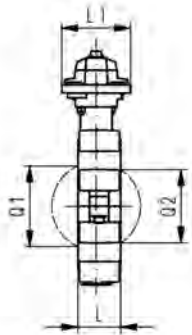
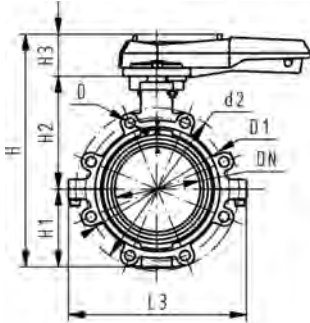


**SYGEF Standard**  
**Lugstyle butterfly valve 568 ANSI**  
**Hand lever with ratchet settings**

**Model:**

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Overall length according to EN 558, ISO 5752
- Connecting dimension ANSI/ASME B 16.5 Class 150

Model with PTFE seal in DN50 - DN80 on request



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	PTFE Code	Weight (kg)
63	2	50	10	1470	<b>175 568 102</b>	3.170	<b>175 568 302</b>	3.170
75	2 ½	65	10	2200	<b>175 568 103</b>	3.533	<b>175 568 303</b>	3.533
90	3	80	10	3000	<b>175 568 104</b>	3.961	<b>175 568 304</b>	3.961
110	4	100	10	6500	<b>175 568 105</b>	6.170	<b>175 568 305</b>	6.170
140	5	125	10	11500	<b>175 568 106</b>	8.151	<b>175 568 306</b>	8.151
160	6	150	10	16600	<b>175 568 107</b>	10.370	<b>175 568 307</b>	10.370
225	8	200	10	39600	<b>175 568 108</b>	16.521	<b>175 568 308</b>	16.521

d (mm)	Size (inch)	d2 (mm)	D	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	2	150	UNC 5/8	121	265	77	134	54	45	106	205	150	40	
75	2 ½	170	UNC 5/8	138	277	83	140	54	46	106	205	160	54	35
90	3	177	UNC 5/8	152	289	89	146	54	49	106	205	175	67	50
110	4	216	UNC 5/8	191	326	104	167	55	56	106	255	244	88	74
140	5	246	UNC 3/4	216	353	117	181	55	64	106	255	272	113	97
160	6	273	UNC 3/4	241	374	130	189	55	72	106	255	297	139	123
225	8	334	UNC 3/4	298	435	158	210	67	73	140	408	360	178	169

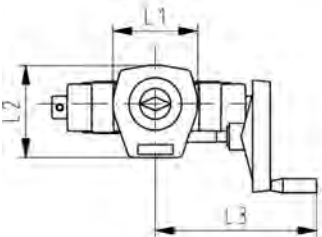
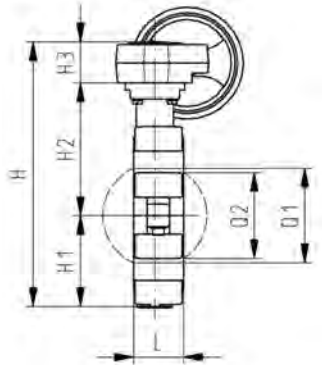
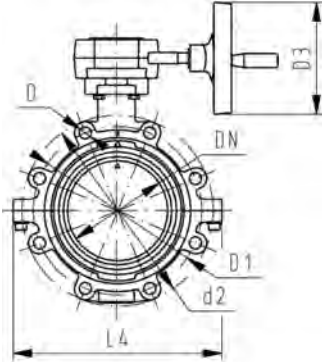


**SYGEF Standard**  
**Lugstyle butterfly valve 568 ANSI**  
**Reduction gear with handwheel**

**Model:**

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Overall length according to EN 558, ISO 5752
- Connecting dimension ANSI/ASME B 16.5 Class 150

Model with PTFE seal in DN50 - DN80 on request



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	PTFE Code	Weight (kg)
63	2	50	10	1470	175 568 122	5.208	175 568 322	5.208
75	2 ½	65	10	2200	175 568 123	5.571	175 568 323	5.571
90	3	80	10	3000	175 568 124	5.999	175 568 324	5.999
110	4	100	10	6500	175 568 125	8.160	175 568 325	8.160
140	5	125	10	11500	175 568 126	10.141	175 568 326	10.141
160	6	150	10	16600	175 568 127	12.360	175 568 327	12.360
225	8	200	10	39600	175 568 128	17.974	175 568 328	17.974

d (mm)	Size (inch)	d2 (mm)	D	D1	D3	H	H1	H2	H3	L	L1	L2	L3	L4	Q1
63	2	150	UNC 5/8	121	150	279	77	134	50	45	110	120	155	150	40
75	2 ½	170	UNC 5/8	138	150	291	83	140	50	46	110	120	155	160	54
90	3	177	UNC 5/8	152	150	303	89	146	50	49	110	120	155	175	67
110	4	216	UNC 5/8	191	150	339	104	167	50	56	110	120	155	244	88
140	5	246	UNC 3/4	216	150	366	117	181	50	64	110	120	155	272	113
160	6	273	UNC 3/4	241	150	387	130	189	50	72	110	120	155	297	139
225	8	334	UNC 3/4	298	150	436	158	210	50	73	110	120	155	360	178

d (mm)	Size (inch)	Q2 (mm)
63	2	
75	2 ½	35
90	3	50
110	4	74
140	5	97
160	6	123
225	8	169

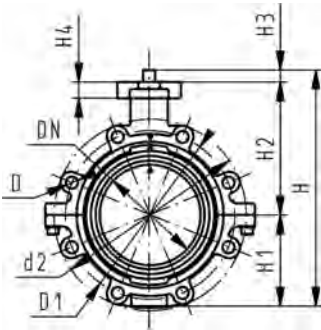


**SYGEF Standard  
Lugstyle butterfly valve 568 ANSI  
Bare shaft**

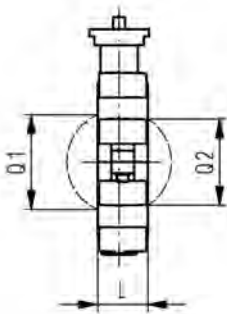
**Model:**

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Overall length according to EN 558, ISO 5752
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Interface F07 according to DIN/ISO 5211

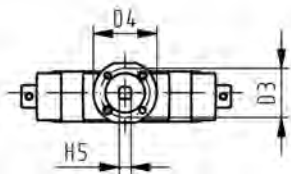
Model with PTFE seal in DN50 - DN80 on request



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	PTFE Code	Weight (kg)
63	2	50	10	1470	<b>175 568 922</b>	2.948	<b>175 568 942</b>	2.948
75	2 ½	65	10	2200	<b>175 568 923</b>	3.311	<b>175 568 943</b>	3.311
90	3	80	10	3000	<b>175 568 924</b>	3.739	<b>175 568 944</b>	3.739
110	4	100	10	6500	<b>175 568 925</b>	5.900	<b>175 568 945</b>	5.900
140	5	125	10	11500	<b>175 568 926</b>	7.881	<b>175 568 946</b>	7.881
160	6	150	10	16600	<b>175 568 927</b>	10.100	<b>175 568 947</b>	10.100
225	8	200	10	39600	<b>175 568 928</b>	15.714	<b>175 568 948</b>	15.714



d (mm)	Size (inch)	d2 (mm)	D	D1 (mm)	D3 (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	Q1 (mm)	Q2 (mm)
63	2	150	UNC 5/8	121	70	90	238	77	134	27	23	45	40	
75	2 ½	170	UNC 5/8	138	70	90	250	83	140	27	23	46	54	35
90	3	177	UNC 5/8	152	70	90	247	89	146	27	23	49	67	50
110	4	216	UNC 5/8	191	70	90	287	104	167	16	23	56	88	74
140	5	246	UNC 3/4	216	70	90	314	117	181	16	23	64	113	97
160	6	273	UNC 3/4	241	70	90	338	130	189	19	23	72	139	123
225	8	334	UNC 3/4	298	70	90	387	158	210	19	23	73	178	169







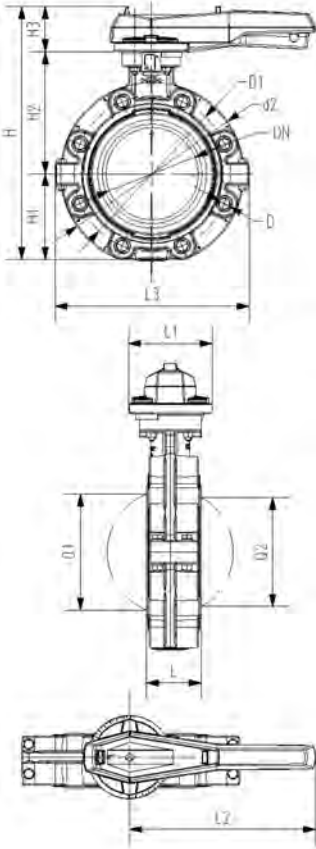
**SYGEF Standard**  
**Lugstyle butterfly valve type 578**  
**Hand lever with ratchet settings**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
63	2	50	10	1470	<b>175 578 002</b>	1.800
75	2 ½	65	10	2200	<b>175 578 003</b>	1.895
90	3	80	10	3000	<b>175 578 004</b>	2.251
110	4	100	10	6500	<b>175 578 005</b>	3.146
140	5	125	10	11500	<b>175 578 006</b>	4.660
160	6	150	10	16600	<b>175 578 007</b>	6.430
225	8	200	10	39600	<b>175 578 008</b>	8.625
280	10	250	10	55200	<b>175 578 009</b>	19.528
315	12	300	10	80000	<b>175 578 010</b>	26.106

d (mm)	d2 (mm)	D	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	160	M16	125	265	77	134	54	45	106	205	165	40	
75	180	M16	145	277	83	140	54	46	106	205	182	54	35
90	195	M16	160	289	89	146	54	49	106	205	210	67	50
110	226	M16	180	326	106	167	55	56	106	255	240	88	74
140	258	M16	210	357	121	181	55	64	106	255	272	113	97
160	284	M20	240	377	133	189	55	72	106	255	300	139	123
225	341	M20	295	436	159	210	67	73	140	408	360	178	169
280	412	M20	350	536	205	264	67	113	140	408	440	210	207
315	482	M20	400	586	234	285	67	113	140	408	510	256	253



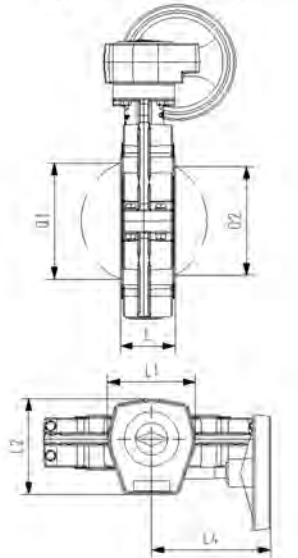
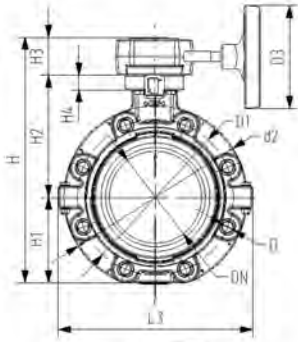
**SYGEF Standard**  
**Lugstyle butterfly valve type 578**  
**Reduction gear with handwheel**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
63	2	50	10	1470	<b>175 578 022</b>	3.562
75	2 ½	65	10	2200	<b>175 578 023</b>	3.721
90	3	80	10	3000	<b>175 578 024</b>	3.929
110	4	100	10	6500	<b>175 578 025</b>	4.834
140	5	125	10	11500	<b>175 578 026</b>	6.348
160	6	150	10	16600	<b>175 578 027</b>	8.109
225	8	200	10	39600	<b>175 578 028</b>	9.353
280	10	250	10	55200	<b>175 578 029</b>	21.210
315	12	300	10	80000	<b>175 578 030</b>	27.746

d (mm)	d2 (mm)	D	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	Q1 (mm)	Q2 (mm)
63	160	M16	125	150	261	77	134	50	45	110	120	165	155	40	
75	180	M16	145	150	273	83	140	50	46	110	120	182	155	54	35
90	195	M16	160	150	285	89	146	50	49	110	120	210	155	67	50
110	226	M16	180	150	323	106	167	50	56	110	120	240	155	88	74
140	258	M16	210	150	352	121	181	50	64	110	120	272	155	113	97
160	284	M20	240	150	372	133	189	50	72	110	120	300	155	139	123
225	341	M20	295	150	419	159	210	50	73	110	120	360	155	178	169
280	412	M20	350	200	524	205	264	55	113	130	140	440	200	210	207
315	482	M20	400	200	574	234	285	55	113	130	140	510	200	256	253

**SYGEF Standard**  
**Lugstyle butterfly valve type 578**  
**Bare shaft**

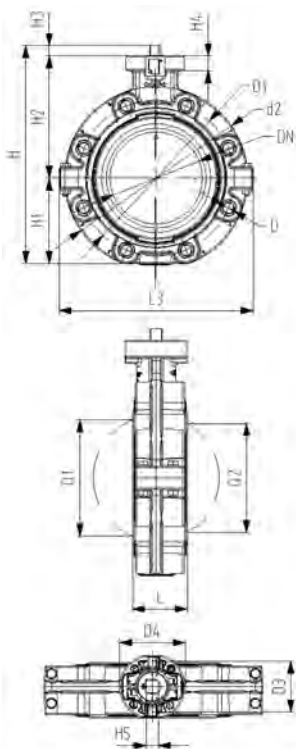


**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Interface F07 according to DIN/ISO 5211
- Interface F10 for the dimensions DN250-300 according to DIN/ISO 5211

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
63	2	50	10	1470	<b>175 578 822</b>	1.299
75	2 ½	65	10	2200	<b>175 578 823</b>	1.456
90	3	80	10	3000	<b>175 578 824</b>	1.701
110	4	100	10	6500	<b>175 578 825</b>	2.606
140	5	125	10	11500	<b>175 578 826</b>	4.120
160	6	150	10	16600	<b>175 578 827</b>	5.881
225	8	200	10	39600	<b>175 578 828</b>	7.125
280	10	250	10	55200	<b>175 578 829</b>	17.880
315	12	300	10	80000	<b>175 578 830</b>	24.416

d (mm)	d2 (mm)	D	D1 (mm)	D3 (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	Q1 (mm)	Q2 (mm)
63	160	M16	125	70	90	238	77	134	27	23	11	45	40	
75	180	M16	145	70	90	250	83	140	27	23	11	46	54	35
90	195	M16	160	70	90	262	89	146	27	23	11	49	67	50
110	226	M16	180	70	90	289	106	167	16	23	14	56	88	74
140	258	M16	210	70	90	318	121	181	16	23	14	64	113	97
160	284	M20	240	70	90	341	133	189	19	23	17	72	139	123
225	341	M20	295	70	90	388	159	210	19	23	17	73	178	169
280	412	M20	350	102	125	509	205	264	40	23	22	113	210	207
315	482	M20	400	102	125	559	234	285	40	23	22	113	256	253



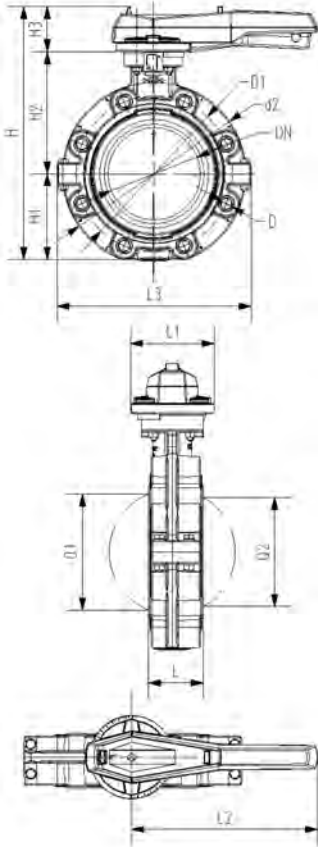
**SYGEF Standard**  
**Lugstyle butterfly valve 578 ANSI**  
**Hand lever with ratchet settings**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
				(l/min)		
63	2	50	10	1470	<b>175 578 102</b>	1.800
75	2 ½	65	10	2200	<b>175 578 103</b>	1.895
90	3	80	10	3000	<b>175 578 104</b>	2.251
110	4	100	10	6500	<b>175 578 105</b>	3.146
140	5	125	10	11500	<b>175 578 106</b>	4.660
160	6	150	10	16600	<b>175 578 107</b>	6.430
225	8	200	10	39600	<b>175 578 108</b>	8.625
280	10	300	10	55200	<b>175 578 109</b>	19.528
315	12	250	10	80000	<b>175 578 110</b>	26.106

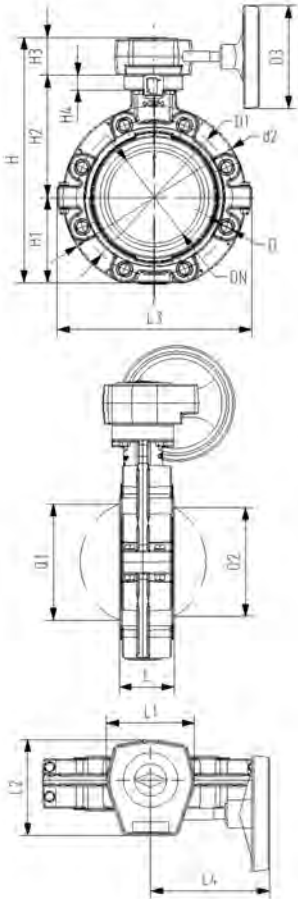
d	Size	d2	D	D1	H	H1	H2	H3	L	L1	L2	L3	Q1	Q2
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	2	160	UNC 5/8	120.6	265	77	134	54	45	106	205	165	40	
75	2 ½	180	UNC 5/8	139.7	277	83	140	54	46	106	205	182	54	35
90	3	195	UNC 5/8	152.4	289	89	146	54	49	106	205	210	67	50
110	4	226	UNC 5/8	190.5	328	106	167	55	56	106	255	240	88	74
140	5	258	UNC 3/4	215.9	357	121	181	55	64	106	255	272	113	97
160	6	284	UNC 3/4	241.3	377	133	189	55	72	106	255	300	139	123
225	8	341	UNC 3/4	298.4	436	159	210	67	73	140	408	360	178	169
280	10	412	UNC 7/8	362.0	536	205	264	67	114	140	408	440	210	207
315	12	482	UNC 7/8	431.8	586	234	285	67	115	140	408	510	256	253



**SYGEF Standard**  
**Lugstyle butterfly valve 578 ANSI**  
**Reduction gear with handwheel**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
63	2	50	10	1470	175 578 122	3.562
75	2 ½	65	10	2200	175 578 123	3.721
90	3	80	10	3000	175 578 124	3.929
110	4	100	10	6500	175 578 125	4.834
140	5	125	10	11500	175 578 126	6.348
160	6	150	10	16600	175 578 127	8.109
225	8	200	10	39600	175 578 128	9.353
280	10	250	10	55200	175 578 129	21.210
315	12	300	10	80000	175 578 130	27.746

d (mm)	Size (inch)	d2 (mm)	D	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)
63	2	160	UNC 5/8	120.6	150	261	77	134	50	45	110	120	165	155
75	2 ½	180	UNC 5/8	139.7	150	273	83	140	50	46	110	120	182	155
90	3	195	UNC 5/8	152.4	150	285	89	146	50	49	110	120	210	155
110	4	226	UNC 5/8	190.5	150	323	106	167	50	56	110	120	240	155
140	5	258	UNC 3/4	215.9	150	352	121	181	50	64	110	120	272	155
160	6	284	UNC 3/4	241.3	150	372	133	189	50	72	110	120	300	155
225	8	341	UNC 3/4	298.4	150	419	159	210	50	73	110	120	360	155
280	10	412	UNC 7/8	362.0	200	524	205	264	55	113	130	140	440	200
315	12	482	UNC 7/8	431.8	200	574	234	285	55	113	130	140	510	200

d (mm)	Size (inch)	Q1 (mm)	Q2 (mm)
63	2	40	
75	2 ½	54	35
90	3	67	50
110	4	88	74
140	5	113	97
160	6	139	123
225	8	178	169
280	10	210	207
315	12	256	253

**SYGEF Standard**  
**Lugstyle butterfly valve 578 ANSI**  
**Bare shaft**

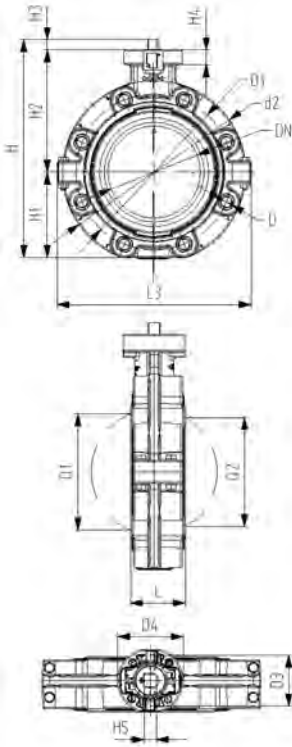


**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Interface F10 for the dimensions DN250-300 according to DIN/ISO 5211
- Interface F07 according to DIN/ISO 5211

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
				(l/min)		
63	2	50	10	1470	<b>175 578 922</b>	1.299
75	2 ½	65	10	2200	<b>175 578 923</b>	1.456
90	3	80	10	3000	<b>175 578 924</b>	1.701
110	4	100	10	6500	<b>175 578 925</b>	2.606
140	5	125	10	11500	<b>175 578 926</b>	4.120
160	6	150	10	16600	<b>175 578 927</b>	5.881
225	8	200	10	39600	<b>175 578 928</b>	7.125
280	10	250	10	55200	<b>175 578 929</b>	17.880
315	12	300	10	80000	<b>175 578 930</b>	24.416

d	Size	d2	D	D1	D3	D4	H	H1	H2	H3	H4	H5	L	L3
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	2	160	UNC 5/8	120.6	70	90	238	77	134	27	23	11	45	165
75	2 ½	180	UNC 5/8	139.7	70	90	250	83	140	27	23	11	46	182
90	3	195	UNC 5/8	152.4	70	90	262	89	146	27	23	11	49	210
110	4	226	UNC 5/8	190.5	70	90	289	106	167	16	23	14	56	240
140	5	258	UNC 3/4	215.9	70	90	318	121	181	16	23	14	64	272
160	6	285	UNC 3/4	241.3	70	90	341	133	189	19	23	17	72	300
225	8	341	UNC 3/4	298.4	70	90	388	159	210	19	23	17	73	360
280	10	412	UNC 7/8	362.0	102	125	509	205	264	40	23	22	113	440
315	12	482	UNC 7/8	431.8	102	125	559	234	285	40	23	22	113	510

d	Size	Q1	Q2
(mm)	(inch)	(mm)	(mm)
63	2	40	
75	2 ½	54	35
90	3	67	50
110	4	88	74
140	5	113	97
160	6	139	123
225	8	178	169
280	10	210	207
315	12	256	253

# Pressure regulating valves

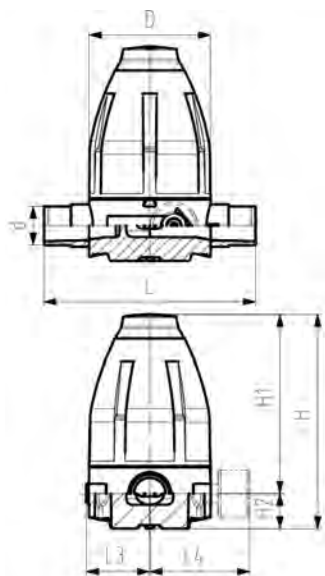


**SYGEF Standard**  
**Pressure reducing valve type 582**  
**With butt fusion spigots metric**  
**Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request  
 Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings FPM Code	Weight (kg)
20	15	10	<b>185 582 012</b>	0.700
25	20	10	<b>185 582 013</b>	1.550
32	25	10	<b>185 582 014</b>	1.560
40	32	10	<b>185 582 015</b>	4.370
50	40	10	<b>185 582 016</b>	4.400
63	50	10	<b>185 582 017</b>	4.520

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L3 (mm)	L5 (mm)	M	closest inch (inch)
20	79	132	111	21	14	150	42	40	M6	½
25	100	177	148	29	14	190	53	46	M6	¾
32	100	177	148	29	14	190	53	46	M6	1
40	147	251	207	44	21	240	76	65	M8	1 ¼
50	147	251	207	44	21	240	76	65	M8	1 ½
63	147	251	207	44	21	260	76	65	M8	2



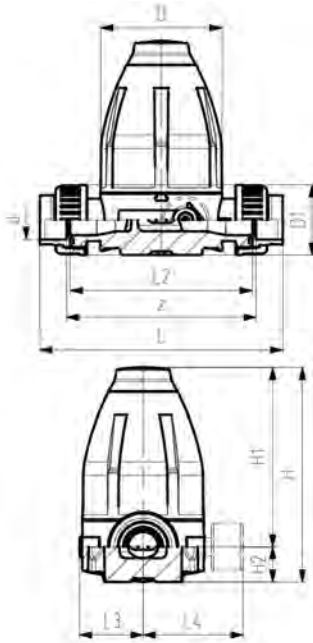
**SYGEF Standard**  
**Pressure reducing valve type 582**  
**With fusion sockets metric**  
**Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d	DN	PN	O-rings	FPM	Weight
(mm)	(mm)	(bar)	Code		(kg)
20	15	10	185	582 112	0.780
25	20	10	185	582 113	1.650
32	25	10	185	582 114	1.700
40	32	10	185	582 115	4.530
50	40	10	185	582 116	4.750
63	50	10	185	582 117	5.050

d	D	D1	H	H1	H2	H3	L	L2	L3	L5	M	z	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(inch)
20	79	43	132	111	21	12	158	120	42	40	M6	130	1/2
25	100	53	177	148	29	14	192	150	53	46	M6	160	3/4
32	100	60	177	148	29	14	196	150	53	46	M6	160	1
40	147	74	251	207	44	21	255	205	76	65	M8	215	1 1/4
50	147	82	251	207	44	21	261	205	76	65	M8	215	1 1/2
63	147	100	251	207	44	21	269	205	76	65	M8	215	2



**SYGEF Standard**  
**Pressure reducing valve type 582**  
**Unions with butt fusion spigots metric**  
**Without manometer**

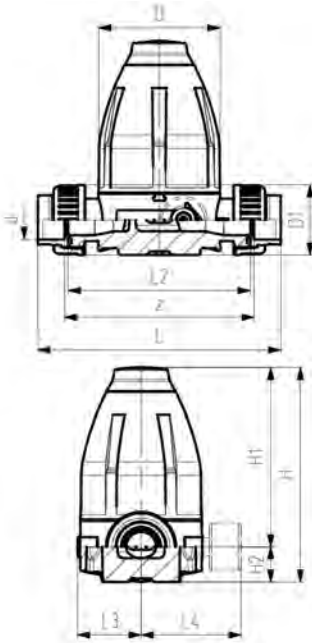


**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d	DN	PN	O-rings	FPM	Weight
(mm)	(mm)	(bar)	Code		(kg)
20	15	10	185	582 512	0.830
25	20	10	185	582 513	1.710
32	25	10	185	582 514	1.760
40	32	10	185	582 515	4.750
50	40	10	185	582 516	4.840
63	50	10	185	582 517	5.140

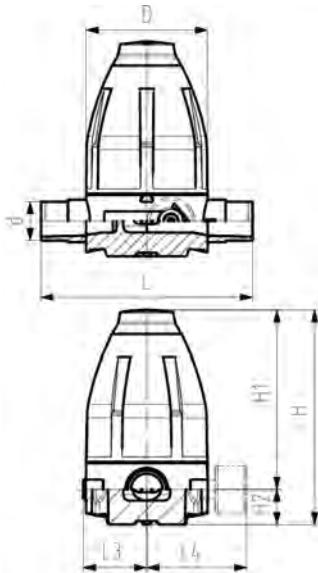
d	D	D1	H	H1	H2	H3	L	L2	L3	L5	M	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(inch)
20	79	43	132	111	21	12	226	120	42	40	M6	½
25	100	53	177	148	29	14	262	150	53	46	M6	¾
32	100	60	177	148	29	14	268	150	53	46	M6	1
40	147	74	251	207	44	21	329	205	76	65	M8	1 ¼
50	147	82	251	207	44	21	335	205	76	65	M8	1 ½
63	147	100	251	207	44	21	341	205	76	65	M8	2



**SYGEF Standard**  
**Pressure retaining valve type 586**  
**With butt fusion spigots metric**  
**Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
  - Integrated stainless steel mounting inserts
  - 0.5-9.0 bar (7-130 psi)
- 0.3-3.0 bar (4-44 psi) on request  
 Manometer on request



d	DN	PN	O-rings FPM	Weight
(mm)	(mm)	(bar)	Code	(kg)
20	15	10	<b>185 586 012</b>	0.700
25	20	10	<b>185 586 013</b>	1.570
32	25	10	<b>185 586 014</b>	1.580
40	32	10	<b>185 586 015</b>	4.410
50	40	10	<b>185 586 016</b>	4.430
63	50	10	<b>185 586 017</b>	4.550

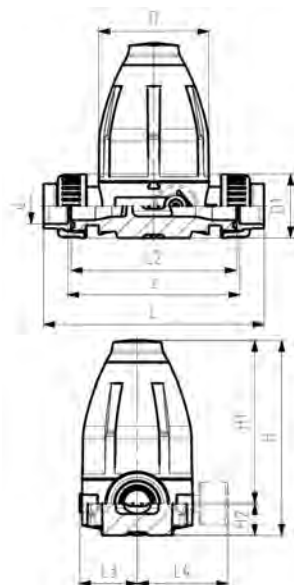
d	D	H	H1	H2	H3	L	L3	L5	M	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(inch)
20	79	132	111	21	14	150	42	40	M6	½
25	100	177	148	29	14	190	53	46	M6	¾
32	100	177	148	29	14	190	53	46	M6	1
40	147	251	207	44	21	240	76	65	M8	1 ¼
50	147	251	207	44	21	240	76	65	M8	1 ½
63	147	251	207	44	21	260	76	65	M8	2



**SYGEF Standard**  
**Pressure retaining valve type 586**  
**Unions with fusion sockets metric**  
**Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
  - Integrated stainless steel mounting inserts
  - 0.5-9.0 bar (7-130 psi)
- 0.3-3.0 bar (4-44 psi) on request  
 Manometer on request



d	DN	PN	O-rings FPM	Weight
(mm)	(mm)	(bar)	Code	(kg)
20	15	10	<b>185 586 112</b>	0.780
25	20	10	<b>185 586 113</b>	1.670
32	25	10	<b>185 586 114</b>	1.720
40	32	10	<b>185 586 115</b>	4.700
50	40	10	<b>185 586 116</b>	4.790
63	50	10	<b>185 586 117</b>	5.090

d	D	H	H1	H2	H3	L	L2	L3	L5	M	z	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(inch)
20	79	132	111	21	12	158	120	42	40	M6	130	½
25	100	177	148	29	14	192	150	53	46	M6	160	¾
32	100	177	148	29	14	196	150	53	46	M6	160	1
40	147	251	207	44	21	255	205	76	65	M8	215	1 ¼
50	147	251	207	44	21	261	205	76	65	M8	215	1 ½
63	147	251	207	44	21	269	205	76	65	M8	215	2

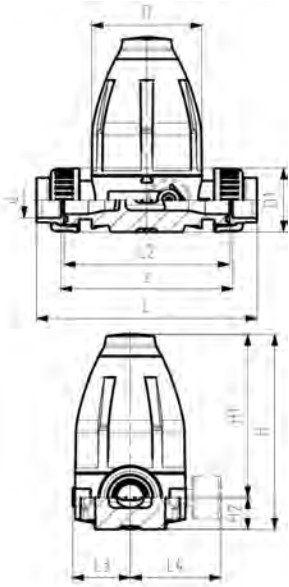


**SYGEF Standard**  
**Pressure retaining valve type 586**  
**Unions with butt fusion spigots metric**  
**Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request  
 Manometer on request



d	DN	PN	O-rings	FPM	Weight
(mm)	(mm)	(bar)	Code		(kg)
20	15	10	185	586 512	0.820
25	20	10	185	586 513	1.710
32	25	10	185	586 514	1.760
40	32	10	185	586 515	4.740
50	40	10	185	586 516	4.830
63	50	10	185	586 517	5.130

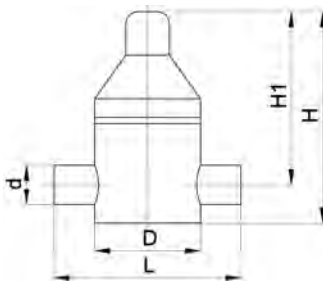
d	D	D1	H	H1	H2	H3	L	L2	L3	L5	M	z	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(inch)
20	79	43	132	111	21	12	226	120	42	40	M6	130	1/2
25	100	53	177	148	29	14	262	150	53	46	M6	160	3/4
32	100	60	177	148	29	14	268	150	53	45/6	M6	160	1
40	147	74	251	207	44	21	329	205	76	65	M8	215	1 1/4
50	147	82	251	207	44	21	335	205	76	65	M8	215	1 1/2
63	147	100	251	207	44	21	341	205	76	65	M8	215	2



**SYGEF Standard**  
**Pressure retaining valve type V86**  
**With fusion spigots IR Plus**

**Model:**

- Material: PVDF



Type	d	DN	PTFE	Weight	D	H	H1	L	closest inch	Pressure range	h
	(mm)	(mm)	Code	(kg)	(mm)	(mm)	(mm)	(mm)	(inch)	(bar)	(mm)
V86	75	65	199 041 689	5.600	180	275	230	284	2 1/2	1 - 10	
V86	75	65	199 041 669	5.600	180	275	230	344	2 1/2	1 - 10	

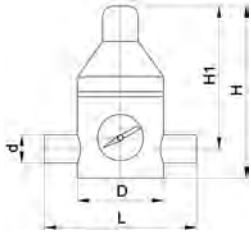


**SYGEF Standard**  
**Pressure reducing valve type V82**  
**With fusion spigots IR metric**

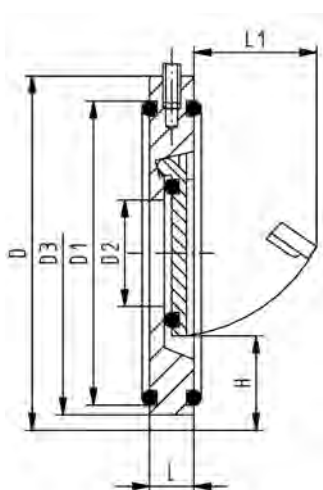
**Model:**

- Material: PVDF

Type	d (mm)	DN (mm)	PTFE Code	D (mm)	H (mm)	H1 (mm)	L (mm)	closest inch (inch)	Pressure range (bar)
V82	75	65	<b>199 041 649</b>	200	350	250	300	2 ½	1.0 - 6.0



# Check valves



## SYGEF Standard Wafer check valve type 369 Without spring

### Model:

- Material: PVDF
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

### Installation instruction:

- Installation between ISO/DIN (all dimensions) and ANSI flange adaptors (all except DN32 and DN125)
- Installation with ANSI flange adaptor: for wafer check valves DN40 to DN80 you have to use ANSI flange adaptors with the next bigger dimension (example DN40 wafer check valve between DN50 ANSI flange adaptor)
- Centering by body diameter (ISO/DIN by D3, ANSI by D)
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed
- Wafer check valves without reset spring are not recommended for pulsating flows (production of noise)

### Note:

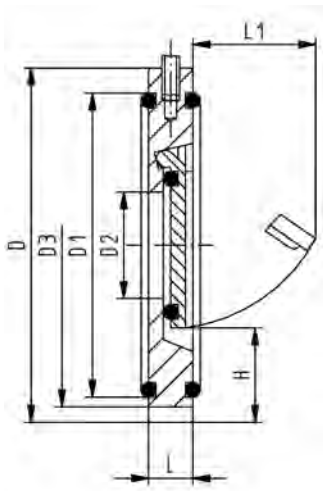
In order to install the wafer check valves properly, Georg Fischer recommends flange adaptors of the next larger diameter of the valve (e.g. wafer check valve d90 with two flange adaptors d110)

d (mm)	DN (mm)	PN (bar)	FPM Code	Weight (kg)
40	32	10	175 369 022	0.133
50	40	10	175 369 023	0.184
63	50	10	175 369 024	0.272
75	65	10	175 369 025	0.410
90	80	10	175 369 026	0.508
110	100	10	175 369 027	0.722
140	125	10	175 369 029	0.991
160	150	6	175 369 030	1.418
225	200	6	175 369 031	2.710
280	250	6	175 369 032	4.520
315	300	6	175 369 033	6.900

d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	L (mm)	L1 (mm)	Opening pressure vertical (mbar)	Opening pres- sure horizontal (mbar)	Tightness from water column (m)
40	85	59	18	85	25	15	22	10	1	2
50	105	74	22	95	27	16	27	10	1	2
63	124	90	32	109	29	18	40	10	1	2
75	137	110	40	129	31	20	55	10	1	2
90	175	125	54	144	32	20	67	10	1	2
110	175	150	70	164	31	23	67	10	1	2
140	195	178	92	195	35	23	94	10	1	2
160	222	192	105	220	41	26	100	10	1	2
225	279	256	154	275	38	35	152	18	1	2
280	340	306	192	330	41	40	180	18	1	2
315	410	342	227	380	41	45	215	18	1	2

d (mm)	closest inch (inch)
40	1 ¼
50	1 ½
63	2
75	2 ½
90	3

table continued on the next page



<b>d</b> (mm)	<b>closest inch</b> (inch)
110	4
140	5
160	6
225	8
280	10
315	12



**SYGEF Standard**  
**Wafer check valve type 369**  
**With Hastelloy C spring**

**Model:**

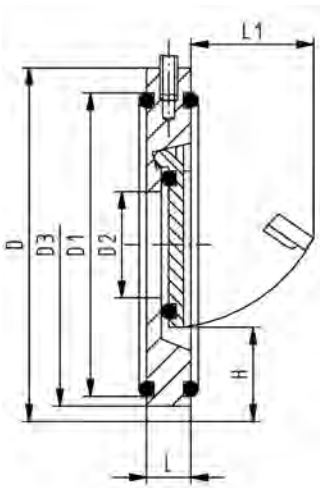
- Material: PVDF
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

**Installation instruction:**

- Installation between ISO/DIN (all dimensions) and ANSI flange adaptors (all except DN32 and DN125)
- Installation with ANSI flange adaptor: for wafer check valves DN40 to DN80 you have to use ANSI flange adaptors with the next bigger dimension (example DN40 wafer check valve between DN50 ANSI flange adaptor)
- Centering by body diameter (ISO/DIN by D3, ANSI by D)
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed

**Note:**

**In order to install the wafer check valves properly, Georg Fischer recommends flange adaptors of the next larger diameter of the valve (e.g. wafer check valve d90 with two flange adaptors d110)**

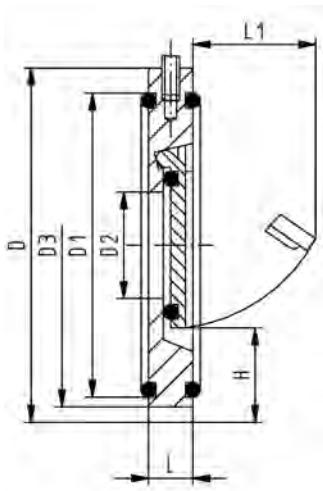


d (mm)	DN (mm)	PN (bar)	FPM Code	Weight (kg)
40	32	10	175 369 102	0.170
50	40	10	175 369 103	0.210
63	50	10	175 369 104	0.330
75	65	10	175 369 105	0.420
90	80	10	175 369 106	0.510
110	100	10	175 369 107	0.710
140	125	10	175 369 109	0.970
160	150	6	175 369 110	1.420
225	200	6	175 369 111	2.710
280	250	6	175 369 112	4.520
315	300	6	175 369 113	6.900

d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	L (mm)	L1 (mm)	Opening pressure vertical (mbar)	Opening pressure horizontal (mbar)	Tightness from water column (m)
40	85	59	18	85	25	15	22	30	20	2
50	105	74	22	95	27	16	27	30	20	2
63	124	90	32	109	29	18	40	30	20	2
75	137	110	40	129	31	20	55	30	20	2
90	175	125	54	144	32	20	67	30	20	2
110	175	150	70	164	31	23	67	30	20	2
140	195	178	92	195	35	23	94	30	20	2
160	222	192	105	220	41	26	100	30	20	2
225	279	256	154	275	38	35	152	38	20	2
280	340	306	192	330	41	40	180	38	20	2
315	410	342	227	380	41	45	215	38	20	2

d (mm)	closest inch (inch)
40	1 ¼
50	1 ½
63	2
75	2 ½
90	3
110	4
140	5

table continued on the next page



<b>d</b> (mm)	<b>closest inch</b> (inch)
160	6
225	8
280	10
315	12





**SYGEF Standard**  
**Wafer check valve type 369**  
**With V4A spring (stainless steel 316)**

**Model:**

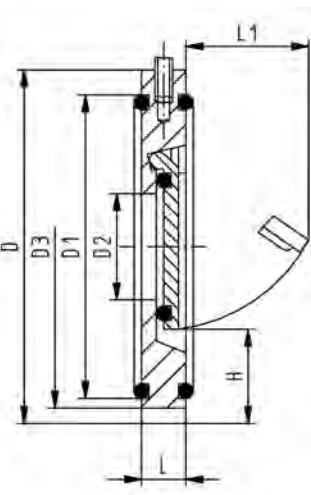
- Material: PVDF
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

**Installation instruction:**

- Installation between ISO/DIN (all dimensions) and ANSI flange adaptors (all except DN32 and DN125)
- Installation with ANSI flange adaptor: for wafer check valves DN40 to DN80 you have to use ANSI flange adaptors with the next bigger dimension (example DN40 wafer check valve between DN50 ANSI flange adaptor)
- Centering by body diameter (ISO/DIN by D3, ANSI by D)
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed

**Note:**

**In order to install the wafer check valves properly, Georg Fischer recommends flange adaptors of the next larger diameter of the valve (e.g. wafer check valve d90 with two flange adaptors d110)**

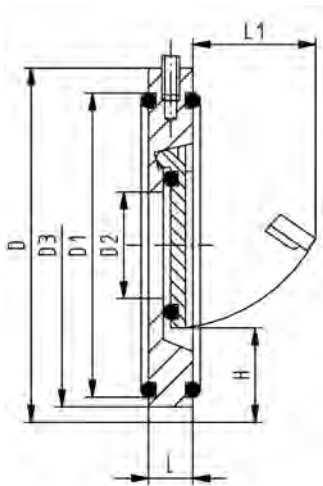


d (mm)	DN (mm)	PN (bar)	FPM Code	Weight (kg)
40	32	10	175 369 062	0.170
50	40	10	175 369 063	0.210
63	50	10	175 369 064	0.274
75	65	10	175 369 065	0.410
90	80	10	175 369 066	0.508
110	100	10	175 369 067	0.724
140	125	10	175 369 069	0.993
160	150	6	175 369 070	1.422
225	200	6	175 369 071	2.708
280	250	6	175 369 072	4.423
315	300	6	175 369 073	6.900

d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	L (mm)	L1 (mm)	Opening pressure vertical (mbar)	Opening pressure horizontal (mbar)	Tightness from water column (m)
40	85	59	18	85	25	15	22	30	20	2
50	105	74	22	95	27	16	27	30	20	2
63	124	90	32	109	29	18	40	30	20	2
75	137	110	40	129	31	20	55	30	20	2
90	175	125	54	144	32	20	67	30	20	2
110	175	150	70	164	31	23	67	30	20	2
140	195	178	92	195	35	23	94	30	20	2
160	222	192	105	220	41	26	100	30	20	2
225	279	256	154	275	38	35	152	38	20	2
280	340	306	192	330	41	40	180	38	20	2
315	410	342	227	380	41	45	215	38	20	2

d (mm)	closest inch (inch)
40	1 ¼
50	1 ½
63	2
75	2 ½
90	3
110	4
140	5

table continued on the next page



<b>d</b> (mm)	<b>closest inch</b> (inch)
160	6
225	8
280	10
315	12

# Cone check valves

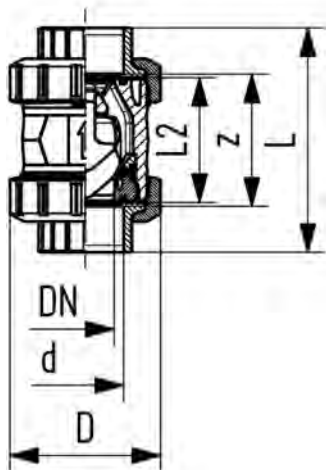


## SYGEF Standard Check valve type 562 With fusion sockets metric

### Model:

- Material: PVDF
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	10	16	190	<b>175 562 011</b>	0.160	50	93	56	67	$\frac{3}{8}$
20	15	16	180	<b>175 562 012</b>	0.160	50	95	56	66	$\frac{1}{2}$
25	20	16	380	<b>175 562 013</b>	0.340	58	109	65	77	$\frac{3}{4}$
32	25	16	460	<b>175 562 014</b>	0.360	68	119	71	83	1
40	32	16	850	<b>175 562 015</b>	0.670	84	135	85	99	1 $\frac{1}{4}$
50	40	16	1080	<b>175 562 016</b>	0.990	97	147	89	105	1 $\frac{1}{2}$
63	50	16	1670	<b>175 562 017</b>	1.770	124	168	101	117	2
75	65	16	2950	<b>175 562 018</b>	3.630	166	235	136	167	2 $\frac{1}{2}$
90	80	16	3600	<b>175 562 019</b>	5.800	200	255	141	180	3
110	100	16	4150	<b>175 562 020</b>	9.450	238	305	164	215	4

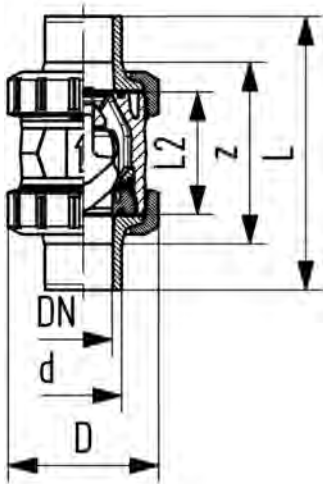


**SYGEF Standard**  
**Check valve type 562**  
 With socket fusion spigots metric

**Model:**

- Material: PVDF
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	closest inch (inch)
16	10	16	190	<b>175 562 051</b>	0.160	50	110	56	¾
20	15	16	180	<b>175 562 052</b>	0.170	50	120	56	½
25	20	16	380	<b>175 562 053</b>	0.370	58	139	65	¾
32	25	16	460	<b>175 562 054</b>	0.400	68	150	71	1
40	32	16	850	<b>175 562 055</b>	0.670	84	170	85	1 ¼
50	40	16	1080	<b>175 562 056</b>	1.030	97	190	89	1 ½
63	50	16	1670	<b>175 562 057</b>	1.830	124	220	101	2

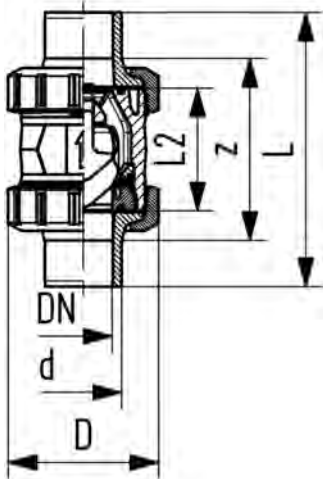


**SYGEF Standard**  
**Check valve type 562**  
 With butt fusion spigots IR-Plus metric

**Model:**

- Material: PVDF
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	15	16	180	<b>175 562 092</b>	0.160	50	130	56	1.9	¾
25	20	16	380	<b>175 562 093</b>	0.350	58	143	65	1.9	¾
32	25	16	460	<b>175 562 094</b>	0.380	68	150	71	2.4	1
40	32	16	850	<b>175 562 095</b>	0.660	84	171	85	2.4	1 ¼
50	40	16	1080	<b>175 562 096</b>	1.000	97	191	89	3.0	1 ½
63	50	16	1670	<b>175 562 097</b>	1.790	124	220	101	3.0	2
75	65	16	2950	<b>175 562 098</b>	3.680	166	270	136	3.6	2 ½
90	80	16	3600	<b>175 562 099</b>	5.760	200	265	141	4.3	3
110	100	16	4150	<b>175 562 100</b>	9.270	238	305	164	5.3	4

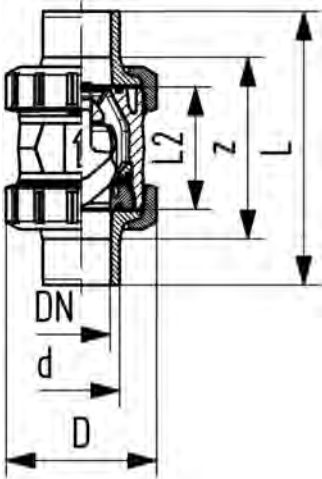


**SYGEF Standard**  
**Check valve type 561**  
 With butt fusion spigots IR-Plus metric

**Model:**

- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



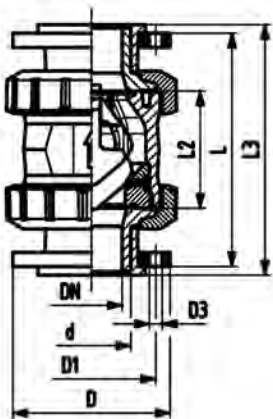
d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	15	16	180	175 561 092	0.160	50	130	56	1.9	1/2
25	20	16	380	175 561 093	0.350	58	143	65	1.9	3/4
32	25	16	460	175 561 094	0.380	68	150	71	2.4	1
40	32	16	850	175 561 095	0.660	84	171	85	2.4	1 1/4
50	40	16	1080	175 561 096	1.000	97	191	89	3.0	1 1/2
63	50	16	1670	175 561 097	1.790	124	220	101	3.0	2
75	65	16	2950	175 561 098	3.680	166	270	136	3.6	2 1/2
90	80	16	3600	175 561 099	5.760	200	265	141	4.3	3
110	100	16	4150	175 561 100	9.270	238	305	164	5.3	4



**SYGEF Standard**  
**Check valve type 561**  
 With backing flanges PP-st metric

**Model:**

- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
75	65	16	2950	175 561 288	9.230
90	80	16	3600	175 561 289	13.430
110	100	16	4150	175 561 290	18.200

d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
75	166	145	18	149	85	280	270	136	290	70	64	206	M8	2 1/2
90	200	160	18	161	105	296	270	141	310	70	64	206	M8	3
110	238	180	18	178	123	336	320	164	350	120	64	206	M12	4

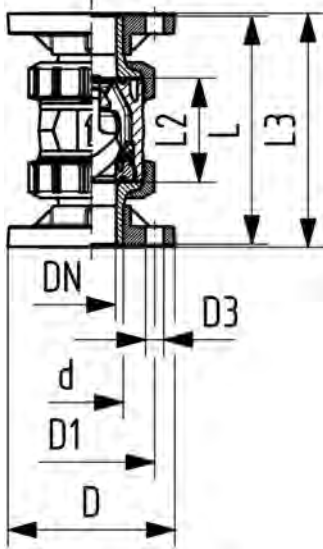


**SYGEF Standard**  
**Check valve type 561**  
**With fixed flanges metric**

**Model:**

- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Installation length according to EN 558-1
- Z-length, end connectors and union nuts **not** compatible with type 360
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	D1 (mm)	D3 (mm)	L (mm)	L2 (mm)	L3 (mm)	closest inch (inch)
20	15	16	180	<b>175 561 192</b>	0.420	93	65	14	120	56	130	½
25	20	16	380	<b>175 561 193</b>	0.700	103	75	14	140	65	150	¾
32	25	16	460	<b>175 561 194</b>	0.860	115	85	14	150	71	160	1
40	32	16	850	<b>175 561 195</b>	1.430	137	100	18	170	85	180	1 ¼
50	40	16	1080	<b>175 561 196</b>	1.940	147	110	18	190	89	200	1 ½
63	50	16	1670	<b>175 561 197</b>	3.160	162	125	18	220	101	230	2

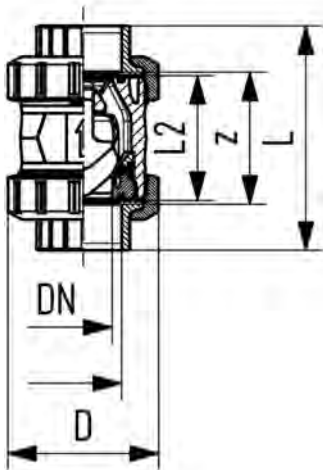


**SYGEF Standard**  
**Check valve type 561**  
**With threaded sockets NPT**

**Model:**

- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	z (mm)
¾	10	10	190	<b>175 561 111</b>	0.150	50	96	56	69
½	15	10	180	<b>175 561 112</b>	0.160	50	99	56	64
¾	20	10	380	<b>175 561 113</b>	0.350	58	111	65	76
1	25	10	460	<b>175 561 114</b>	0.390	68	127	71	83
1 ¼	32	10	850	<b>175 561 115</b>	0.680	84	146	85	101
1 ½	40	10	1080	<b>175 561 116</b>	1.000	97	157	89	111
2	50	10	1670	<b>175 561 117</b>	1.770	124	183	101	135

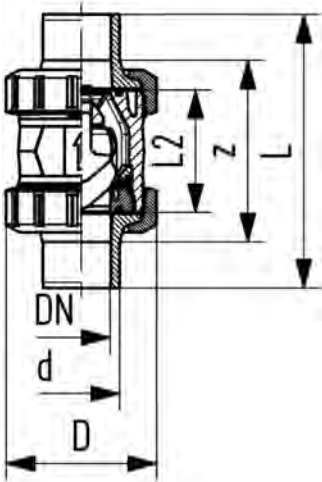


**SYGEF Standard**  
**Check valve type 561**  
 With socket fusion spigots metric

**Model:**

- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	closest inch (inch)
16	10	16	190	<b>175 561 051</b>	0.160	50	110	56	$\frac{3}{8}$
20	15	16	180	<b>175 561 052</b>	0.170	50	120	56	$\frac{1}{2}$
25	20	16	380	<b>175 561 053</b>	0.370	58	139	65	$\frac{3}{4}$
32	25	16	460	<b>175 561 054</b>	0.400	68	150	71	1
40	32	16	850	<b>175 561 055</b>	0.670	84	170	85	1 $\frac{1}{4}$
50	40	16	1080	<b>175 561 056</b>	1.030	97	190	89	1 $\frac{1}{2}$
63	50	16	1670	<b>175 561 057</b>	1.830	124	220	101	2

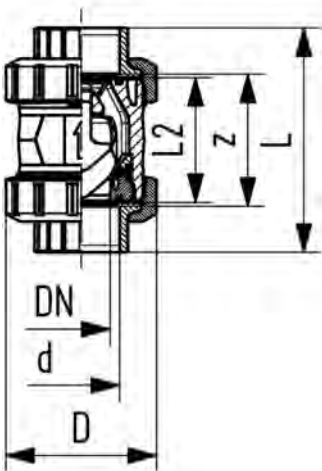


**SYGEF Standard**  
**Check valve type 561**  
 With fusion sockets metric

**Model:**

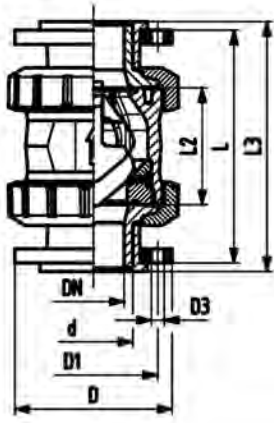
- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	10	16	190	<b>175 561 011</b>	0.160	50	93	56	67	$\frac{3}{8}$
20	15	16	180	<b>175 561 012</b>	0.160	50	95	56	66	$\frac{1}{2}$
25	20	16	380	<b>175 561 013</b>	0.340	58	109	65	77	$\frac{3}{4}$
32	25	16	460	<b>175 561 014</b>	0.360	68	119	71	83	1
40	32	16	850	<b>175 561 015</b>	0.670	84	135	85	99	1 $\frac{1}{4}$
50	40	16	1080	<b>175 561 016</b>	0.990	97	147	89	105	1 $\frac{1}{2}$
63	50	16	1670	<b>175 561 017</b>	1.770	124	168	101	117	2

**SYGEF Standard**  
**Check valve type 562**  
**With backing flanges PP-st metric**



**Model:**

- Material: PVDF
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
75	65	16	2950	<b>175 562 288</b>	9.230
90	80	16	3600	<b>175 562 289</b>	13.430
110	100	16	4150	<b>175 562 290</b>	18.200

d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
75	166	145	18	149	85	280	270	136	290	70	64	206	M8	1 ¼
90	200	160	18	161	105	296	270	141	310	70	64	206	M8	1 ½
110	238	180	18	178	123	336	320	164	350	120	64	206	M12	2



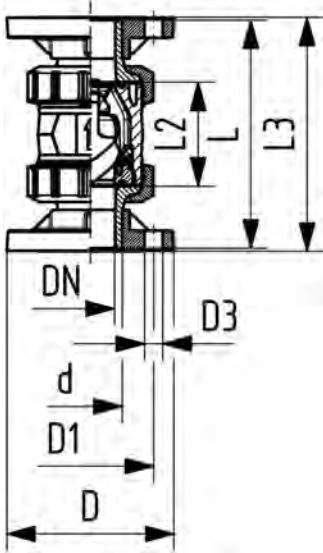


**SYGEF Standard**  
**Check valve type 562**  
**With fixed flanges metric**

**Model:**

- Material: PVDF
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Installation length according to EN 558-1
- Z-length, end connectors and union nuts **not** compatible with type 360
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	D1 (mm)	D3 (mm)	L (mm)	L2 (mm)	L3 (mm)	closest inch (inch)
20	15	16	180	<b>175 562 192</b>	0.420	93	65	14	120	56	130	½
25	20	16	380	<b>175 562 193</b>	0.700	103	75	14	140	65	150	¾
32	25	16	460	<b>175 562 194</b>	0.860	115	85	14	150	71	160	1
40	32	16	850	<b>175 562 195</b>	1.430	137	100	18	170	85	180	1 ¼
50	40	16	1080	<b>175 562 196</b>	1.940	147	110	18	190	89	200	1 ½
63	50	16	1670	<b>175 562 197</b>	3.160	162	125	18	220	101	230	2

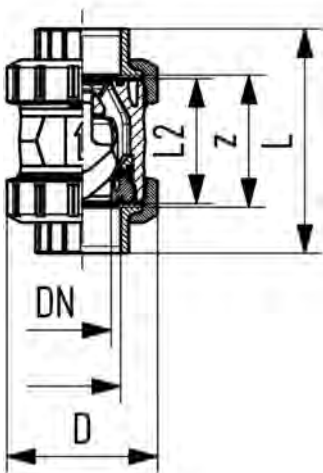


**SYGEF Standard**  
**Check valve type 562**  
**With threaded sockets NPT**

**Model:**

- Material: PVDF
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	z (mm)
¾	10	10	190	<b>175 562 111</b>	0.150	50	96	56	69
½	15	10	180	<b>175 562 112</b>	0.160	50	99	56	64
¾	20	10	380	<b>175 562 113</b>	0.350	58	111	65	76
1	25	10	460	<b>175 562 114</b>	0.390	68	127	71	83
1 ¼	32	10	850	<b>175 562 115</b>	0.680	84	146	85	101
1 ½	40	10	1080	<b>175 562 116</b>	1.000	97	157	89	111
2	50	10	1670	<b>175 562 117</b>	1.770	124	183	101	135

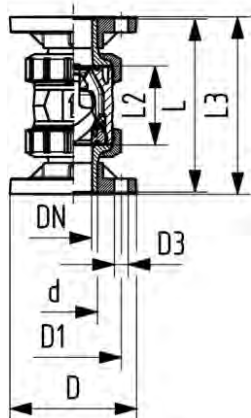


**SYGEF Standard**  
**Check valve type 562**  
**With fixed flanges ANSI**

**Model:**

- Material: PVDF
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Installation length according to EN 558-1
- Z-length, end connectors and union nuts **not** compatible with type 360
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d	DN	PN	kv-value	FPM	D	D1	D3	L	L2	L3	closest	
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	inch	
			(l/min)									(inch)
20	15	16	180		93	65	14	120	56	130	½	
25	20	16	380		103	75	14	140	65	150	¾	
32	25	16	460	<b>800 052 131</b>	115	85	14	150	71	160	1	
40	32	16	850		137	100	18	170	85	180	1 ¼	
50	40	16	1080	<b>800 052 132</b>	147	110	18	190	89	200	1 ½	
63	50	16	1670		162	125	18	220	101	230	2	

## Process control valves

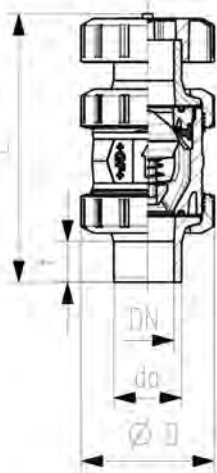


### SYGEF Standard Ventilating valve type 595 With socket fusion spigots metric

#### Model:

- Material: PVDF
- With protection cap up to DN50 made of PP-GF, DN65-100 made of POM
- Spring HALAR coated
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Compact installation length

d (mm)	DN (mm)	PN (bar)	FPM Code	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	10	16	175 595 031	50	135	13	3/8
20	15	16	175 595 032	50	140	14	1/2
25	20	16	175 595 033	58	157	16	3/4
32	25	16	175 595 034	68	168	18	1
40	32	16	175 595 035	84	189	20	1 1/4
50	40	16	175 595 036	97	211	23	1 1/2
63	50	16	175 595 037	124	245	27	2

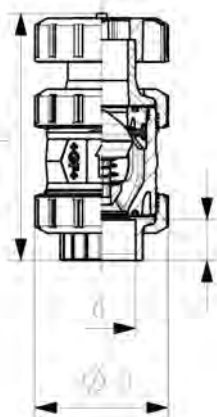


### SYGEF Standard Ventilating valve type 595 With fusion sockets metric

#### Model:

- Material: PVDF
- With protection cap up to DN50 made of PP-GF, DN65-100 made of POM
- Spring HALAR coated
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Compact installation length

d (mm)	DN (mm)	PN (bar)	FPM Code	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	10	16	175 595 011	50	126	14	3/8
20	15	16	175 595 012	50	127	15	1/2
25	20	16	175 595 013	58	142	16	3/4
32	25	16	175 595 014	68	153	18	1
40	32	16	175 595 015	84	171	19	1 1/4
50	40	16	175 595 016	97	190	21	1 1/2
63	50	16	175 595 017	124	219	26	2
75	65	16	175 595 018	166	256	33	2 1/2
90	80	16	175 595 019	200	275	37	3
110	100	16	175 595 020	238	318	43	4



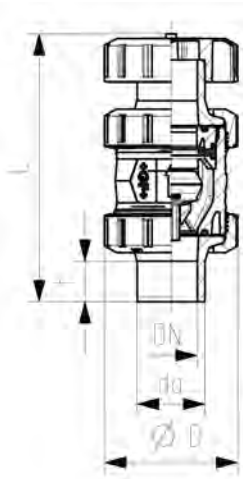


**SYGEF Standard**  
**Ventilating and bleed valve type 591**  
**With socket fusion spigots metric**

**Model:**

- Material: PVDF
- With protection cap up to DN50 made of PP-GF, DN65-100 made of POM
- Special floater made of PVDF
- Designed for easy installation and removal
- Compact installation length

d (mm)	DN (mm)	PN (bar)	FPM Code	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	10	16	175 591 031	50	135	13	3/8
20	15	16	175 591 032	50	140	14	1/2
25	20	16	175 591 033	58	157	16	3/4
32	25	16	175 591 034	68	168	18	1
40	32	16	175 591 035	84	189	20	1 1/4
50	40	16	175 591 036	97	211	23	1 1/2
63	50	16	175 591 037	124	245	27	2

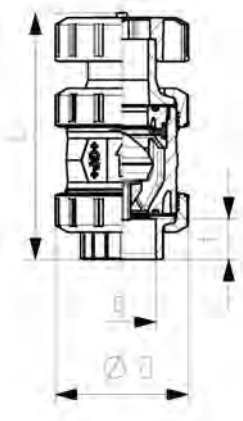


**SYGEF Standard**  
**Ventilating and bleed valve type 591**  
**With fusion sockets metric**

**Model:**

- Material: PVDF
- With protection cap up to DN50 made of PP-GF, DN65-100 made of POM
- Special floater made of PVDF
- Designed for easy installation and removal
- Compact installation length

d (mm)	DN (mm)	PN (bar)	FPM Code	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	10	16	175 591 011	50	126	14	3/8
20	15	16	175 591 012	50	127	15	1/2
25	20	16	175 591 013	58	142	16	3/4
32	25	16	175 591 014	68	153	18	1
40	32	16	175 591 015	84	171	19	1 1/4
50	40	16	175 591 016	97	190	21	1 1/2
63	50	16	175 591 017	124	219	26	2
75	65	16	175 591 018	166	256	33	2 1/2
90	80	16	175 591 019	200	275	37	3
110	100	16	175 591 020	238	318	43	4



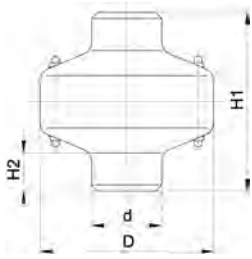


**SYGEF Standard**  
**Gauge guard type Z701**  
**Without manometer**

**Model:**

- Material: PVDF

d (mm)	PTFE Code	Weight (kg)	D (mm)	H1 (mm)	H2 (mm)	G (inch)
25	199 041 010	0.173	72	71	15	¼
32	199 041 011	0.334	100	90	22	½

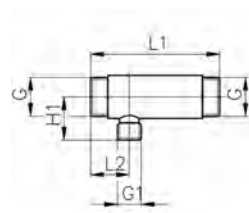


**SYGEF Standard**  
**Water jet suction pump type P20**

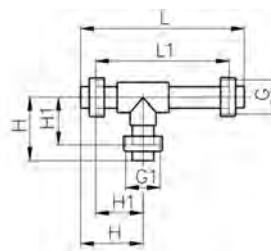
**Model:**

- Material: PVDF
- DN 10-20: BSP parallel female thread
- DN 25-50: Fusion socket metric
- DN 65-80: Fusion spigot metric

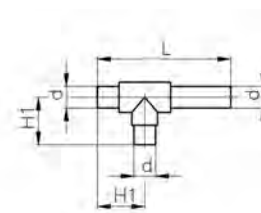
d (mm)	DN (mm)	PN (bar)	FPM Code	Weight (kg)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	G (inch)	G1 (inch)	closest inch (inch)
16	10	10	199 041 138	0.184		35	110	40		R ¾	R ¾	¾
20	15	10	199 041 139	0.278		35	110	40		R 1	R ¾	½
25	20	10	199 041 140	0.476		45	145	45		R 1½	R ¾	¾
32	25	10	199 041 141	0.690	96	71	245	195		R 1½	R 1½	1
40	32	10	199 041 142	1.100	116	87	297	239		R 2	R 2	1 ¼
50	40	10	199 041 143	1.649	139	105	369	301		R 2¼	R 2¼	1 ½
63	50	10	199 041 144	3.340	169	128	433	351		R 2¾	R 2¾	2
75	65	10	199 041 145	3.340		115	388					2 ½
90	80	10	199 041 146	5.500		149	465					3



DN 10 - 20



DN 25 - 50



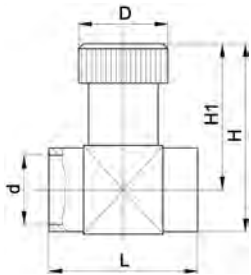
DN 65 - 80



**SYGEF Standard**  
**Throttle valve type V251**  
**With fusion sockets metric**

**Model:**

- Material: PVDF



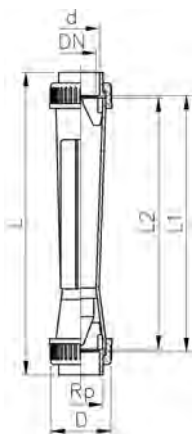
d (mm)	DN (mm)	PN (bar)	FPM Code	Weight (kg)	D (mm)	H (mm)	H1 (mm)	L (mm)	closest inch (inch)
16	10	10	<b>199 041 231</b>	0.100	29	57	45	47	3/8
20	15	10	<b>199 041 232</b>	0.106	35	66	51	55	1/2
25	20	10	<b>199 041 233</b>	0.143	40	80	63	66	3/4
32	25	10	<b>199 041 234</b>	0.273	47	96	75	80	1
40	32	10	<b>199 041 235</b>	0.400	56	111	86	100	1 1/4
50	40	10	<b>199 041 236</b>	0.923	70	133	101	120	1 1/2
63	50	10	<b>199 041 237</b>	1.300	88	158	118	146	2

**Special version PVDF**



**Special version PVDF**  
**Float in PVDF (red) without magnet**

Dimension L and L1 only valid for socket connection  
 Dimension L2 describes taper tube length



Type	d (mm)	DN (mm)	Scale range (l/h)	Taper tube in PVDF O-rings in FPM fusion socket Code	Weight (kg)	Taper tube in PVDF O-rings in FPM IR fusion spigot Code	Weight (kg)
SK 10	32	25	50 - 500	<b>198 806 466</b>	0.571	<b>198 803 905</b>	0.520
SK 11	32	25	100 - 1000	<b>198 806 467</b>	0.520	<b>198 803 906</b>	0.520
SK 20	50	40	200 - 2000	<b>198 806 468</b>	1.259	<b>198 803 907</b>	1.220
SK 21	50	40	300 - 3000	<b>198 806 469</b>	1.247	<b>198 803 908</b>	1.220
SK 30	63	50	600 - 6000	<b>198 806 470</b>	1.698	<b>198 803 909</b>	1.785
SK 31	63	50	1200 - 12000	<b>198 806 471</b>	1.587	<b>198 803 910</b>	1.680
SK 40	75	65	2000 - 20000		2.900	<b>198 803 911</b>	2.900
SK 41	75	65	3000 - 30000		2.900	<b>198 803 912</b>	2.900

Type	D (mm)	L (mm)	L (IR-SS) (mm)	L1 (mm)	L2 (mm)	G (inch)
SK 10	60	385	443	341	335	1 1/2
SK 11	60	385	443	341	335	1 1/2
SK 20	83	403	459	341	335	2 1/4
SK 21	83	403	459	341	335	2 1/4
SK 30	103	417	461	339	335	2 3/4
SK 31	103	417	461	339	335	2 3/4
SK 40	122	429	453	341	335	3 1/2
SK 41	122	429	453	341	335	3 1/2

# SYGEF Standard

Valves Silicone Free

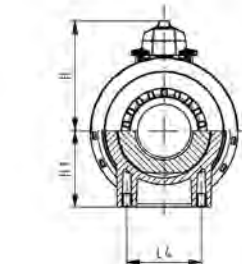
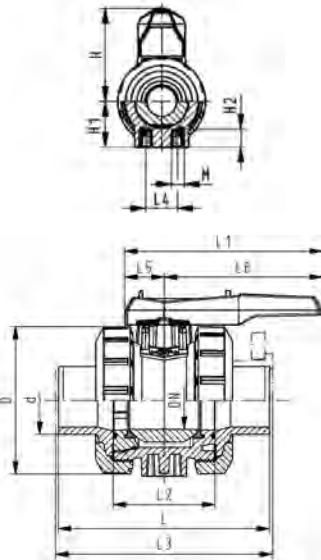
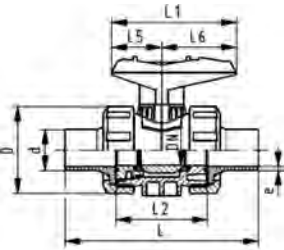


# Hand-operated valves cleaned

## Ball valves silicone free/paint compatible



DN10/15 - 50



**SYGEF Standard oil free**  
**Ball valve type 546**  
**With mounting inserts**  
**With butt fusion spigots IR-Plus metric**

**Model:**

- Material: PVDF/oil free cleaned
- Union ends for easy installation and removal
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	16	185	<b>175 546 492</b>	0.202
25	20	16	350	<b>175 546 493</b>	0.301
32	25	16	700	<b>175 546 494</b>	0.438
40	32	16	1000	<b>175 546 495</b>	0.780
50	40	16	1600	<b>175 546 496</b>	1.057
63	50	16	3100	<b>175 546 497</b>	2.150
75	65	16	5000	<b>175 546 498</b>	6.600
90	80	16	7000	<b>175 546 499</b>	9.700
110	100	16	11000	<b>175 546 500</b>	15.300

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)	closest inch (inch)
20	50	57	27	12	130	77	56	25	32	45	M6	1.9	1/2
25	58	67	30	12	143	97	65	25	39	58	M6	1.9	3/4
32	68	73	36	12	150	97	71	25	39	58	M6	2.4	1
40	84	90	44	15	171	128	85	45	54	74	M8	2.4	1 1/4
50	97	97	51	15	191	128	89	45	54	74	M8	3.0	1 1/2
63	124	116	64	15	220	152	101	45	66	87	M8	3.0	2
75	166	149	85	15	266	270	136	70	64	206	M8	3.6	2 1/2
90	200	161	105	15	264	270	141	70	64	206	M8	4.3	3
110	238	178	123	22	301	320	164	120	64	256	M12	5.3	4





DN10/15 - 50



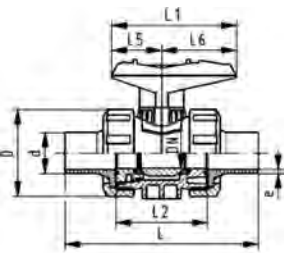
**SYGEF Standard silicone free  
Ball valve type 546  
With mounting inserts  
With butt fusion spigots IR-Plus metric**

**Model:**

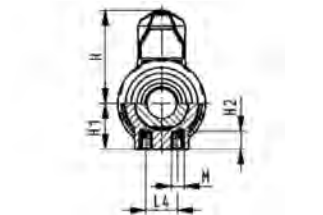
- Material: PVDF / silicone free cleaned
- For easy installation and removal
- Ball seals PVDF
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

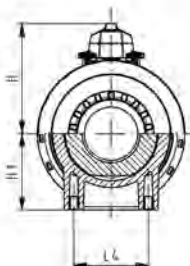
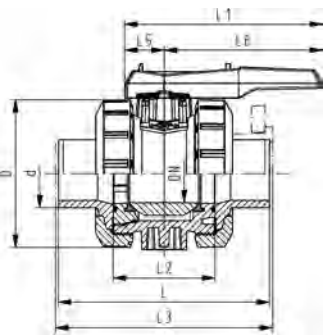
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	16	185	<b>175 546 752</b>	0.201
25	20	16	350	<b>175 546 753</b>	0.310
32	25	16	700	<b>175 546 754</b>	0.460
40	32	16	1000	<b>175 546 755</b>	0.780
50	40	16	1600	<b>175 546 756</b>	1.110
63	50	16	3100	<b>175 546 757</b>	2.150
75	65	16	5000	<b>175 546 758</b>	6.600
90	80	16	7000	<b>175 546 759</b>	9.700
110	100	16	11000	<b>175 546 760</b>	15.300



d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)	closest inch (inch)
20	50	57	27	12	130	77	56	25	32	45	M6	1.9	½
25	58	67	30	12	143	97	65	25	39	58	M6	1.9	¾
32	68	73	36	12	150	97	71	25	39	58	M6	2.4	1
40	84	90	44	15	171	128	85	45	54	74	M8	2.4	1 ¼
50	97	97	51	15	191	128	89	45	54	74	M8	3.0	1 ½
63	124	116	64	15	220	152	101	45	66	87	M8	3.0	2
75	166	149	85	15	266	270	136	70	64	206	M8	3.6	2 ½
90	200	161	105	15	264	270	141	70	64	206	M8	4.3	3
110	238	178	123	22	301	320	164	120	64	256	M12	5.3	4





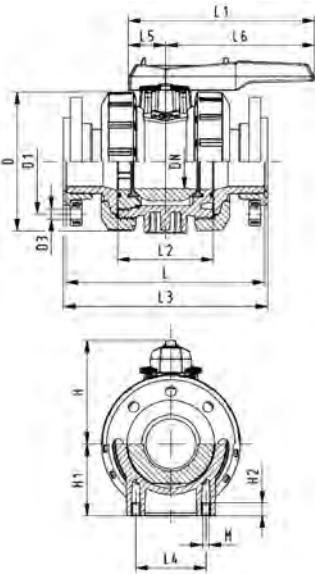
**SYGEF Standard silicone free  
Ball valve type 546  
With mounting inserts  
With backing flanges PP-st metric**

**Model:**

- Material: PVDF / silicone free cleaned
- For easy installation and removal
- Ball seals PVDF
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
75	65	16	5000	<b>175 546 828</b>	11.700
90	80	16	7000	<b>175 546 829</b>	16.000
110	100	16	11000	<b>175 546 830</b>	23.900

d (mm)	DN (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
75	65	166	145	18	149	85	280	270	136	290	70	64	206	8	2 ½
90	80	200	160	18	161	105	296	270	141	310	70	64	206	8	3
110	100	238	180	18	178	123	336	320	164	350	120	64	256	12	4



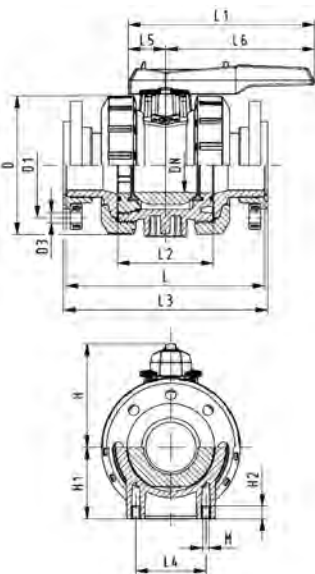
**SYGEF Standard silicone free  
Ball valve type 546  
With mounting inserts  
With backing flanges PP-st Inch ANSI**

**Model:**

- Material: PVDF / silicone free cleaned
- For easy installation and removal
- Ball seals PVDF
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
75	65	16	5000	<b>175 546 838</b>	11.700
90	80	16	7000	<b>175 546 839</b>	16.000
110	100	16	11000	<b>175 546 840</b>	23.900

d (mm)	D (mm)	D1 (mm)	D3 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	closest inch (inch)
75	166	140	19	149	85	280	270	136	290	70	64	206	8	2 ½
90	200	152	19	161	105	296	270	141	310	70	64	206	8	3
110	238	191	19	178	123	336	320	164	350	120	64	256	12	4



DN10/15 - 50



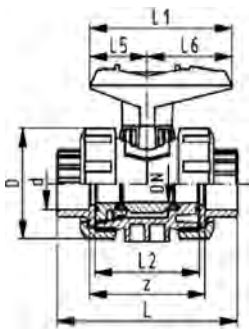
**SYGEF Standard silicone free**  
**Ball valve type 546**  
**With mounting inserts**  
**With fusion sockets metric**

**Model:**

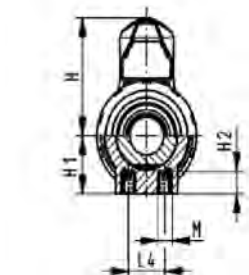
- Material: PVDF / silicone free cleaned
- For easy installation and removal
- Ball seals PVDF
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

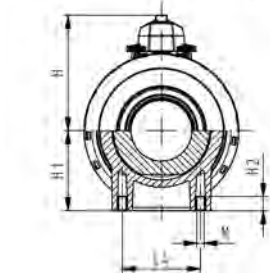
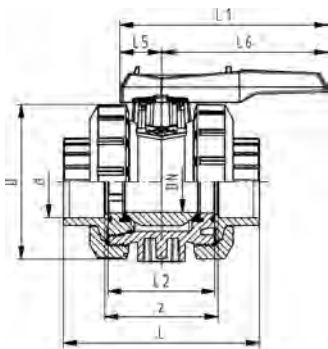
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	16	71	<b>175 546 691</b>	0.195
20	15	16	185	<b>175 546 692</b>	0.200
25	20	16	350	<b>175 546 693</b>	0.300
32	25	16	700	<b>175 546 694</b>	0.440
40	32	16	1000	<b>175 546 695</b>	0.760
50	40	16	1600	<b>175 546 696</b>	1.060
63	50	16	3100	<b>175 546 697</b>	2.055
75	65	16	5000	<b>175 546 698</b>	6.300
90	80	16	7000	<b>175 546 699</b>	9.500
110	100	16	11000	<b>175 546 700</b>	15.000



d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)	closest inch (inch)
16	50	79	27	12	93	77	56	25	32	45	M6	67	3/8
20	50	57	27	12	95	77	56	25	32	45	M6	66	1/2
25	58	67	30	12	109	97	65	25	39	58	M6	77	3/4
32	68	73	36	12	119	97	71	25	39	58	M6	83	1
40	84	90	44	15	135	128	85	45	54	74	M8	99	1 1/4
50	97	97	51	15	147	128	89	45	54	74	M8	105	1 1/2
63	124	116	64	15	168	152	101	45	66	87	M8	117	2
75	166	149	85	15	233	270	136	70	64	206	M8	167	2 1/2
90	200	161	105	15	254	270	141	70	64	206	M8	180	3
110	238	178	123	22	301	320	164	120	64	256	M12	215	4





DN10/15 - 50



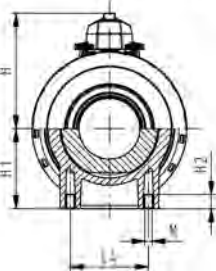
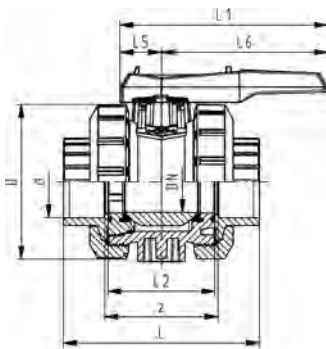
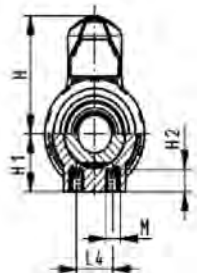
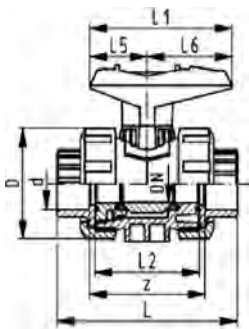
**SYGEF Standard oil free  
Ball valve type 546  
With mounting inserts  
With fusion sockets metric**

**Model:**

- Material: PVDF/oil free cleaned
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	16	71	<b>175 546 471</b>	0.195
20	15	16	185	<b>175 546 472</b>	0.200
25	20	16	350	<b>175 546 473</b>	0.298
32	25	16	700	<b>175 546 474</b>	0.429
40	32	16	1000	<b>175 546 475</b>	0.754
50	40	16	1600	<b>175 546 476</b>	1.009
63	50	16	3100	<b>175 546 477</b>	2.055
75	65	16	5000	<b>175 546 478</b>	6.300
90	80	16	7000	<b>175 546 479</b>	9.500
110	100	16	11000	<b>175 546 480</b>	15.000

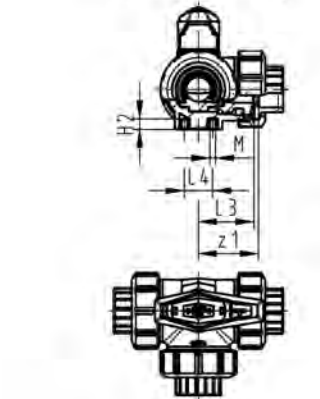
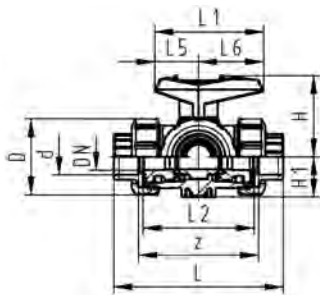
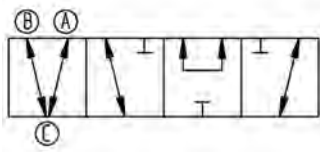
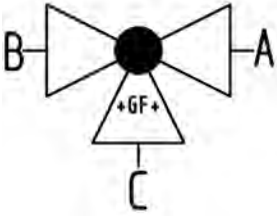
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)	closest inch (inch)
16	50	57	27	12	93	77	56	25	32	45	M6	67	3/8
20	50	57	27	12	95	77	56	25	32	45	M6	66	1/2
25	58	67	30	12	109	97	65	25	39	58	M6	77	3/4
32	68	73	36	12	119	97	71	25	39	58	M6	83	1
40	84	90	44	15	135	128	85	45	54	74	M8	99	1 1/4
50	97	97	51	15	147	128	89	45	54	74	M8	105	1 1/2
63	124	116	64	15	168	152	101	45	66	87	M8	117	2
75	166	149	85	15	233	270	136	70	64	206	M8	167	2 1/2
90	200	161	105	15	254	270	141	70	64	206	M8	180	3
110	238	178	123	22	301	320	164	120	64	256	M12	215	4



**SYGEF Standard oil free  
3-Way ball valve type 543  
Horizontal/T-port  
With fusion sockets metric**

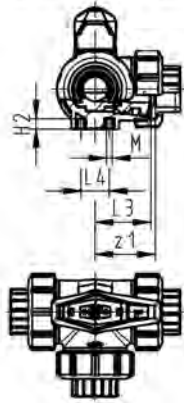
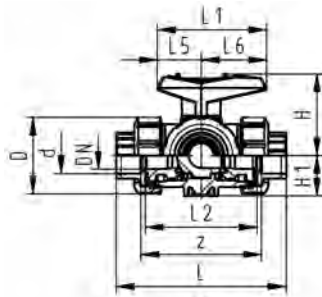
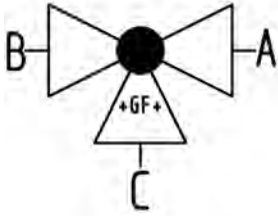
**Model:**

- Material: PVDF/oil free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	140	<b>175 543 631</b>	0.311
20	15	10	200	<b>175 543 632</b>	0.319
25	20	10	470	<b>175 543 633</b>	0.458
32	25	10	793	<b>175 543 634</b>	0.695
40	32	10	1290	<b>175 543 635</b>	1.185
50	40	10	1910	<b>175 543 636</b>	1.751
63	50	10	3100	<b>175 543 637</b>	3.405

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 $\frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 $\frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



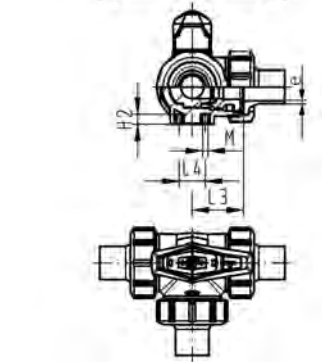
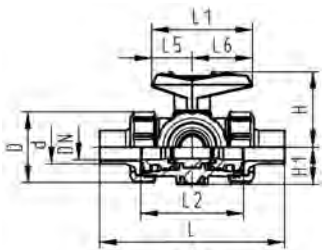
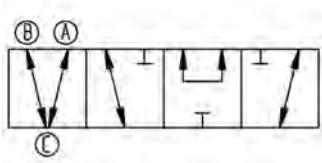
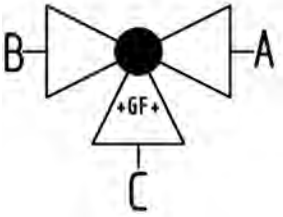
**SYGEF Standard oil free  
3-Way ball valve type 543  
Horizontal/L-port  
With fusion sockets metric**

**Model:**

- Material: PVDF/oil free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	50	<b>175 543 611</b>	0.312
20	15	10	75	<b>175 543 612</b>	0.320
25	20	10	150	<b>175 543 613</b>	0.423
32	25	10	280	<b>175 543 614</b>	0.653
40	32	10	480	<b>175 543 615</b>	1.121
50	40	10	620	<b>175 543 616</b>	1.778
63	50	10	1230	<b>175 543 617</b>	3.462

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 $\frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 $\frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



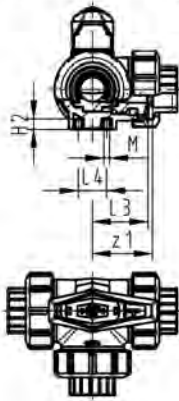
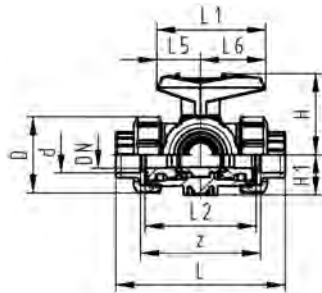
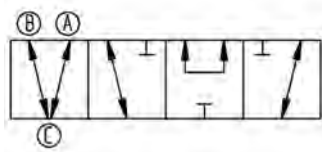
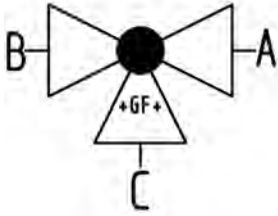
**SYGEF Standard silicone free  
3-Way ball valve type 543  
Horizontal/T-port  
With butt fusion spigots IR-Plus metric**

**Model:**

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PVDF
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	200	<b>175 543 352</b>	0.330
25	20	10	470	<b>175 543 353</b>	0.478
32	25	10	793	<b>175 543 354</b>	0.726
40	32	10	1290	<b>175 543 355</b>	1.212
50	40	10	1910	<b>175 543 356</b>	1.832
63	50	10	3100	<b>175 543 357</b>	3.566

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	146	77	72	36	25	32	45	6	2	1/2
25	58	67	32	8	163	97	85	43	25	39	58	6	2	3/4
32	68	73	36	8	178	97	98	49	25	39	58	6	2	1
40	84	90	45	9	204	128	118	59	45	54	74	8	2	1 1/4
50	97	97	51	9	237	128	135	68	45	54	74	8	3	1 1/2
63	124	116	65	9	296	152	176	88	45	66	87	8	3	2



**SYGEF Standard silicone free  
3-Way ball valve type 543  
Horizontal/T-port  
With fusion sockets metric (US version)**

**Model:**

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	140	<b>175 543 511</b>	0.311
20	15	10	200	<b>175 543 512</b>	0.319
25	20	10	470	<b>175 543 513</b>	0.458
32	25	10	793	<b>175 543 514</b>	0.695
40	32	10	1290	<b>175 543 515</b>	1.185
50	40	10	1910	<b>175 543 516</b>	1.751
63	50	10	3100	<b>175 543 517</b>	3.405

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	$1 \frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	$1 \frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2

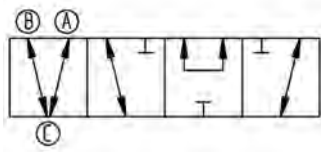
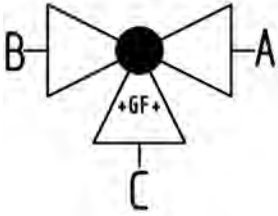




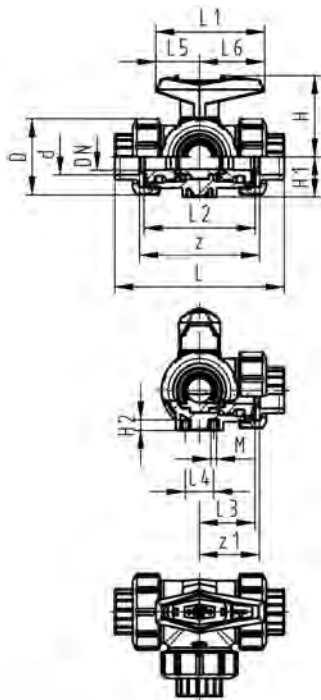
**SYGEF Standard silicone free  
3-Way ball valve type 543  
Horizontal/T-port  
With fusion sockets metric**

**Model:**

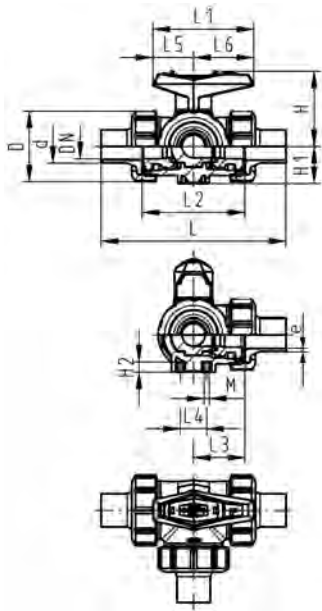
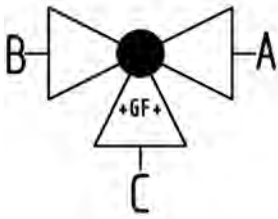
- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PVDF
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	140	<b>175 543 311</b>	0.311
20	15	10	200	<b>175 543 312</b>	0.319
25	20	10	470	<b>175 543 313</b>	0.458
32	25	10	793	<b>175 543 314</b>	0.695
40	32	10	1290	<b>175 543 315</b>	1.185
50	40	10	1910	<b>175 543 316</b>	1.751
63	50	10	3100	<b>175 543 317</b>	3.405



d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	3/8
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	1/2
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	3/4
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 1/4
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 1/2
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



**SYGEF Standard silicone free  
3-Way ball valve type 543  
Horizontal/L-port  
With butt fusion spigots IR-Plus metric**

**Model:**

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PVDF
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	75	<b>175 543 252</b>	0.332
25	20	10	150	<b>175 543 253</b>	0.480
32	25	10	280	<b>175 543 254</b>	0.735
40	32	10	480	<b>175 543 255</b>	1.226
50	40	10	620	<b>175 543 256</b>	1.859
63	50	10	1230	<b>175 543 257</b>	3.624

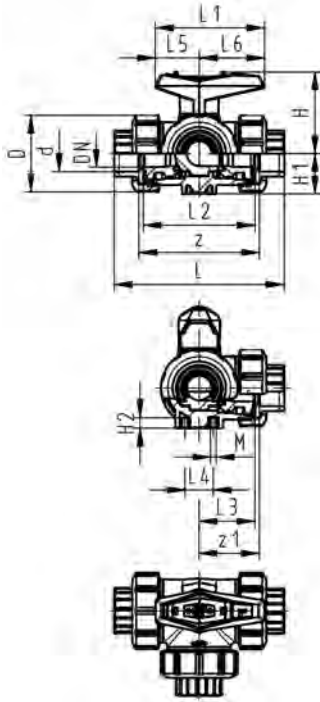
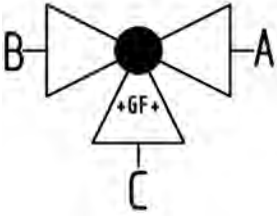
d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	57	28	8	146	77	72	36	25	32	45	6	2	½
25	58	67	32	8	163	97	85	43	25	39	58	6	2	¾
32	68	73	36	8	178	97	98	49	25	39	58	6	2	1
40	84	90	45	9	204	128	118	59	45	54	74	8	2	1 ¼
50	97	97	51	9	237	128	135	68	45	54	74	8	3	1 ½
63	124	116	65	9	296	152	176	88	45	66	87	8	3	2



**SYGEF Standard silicone free  
3-Way ball valve type 543  
Horizontal/L-port  
With fusion sockets metric**

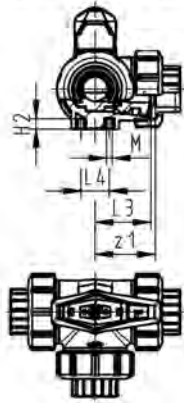
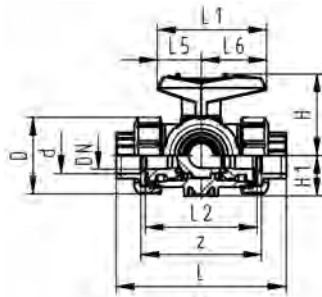
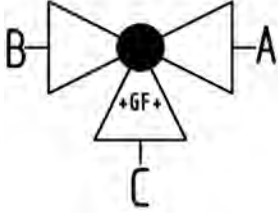
**Model:**

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PVDF
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	50	<b>175 543 211</b>	0.312
20	15	10	75	<b>175 543 212</b>	0.320
25	20	10	150	<b>175 543 213</b>	0.461
32	25	10	280	<b>175 543 214</b>	0.704
40	32	10	480	<b>175 543 215</b>	1.199
50	40	10	620	<b>175 543 216</b>	1.778
63	50	10	1230	<b>175 543 217</b>	3.462

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 $\frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 $\frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2



**SYGEF Standard silicone free  
3-Way ball valve type 543  
Horizontal/L-port  
With fusion sockets metric (US version)**

**Model:**

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	50	<b>175 543 411</b>	0.312
20	15	10	75	<b>175 543 412</b>	0.320
25	20	10	150	<b>175 543 413</b>	0.461
32	25	10	280	<b>175 543 414</b>	0.704
40	32	10	480	<b>175 543 415</b>	1.199
50	40	10	620	<b>175 543 416</b>	1.778
63	50	10	1230	<b>175 543 417</b>	3.462

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	110	77	72	36	25	32	45	6	82	41	$\frac{3}{8}$
20	50	57	28	8	112	77	72	36	25	32	45	6	82	41	$\frac{1}{2}$
25	58	67	32	8	129	97	85	43	25	39	58	6	97	49	$\frac{3}{4}$
32	68	73	36	8	146	97	98	49	25	39	58	6	110	55	1
40	84	90	45	9	170	128	118	59	45	54	74	8	132	66	1 $\frac{1}{4}$
50	97	97	51	9	193	128	135	68	45	54	74	8	151	76	1 $\frac{1}{2}$
63	124	116	65	9	244	152	176	88	45	66	87	8	188	94	2

## Cone check valves silicone free

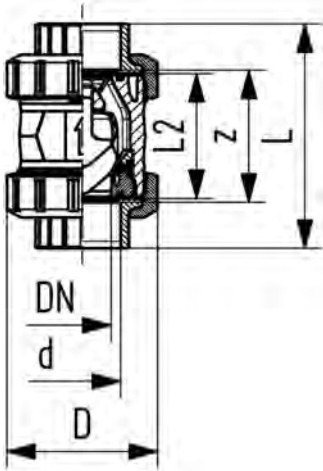


### SYGEF Standard silicone free Check valve type 562 With fusion sockets metric

#### Model:

- Material: PVDF / silicone free cleaned
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	10	16	190	<b>175 562 211</b>	0.160	50	93	56	67	$\frac{3}{8}$
20	15	16	180	<b>175 562 212</b>	0.160	50	95	56	66	$\frac{1}{2}$
25	20	16	380	<b>175 562 213</b>	0.340	58	109	65	77	$\frac{3}{4}$
32	25	16	460	<b>175 562 214</b>	0.360	68	119	71	83	1
40	32	16	850	<b>175 562 215</b>	0.670	84	135	85	99	1 $\frac{1}{4}$
50	40	16	1080	<b>175 562 216</b>	0.990	97	147	89	105	1 $\frac{1}{2}$
63	50	16	1670	<b>175 562 217</b>	1.770	124	168	101	117	2
75	65	16	2950	<b>175 562 218</b>	3.630	166	235	136	167	2 $\frac{1}{2}$
90	80	16	3600	<b>175 562 219</b>	5.800	200	255	141	180	3
110	100	16	4150	<b>175 562 220</b>	9.450	238	305	164	215	4

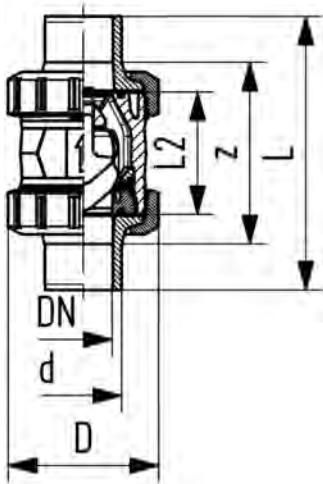


**SYGEF Standard silicone free  
Check valve type 562  
With socket fusion spigots metric**

**Model:**

- Material: PVDF / silicone free cleaned
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	closest inch (inch)
20	15	16	180	<b>175 562 232</b>	0.170	50	120	56	½
25	20	16	380	<b>175 562 233</b>	0.370	58	139	65	¾
32	25	16	460	<b>175 562 234</b>	0.400	68	150	71	1
40	32	16	850	<b>175 562 235</b>	0.670	84	170	85	1 ¼
50	40	16	1080	<b>175 562 236</b>	1.030	97	190	89	1 ½
63	50	16	1670	<b>175 562 237</b>	1.830	124	220	101	2

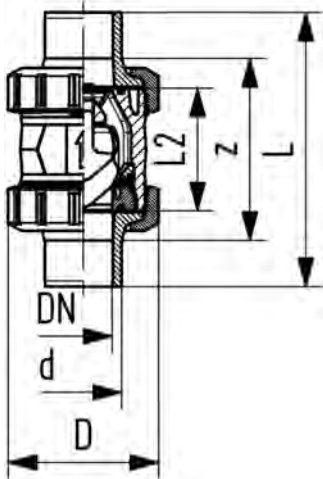


**SYGEF Standard silicone free  
Check valve type 562  
With fusion spigots IR-Plus metric**

**Model:**

- Material: PVDF / silicone free cleaned
- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	15	16	180	<b>175 562 272</b>	0.160	50	130	56	1.9	½
25	20	16	380	<b>175 562 273</b>	0.350	58	143	65	1.9	¾
32	25	16	460	<b>175 562 274</b>	0.380	68	150	71	2.4	1
40	32	16	850	<b>175 562 275</b>	0.660	84	171	85	2.4	1 ¼
50	40	16	1080	<b>175 562 276</b>	1.000	97	191	89	3.0	1 ½
63	50	16	1670	<b>175 562 277</b>	1.790	124	220	101	3.0	2
75	65	16	2950	<b>175 562 278</b>	3.680	166	290	136	3.6	2 ½
90	80	16	3600	<b>175 562 279</b>	5.760	200	310	141	4.3	3
110	100	16	4150	<b>175 562 280</b>	9.270	238	350	164	5.3	4

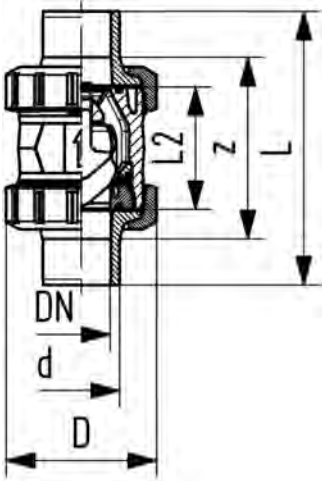


**SYGEF Standard silicone free  
Check valve type 561  
With butt fusion spigots IR-Plus metric**

**Model:**

- Material: PVDF / silicone free cleaned
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	15	16	180	<b>175 561 272</b>	0.160	50	130	56	1.9	½
25	20	16	380	<b>175 561 273</b>	0.350	58	143	65	1.9	¾
32	25	16	460	<b>175 561 274</b>	0.367	68	150	71	2.4	1
40	32	16	850	<b>175 561 275</b>	0.660	84	171	85	2.4	1 ¼
50	40	16	1080	<b>175 561 276</b>	1.000	97	191	89	3.0	1 ½
63	50	16	1670	<b>175 561 277</b>	1.790	124	220	101	3.0	2
75	65	16	2950	<b>175 561 278</b>	3.680	166	290	136	3.6	2 ½
90	80	16	3600	<b>175 561 279</b>	5.760	200	310	141	4.3	3
110	100	16	4150	<b>175 561 280</b>	9.270	238	350	164	5.3	4

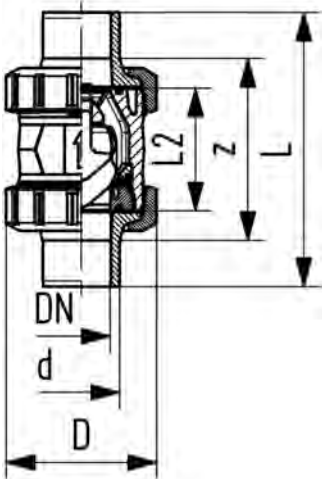


**SYGEF Standard silicone free  
Check valve type 561  
With socket fusion spigots metric**

**Model:**

- Material: PVDF / silicone free cleaned
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	closest inch (inch)
20	15	16	180	<b>175 561 232</b>	0.170	50	120	56	½
25	20	16	380	<b>175 561 233</b>	0.370	58	139	65	¾
32	25	16	460	<b>175 561 234</b>	0.400	68	150	71	1
40	32	16	850	<b>175 561 235</b>	0.670	84	170	85	1 ¼
50	40	16	1080	<b>175 561 236</b>	1.030	97	190	89	1 ½
63	50	16	1670	<b>175 561 237</b>	1.830	124	220	101	2

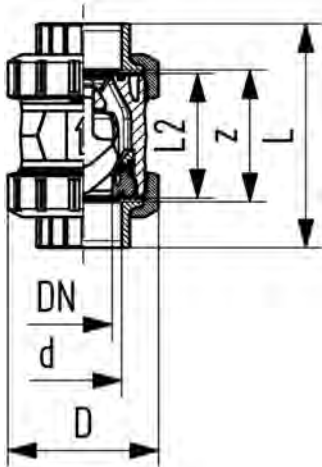


**SYGEF Standard silicone free  
Check valve type 561  
With fusion sockets metric**

**Model:**

- Material: PVDF / silicone free cleaned
- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	10	16	190	<b>175 561 211</b>	0.160	50	93	56	67	3/8
20	15	16	180	<b>175 561 212</b>	0.160	50	95	56	66	1/2
25	20	16	380	<b>175 561 213</b>	0.340	58	109	65	77	3/4
32	25	16	460	<b>175 561 214</b>	0.360	68	119	71	83	1
40	32	16	850	<b>175 561 215</b>	0.670	84	135	85	99	1 1/4
50	40	16	1080	<b>175 561 216</b>	0.990	97	147	89	105	1 1/2
63	50	16	1670	<b>175 561 217</b>	1.770	124	168	101	117	2
75	65	16	2950	<b>175 561 218</b>	3.630	166	235	136	167	2 1/2
90	80	16	3600	<b>175 561 219</b>	5.800	200	255	141	180	3
110	100	16	4150	<b>175 561 220</b>	9.450	238	305	164	215	4



# Automation made easy for you

Accurate measurement  
Precise control  
Reliable actuation



## Automation

# Automation made easy

Our automation loop consists of three elements: measurement, control and actuation. Measurement encompasses a wide range of measurement technologies and parameters. Most of these products are available in plastic and are offered with dedicated fittings, which integrate our sensors perfectly into your piping system. Control comprises various control functionalities (from simple relays to PID controllers) and all major communication technologies. Actuation includes pneumatic, electric and magnetic actuators, which can be seamlessly combined with all kinds of valves and accessories.

## The all-in-one solution for your automation needs

### Easy-to-combine

Flexible combination and upgrade

### Easy-to-install

Seamless integration

### Easy-to-connect

State-of-the-art communication technology

### Easy-to-set-up

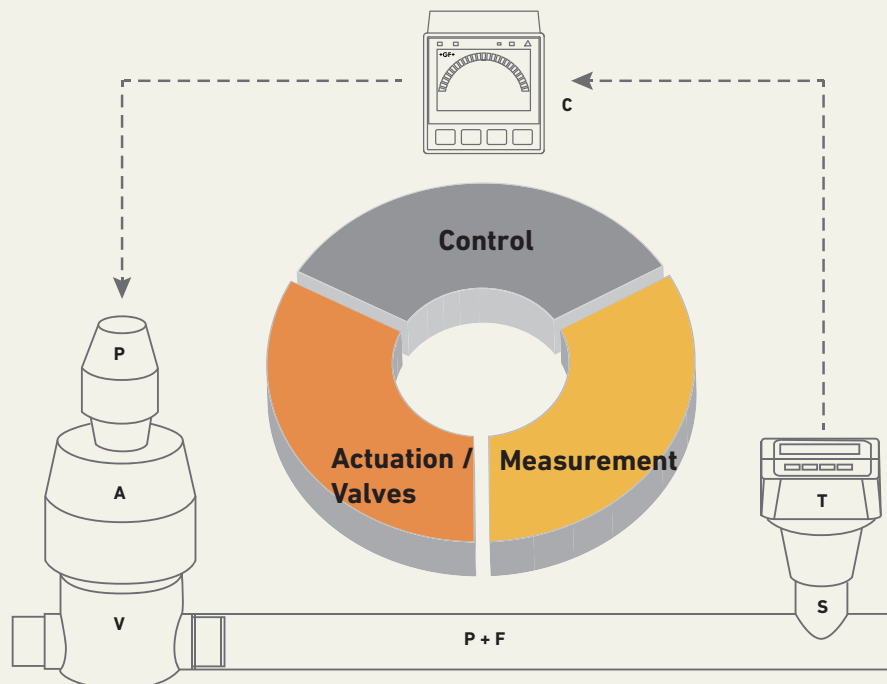
Plug-and-play design

### Easy-to-operate

Intuitive menu structure

### Easy-to-maintain

Wide range of accessories



S: Sensor  
T: Transmitter  
C: Controller

P: Positioner  
A: Actuator

V: Valve  
P+F: Pipe & Fittings

### Measurement

Accurate measurement



### Control

Precise control



### Actuation

Reliable actuation



### Valves

Modular valves



# Measurement

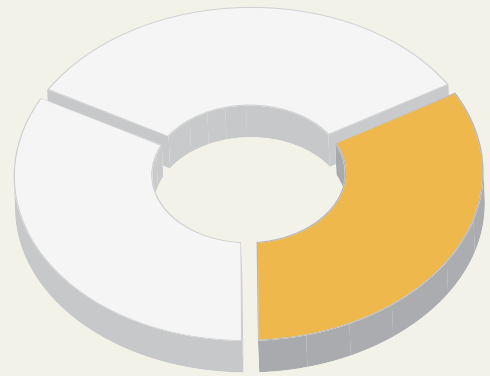
Accurate measurement is the basis for reliable process control



Our measurement offering will cover your needs: flow, pH, conductivity, level, temperature and various water quality parameters. Corresponding to our piping systems, most sensors are available in plastic and are therefore highly resistant to chemicals. Our plug-and-play measurement products are self-explanatory, easy to maintain and are offered with suitable installation fittings.

# Measurement products

An overview of the key products



## Flow Sensors and Instruments



**Rotor-X Paddlewheel Flow Sensor type 515**

- Non-powered
- 0.3 - 6 m/s (1 to 20 ft/s)
- DN15 - DN900 (½ to 36 in.)
- PP 12.5 bar @ 20 °C (180 psi @ 68 °F)
- PVDF 14 bar @ 20 °C (203 psi @ 68 °F)
- 19.7 Hz per m/s nominal (6 Hz per ft/s nominal)



**Rotor-X Paddlewheel Flow Sensor type 2536**

- Powered
- 0.1 - 6 m/s (0.3 to 20 ft/s)
- DN15 - DN900 (½ to 36 in.)
- PP 12.5 bar @ 20 °C (180 psi @ 68 °F)
- PVDF 14 bar @ 20 °C (203 psi @ 68 °F)
- 49 Hz per m/s nominal (15 Hz per ft/s nominal)



**Paddlewheel Flow Sensor type 2537**

- 0.1 - 6 m/s (0.3 to 20 ft/s)
- DN15 - DN200 (½ to 8 in.)
- PP 12.5 bar @ 20 °C (181 psi @ 68 °F)
- PVDF 14 bar @ 20 °C (203 psi @ 68 °F)
- 4-20 mA, digital (S<sup>3</sup>L), flow switch or pulse outputs (based on part number)



**Stainless Steel Paddlewheel Flow Sensor - type 2540**

- 0.1 - 6 m/s (0.3 to 20 ft/s)
- DN40 - DN900 (1½ to 36 in.)
- 316 Stainless Steel
- 17 bar @ 100 °C (250 psi @ 212 °F)
- 49 Hz per m/s nominal (15 Hz per ft/s nominal)
- Open Collector output



**Magmeter (blind or display) type 2551**

- 0.05 - 10 m/s (0.15 to 33 ft/s)
- DN15 - DN900 (½ to 36 in.)
- 10.3 bar @ 25 °C (150 psi @ 77 °F)
- 4-20 mA, or frequency/ digital (S<sup>3</sup>L) outputs
- Optional relay outputs



**Metal Magmeter type 2552**

- 0.05 - 10 m/s (0.15 to 33 ft/s)
- DN50 - DN2550 (2 to 102 in.)
- 316 Stainless Steel & PVDF
- 20.7 bar @ 25 °C (300 psi @ 77 °F)
- 4-20 mA, frequency/ digital (S<sup>3</sup>L)
- Hot-tap using ball or gate valves



**Turbine Flow Sensor type 2100**

- 0.38 to 38 lpm (0.10 to 10 gpm)
- DN15 (½ in.)
- PVDF
- 16 bar @ 20 °C (232 psi @ 68 °F)
- Open Collector output
- Use with End Fitting: 3-2100-31 to 3-2100-38



**Micro-Flow Rotor Sensor type 2000**

- 0.11 - 12.11 lpm (0.03-3.2 gpm)
- ¼ in. NPT or ISO 7/1-R1/4 threads
- Polyphenylene Sulphide and PEEK
- 5.5 bar @ 0 ° to 80 °C (80 psi @ 32 °F to 176 °F)
- Open Collector output
- Standard cable 7.6 m (25 ft)



**Mini-Flow Rotor Sensor type 2507**

- 400 - 12 000 mL/m (0.1 to 3.2 U.S. gpm)
- G ¼ in. ports, ¼ in. NPT pipe adapters
- PVDF
- 5.5 bar @ 24 °C (80 psi @ 75 °F)
- Open Collector output
- Standard cable 7.6 m (25 ft)



**Metalex Paddlewheel Flow Sensor type 525**

- 0.5 - 6 m/s (1.6-20 ft/s)
- DN15 - DN300 (½-12 in.)
- 316 Stainless Steel
- 103 bar (1500 psi @ safety factor 1.5) @ 149 °C (300 °F)
- 39 Hz per m/s nominal (12 Hz per ft/s nominal)

# Easy to install

## Flow sensors and instruments



**SmartPro Transmitter  
type 9900**

- Multi-Parameter input selection
- Large auto-sensing backlit display
- "Dial-type" digital bar graph
- Optional field upgradable relays
- Selectable error mode for current outputs, 3.6 mA or 22 mA
- Optional Relay, Direct Conductivity / Resistivity, 4 to 20 mA Output, and HART modules are available



**Flow Integral Mount  
type 9900**

- Local display for sensor mounted instruments
- Provides 4-20 mA output
- "At a glance" visibility
- "Dial-type" digital bar graph
- NEMA 4X/IP65



**ProPoint Sensor-Powered  
Flow Monitor - type 5090**

- Displays GPM
- No power required
- Single input
- Panel mount
- Analogue dial for indication
- Use with 515 flow sensor



**Battery Powered Flow Totaliser  
type 8150**

- Displays GPS, GPM, GPH, GPD, LPS, LPM, LPH, LPD
- Battery powered
- Single input
- Panel or field mount
- 3 totalisers, auto calibration
- Use with 515 or 525 flow sensors



**Variable Area Flow Meters  
type 335 / 350, SK50-73**

- Taper tubes in PVC transparent, PA, PSU, PVDF
- Union connection with PVC (std)
- DN10-DN65 (3/8" - 3 1/2")
- PN10
- Optional switch feedback
- Special scales on request



**Flow Wet-Tap Valve  
type 3519**

- DN15-DN900 (1/2 to 36 in.)
- PVC
- 7 bar @ 20 °C (100 psi max @ 68 °F)
- Use with Wet-Tap Paddlewheel Flow Sensors Type 515 and 2536



**Portaflow Portable Ultrasonic  
Flowmeter - type 330 / 220**

- 0.1 m/s - 20 m/s
- d13-d2000
- Battery powered, AC 110-240 V
- Output: 0/4 to 20 mA, RS 232, USB, pulse
- Data logger (Type 330)
- Transit time measurement



**Ultraflow wall Mount Ultrasonic  
Flowmeter - type 3000 / 4000**

- 0.1 m/s - 20 m/s
- d13 - d2000
- DC 24 V or AC 86-240 V
- Output 0/4 to 20mA, RS 232, USB, pulse
- Data logger (Type 4000)
- Transit time measurement



**Ultrasonic Flowmeter  
type U1000**

- 0.1 m/s-10 m/s
- d25-d115
- DC 12 - 24 V
- Output: 4-20 mA, pulse or frequency
- Transit time measurement



## pH/ORP sensors and instruments



### SmartPro Transmitter type 9900

- Multi-Parameter input selection
- Large auto-sensing backlit display
- "Dial-type" digital bar graph
- Optional field upgradable relays
- Selectable error mode for current outputs, 3.6 mA or 22 mA
- Optional Relay, Direct Conductivity / Resistivity, HART modules 4 to 20 mA-Output Module are available



### DryLoc pH and ORP Electrodes type 2724-2726

- 0-14 pH,  $\pm 2,000$  mV ORP
- Ryton body, PE junction
- Use fittings for in-line applications or  $\frac{3}{4}$ " NPT or ISO
- Suitable for submersible applications
- DryLoc preamplifier connection with gold plated pins



### Threaded DryLoc pH/ORP Electrode - type 2774-2777

- 0-14 pH,  $\pm 2,000$  mV ORP
- Ryton body, PTFE junction
- Use sensor  $\frac{3}{4}$ " threads for mounting
- DryLoc preamplifier connection with gold plated pins
- Suitable for submersible applications
- For use with 2750/2760 preamplifiers



### pH/ORP Wet-Tap Assembly - type 3719 / 2756, Wet-Tap Electrodes type 2757

- Use a wet-tap style sensor; for 0-14 pH,  $\pm 2,000$  mV ORP
- CPVC, PVC
- 1½ or larger
- 1½ or 2 NPT, ISO 7 / 1-R1.5 or R2
- Electrode removal without process shutdown



### Differential DryLoc pH / ORP Electrodes type 2764-2767

- 0-14 pH,  $\pm 2,000$  mV ORP
- Ryton body, PTFE junction
- Use sensor 1 inch threads for mounting
- DryLoc preamplifier connection with gold plated pins
- For use with 2750 / 2760 preamplifiers



### DryLoc pH/ORP SensorElectronics type 2750

- 0-14 pH,  $\pm 2,000$  mV ORP
- PBT, CPVC (PVC-C)
- DryLoc connection with gold plated pins
- 4-20 mA or digital (S<sup>3</sup>L)
- Use with 8900, 9900 or PLC
- In-line and submersible versions available



### DryLoc pH and ORP Electrodes for Harsh Applications - type 2734-2736

- Enhanced reference and bridge gels to resist chemical poisoning
- Ryton (PPS) body and PTFE junction for broad range of chemical compatibility
- PTFE reference junction resists fouling and chemical attack
- Mounts in Signet standard fittings from DN15 to DN100 ( $\frac{1}{2}$  to 4 in.)

## Conductivity/resistivity sensors and instruments



### Dual-Channel Conductivity Controller - type 8860

- Displays  $\mu\text{S}$ ,  $\text{mS}$ ,  $\text{K}\Omega$ ,  $\text{M}\Omega$ ,  $\text{PPM}$
- AC or DC supply
- Up to 2 sensor inputs
- Up to 2 Open Collector outputs and 4 relay outputs
- Up to 3 active current outputs
- % reject, % recovery, and ratio functions



### SmartPro Transmitter type 9900

- Multi-Parameter input selection
- Large auto-sensing backlit display
- "Dial-type" digital bar graph
- Optional field upgradable relays
- Selectable error mode for current outputs, 3.6 mA or 22 mA
- Optional Relay, Direct Conductivity / Resistivity, 4 to 20 mA Output, and HART modules are available



### Conductivity Integral System with 9900 Transmitter

- Local display for sensor mounted instruments
- Provides 4-20 mA output
- "At a glance" visibility
- "Dial-type" digital bar graph
- NEMA 4X/IP65



### Conductivity Sensor Electronics with PVDF type 2850

- 0.055 - 400 000  $\mu\text{S}$  (0.02 - 200 000 ppm) (18.2  $\text{M}\Omega$  - 1  $\text{K}\Omega$ )
- PBT (integral mount) / PBT/CPVC (universal J-box)
- Integral systems connect to the 2839 series electrodes or 2819 series electrode via 3-286X Universal J-box assembly
- 4-20 mA or digital (S<sup>2</sup>L)
- Factory NIST Certified



### Conductivity/Resistivity Electrodes type 2818 - 2823

- 0.055 - 400 000  $\mu\text{S}$  (0.02-200 000 ppm) (18.2  $\text{M}\Omega$  - 1  $\text{K}\Omega$ )
- 316 SS or Titanium (Hastelloy-C also available upon request)
- Reversible threads or sanitary flange connections
- Connect to 2850 sensor electronics



### PVDF Conductivity Electrodes type 2839 - 1V(D) - 2842 - 1V(D)

- 0.055-200 000  $\mu\text{S}$  (0.02-100 000 ppm) (18.2  $\text{M}\Omega$  - 1  $\text{K}\Omega$ )
- 316 SS and PVDF
- Dual threaded NPT or ISO
- Connection to 9900 - 1, 8900 instruments or 2850 sensor electronics
- NIST Certificate

Dual-Channel ProcessPro's -3 are still available

## Temperature sensors and instruments



### SmartPro Transmitter type 9900

- Multi-Parameter input selection
- Large auto-sensing backlit display
- "Dial-type" digital bar graph
- Optional field upgradable relays
- Selectable error mode for current outputs, 3.6 mA or 22 mA
- Optional Relay, Direct Conductivity/ Resistivity and HART modules are available



### Temperature Integral System with 9900 Transmitter

- Local display for sensor mounted instruments
- Provides 4-20 mA output
- "At a glance" visibility
- "Dial-type" digital bar graph
- NEMA 4X/IP65



### Temperature Sensor type 2350

- In-line mounting: 10 °C to 100 °C (14°-212 °F)
- Submersible mounting: 10 °C to 85 °C (14 °-185 °F)
- PVDF
- 3/4 inch dual threaded for in-line or submersible installation
- 4-20 mA or digital (S<sup>2</sup>L)

# Temperature, pressure and level sensors and instruments



### Pressure Integral System with 9900 Transmitter

- Utilizes the 2450 sensor for pressure or hydrostatic level measurement
- Local display for sensor mounted instruments
- Provides 4-20 mA output
- "At a glance" visibility
- "Dial-type" digital bar graph
- NEMA 4X / IP65



### Pressure Sensor type 2450

- 0-0.7 bar (0-10 psig) - U
- 0-3.4 bar (0-50 psig) - L
- 0-17 bar (0-250 psig) - H
- Vacuum range available
- Wetted material: PVDF, ceramic and FPM
- 1/2" union, dual threaded
- 4-20 mA or digital (S<sup>2</sup>L)



### Ultrasonic Integral Level Transmitter type 2260

- Non-contact principle
- Narrow 5 and 6° beam
- Range: 4, 6, 15 meters (13, 20, 50 ft)
- 4-20 mA, HART, relay output
- PP and PVDF bodies
- ATEX versions
- Quick-set and advanced menu
- Large multi-parameter display
- Allows for open channel measurement



### Ultrasonic Level Sensor type 2270

- Non-contact principle
- Narrow 5 and 6° beam
- Range: 4, 6, meters (13, 20, ft)
- 4-20 mA, HART
- PP and PVDF bodies
- Easy to use EView programming software
- Allows for open channel measurement



### Point level Switches

- Body materials for water, water based liquids and concentrated chemicals
- Versions for industrial- and municipal water treatment
- Digital transistor- and relay outputs
- ATEX versions
- WHG versions
- Versions without moving parts



### Hydrostatic Level Sensor type 2250

- 0-10 psi = 0-7.03 m = 0-23.06 ft
- 0-50 psi = 0-35.15 m = 0-115.32 ft
- Wetted Material: PVDF, PVC, ceramic and FPM
- Submersible sensor
- 4-20 mA or digital (S<sup>2</sup>L)
- Uses hydrostatic pressure for level and depth control

## Water analysis



### Chlorine Analyzer System type 4630

- Continuous free chlorine measurement without chemical reagents
- Optional pH sensor for increased accuracy
- Pre-wired panel for easy installation
- Built in pressure regulator and variable area flow meter



### Turbidimeter type 4150

- Compliant with U.S. EPA 180.1 or ISO7027
- Two adjustable alarm relays
- Built-in pressure regulator
- Easy access for wiring and maintenance
- Optional auto cleaning for reduced maintenance



### Process Optical Dissolved Oxygen Sensor - type 2610

- Optical DO measurement with no flow requirements
- No membranes or filling solutions
- Flexible communications 4 to 20 mA or Modbus 3-2610-31 (S<sup>2</sup>L), 4 to 20 mA or Modbus 3-2610-41
- Measurement Range: 0-20 mg/L, 0-200% Saturation



### Chlorine Dioxide System type 4632

- Complete turnkey system - no additional parts required to install
- Now available with a flow switch interrupt (Chlorine and Chlorine dioxide)
- Complies with EPA standard 334.0
- Chemical free measuring system - 0-2 ppm
- Optional pH measurement

# Easy to monitor



# Easy to operate

## Accessories



### Switching Power Supplies type 7310

- Universal AC input/Full Range
- Protections: Short circuit/Overload/Over-voltage
- Cooling by free air convection
- Install on DIN rail TS-35/7.5 or 15
- Built in DC OK active signal
- LED indicator for power on



### i-GO Signal Converter type 8058

- Connects third party 4-20 mA signals to the 8900 and 9900
- Available for single or dual 4-20 mA sensor inputs
- Requires special programming for use with the 8350, 8450
- Compatible with 8900, 9900



### 8059 External Relay Module

- AC and DC powered versions
- External relays controlled by host instrument
- Digital pass-through (DC versions) to simplify wiring
- Relay can be tested locally, and also via the host instrument
- Only compatible with 8900



### HART – USB Modem

- HART to USB converter
- Portable or DIN rail version
- ATEX



### pH/ORP System Tester type 2759

- Battery powered
- Simulates pH and ORP
- Compatible with 2750 and 2760 preamp
- Connects to any pH/ORP instrument



### Configuration/Diagnostic Tool type 0250 USB to Digital (S<sup>3</sup>L)

- User friendly interface
- Configure all modifiable parameters in the sensor
- Monitor/graph sensor data or log sensor data to a file
- Monitor mV readings in pH/ORP sensors to monitor drift



### Conductivity/Resistivity Tools type 2850 - 101 - X

- Available in 5 different values
- Verifies electronic independent of electrode
- Compatible with all conductivity and resistivity instruments
- Temperature compensated to 25 °C



### PC COMM Configuration Tool type 0251

- User friendly interface
- Configure settings such as instrument type, units and modify labels
- Back up and restore 9900 Transmitter configurations to a computer
- Use a single file to clone multiple 9900 Transmitters



**Buffer Solutions  
type pH/ORP**

- NIST Traceable
- Easily identifiable colour coded buffer solutions
- Liquid or powder versions
- Temperature compensated values
- Kits for easy use



**Formazin Stock Kit for Turbidimeter  
type 4150**

- Turbidity standard for most any value
- Three different graduated pipettes included
- Four glass cuvettes with light shield caps
- Easy to follow instructions



**Calibration Kits for Turbidimeter  
type 4150**

- Stable pre-mixed standards that are certified accurate
- Sealed calibration cuvettes
- Shelf-life 12 months
- Easy to follow instructions
- Kits for easy use



**Wall Mount  
Accessory Kit**

- Compact enclosure that works with 9900 Transmitter and other ¼ DIN size instruments
- Equipped with a ¼ DIN cutout and two ½" holes at the base
- Mounting hardware and liquid tight connectors are included



**4 - 20 mA Sensor GK 15 for VAFM  
type 335/350**

- 12 - 24 V DC
- IP 65
- 4 - 20 mA (3 wire)



**Limit contacts GK 10 / GK11 for type  
335 / 350 and short version**

- Reed contact
- IP65
- 230 V

# Control

Precise control  
throughout your automation loop

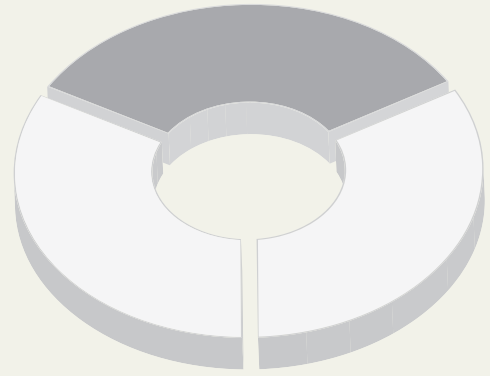
Clever design makes life easy. All our measurement parameters can be connected with one and the same transmitter, a true multi-parameter controller. Additional functionalities like batch control or communication technologies can be added anytime because of the modular design. Our control products are simple to operate, have intuitive menu structures and can be upgraded modularly.



## Control

# Control products

An overview of the key products



## Multi-parameter instruments



**SmartPro Transmitter  
type 9900**

- Multi-Parameter input selection
- Large auto-sensing backlit display
- „Dial-type“ digital bar graph
- Optional field upgradable relays
- Selectable error mode for current outputs, 3.6 mA or 22 mA
- Optional Relay, Direct Conductivity / Resistivity, 4 to 20 mA Output, and HART modules are available



**Multi-Parameter / Multi-Channel  
Controller - type 8900**

- AC or DC power option
- Up to 6 sensor inputs (2 frequency inputs max)
- Up to 4 4-20mA outputs
- Up to 8 relays
- Use with all digital (S<sup>3</sup>L) sensors

## Flow instruments



**SmartPro Batch Controller  
type 9900-1BC**

- „Dial-type“ digital bar graph
- Remote control wiring with start, stop and resume terminals for remote batch control
- 3 programmable relays
- 10 batch memory
- Compatible with flow sensors
- Two-stage control to prevent overfilling
- Simple and advanced programming modes

## Accessories



**i-GO Signal Converter  
type 8058**

- Connects third party 4-20 mA signals to the 8900 and 9900
- Available for single or dual 4-20 mA sensor inputs
- Compatible with 8900, 9900
- Requires programming at the factory with the 8350, 8450

# Actuation

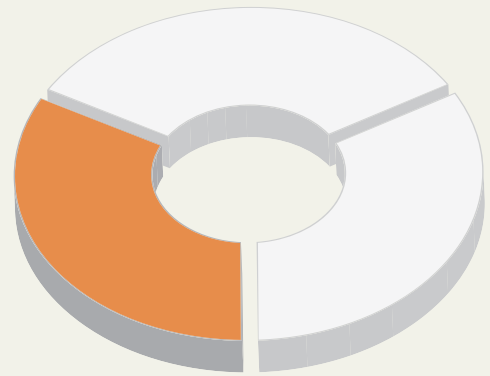
Reliable actuation with  
configuration flexibility

With our modular set-up, valves and actuators can be combined flexibly and additional functionalities, like positioners or monitoring devices, can be added optionally. Naturally, we offer the whole range in all-plastic designs, which are capable of withstanding harsh environments. A wide range of pressure regulating valves and accessories complete our actuation portfolio.

## Actuation

# Actuation products

An overview of the key products



## Actuators electric and pneumatic



### Electric actuators type EA11

- 100-230 V AC, 24 V AC/DC
- 20 Nm peak (F05)
- 150 000 cycles, 40% ED
- Position Feedback optional
- Fail-safe modul optional
- Heating Element optional



### Electric actuators type EA21, EA31, EA42

- 100-230 V AC, 24 V AC/DC
- EA21: 20 Nm peak (F05) 100% ED
- EA31: 120 Nm peak (F07) 50% ED
- EA42: 250 Nm peak (F07) 35% ED
- Accessory like EA11 plus additional
- with monitoring and positioner options



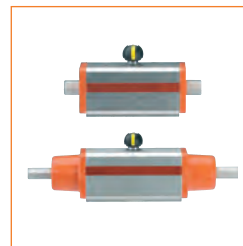
### Electric actuators type EA25, EA45, EA120, EA250

- Replaces type EA21 - 42
- 100-230 V AC, 24 V AC/DC
- Torques from 25 Nm – 250 Nm
- LED enforced position feedback
- Standard: Position Feedback, Heater
- Optional:
  - Fail-safe return unit integrated
  - Positioner
  - Monitoring
  - Profibus



### Pneumatic actuator type PA11 / PA21

- FC, FO, DA
- Rack and pinion principle
- Accessory interface acc. ISO5211
- Visual position indication
- Full plastic solution
- PA11: 10 Nm / PA21: 20 Nm



### Pneumatic actuator type PA30 - PA90

- FC, FO, DA
- Scotch Yoke principle
- Accessory interface acc. ISO5211
- Visual position indication
- Adjustable end stops
- Various coatings on request

## Actuated Butterfly Valves



### Butterfly Valve electric type 145 / 146 / 147\*

- Electric actuated Butterfly Valve
- Actuator type: EA45 / 120 / 250 (24 V, 110-230 V)
- Plastic Butterfly Valve Wafer/ Lugstyle
- Butterfly Valve type 567/578
- PVC-U, PVC-C, ABS, PP-H, PVDF
- 567: DN50 - DN600; 578: DN50 - DN300



### Butterfly Valve electric type 038-E / 039-E

- Electric actuated Butterfly Valve
- Actuator type: EA45 / 120 / 250 (24 V, 110-230 V)
- Metal Butterfly Valve Wafer/ Lugstyle
- Butterfly Valve type 038 / 039
- 038/039: Ductile Iron with Powder/ Epoxy Coating/ Rilsan Coating
- 038: DN50 - DN600, 039: DN50 - DN1200

\* Predecessor type 140 / 143 / 144 with electric actuators type EA31 / 42

# Easy to modify

## Actuated Butterfly Valves



**Butterfly Valve pneumatic  
type 240 / 243 / 244**

- Pneumatic actuated Butterfly Valve
- Actuator Type: PA30-PA90
- Plastic Butterfly Valve Wafer/ Lugstyle
- Butterfly Valve Typ 567/578
- PVC-U, PVC-C, ABS, PP-H, PVDF
- 567: DN50-DN600; 578: DN50-DN300



**Butterfly Valve pneumatic  
type 038-P / 039-P**

- Pneumatic actuated Butterfly Valve
- Actuator Type: PA30-PA70
- Metal Butterfly Valve Wafer/ Lugstyle
- Butterfly Valve Type 038/039
- 038/039: Ductile Iron with Powder/Epoxy Coating/ Rilsan Coating
- 038: DN50-DN600; 039: DN50-DN1200

## Actuated Ball Valves



**Electric Ball Valve  
type 104**

- Electric actuated 2-way Ball Valve
- Actuator Type: EA04 (24V, 85-230V)
- Actuating angle 0-90°
- Ball Valve 546
- PVC-C, PVC-U, PP-H
- DN10 – DN50 3/8 - 2"
- Limited access range
- Low cycle applications



**Electric Ball Valve  
type 107**

- Electric actuated 2-way Ball Valve
- Actuator Type: EA11 (24 V, 110-230 V)
- Actuating angle 90°
- Ball Valve 546
- ABS, PVC-C, PVC-U, PP-H, PVDF
- DN10-DN50



**Electric Ball Valve  
type 179 - 184\***

- Electric actuated 2-way Ball Valve
- Actuator Type: EA25 / 45 / 120 (24 V, 110-230 V)
- Actuating angle 90°
- Ball Valve 546
- ABS, PVC-C, PVC-U, PP-H, PVDF
- EA25 DN10-DN50; EA45 / 120 DN65-DN100



**Electric Ball Valve  
type 167 - 170\*\***

- Electric actuated 3-way Ball Valve
- Actuator Type: EA25 (24 V, 110-230 V)
- Actuating angle 90°; max. 180°
- Ball Valve 543
- ABS, PVC-C, PVC-U, PP, PVDF
- DN10-DN50



**Pneumatic Ball Valve  
type 285 - 288**

- Pneumatic actuated 3-way Ball Valve
- Actuator Type: PA11/PA21
- Actuating angle 90°
- Ball Valve 543
- ABS, PVC-C, PVC-U, PP, PVDF
- DN10-DN50



**Pneumatic Ball Valve  
type 230 - 235**

- Pneumatic actuated 2-way Ball Valve
- Actuator Type: PA11/PA21 (<DN65)
- Actuator Type: PA30-PA90 (>DN50)
- Ball Valve 546
- ABS, PVC-C, PVC-U, PP-H, PVDF
- DN10-DN100

\* Predecessor type 130 - 135 with electric actuators type EA21 / 31

\*\* Predecessor type 185 - 188 with electric actuator type EA21

# Actuation

## Actuated Diaphragm Valves



**Diaphragm Valve**  
type 604 / 605

- PVC-U, PVC-C, PP-H, PVDF
- EPDM, FPM, PTFE / EPDM, PTFE / FPM
- DN15
- PN6
- pneumatic actuated FC, FO, DA



**Diaphragm Valve DIASTAR**  
TenPLUS

- ABS, PVC-U, PVC-C, PP-H, PVDF, PVDF-HP
- EPDM, FPM, PTFE / EPDM, PTFE / FPM
- DN15-DN50
- PN10 (both sides)
- pneumatic actuated FC, FO, DA
- Accessories available



**Diaphragm Valve DIASTAR**  
Six

- ABS, PVC-U, PVC-C, PP-H
- EPDM, FPM
- DN15 - DN50
- PN6
- pneumatic actuated FC



**Diaphragm Valve DIASTAR**  
Sixteen

- PVDF, PVDF-HP
- EPDM, FPM, PTFE / EPDM, PTFE / FPM
- DN15-DN50
- PN16
- pneumatic actuated FC, FO, DA
- Accessories available



**Diaphragm Valve DIASTAR**  
Ten

- ABS, PVC-U, PVC-C, PP-H, PP-N, PVDF, PVDF-HP
- EPDM, FPM, PTFE / EPDM, PTFE / FPM
- DN15 - DN50
- PN10
- pneumatic actuated FC, FO, DA
- Accessories available



**Diaphragm Valve DIASTAR**  
025

- ABS, PVC-U, PVC-C, PP-H, PVDF, PVDF-HP
- EPDM, FPM, PTFE/EPDM, PTFE / FPM
- DN65 - DN150
- up to PN10
- pneumatic actuated FC, FO, DA
- Accessories available

## Actuated process control valves



**Solenoid Valve**  
type 157

- direct acting pivoted armature valve
- 2/2-Ways
- PVC-U
- EPDM, FPM
- 230 V AC, 24 V AC, 24 V DC
- DN4-DN8
- 0-4 bar depending on dimension



**Solenoid Valve**  
type 160 / 161

- direct acting pivoted armature valve
- 2/2- or 3/2-Ways
- PVC-U
- EPDM, FPM
- 230 V AC, 24 V AC, 24 V DC
- DN10-DN20
- 0-3 bar depending on dimension



**Solenoid Valve**  
type 165

- pilot assisted solenoid valve
- 2/2-Ways
- PVC-U, PVDF
- EPDM, FPM
- 230 V AC, 110 V AC, 24 V AC, 24 V DC
- DN15 - DN50
- 0.5 - 6 bar



**Solenoid Valve**  
type 166

- direct acting pivoted armature valve
- 2/2- or 3/2-Ways
- PVC-U, PVDF
- EPDM, FPM
- 230 V AC, 110 V AC, 24 V AC, 24 V DC
- DN3 - DN5
- 0-10 bar depending on dimension



# Easy to regulate

## Pressure regulating valves



**Pressure Reducing Valve  
type 582**

- PVC-U, CPVC, PP-H, PVDF
- Spigot or union connection
- O-ring Material: EPDM, FPM
- DN10–DN50
- 0.5–9 bar or 0.3–3 bar
- Manometer with or without gauge guard optional



**Pressure Retaining Valve  
type 586**

- PVC-U, CPVC, PP-H, PVDF
- Spigot or union connection
- O-ring Material: EPDM, FPM
- DN10–DN50
- 0.5–9 bar or 0.3–3 bar
- Manometer with or without gauge guard optional



**Pressure Retaining Valve  
type V86**

- PVC-U, PP, PVDF
- EPDM, EPDM-PTFE-coated
- V86: DN65–80: 1–6 bar  
DN100: 1–4 bar



**Pressure Reducing Valve  
type V82**

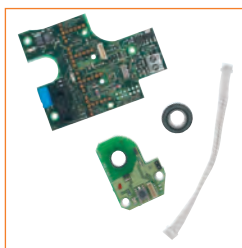
- PVC-U, PP, PVDF
- EPDM, EPDM-PTFE-coated
- V82: DN65–80: 0.5–6 bar  
DN100 0.5–4 bar

## Electric accessories



**Limit switches (position feedback) for  
EA11 - 42**

- Mechanical switches (AgNi or Au)
- NPN/PNP
- Middle position (3way Ball Valve)
- Additional 2 limit switches
- For EA11: AgNi switches only



**Monitoring and Positioner Options for  
EA21 - 42**

- Monitoring board with:
- Cycle counter
  - Cycle Time extension and/ or monitoring
  - Current Monitoring
- Positioner with:
- Input: 0–10V or 4–20mA
  - Feedback: 4–20mA



**Heating element and Fail-safe return  
unit for EA11 - 42**

- Heating element reduces condensation
- Caused by temperature variation
- Fail safe return unit for safe
- Adjustment in case of power failure
- 230 V AC; 24 V AC/DC



**Accessories for type EA25 - 250**

- Fail-safe return unit to be installed in housing
- Positioner
- Monitoring Board
- Profibus



## Pneumatic accessories



**Solenoid pilot valve 3/2-ways type PV94**

- 230 V, 50-60 Hz
- 115 V, 50-60 Hz
- 24 V, 50-60 Hz
- 24 V DC
- G $\frac{1}{8}$ , G $\frac{1}{4}$ , G6mm
- DN1.2



**Solenoid pilot valve 3/2-ways type PV95**

- 230 V, 50-60 Hz
- 115 V, 50-60 Hz
- 24 V, 50-60 Hz
- 24 V DC
- G $\frac{1}{8}$ , G $\frac{1}{4}$ ;
- DN1.5-DN2



**Solenoid Pilot valve type 2000**

- Modular version for 3/2-way and 5/2-way valves
- 24 V DC
- Connection module AS-Interface
- Connection module profibus interface



**Solenoid pilot valve type MNL 532**

- Version for 3/2-way and 5/2-way
- Namur connection
- Material of body: Aluminium
- 24 V AC, 24 V DC, 48 V AC, 110 V AC, 230 V AC



**Electric position feedback type ER 52-1/ER53-1**

- For pneumatic stroke actuators
- For Diastar Ten, TenPLUS, Sixteen, 025
- Mechanical switches (AgNi or Au)
- NPN/PNP, Namur
- With visual position indication



**Electric position feedback limit switch box**

- For pneumatic rotary actuators
- For PA11-90:
- Mechanical switches (AgNi or Au)
- NPN/PNP, Namur
- With visual position indication



**Stroke limiter/ manual override**

- For Diastar all type Ten, TenPLUS, Sixteen, 025



**Digital electro-pneumatic positioner type DSR 500**

- Mounted on pneumatic control valves
- Linear and rotary actuators
- Nominal stroke 3-28 mm
- Self-learning
- Control signal 4-20 mA
- 24 V DC

# Communication Products

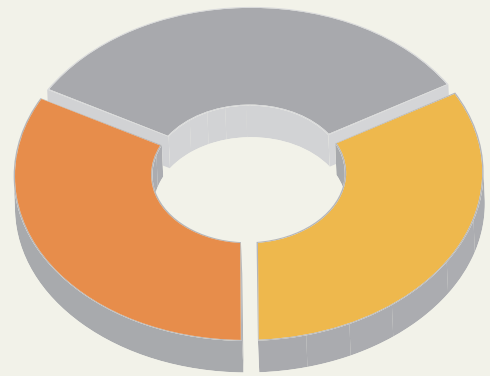
Different communication protocols for different needs



Our automation loop can be managed with various communication technologies and can therefore be seamlessly integrated into existing plant management systems. We offer analogue and digital communication technologies which support on / off or continuous control loops. Benefits are less wiring, faster installations and more efficient diagnostic and parameterization capabilities.

# Communication products

An overview of the key products



## Communication



### Profibus Concentrator type 3-0486

- Connect GF Actuated Valves and Sensors to Profibus automation networks
- Supports six S<sup>3</sup>L sensors or relay modules plus a proportional controlled actuated valve
- Four of the (S<sup>3</sup>L) inputs support flow frequency devices for cost effective flow monitoring
- Two of the (S<sup>3</sup>L) inputs support 4 to 20 mA current loop inputs for connections to third party sensors
  - 4 to 20 mA current loop input and output for connection to GF proportional controlled actuated valves



### Profibus

- Modular version for 3/2-way and 5/2-way valves
- 24 V DC
- Connection module AS-Interface
- Connection module profibus interface



### AS-interface for pneumatic rotary actuators

- Pilot valve 5/2-Ways
- Electric feedback integrated
- Full plastic housing
- Optical status indicator
- AS Interface Version 3.0



### AS-interface for electric actuators

- Integrated control an electric
- Feedback
- For 24 V DC actuators
- For EA11-EA42
- Manual override standard



### AS-interface for manual valves with feedback

- With integrated feedback
- Ideal for Ball Valves
- Ideal for Butterfly Valves
- Ideal for Diaphragm Valves



### AS-interface for pneumatic stroke actuators

- Pilot valve 3/2-Ways
- Compact design
- Full plastic housing
- Optical status indicator
- AS Interface Version 3.0



### AS-interface for sensor with switch output

- With switching output
- For level switch
- For flow switch
- For pressure switch
- For temperature switch




### HART

- HART Protocol superimposes digital signals on top of the 4-20 mA analog signal
- Communication occurs between two HART-enabled devices
- HART protocol operates according to the master-slave method



# Valves

The right valve  
for your application

A decorative graphic consisting of a grid of plus signs in various colors (blue, green, yellow, orange, red, purple) that fades out towards the right side of the page.

We offer one of the most comprehensive valve product ranges, which enables you to find the right match for your application. Our valves are available in a wide selection of dimensions, materials, chemical resistances, standards, actuation, operation principles, and pipe connections and are designed for long service life. The combination of the right valve selection and our high product quality leads to a favorable total cost of ownership.

# Product Configurator

Create your own   !

## Electric Actuator

- T01 EA 1124V with Cable Plug
- T02 EA 11 100-230V with Cable Plug
- T07 EA 25 24V with Cable Plug
- T08 EA 25 100-230V with Cable Plug
- T09 EA 120 24V with Cable Plug
- T10 EA 120 100-230V with Cable Plug
- T11 EA 250 24V with Cable Plug
- T12 EA 250 100-230V with Cable Plug



## Angle (Open/ Close)

- W45 45°
- W90 90°
- W180 180°

## Middle Position

- W17 No
- W18 Yes

## Colour Assignment Feedback

- W20 Open = rot
- W21 Open = grün

## Position Feedback

- W23 Open/ Close
- W24 Open/ Close/ Middle
- W25 Middle

## Wiring Feedback

- W26 NC
- W28 NO

## Heating Threshold

- W29 5°
- ... [5°steps]
- W37 45°

## Failsafe Return uni

- W39 Integrated (Battery powered)
- W40 External (no Battery - 24V needed)

## Accessory

- W42 Positioner
- W43 Monitoring
- W44 Profibus

## Setting Positioner

- W46 BCD = 0
- ...
- W55 BCD = 9

## Setting Motor Current

- W56 BCD = 0
- ...
- W65 BCD = 9

## Setting Cycle Time

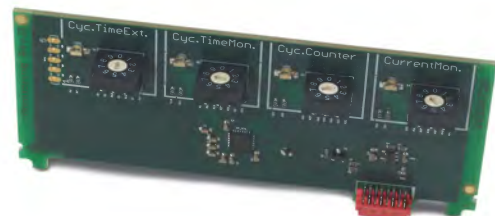
- W66 BCD = 0
- ...
- W75 BCD = 9

## Setting Cycle Time monitoring

- W76 BCD = 0
- ...
- W85 BCD = 9

## Setting Cycle Counter

- W86 BCD = 0
- ...
- W96 BCD = 9



T08 W90 W17 W20 W23 W26 W29 W39 W42 W46 W65 - - - =

# Actuated valves

## Ball valves electric



DN10/15 - 50



DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 107 100-230V**  
**With manual emergency override**  
**With socket fusion spigots metric**

**Model:**

- Material: PVDF
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

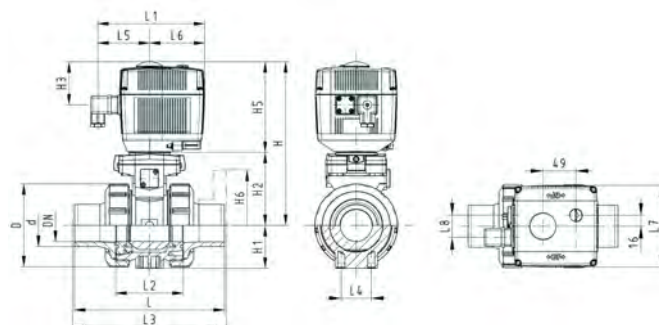
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	<b>199 107 812</b>	2.100
20	15	10	185	<b>199 107 813</b>	2.100
25	20	10	350	<b>199 107 814</b>	2.200
32	25	10	700	<b>199 107 815</b>	2.300
40	32	10	1000	<b>199 107 816</b>	2.600
50	40	10	1600	<b>199 107 817</b>	3.000
63	50	10	3100	<b>199 107 818</b>	3.800

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)
16	50	200	27	64	64	137	114	161	56	0	25	79	83	122	67
20	50	200	27	64	64	137	124	161	56	130	25	79	83	122	67
25	58	209	30	73	64	137	144	161	65	150	25	79	83	122	67
32	68	209	36	73	64	137	154	161	71	160	25	79	83	122	67
40	84	220	44	84	64	137	174	161	85	180	45	79	83	122	67
50	97	220	51	84	64	137	194	161	89	200	45	79	83	122	67
63	124	243	64	106	64	137	224	161	101	230	45	79	83	122	67

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





DN10/15 - 50



DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 107 100-230V**  
**With manual emergency override**  
**With butt fusion spigots IR-Plus metric**

**Model:**

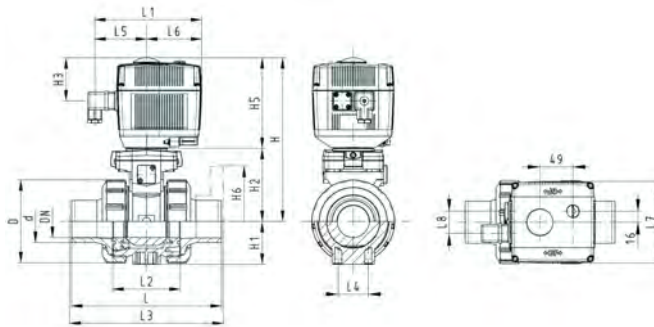
- Material: PVDF
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	185	<b>199 107 423</b>	2.100
25	20	10	350	<b>199 107 424</b>	2.200
32	25	10	700	<b>199 107 425</b>	2.300
40	32	10	1000	<b>199 107 426</b>	2.600
50	40	10	1600	<b>199 107 427</b>	3.000
63	50	10	3100	<b>199 107 428</b>	3.981

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	closest inch (inch)
20	50	200	27	64	64	137	130	161	56	25	79	83	122	67	1/2
25	58	209	30	73	64	137	143	161	65	25	79	83	122	67	3/4
32	68	209	36	73	64	137	150	161	71	25	79	83	122	67	1
40	84	220	44	84	64	137	171	161	85	45	79	83	122	67	1 1/4
50	97	220	51	84	64	137	191	161	89	45	79	83	122	67	1 1/2
63	124	243	64	106	64	137	220	161	101	45	79	83	122	67	2







DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 107 24V**  
**With manual emergency override**  
**With fusion sockets metric**

**Model:**

- Material: PVDF
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

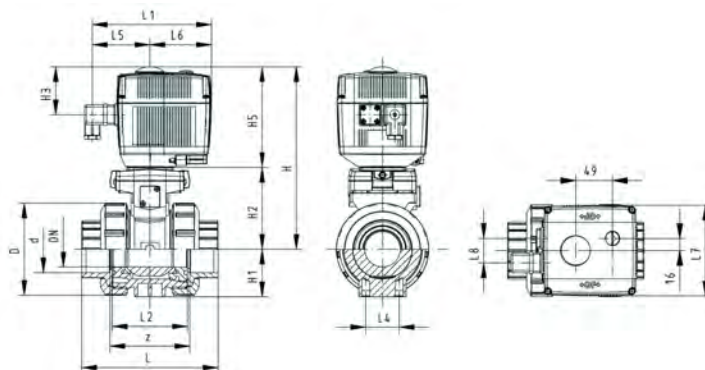
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	<b>199 107 822</b>	2.100
20	15	10	185	<b>199 107 823</b>	2.100
25	20	10	350	<b>199 107 824</b>	2.200
32	25	10	700	<b>199 107 825</b>	2.414
40	32	10	1000	<b>199 107 826</b>	2.600
50	40	10	1600	<b>199 107 827</b>	2.995
63	50	10	3100	<b>199 107 828</b>	3.800

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	z (mm)
16	50	200	27	64	64	137	93	161	56	25	79	83	122	67	67
20	50	200	27	64	64	137	95	161	56	25	79	83	122	67	66
25	58	209	30	73	64	137	109	161	65	25	79	83	122	67	77
32	68	209	36	73	64	137	119	161	71	25	79	83	122	67	83
40	84	220	44	84	64	137	135	161	85	45	79	83	122	67	99
50	97	220	51	84	64	137	147	161	89	45	79	83	122	67	105
63	124	243	64	106	64	137	168	161	101	45	79	83	122	67	117

d (mm)	closest inch (inch)
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 107 24V**  
**With manual emergency override**  
**With fixed flanges PVDF serrated metric**

**Model:**

- Material: PVDF
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

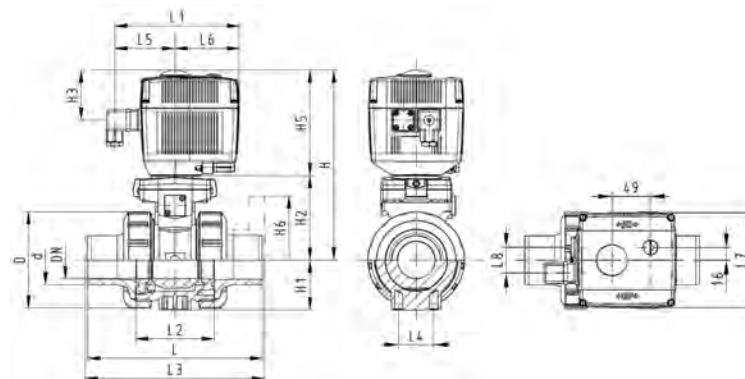
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	½	10	185	<b>199 107 853</b>	2.300
25	20	¾	10	350	<b>199 107 854</b>	2.500
32	25	1	10	700	<b>199 107 855</b>	2.700
40	32	1 ¼	10	1000	<b>199 107 856</b>	3.200
50	40	1 ½	10	1600	<b>199 107 857</b>	3.700
63	50	2	10	3100	<b>199 107 858</b>	4.800

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
20	50	201	27	64	65	138	48	124	160	56	130	25	77	83	122
25	58	210	30	73	65	138	53	144	160	65	150	25	77	83	122
32	68	210	36	73	65	138	58	154	160	71	160	25	77	83	122
40	84	221	44	84	65	138	70	174	160	85	180	45	77	83	122
50	97	221	51	84	65	138	75	194	160	89	200	45	77	83	122
63	124	244	64	106	65	138	83	224	160	101	230	45	77	83	122

d (mm)	L8 (mm)
20	33
25	33
32	33
40	33
50	33
63	33





DN10/15 - 50



DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 107 100-230V**  
**With manual emergency override**  
**With fixed flanges PVDF serrated metric**

**Model:**

- Material: PVDF
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

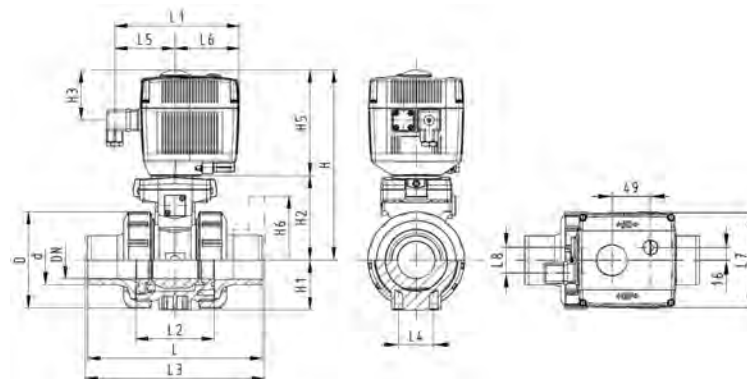
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value (Δp=1 bar) (L/min)	FPM Code	Weight (kg)
20	15	½	10	185	<b>199 107 843</b>	2.300
25	20	¾	10	350	<b>199 107 844</b>	2.500
32	25	1	10	700	<b>199 107 845</b>	2.700
40	32	1 ¼	10	1000	<b>199 107 846</b>	3.200
50	40	1 ½	10	1600	<b>199 107 847</b>	3.700
63	50	2	10	3100	<b>199 107 848</b>	4.800

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
20	50	201	27	64	65	138	48	124	160	56	130	25	77	83	122
25	58	210	30	73	65	138	53	144	160	65	150	25	77	83	122
32	68	210	36	73	65	138	58	154	160	71	160	25	77	83	122
40	84	221	44	84	65	138	70	174	160	85	180	45	77	83	122
50	97	221	51	84	65	138	75	194	160	89	200	45	77	83	122
63	124	244	64	106	65	138	83	224	160	101	230	45	77	83	122

d (mm)	L8 (mm)
20	33
25	33
32	33
40	33
50	33
63	33





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 107 100-230V**  
**With manual emergency override**  
**With fusion sockets metric**

**Model:**

- Material: PVDF
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

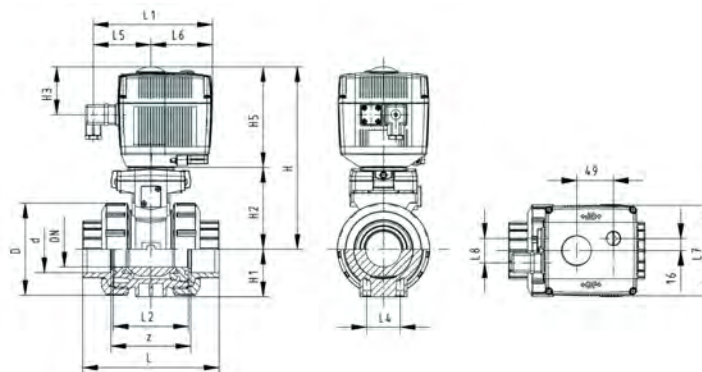
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	<b>199 107 802</b>	2.100
20	15	10	185	<b>199 107 803</b>	2.100
25	20	10	350	<b>199 107 804</b>	2.200
32	25	10	700	<b>199 107 805</b>	2.300
40	32	10	1000	<b>199 107 806</b>	2.600
50	40	10	1600	<b>199 107 807</b>	3.000
63	50	10	3100	<b>199 107 808</b>	3.800

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	z (mm)
16	50	200	27	64	64	137	93	161	56	25	79	83	122	67	67
20	50	200	27	64	64	137	95	161	56	25	79	83	122	67	66
25	58	209	30	73	64	137	109	161	65	25	79	83	122	67	77
32	68	209	36	73	64	137	119	161	71	25	79	83	122	67	83
40	84	220	44	84	64	137	135	161	85	45	79	83	122	67	99
50	97	220	51	84	64	137	147	161	89	45	79	83	122	67	105
63	124	243	64	106	64	137	168	161	101	45	79	83	122	67	117

d (mm)	closest inch (inch)
16	3/4
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





**SYGEF Standard**  
**Ball valve type 107 24V**  
**With manual emergency override**  
**With butt fusion spigots IR-Plus metric**

**Model:**

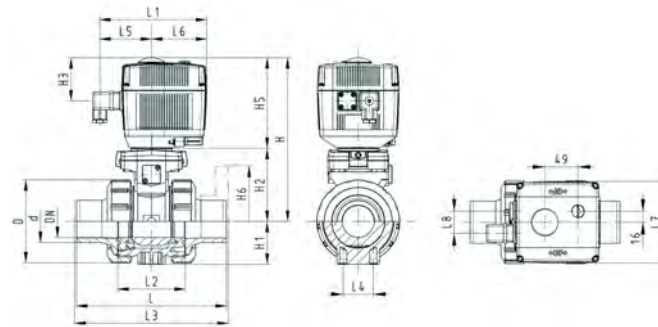
- Material: PVDF
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	185	<b>199 107 433</b>	2.100
25	20	10	350	<b>199 107 434</b>	2.200
32	25	10	700	<b>199 107 435</b>	2.300
40	32	10	1000	<b>199 107 436</b>	2.600
50	40	10	1600	<b>199 107 437</b>	3.000
63	50	10	3100	<b>199 107 438</b>	3.800

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	closest inch (inch)
20	50	200	27	64	64	137	130	161	56	25	79	83	122	67	½
25	58	209	30	73	64	137	143	161	65	25	79	83	122	67	¾
32	68	209	36	73	64	137	150	161	71	25	79	83	122	67	1
40	84	220	44	84	64	137	171	161	85	45	79	83	122	67	1 ¼
50	97	220	51	84	64	137	191	161	89	45	79	83	122	67	1 ½
63	124	243	64	106	64	137	220	161	101	45	79	83	122	67	2





**SYGEF Standard**  
**Ball valve type 107 24V**  
**With manual emergency override**  
**With socket fusion spigots metric**

**Model:**

- Material: PVDF
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

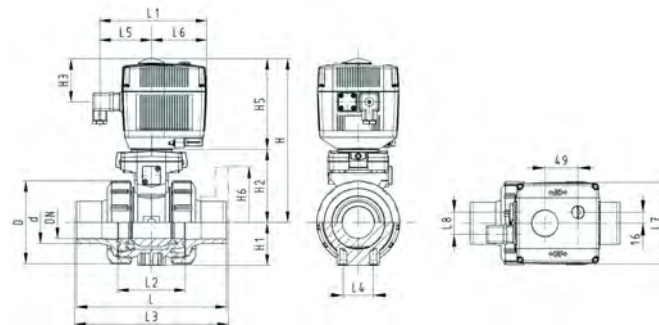
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	<b>199 107 832</b>	2.100
20	15	10	185	<b>199 107 833</b>	2.100
25	20	10	350	<b>199 107 834</b>	2.200
32	25	10	700	<b>199 107 835</b>	2.300
40	32	10	1000	<b>199 107 836</b>	2.600
50	40	10	1600	<b>199 107 837</b>	3.000
63	50	10	3100	<b>199 107 838</b>	3.800

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)
16	50	200	27	64	64	137	114	161	56	0	25	79	83	122	67
20	50	200	27	64	64	137	124	161	56	130	25	79	83	122	67
25	58	209	30	73	64	137	144	161	65	150	25	79	83	122	67
32	68	209	36	73	64	137	154	161	71	160	25	79	83	122	67
40	84	220	44	84	64	137	174	161	85	180	45	79	83	122	67
50	97	220	51	84	64	137	194	161	89	200	45	79	83	122	67
63	124	243	64	106	64	137	224	161	101	230	45	79	83	122	67

d (mm)	closest inch (inch)
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2





**SYGEF Standard**  
**Ball valve type 181 100-230V**  
**With manual emergency override**  
**With fusion sockets metric**

**Model:**

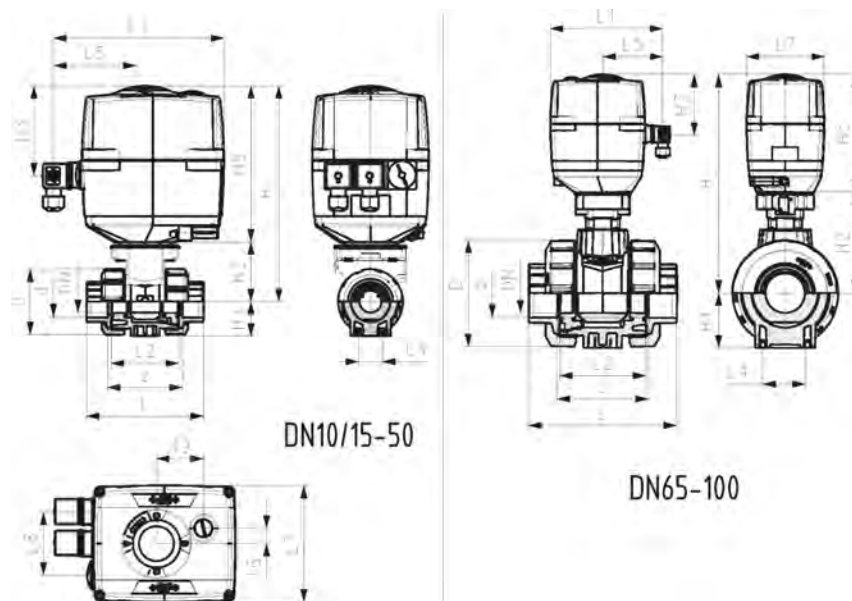
- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Integrated stainless steel mounting inserts

**Option:**

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EA	FPM Code	Weight (kg)
16	10	10	70	EA25	<b>199 181 012</b>	2.100
20	15	10	185	EA25	<b>199 181 013</b>	2.100
25	20	10	350	EA25	<b>199 181 014</b>	2.200
32	25	10	700	EA25	<b>199 181 015</b>	2.300
40	32	10	1000	EA25	<b>199 181 016</b>	2.600
50	40	10	1600	EA25	<b>199 181 017</b>	3.000
63	50	10	3100	EA25	<b>199 181 018</b>	3.800
75	65	10	5000	EA45	<b>199 181 019</b>	8.800
90	80	10	7000	EA120	<b>199 181 020</b>	11.900
110	100	10	11000	EA120	<b>199 181 021</b>	17.500

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L7 (mm)	z (mm)
16	50	231	27	64	94	167	93	180	56	25	97	122	67
20	50	231	27	64	94	167	95	180	56	25	97	122	66
25	58	240	30	73	94	167	109	180	65	25	97	122	77
32	68	240	36	73	94	167	119	180	71	25	97	122	83
40	84	251	44	84	94	167	135	180	85	45	97	122	99
50	97	251	51	84	94	167	147	180	89	45	97	122	105
63	124	273	64	106	94	167	168	180	101	45	97	122	117
75	166	346	85	156	94	190	233	180	136	70	98	122	167
90	200	358	105	168	94	190	254	180	141	70	98	122	180
110	238	365	123	175	94	190	301	180	164	120	98	122	215





**SYGEF Standard**  
**Ball valve type 181 100-230V**  
**With manual emergency override**  
**With butt fusion spigots IR-Plus metric**

**Model:**

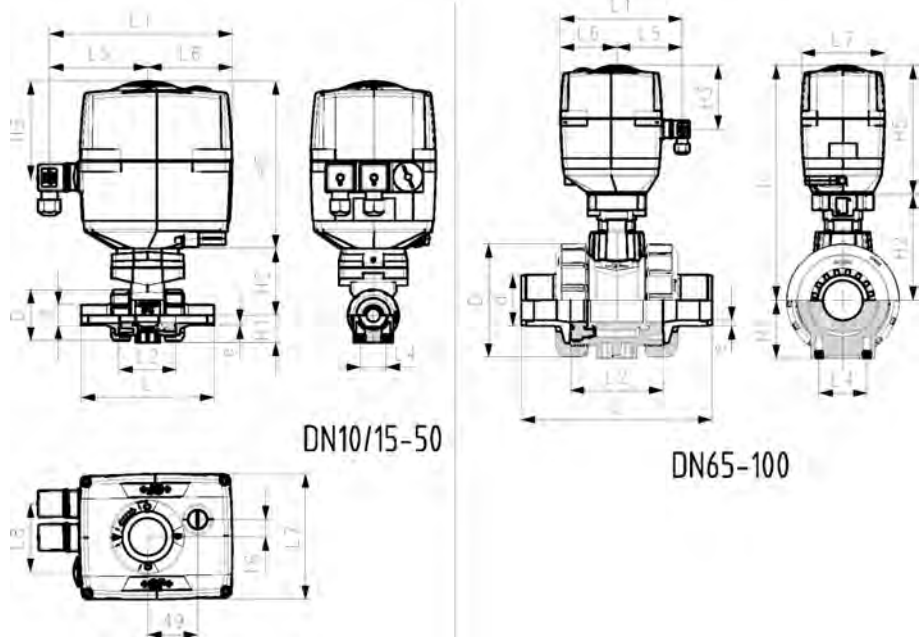
- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Integrated stainless steel mounting inserts

**Option:**

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	EA	FPM Code	Weight (kg)
20	15	10	185	EA25	<b>199 181 113</b>	2.100
25	20	10	350	EA25	<b>199 181 114</b>	2.200
32	25	10	700	EA25	<b>199 181 115</b>	2.300
40	32	10	1000	EA25	<b>199 181 116</b>	2.600
50	40	10	1600	EA25	<b>199 181 117</b>	3.000
53	50	10	3100	EA25	<b>199 181 118</b>	3.800
63	50	10	5000	EA25	<b>199 181 119</b>	9.100
90	80	10	7000	EA120	<b>199 181 120</b>	12.200
110	100	10	11000	EA120	<b>199 181 121</b>	17.500

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L7 (mm)	e (mm)
20	50	231	27	64	94	167	130	180	56	25	97	122	1.9
25	58	240	30	73	94	167	143	180	65	25	97	122	1.9
32	68	240	36	73	94	167	150	180	71	25	97	122	2.4
40	84	251	44	84	94	167	171	180	85	45	97	122	2.4
50	97	251	51	84	94	167	191	180	89	45	97	122	3.0
53	124	273	64	106	94	167	220	108	101	45	97	122	3.0
63	166	346	85	156	94	190	266	180	136	70	98	122	3.6
90	200	358	105	168	94	190	264	180	141	70	98	122	4.3
110	238	365	123	175	94	190	301	180	164	70	98	122	5.3





# Ball valves pneumatic



DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FC (Fail safe to close)**  
**With manual override**  
**With fusion Sockets metric**

**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

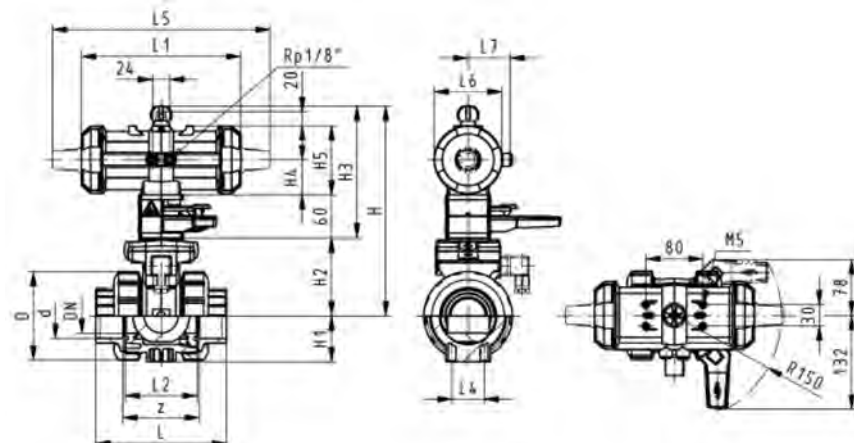
**Option:**

- Individual configuration of the valve (see diagram)

d	DN	PN	kv-value	FPM	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
			(l/min)		
16	10	10	70	<b>199 232 012</b>	1.500
20	15	10	185	<b>199 232 013</b>	1.500
25	20	10	350	<b>199 232 014</b>	1.600
32	25	10	700	<b>199 232 015</b>	1.700
40	32	10	1000	<b>199 232 016</b>	2.800
50	40	10	1600	<b>199 232 017</b>	3.100
63	50	10	3100	<b>199 232 018</b>	4.000

d	D	H	H1	H2	H3	H4	H5	L	L1	L2	L4	L5	L6	L7	z
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
16	50	230	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	77	109	194	65	25	261	76	48	77
32	68	239	36	71	168	40	77	119	194	71	25	261	76	48	83
40	84	271	44	84	187	51	99	135	224	85	45	305	95	59	99
50	97	271	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	99	168	224	101	45	305	95	59	117

d	closest
(mm)	inch
(inch)	
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FC (Fail safe to close)**  
**With manual override**  
**With threaded sockets NPT**

**Model:**

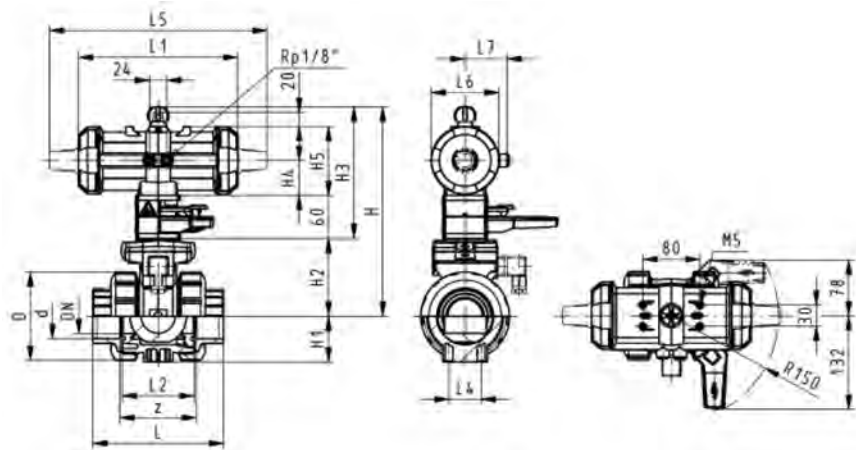
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
3/8	10	10	70	199 232 512	1.500
1/2	15	10	185	199 232 513	2.275
3/4	20	10	350	199 232 514	1.600
1	25	10	700	199 232 515	1.700
1 1/4	32	10	1000	199 232 516	2.800
1 1/2	40	10	1600	199 232 517	3.100
2	50	10	3100	199 232 518	4.935

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
3/8	50	159	27	62	168	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	168	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	168	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	101
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	135





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FO (Fail safe to open)**  
**With manual override**  
**With threaded sockets NPT**

**Model:**

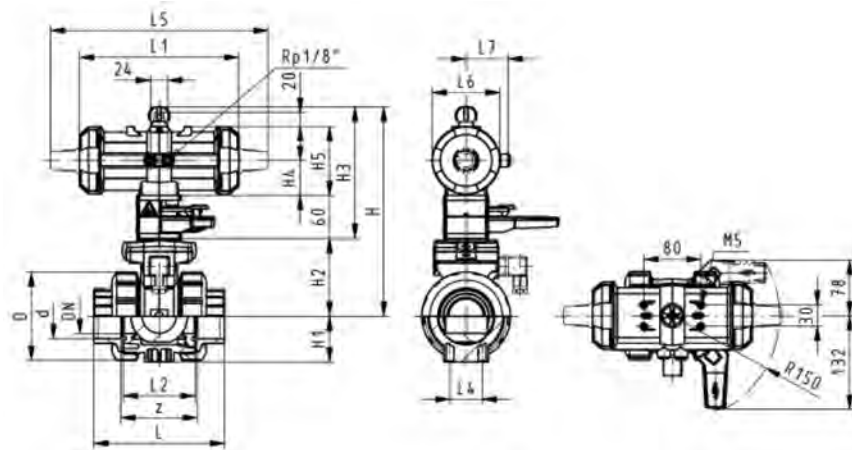
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
3/8	10	10	70	199 232 532	1.500
1/2	15	10	185	199 232 533	1.500
3/4	20	10	350	199 232 534	1.600
1	25	10	700	199 232 535	1.700
1 1/4	32	10	1000	199 232 536	2.800
1 1/2	40	10	1600	199 232 537	3.100
2	50	10	3100	199 232 538	4.000

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
3/8	50	159	27	62	168	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	168	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	168	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	101
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	135





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function DA (Double acting)**  
**With manual override**  
**With threaded sockets NPT**

**Model:**

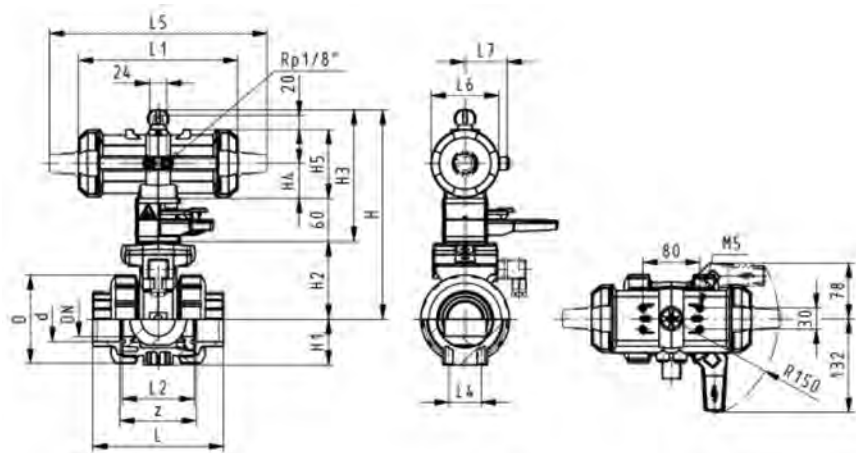
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
3/8	10	10	70	<b>199 232 552</b>	1.500
1/2	15	10	185	<b>199 232 553</b>	1.500
3/4	20	10	350	<b>199 232 554</b>	1.600
1	25	10	700	<b>199 232 555</b>	1.700
1 1/4	32	10	1000	<b>199 232 556</b>	2.800
1 1/2	40	10	1600	<b>199 232 557</b>	3.100
2	50	10	3100	<b>199 232 558</b>	4.000

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
3/8	50	230	27	62	168	40	77	96	194	56	25	261	76	48	69
1/2	50	230	27	62	168	40	77	99	194	56	25	261	76	48	64
3/4	58	239	30	71	168	40	77	111	194	65	25	261	76	48	76
1	68	239	36	71	168	40	77	127	194	71	25	261	76	48	83
1 1/4	84	271	44	84	187	51	99	146	224	85	45	305	95	59	101
1 1/2	97	271	51	84	187	51	99	157	224	89	45	305	95	59	111
2	124	293	64	106	187	51	99	183	224	101	45	305	95	59	135





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FC (Fail safe to close)**  
**Without manual override**  
**With threaded sockets NPT**

**Model:**

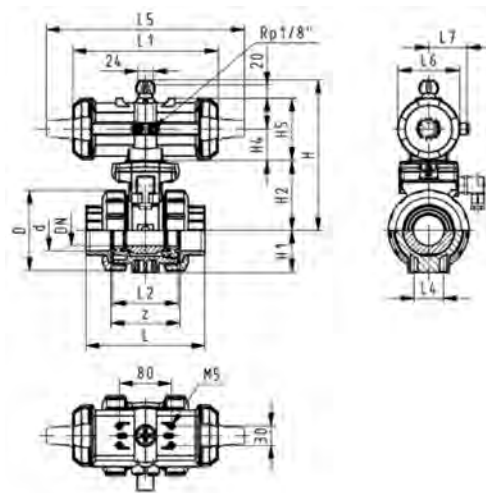
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
3/8	10	10	70	199 232 572	1.200
1/2	15	10	185	199 232 573	1.975
3/4	20	10	350	199 232 574	1.300
1	25	10	700	199 232 575	2.245
1 1/4	32	10	1000	199 232 576	2.500
1 1/2	40	10	1600	199 232 577	2.800
2	50	10	3100	199 232 578	3.700

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
3/8	50	159	27	62	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	51	99	146	224	85	45	305	95	59	101
1 1/2	97	202	51	84	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	51	99	183	224	101	45	305	95	59	135





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FO (Fail safe to open)**  
**Without manual override**  
**With threaded sockets NPT**

**Model:**

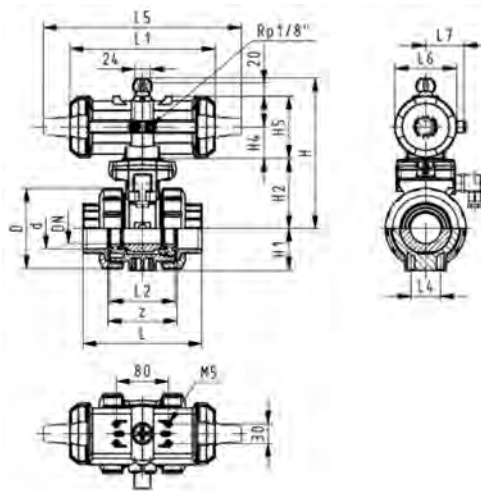
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
3/8	10	10	70	199 232 592	1.200
1/2	15	10	185	199 232 593	1.200
3/4	20	10	350	199 232 594	1.300
1	25	10	700	199 232 595	1.400
1 1/4	32	10	1000	199 232 596	2.500
1 1/2	40	10	1600	199 232 597	2.800
2	50	10	3100	199 232 598	3.700

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
3/8	50	159	27	62	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	51	99	146	224	85	45	305	95	59	101
1 1/2	97	202	51	84	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	51	99	183	224	101	45	305	95	59	135





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function DA (Double acting)**  
**Without manual override**  
**With threaded sockets NPT**

**Model:**

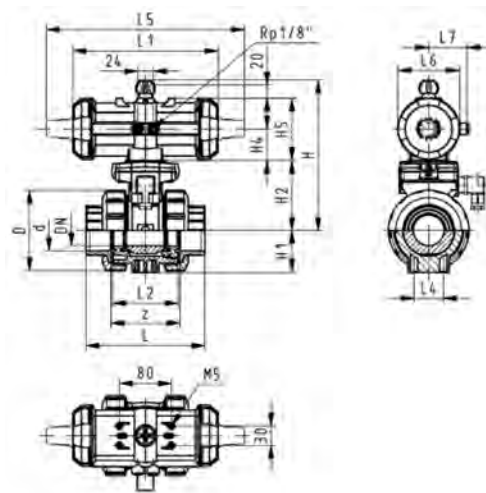
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
3/8	10	10	70	199 232 612	1.500
1/2	15	10	185	199 232 613	1.500
3/4	20	10	350	199 232 614	1.600
1	25	10	700	199 232 615	1.700
1 1/4	32	10	1000	199 232 616	2.800
1 1/2	40	10	1600	199 232 617	3.100
2	50	10	3100	199 232 618	4.000

Size (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
3/8	50	159	27	62	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	51	99	146	224	85	45	305	95	59	101
1 1/2	97	202	51	84	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	51	99	183	224	101	45	305	95	59	135





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function DA (Double acting)**  
**Without manual override**  
**With fixed flanges PVDF serrated metric**

**Model:**

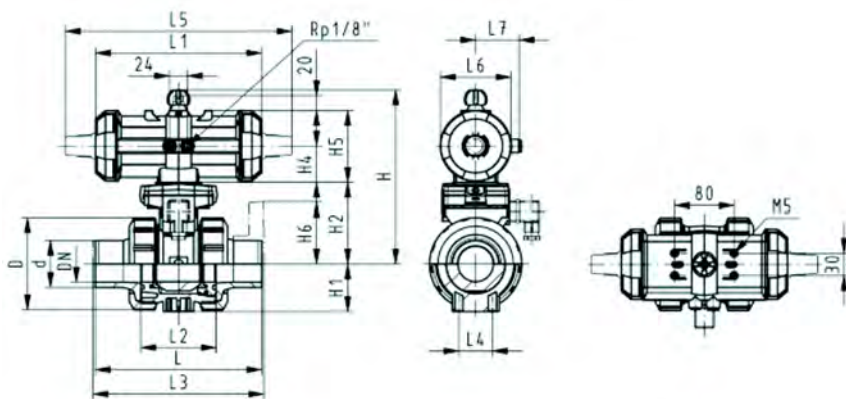
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	½	10	185	<b>199 232 103</b>	1.400
25	20	¾	10	350	<b>199 232 104</b>	1.600
32	25	1	10	700	<b>199 232 105</b>	1.800
40	32	1 ¼	10	1000	<b>199 232 106</b>	3.100
50	40	1 ½	10	1600	<b>199 232 107</b>	3.600
63	50	2	10	3100	<b>199 232 108</b>	4.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
20	50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	224	224	101	230	45	305	95	59







**SYGEF Standard**  
**Ball valve type 232**  
**Function DA (Double acting)**  
**Without manual override**  
**With backing flanges PP-st metric**

**Model:**

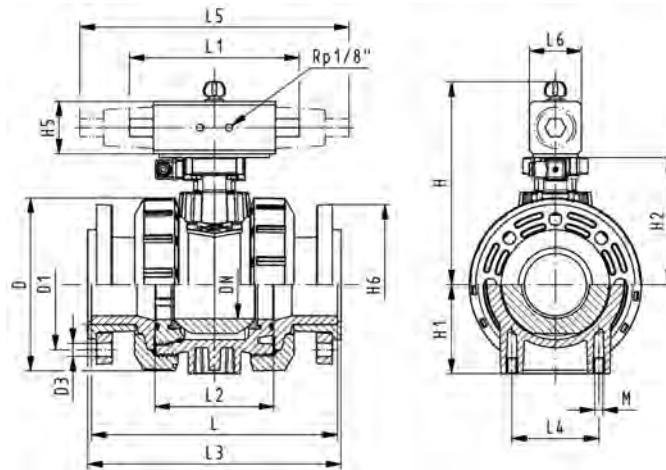
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
75	65	2 ½	10	5000	<b>199 232 949</b>	13.400
90	80	3	10	7000	<b>199 232 950</b>	18.200
110	100	4	10	11000	<b>199 232 951</b>	26.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L6 (mm)
75	166	257	85	156	66	93	280	144	136	290	70	60
90	200	274	105	168	70	100	296	152	141	310	70	65
110	238	273	123	175	78	110	336	169	164	350	120	72





**SYGEF Standard**  
**Ball valve type 232**  
**Function DA (Double acting)**  
**Without manual override**  
**With backing flanges PP-st Inch ANSI**

**Model:**

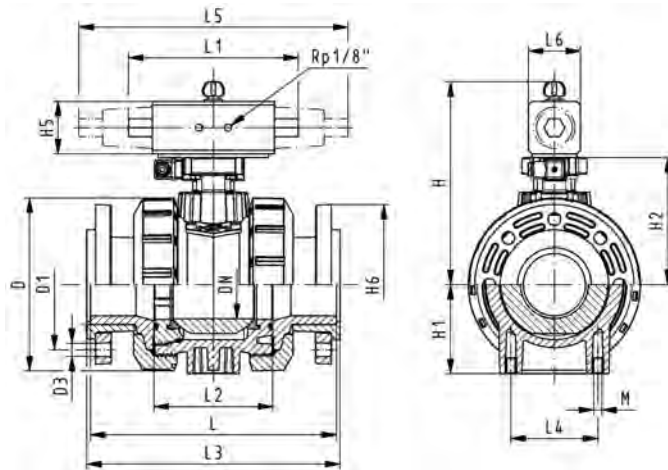
- Material: PVDF
- Control time 90° < 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

**Option:**

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
				(L/min)		
75	2 ½	65	10	5000	<b>199 232 979</b>	13.400
90	3	80	10	7000	<b>199 232 980</b>	18.200
110	4	100	10	11000	<b>199 232 981</b>	26.000

d	D	H	H1	H2	H5	H6	L	L1	L2	L3	L4	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
75	166	257	85	156	66	93	280	144	136	290	70	60
90	200	274	105	168	70	100	296	152	141	310	70	65
110	238	273	123	175	78	115	336	169	164	350	120	72





DN10/15 - 50



**SYGEF Standard**  
**Ball valve type 232**  
**Function DA (Double acting)**  
**Without manual override**  
**With butt fusion spigots IR-Plus metric**

**Model:**

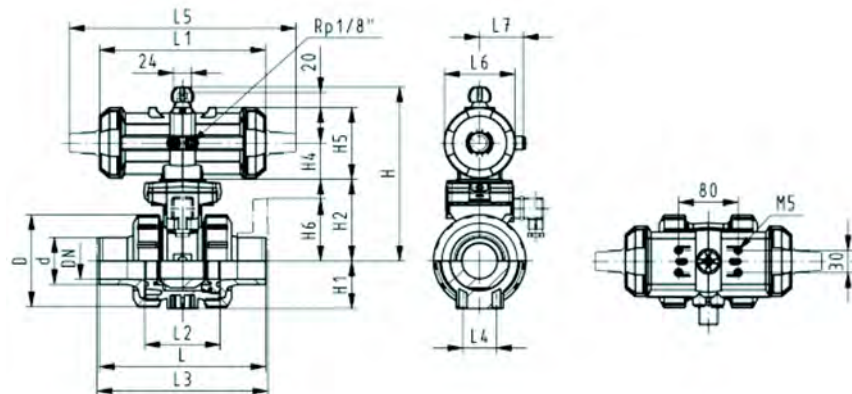
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	185	199 232 913	1.200
25	20	10	350	199 232 914	1.300
32	25	10	700	199 232 915	1.400
40	32	10	1000	199 232 916	2.500
50	40	10	1600	199 232 917	2.800
63	50	10	3100	199 232 918	3.700
75	65	10	5000	199 232 919	8.300
90	80	10	7000	199 232 920	11.900
110	100	10	11000	199 232 921	17.300

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	e (mm)
20	50	159	27	62	40	77	130	194	56	25	261	76	48	2
25	58	168	30	71	40	77	130	194	65	25	261	76	48	2
32	68	168	36	71	40	77	130	194	71	25	261	76	48	2
40	84	202	44	84	51	99	130	224	85	45	305	95	59	2
50	97	202	51	84	51	99	130	224	89	45	305	95	59	3
63	124	225	64	106	51	99	130	224	101	45	305	95	59	3
75	166	257	85	156		66	266	144	136	70		60		4
90	200	274	105	168		70	264	152	141	70		65		4
110	238	273	123	175		78	301	169	164	120		72		5





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function DA (Double acting)**  
**Without manual override**  
**With socket fusion spigots metric**

**Model:**

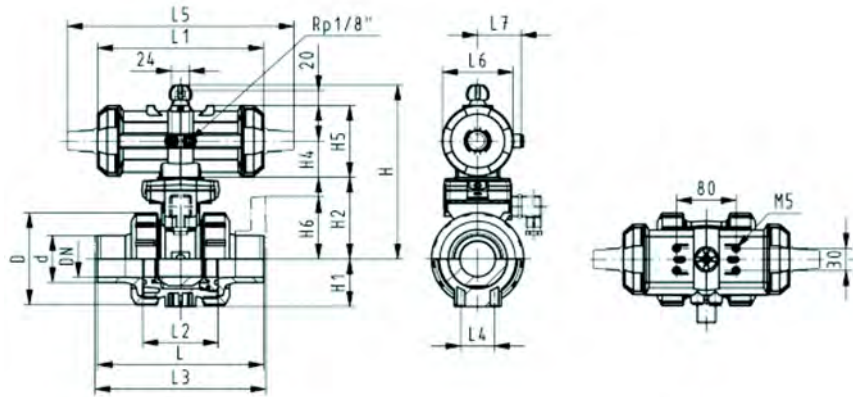
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	70	<b>199 232 232</b>	1.200
20	15	10	185	<b>199 232 233</b>	1.200
25	20	10	350	<b>199 232 234</b>	1.300
32	25	10	700	<b>199 232 235</b>	1.400
40	32	10	1000	<b>199 232 236</b>	2.500
50	40	10	1600	<b>199 232 237</b>	2.800
63	50	10	3100	<b>199 232 238</b>	3.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48	3/8
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48	1/2
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48	3/4
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48	1
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59	1 1/4
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59	1 1/2
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59	2





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function DA (Double acting)**  
**Without manual override**  
**With fusion sockets metric**

**Model:**

- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

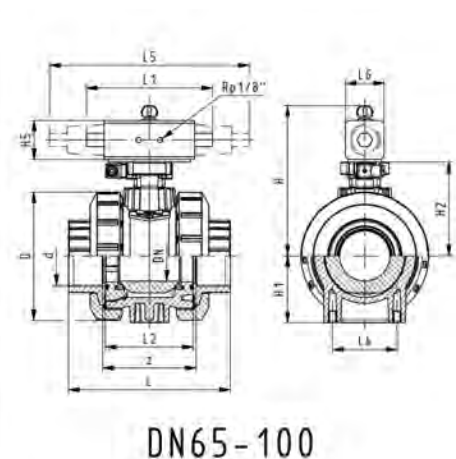
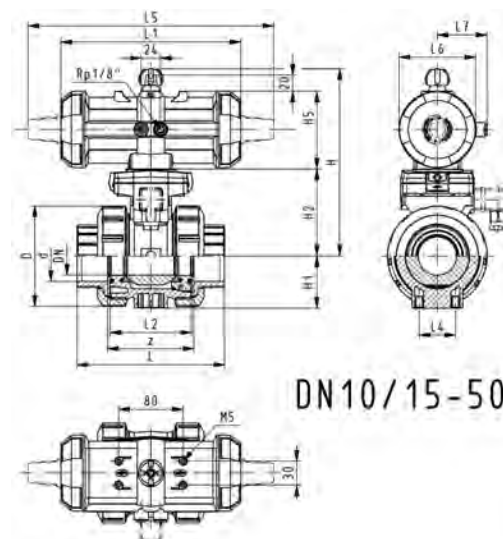
**Option:**

- Individual configuration of the valve (see diagram)



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	<b>199 232 212</b>	1.200
20	15	10	185	<b>199 232 213</b>	1.200
25	20	10	350	<b>199 232 214</b>	1.300
32	25	10	700	<b>199 232 215</b>	1.096
40	32	10	1000	<b>199 232 216</b>	1.845
50	40	10	1600	<b>199 232 217</b>	2.800
63	50	10	3100	<b>199 232 218</b>	3.700
75	65	10	5000	<b>199 232 219</b>	8.000
90	80	10	7000	<b>199 232 220</b>	11.600
110	100	10	11000	<b>199 232 221</b>	17.100

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	159	27	62	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	40	77	109	194	65	25	261	76	48	77
32	68	168	36	71	40	77	119	194	71	25	261	76	48	83
40	84	202	44	84	51	99	135	224	85	45	305	95	59	99
50	97	202	51	84	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	51	99	168	224	101	45	305	95	59	117
75	166	257	85	156		66	233	144	136	70		60		167
90	200	274	105	168		70	254	152	141	70		65		180
110	238	273	123	175		78	301	169	164	120		72		215





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FO (Fail safe to open)**  
**Without manual override**  
**With fixed flanges PVDF serrated metric**

**Model:**

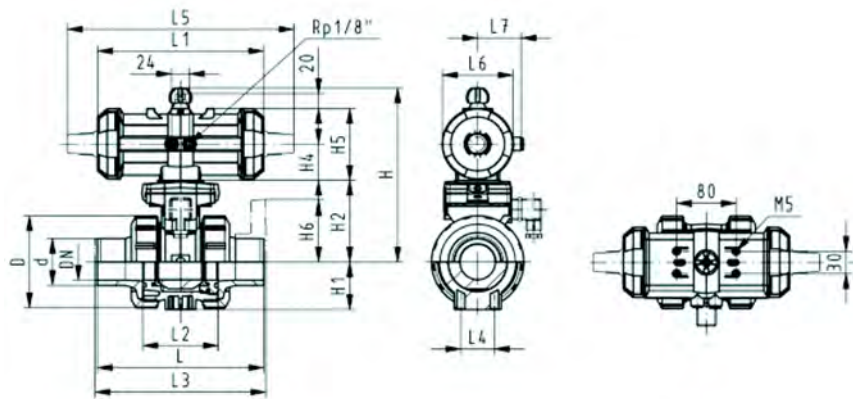
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	½	10	185	<b>199 232 083</b>	1.400
25	20	¾	10	350	<b>199 232 084</b>	1.600
32	25	1	10	700	<b>199 232 085</b>	1.800
40	32	1 ¼	10	1000	<b>199 232 086</b>	3.100
50	40	1 ½	10	1600	<b>199 232 087</b>	3.600
63	50	2	10	3100	<b>199 232 088</b>	4.697

D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
124	225	64	106	51	99	83	224	224	101	230	45	305	95	59





**SYGEF Standard**  
**Ball valve type 232**  
**Function FO (Fail safe to open)**  
**Without manual override**  
**With backing flanges PP-st Inch ANSI**

**Model:**

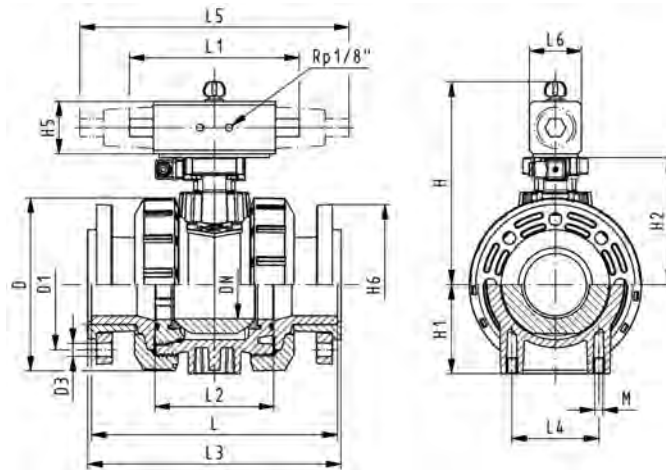
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
75	2 1/2	65	10	5000	<b>199 232 969</b>	14.500
90	3	80	10	7000	<b>199 232 970</b>	18.900
110	4	100	10	11000	<b>199 232 971</b>	27.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	H6 (mm)	L (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	115	336	164	350	120	369	80





**SYGEF Standard**  
**Ball valve type 232**  
**Function FO (Fail safe to open)**  
**Without manual override**  
**With backing flanges PP-st metric**

**Model:**

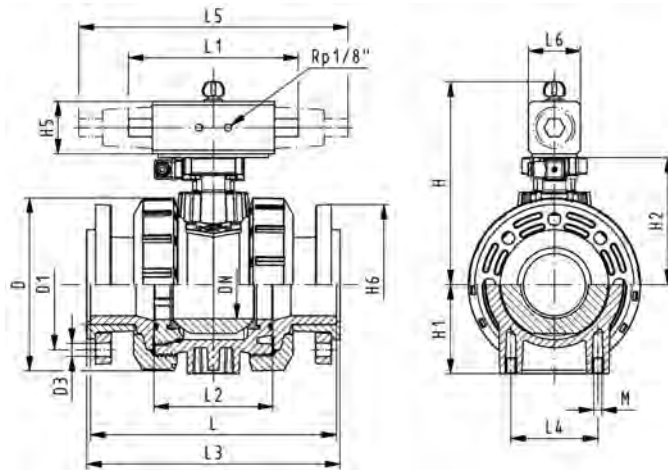
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

**Option:**

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
				(L/min)		
75	2 ½	65	10	5000	<b>199 232 939</b>	14.500
90	3	80	10	7000	<b>199 232 940</b>	18.900
110	4	100	10	11000	<b>199 232 941</b>	27.700

d	D	H	H1	H2	H5	H6	L	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	110	336	164	350	120	369	80







DN10/15 - 50



**SYGEF Standard**  
**Ball valve type 232**  
**Function FO (Fail safe to open)**  
**Without manual override**  
**With butt fusion spigots IR-Plus metric**

**Model:**

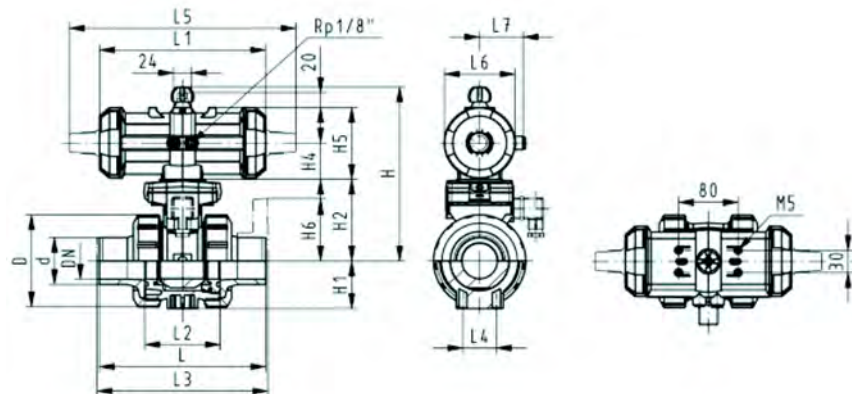
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	185	199 232 873	1.200
25	20	10	350	199 232 874	1.198
32	25	10	700	199 232 875	1.335
40	32	10	1000	199 232 876	2.351
50	40	10	1600	199 232 877	2.800
63	50	10	3100	199 232 878	3.568
75	65	10	5000	199 232 879	9.500
90	80	10	7000	199 232 880	12.600
110	100	10	11000	199 232 881	19.100

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	e (mm)
20	50	159	27	62	40	77	130	194	56	25	261	76	48	2
25	58	168	30	71	40	77	130	194	65	25	261	76	48	2
32	68	168	36	71	40	77	130	194	71	25	261	76	48	2
40	84	202	44	84	51	99	130	224	85	45	305	95	59	2
50	97	202	51	84	51	99	130	224	89	45	305	95	59	3
63	124	225	64	106	51	99	130	224	101	45	305	95	59	3
75	166	262	85	156		70	266	218	136	70	276	65		4
90	200	281	105	168		70	264	259	141	70	341	72		4
110	238	292	123	175		70	301	287	164	120	369	80		5





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FO (Fail safe to open)**  
**Without manual override**  
**With socket fusion spigots metric**

**Model:**

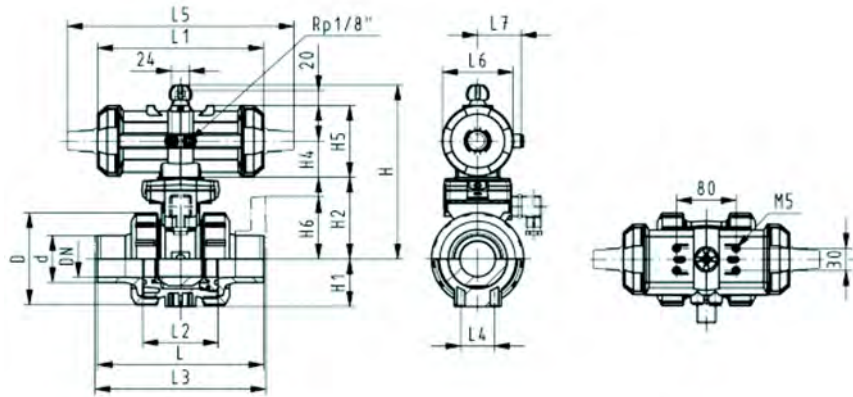
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	70	<b>199 232 192</b>	1.200
20	15	10	185	<b>199 232 193</b>	1.200
25	20	10	350	<b>199 232 194</b>	1.300
32	25	10	700	<b>199 232 195</b>	1.400
40	32	10	1000	<b>199 232 196</b>	2.500
50	40	10	1600	<b>199 232 197</b>	2.800
63	50	10	3100	<b>199 232 198</b>	3.603

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48	3/8
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48	1/2
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48	3/4
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48	1
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59	1 1/4
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59	1 1/2
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59	2





DN10/15 - 50



**SYGEF Standard**  
**Ball valve type 232**  
**Function FO (Fail safe to open)**  
**Without manual override**  
**With fusion sockets metric**

**Model:**

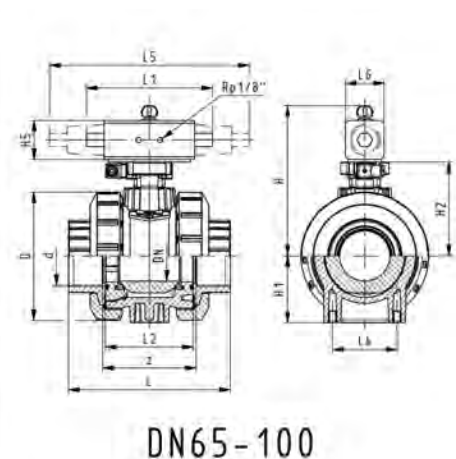
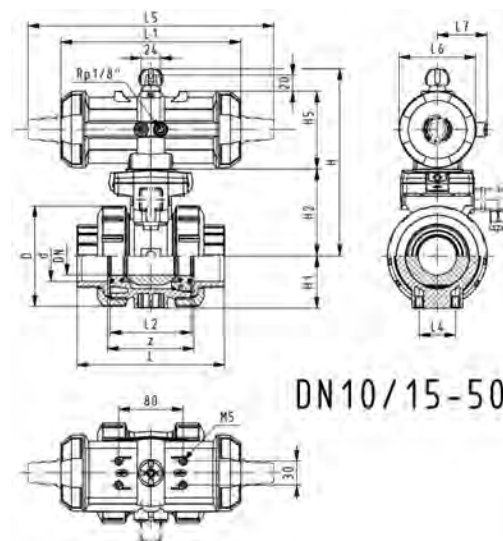
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 172	1.200
20	15	10	185	199 232 173	1.200
25	20	10	350	199 232 174	1.300
32	25	10	700	199 232 175	1.400
40	32	10	1000	199 232 176	2.500
50	40	10	1600	199 232 177	2.800
63	50	10	3100	199 232 178	3.700
75	65	10	5000	199 232 179	9.200
90	80	10	7000	199 232 180	12.300
110	100	10	11000	199 232 181	18.900

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	159	27	62	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	40	77	109	194	65	25	261	76	48	77
32	68	168	36	71	40	77	119	194	71	25	261	76	48	83
40	84	202	44	84	51	99	135	224	85	45	305	95	59	99
50	97	202	51	84	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	51	99	168	224	101	45	305	95	59	117
75	166	262	85	156		70	233		136	70	276	65		167
90	200	281	105	168		78	254		141	70	341	72		180
110	238	292	123	175		86	301		164	120	369	80		215





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FC (Fail safe to close)**  
**Without manual override**  
**With fixed flanges PVDF serrated metric**

**Model:**

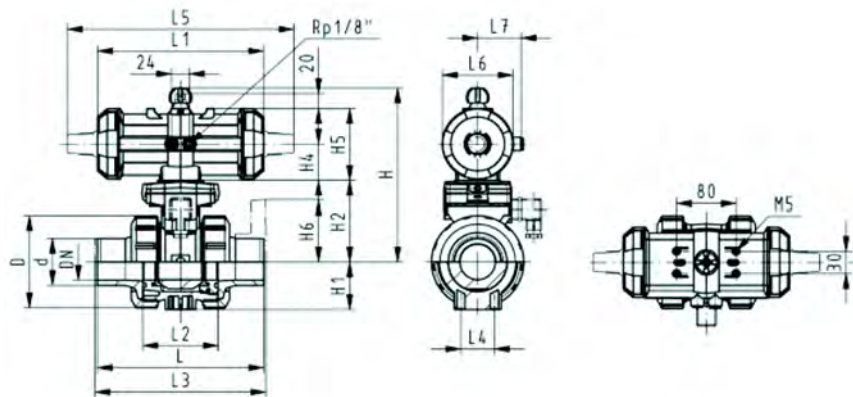
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	½	10	185	<b>199 232 063</b>	1.326
25	20	¾	10	350	<b>199 232 064</b>	1.600
32	25	1	10	700	<b>199 232 065</b>	1.804
40	32	1 ¼	10	1000	<b>199 232 066</b>	3.100
50	40	1 ½	10	1600	<b>199 232 067</b>	3.600
63	50	2	10	3100	<b>199 232 068</b>	4.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
20	50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	224	224	101	230	45	305	95	59





**SYGEF Standard**  
**Ball valve type 232**  
**Function FC (Fail safe to close)**  
**Without manual override**  
**With backing flanges PP-st ASTM**

**Model:**

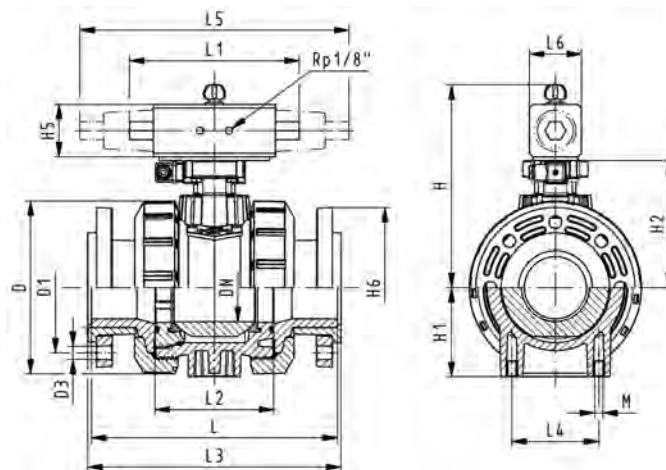
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
75	2 1/2	65	10	5000	<b>199 232 959</b>	14.500
90	3	80	10	7000	<b>199 232 960</b>	18.900
110	4	100	10	11000	<b>199 232 961</b>	27.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	H6 (mm)	L (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	115	336	164	350	120	369	80





**SYGEF Standard**  
**Ball valve type 232**  
**Function FC (Fail safe to close)**  
**Without manual override**  
**With backing flanges PP-st metric**

**Model:**

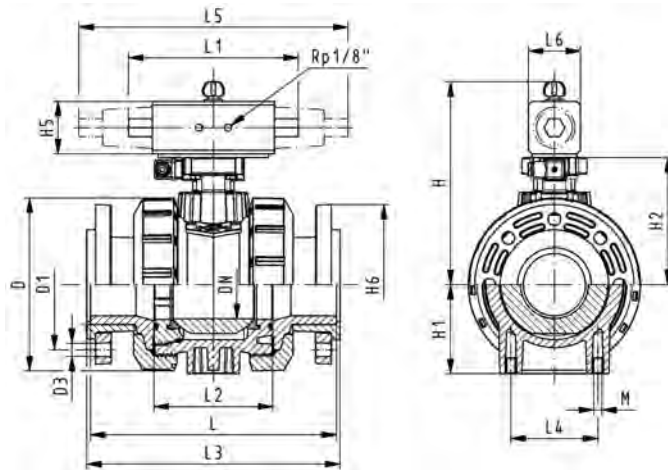
- Material: PVDF
- Control time 90° < 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
75	65	2 ½	10	5000	<b>199 232 929</b>	14.500
90	80	3	10	7000	<b>199 232 930</b>	18.900
110	100	4	10	11000	<b>199 232 931</b>	27.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H5 (mm)	H6 (mm)	L (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	110	340	164	350	120	369	80





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FC (Fail safe to close)**  
**Without manual override**  
**With socket fusion spigots metric**

**Model:**

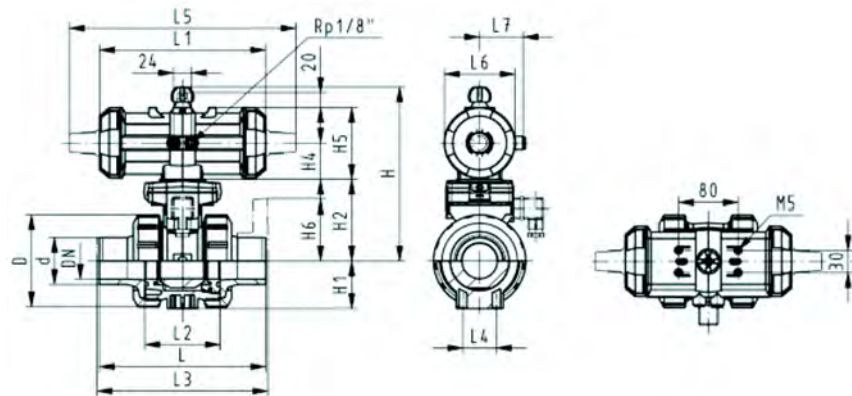
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 152	1.200
20	15	10	185	199 232 153	1.084
25	20	10	350	199 232 154	1.300
32	25	10	700	199 232 155	1.343
40	32	10	1000	199 232 156	2.500
50	40	10	1600	199 232 157	2.800
63	50	10	3100	199 232 158	3.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48	3/8
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48	1/2
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48	3/4
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48	1
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59	1 1/4
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59	1 1/2
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59	2





DN10/15 - 50



**SYGEF Standard**  
**Ball valve type 232**  
**Function FC (Fail safe to close)**  
**Without manual override**  
**With butt fusion spigots IR-Plus metric**

**Model:**

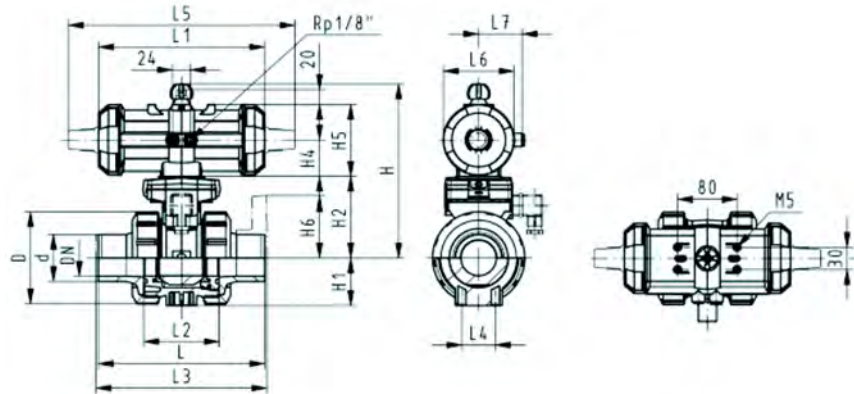
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	185	<b>199 232 833</b>	1.083
25	20	10	350	<b>199 232 834</b>	1.191
32	25	10	700	<b>199 232 835</b>	1.330
40	32	10	1000	<b>199 232 836</b>	2.350
50	40	10	1600	<b>199 232 837</b>	2.639
63	50	10	3100	<b>199 232 838</b>	4.219
75	65	10	5000	<b>199 232 839</b>	9.500
90	80	10	7000	<b>199 232 840</b>	12.600
110	100	10	11000	<b>199 232 841</b>	19.100

D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	e (mm)
50	159	27	62	40	77	130	194	56	25	261	76	48	2
58	168	30	71	40	77	130	194	65	25	261	76	48	2
68	168	36	71	40	77	130	194	71	25	261	76	48	2
84	202	44	84	51	99	130	224	85	45	305	95	59	2
97	202	51	84	51	99	130	224	89	45	305	95	59	3
124	225	64	106	51	99	130	224	101	45	305	95	59	3
166	262	85	156		70	266	270	136	70	276	65		4
200	281	105	168		78	264	270	141	70	341	72		4
238	292	123	175		86	301	320	164	120	369	80		5







DN10/15 - 50



**SYGEF Standard**  
**Ball valve type 232**  
**Function FC (Fail safe to close)**  
**Without manual override**  
**With fusion sockets metric**

**Model:**

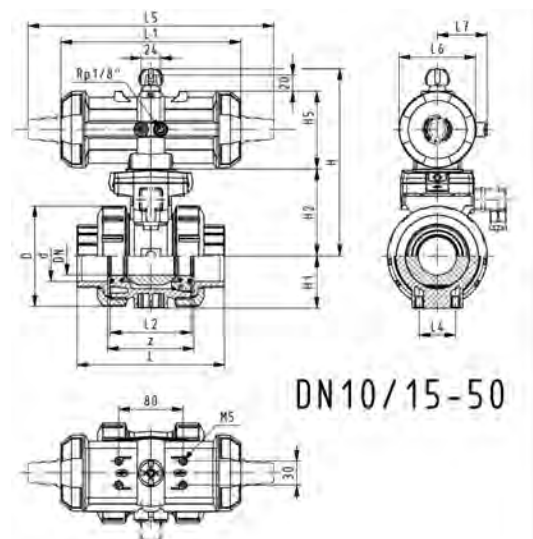
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

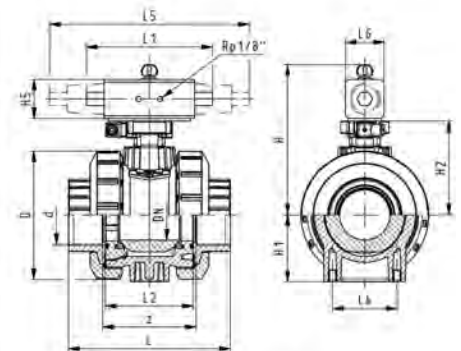
- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	<b>199 232 132</b>	1.200
20	15	10	185	<b>199 232 133</b>	1.079
25	20	10	350	<b>199 232 134</b>	1.300
32	25	10	700	<b>199 232 135</b>	1.322
40	32	10	1000	<b>199 232 136</b>	2.500
50	40	10	1600	<b>199 232 137</b>	3.216
63	50	10	3100	<b>199 232 138</b>	3.473
75	65	10	5000	<b>199 232 139</b>	9.200
90	80	10	7000	<b>199 232 140</b>	12.300
110	100	10	11000	<b>199 232 141</b>	18.900

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	159	27	62	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	40	77	109	194	65	25	261	76	48	77
32	68	168	36	71	40	77	119	194	71	25	261	76	48	83
40	84	202	44	84	51	99	135	224	85	45	305	95	59	99
50	97	202	51	84	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	51	99	168	224	101	45	305	95	59	117
75	166	262	85	156		70	233		136	70	276	65		167
90	200	281	105	168		78	254		141	70	341	72		180
110	238	292	123	175		86	301		164	120	369	80		215



DN10/15-50



DN65-100



DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function DA (Double acting)**  
**With manual override**  
**With fixed flanges PVDF serrated metric**

**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

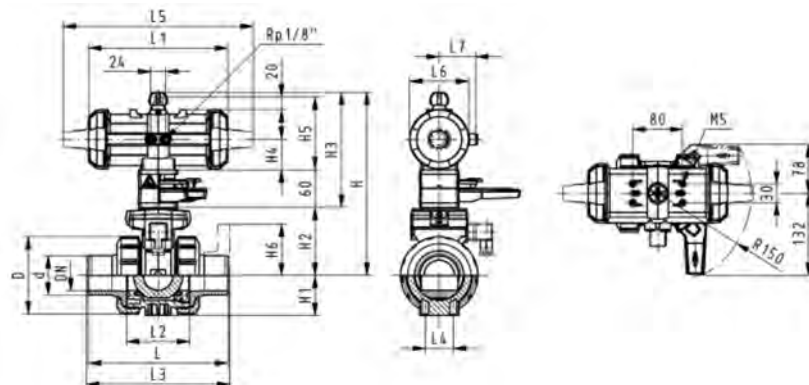
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	½	10	185	<b>199 232 043</b>	1.700
25	20	¾	10	350	<b>199 232 044</b>	1.900
32	25	1	10	700	<b>199 232 045</b>	2.100
40	32	1 ¼	10	1000	<b>199 232 046</b>	3.400
50	40	1 ½	10	1600	<b>199 232 047</b>	3.900
63	50	2	10	3100	<b>199 232 048</b>	5.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	230	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	239	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	239	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	271	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	271	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	293	64	106	187	51	99	83	224	224	101	230	45	305	95

d (mm)	L7 (mm)
20	48
25	48
32	48
40	59
50	59
63	59





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function DA (Double acting)**  
**With manual override**  
**With butt fusion spigots IR-Plus metric**

**Model:**

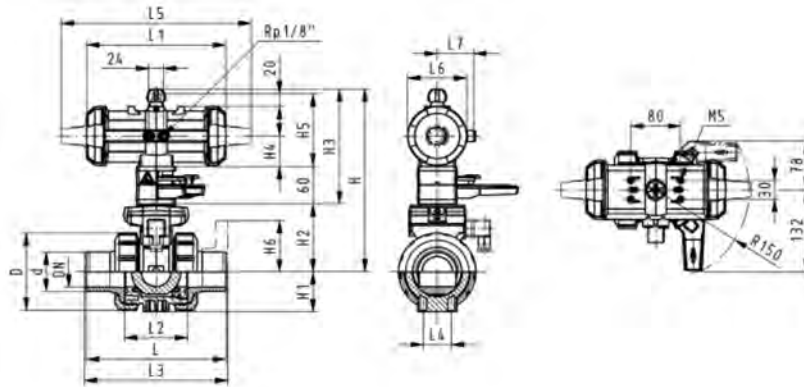
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
20	15	10	185	199 232 793	1.200
25	20	10	350	199 232 794	1.300
32	25	10	700	199 232 795	1.400
40	32	10	1000	199 232 796	2.500
50	40	10	1600	199 232 797	2.800
63	50	10	3100	199 232 798	3.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
20	50	230	27	62	168	40	77	130	194	56	25	261	76	48	½
25	58	239	30	71	168	40	77	130	194	65	25	261	76	48	¾
32	68	239	36	71	168	40	77	130	194	71	25	261	76	48	1
40	84	271	44	84	187	51	99	130	224	85	45	305	95	59	1 ¼
50	97	271	51	84	187	51	99	130	224	89	45	305	95	59	1 ½
63	124	293	64	106	187	51	99	130	224	101	45	305	95	59	2





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function DA (Double acting)**  
**With manual override**  
**With socket fusion spigots metric**

**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

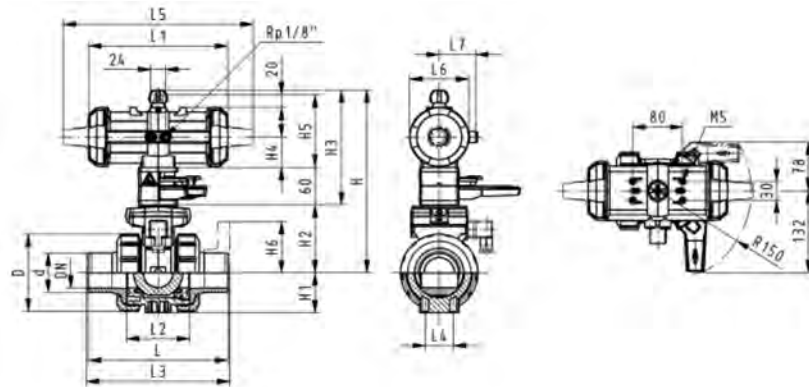
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 112	1.500
20	15	10	185	199 232 113	1.500
25	20	10	350	199 232 114	1.600
32	25	10	700	199 232 115	1.700
40	32	10	1000	199 232 116	2.800
50	40	10	1600	199 232 117	3.100
63	50	10	3100	199 232 118	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
16	50	159	27	62	168	40	77	92	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	95	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	110	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	123	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	146	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	157	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	183	224	101	230	45	305	95	59

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2

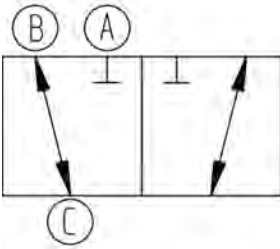
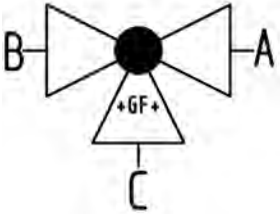




**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/L-port**  
**Without manual override**  
**With threaded sockets NPT**

**Model:**

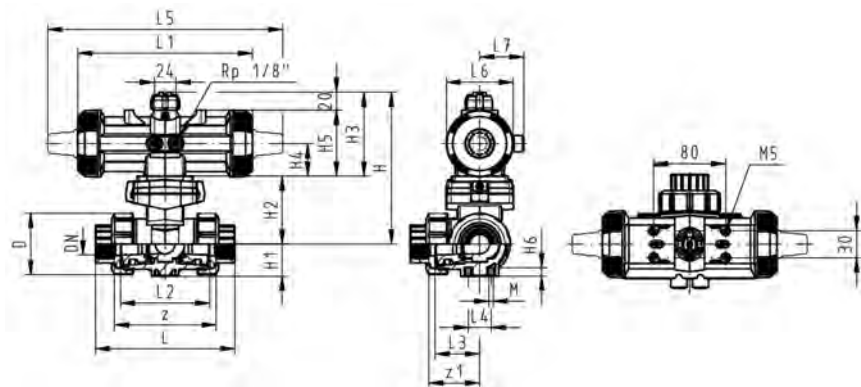
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

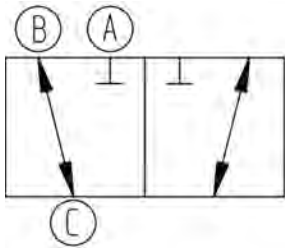
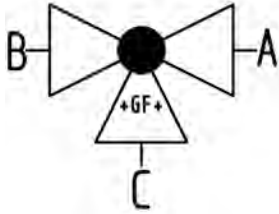


NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
3/8	10	10	50	<b>199 287 242</b>	1.183
1/2	15	10	75	<b>199 287 243</b>	1.179
3/4	20	10	150	<b>199 287 244</b>	1.349
1	25	10	280	<b>199 287 245</b>	1.593
1 1/4	32	10	480	<b>199 287 246</b>	2.800
1 1/2	40	10	620	<b>199 287 247</b>	3.379
2	50	10	1230	<b>199 287 248</b>	5.109

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT (inch)	L7 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105





**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/L-port**  
**Without manual override**  
**With butt fusion spigots IR-Plus metric**

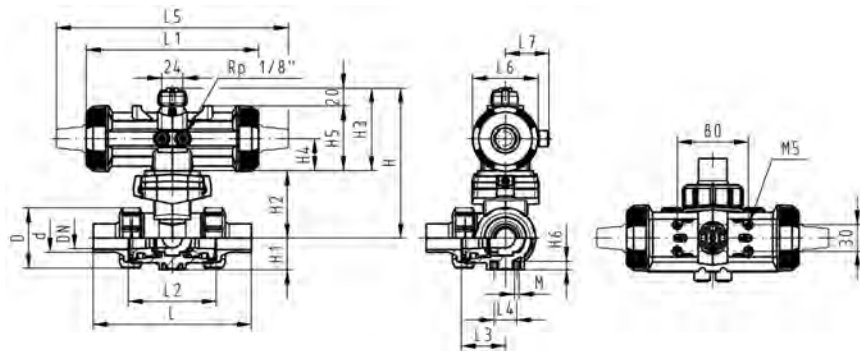
**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
20	15	10	75	<b>199 287 053</b>	1.666
25	20	10	150	<b>199 287 054</b>	1.369
32	25	10	280	<b>199 287 055</b>	1.623
40	32	10	480	<b>199 287 056</b>	2.710
50	40	10	620	<b>199 287 057</b>	3.294
63	50	10	1230	<b>199 287 058</b>	4.982

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
20	48	6	½
25	48	6	¾
32	48	6	1
40	59	8	1 ¼
50	59	8	1 ½
63	59	8	2

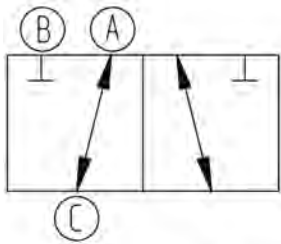
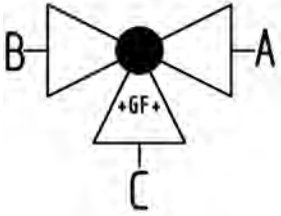




**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/L-port DA (Double acting)**  
**Without manual override**  
**With threaded sockets NPT**

**Model:**

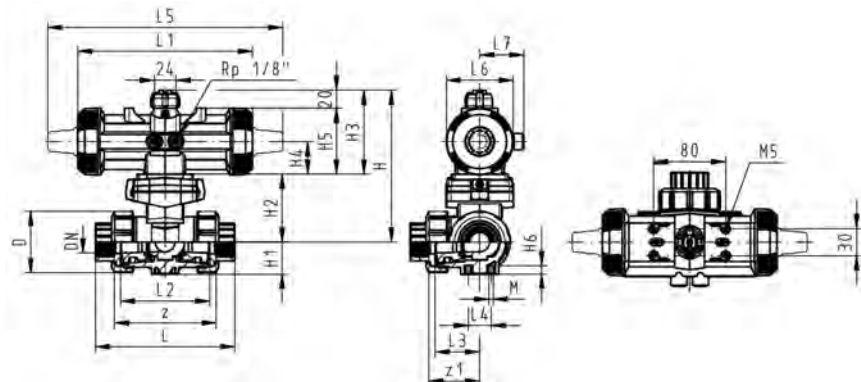
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

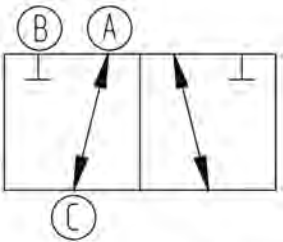
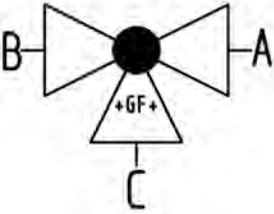


NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
3/8	10	10	50	<b>199 287 262</b>	0.992
1/2	15	10	75	<b>199 287 263</b>	1.001
3/4	20	10	150	<b>199 287 264</b>	1.159
1	25	10	280	<b>199 287 265</b>	1.403
1 1/4	32	10	480	<b>199 287 266</b>	2.376
1 1/2	40	10	620	<b>199 287 267</b>	2.955
2	50	10	1230	<b>199 287 268</b>	4.685

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT (inch)	L7 (mm)	M	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105





**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/L-port DA (Double acting)**  
**Without manual override**  
**With butt fusion spigots IR-Plus metric**

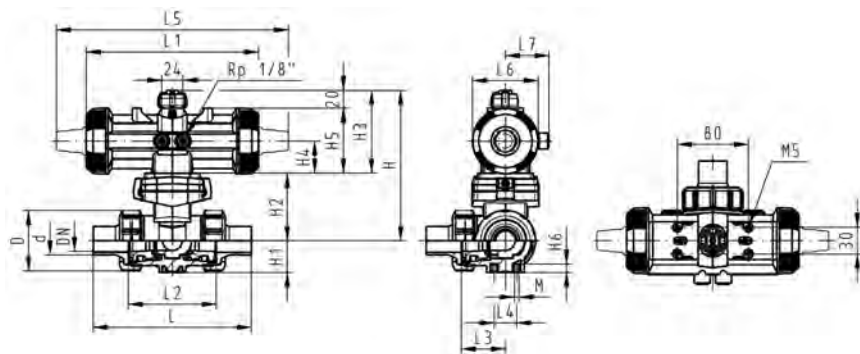
**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

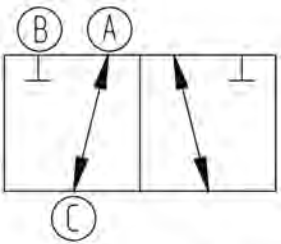
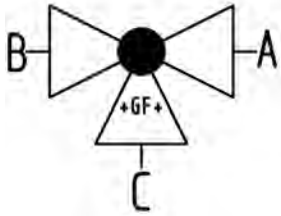
d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	75	<b>199 287 173</b>	1.012
25	20	10	150	<b>199 287 174</b>	1.179
32	25	10	280	<b>199 287 175</b>	1.433
40	32	10	480	<b>199 287 176</b>	2.403
50	40	10	620	<b>199 287 177</b>	3.036
63	50	10	1230	<b>199 287 178</b>	4.847

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M	closest inch (inch)
20	48	6	½
25	48	6	¾
32	48	6	1
40	59	8	1 ¼
50	59	8	1 ½
63	59	8	2







**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/L-port DA (Double acting)**  
**Without manual override**  
**With socket fusion spigots metric**

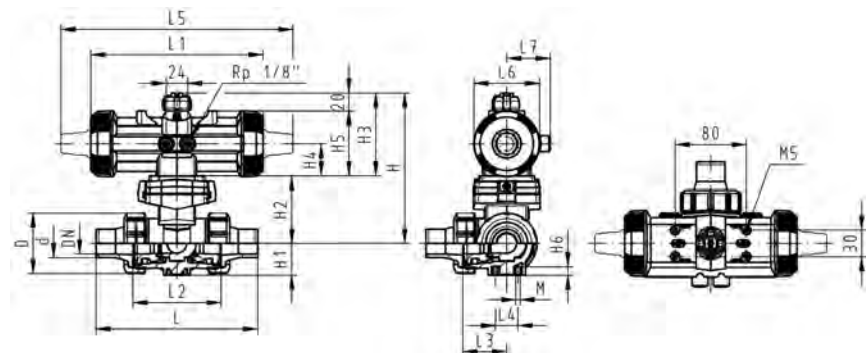
**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	50	<b>199 287 132</b>	1.001
20	15	10	75	<b>199 287 133</b>	1.012
25	20	10	150	<b>199 287 134</b>	1.179
32	25	10	280	<b>199 287 135</b>	1.433
40	32	10	480	<b>199 287 136</b>	2.403
50	40	10	620	<b>199 287 137</b>	3.036
63	50	10	1230	<b>199 287 138</b>	4.847

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	48	6	$\frac{3}{8}$
20	48	6	$\frac{1}{2}$
25	48	6	$\frac{3}{4}$
32	48	6	1
40	59	8	$1\frac{1}{4}$
50	59	8	$1\frac{1}{2}$
63	59	8	2

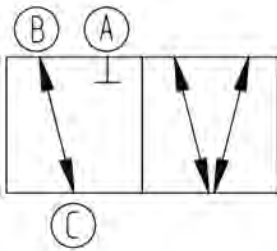
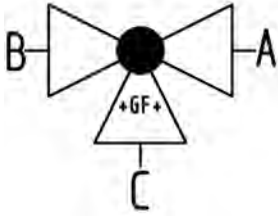




**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/T-port**  
**Without manual override**  
**With threaded sockets NPT**

**Model:**

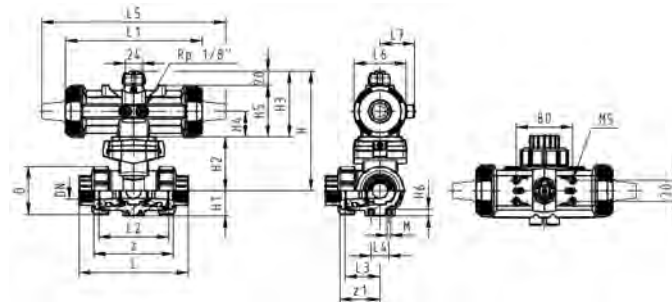
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
3/8	10	10	140	<b>199 287 252</b>	1.182
1/2	15	10	200	<b>199 287 253</b>	1.189
3/4	20	10	470	<b>199 287 254</b>	1.347
1	25	10	793	<b>199 287 255</b>	1.584
1 1/4	32	10	1290	<b>199 287 256</b>	2.786
1 1/2	40	10	1910	<b>199 287 257</b>	3.352
2	50	10	3100	<b>199 287 258</b>	5.052

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT (inch)	L7 (mm)	M	z	z1 (mm)
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105

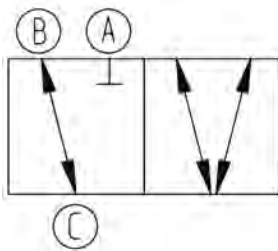
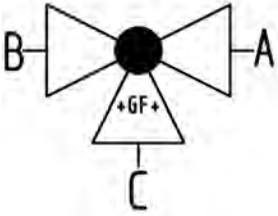




**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/T-port**  
**Without manual override**  
**With butt fusion spigots IR-Plus metric**

**Model:**

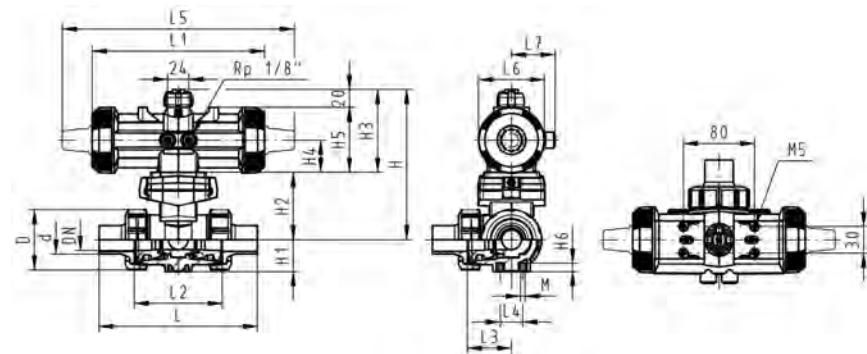
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

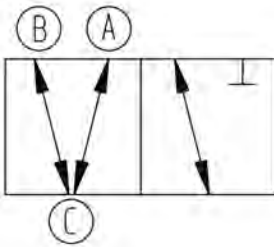
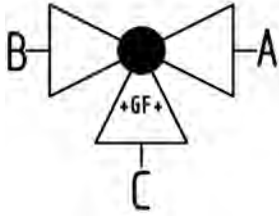


d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	200	<b>199 287 073</b>	1.201
25	20	10	470	<b>199 287 074</b>	1.366
32	25	10	793	<b>199 287 075</b>	1.615
40	32	10	1290	<b>199 287 076</b>	2.813
50	40	10	1910	<b>199 287 077</b>	3.433
63	50	10	3100	<b>199 287 078</b>	5.213

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
20	48	6	½
25	48	6	¾
32	48	6	1
40	59	8	1 ¼
50	59	8	1 ½
63	59	8	2





**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/T-port DA (Double acting)**  
**Without manual override**  
**With threaded sockets NPT**

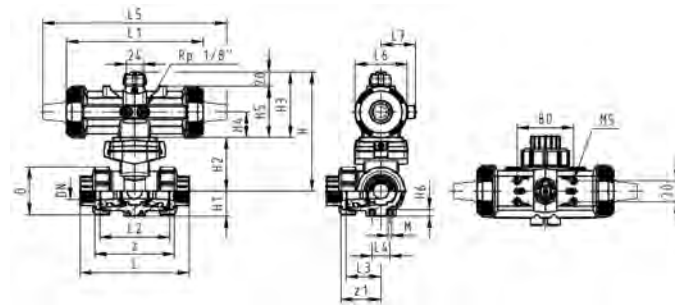
**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

NPT (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
3/8	10	10	140	<b>199 287 272</b>	0.991
1/2	15	10	200	<b>199 287 273</b>	0.999
3/4	20	10	470	<b>199 287 274</b>	1.157
1	25	10	793	<b>199 287 275</b>	1.394
1 1/4	32	10	1290	<b>199 287 276</b>	2.362
1 1/2	40	10	1910	<b>199 287 277</b>	2.928
2	50	10	3100	<b>199 287 278</b>	4.628

NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT (inch)	L7 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105

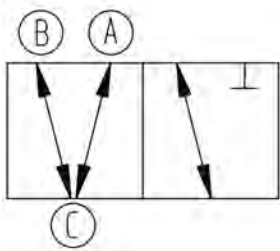
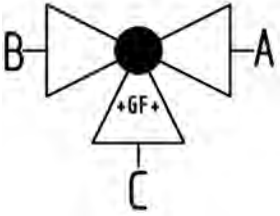




**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/T-port DA (Double acting)**  
**Without manual override**  
**With butt fusion spigots IR-Plus metric**

**Model:**

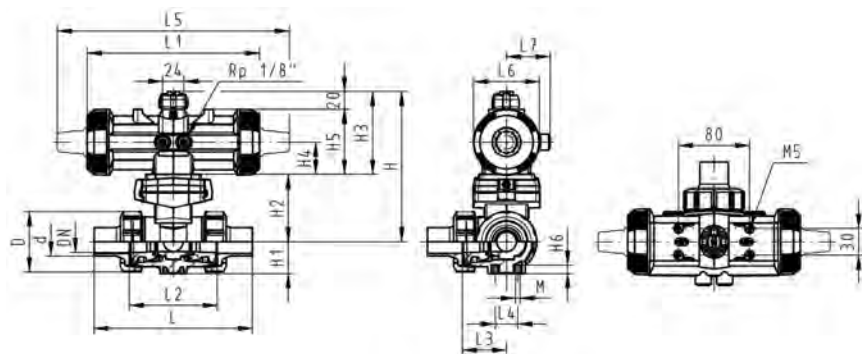
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

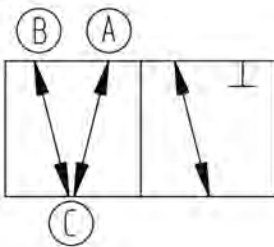
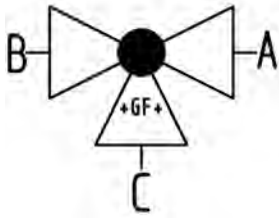


d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	140	<b>199 287 193</b>	1.011
25	20	10	200	<b>199 287 194</b>	1.176
32	25	10	470	<b>199 287 195</b>	1.425
40	32	10	793	<b>199 287 196</b>	2.389
50	40	10	1290	<b>199 287 197</b>	3.009
63	50	10	3100	<b>199 287 198</b>	4.789

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M	closest inch (inch)
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2





**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/T-port DA (Double acting)**  
**Without manual override**  
**With socket fusion spigots metric**

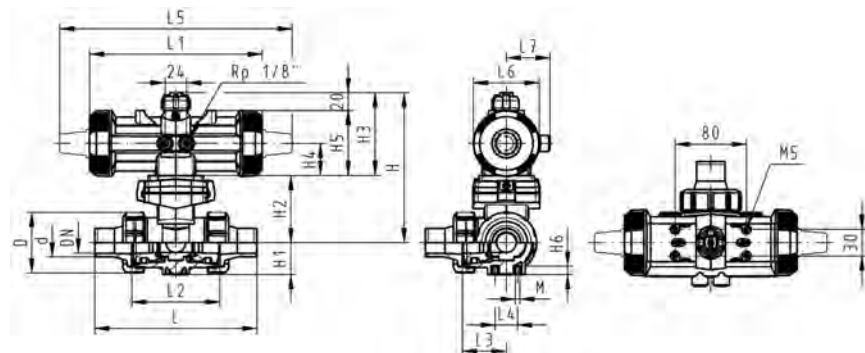
**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	140	<b>199 287 152</b>	0.999
20	15	10	200	<b>199 287 153</b>	1.011
25	20	10	470	<b>199 287 154</b>	1.176
32	25	10	793	<b>199 287 155</b>	1.425
40	32	10	1290	<b>199 287 156</b>	2.389
50	40	10	1910	<b>199 287 157</b>	3.009
63	50	10	3100	<b>199 287 158</b>	4.789

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2

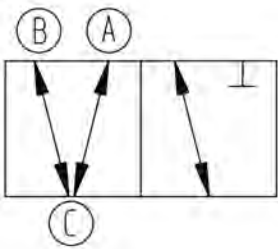
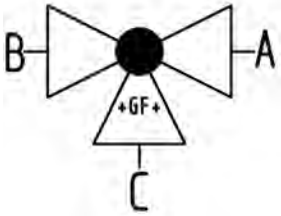




**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/T-port DA (Double acting)**  
**Without manual override**  
**With fusion sockets metric**

**Model:**

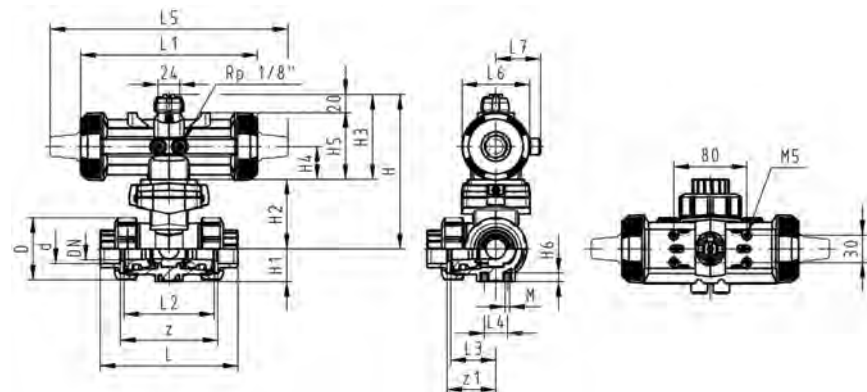
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

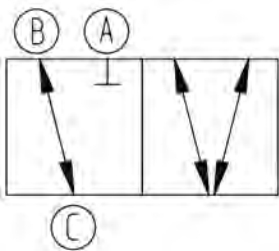
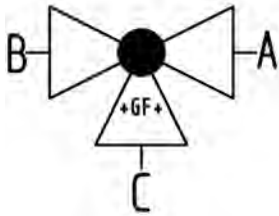


d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	140	<b>199 287 232</b>	0.991
20	15	10	200	<b>199 287 233</b>	0.999
25	20	10	470	<b>199 287 234</b>	1.157
32	25	10	793	<b>199 287 235</b>	1.394
40	32	10	1290	<b>199 287 236</b>	2.362
50	40	10	1910	<b>199 287 237</b>	2.928
63	50	10	3100	<b>199 287 238</b>	4.628

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d (mm)	L7 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2





**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/T-port**  
**Without manual override**  
**With socket fusion spigots metric**

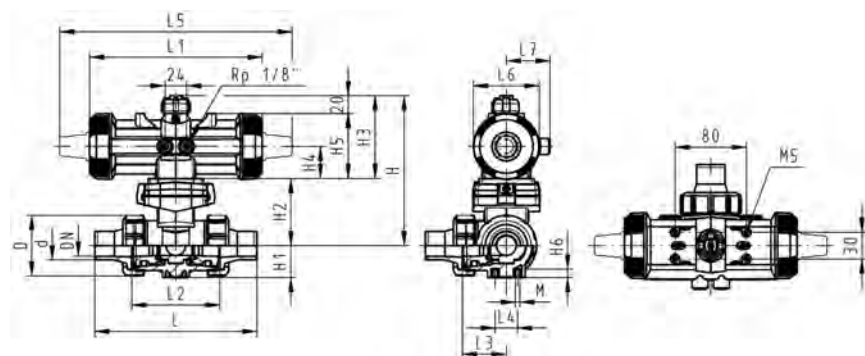
**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	140	<b>199 287 032</b>	1.189
20	15	10	200	<b>199 287 033</b>	1.201
25	20	10	470	<b>199 287 034</b>	1.366
32	25	10	793	<b>199 287 035</b>	1.615
40	32	10	1290	<b>199 287 036</b>	2.813
50	40	10	1910	<b>199 287 037</b>	3.433
63	50	10	3100	<b>199 287 038</b>	5.213

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	48	6	$\frac{3}{8}$
20	48	6	$\frac{1}{2}$
25	48	6	$\frac{3}{4}$
32	48	6	1
40	59	8	$1 \frac{1}{4}$
50	59	8	$1 \frac{1}{2}$
63	59	8	2



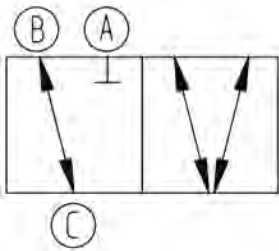
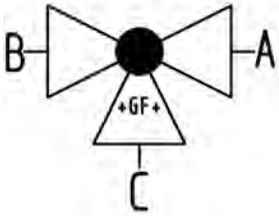




**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/T-port**  
**Without manual override**  
**With fusion sockets metric**

**Model:**

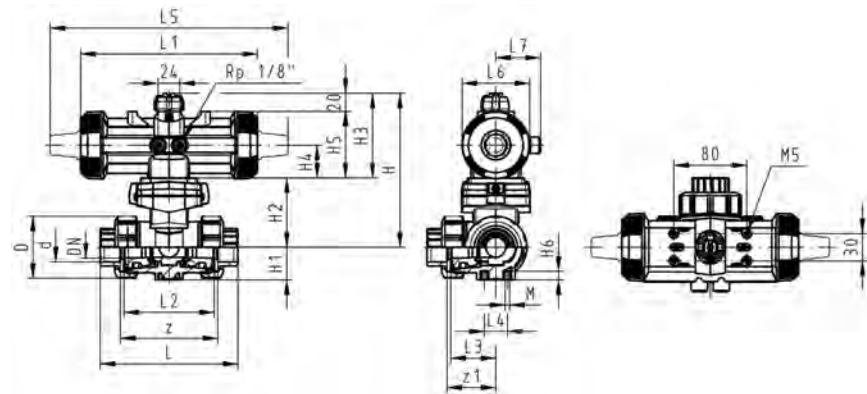
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

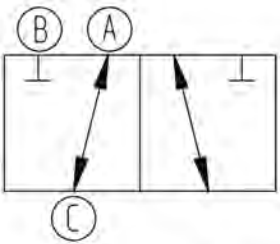
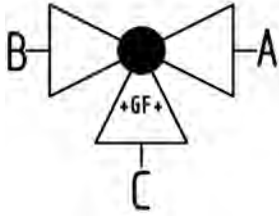


d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	140	<b>199 287 112</b>	1.182
20	15	10	200	<b>199 287 113</b>	1.189
25	20	10	470	<b>199 287 114</b>	1.347
32	25	10	793	<b>199 287 115</b>	1.584
40	32	10	1290	<b>199 287 116</b>	2.786
50	40	10	1910	<b>199 287 117</b>	3.154
63	50	10	3100	<b>199 287 118</b>	5.052

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d (mm)	L7 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2





**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/L-port DA (Double acting)**  
**Without manual override**  
**With fusion sockets metric**

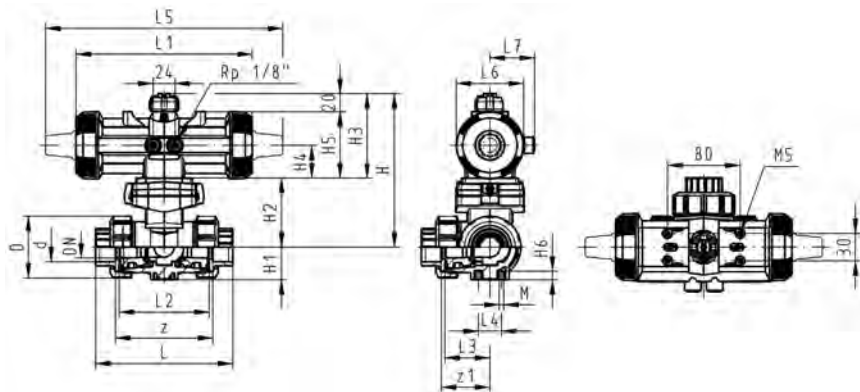
**Model:**

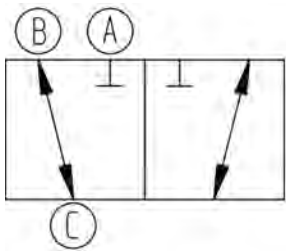
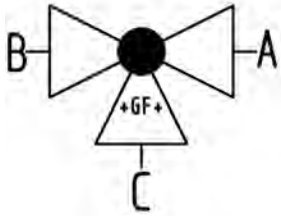
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	50	<b>199 287 212</b>	0.992
20	15	10	75	<b>199 287 213</b>	1.001
25	20	10	150	<b>199 287 214</b>	1.159
32	25	10	280	<b>199 287 215</b>	1.403
40	32	10	480	<b>199 287 216</b>	2.376
50	40	10	620	<b>199 287 217</b>	2.955
63	50	10	1230	<b>199 287 218</b>	4.347

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d (mm)	L7 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2





**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/L-port**  
**Without manual override**  
**With socket fusion spigots metric**

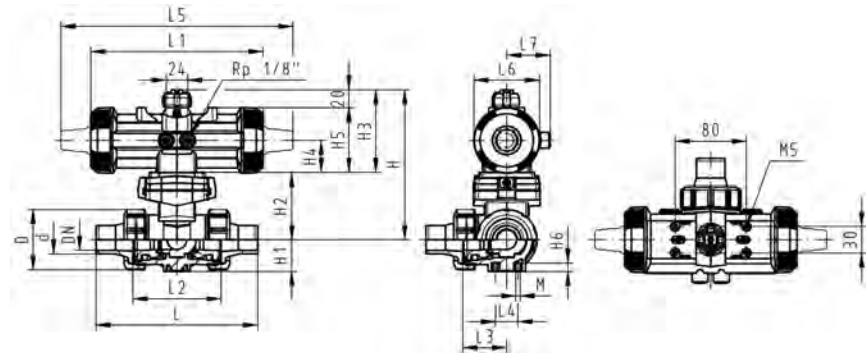
**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	50	199 287 012	1.191
20	15	10	75	199 287 013	1.202
25	20	10	150	199 287 014	1.369
32	25	10	280	199 287 015	1.623
40	32	10	480	199 287 016	2.827
50	40	10	620	199 287 017	3.460
63	50	10	1230	199 287 018	5.271

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d (mm)	L7 (mm)	M (mm)	closest inch (inch)
16	48	6	$\frac{3}{8}$
20	48	6	$\frac{1}{2}$
25	48	6	$\frac{3}{4}$
32	48	6	1
40	59	8	1 $\frac{1}{4}$
50	59	8	1 $\frac{1}{2}$
63	59	8	2

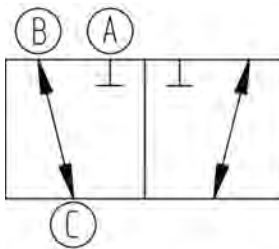
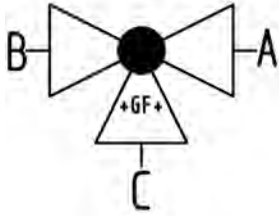




**SYGEF Standard**  
**3-Way ball valve type 287**  
**Horizontal/L-port**  
**Without manual override**  
**With fusion sockets metric**

**Model:**

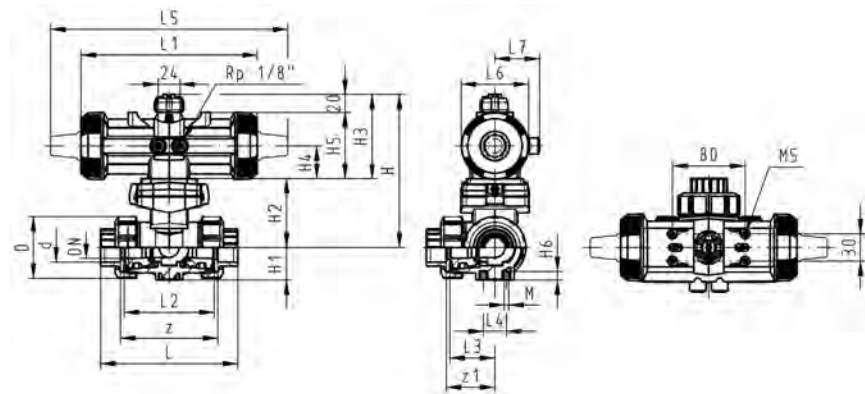
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	50	<b>199 287 092</b>	1.183
20	15	10	75	<b>199 287 093</b>	1.191
25	20	10	150	<b>199 287 094</b>	1.349
32	25	10	280	<b>199 287 095</b>	1.593
40	32	10	480	<b>199 287 096</b>	2.800
50	40	10	620	<b>199 287 097</b>	3.379
63	50	10	1230	<b>199 287 098</b>	5.109

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d (mm)	L7 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	$\frac{3}{8}$
20	48	6	82	41	$\frac{1}{2}$
25	48	6	97	49	$\frac{3}{4}$
32	48	6	110	55	1
40	59	8	132	66	1 $\frac{1}{4}$
50	59	8	151	76	1 $\frac{1}{2}$
63	59	8	188	94	2





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function DA (Double acting)**  
**With manual override**  
**With fusion sockets metric**

**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

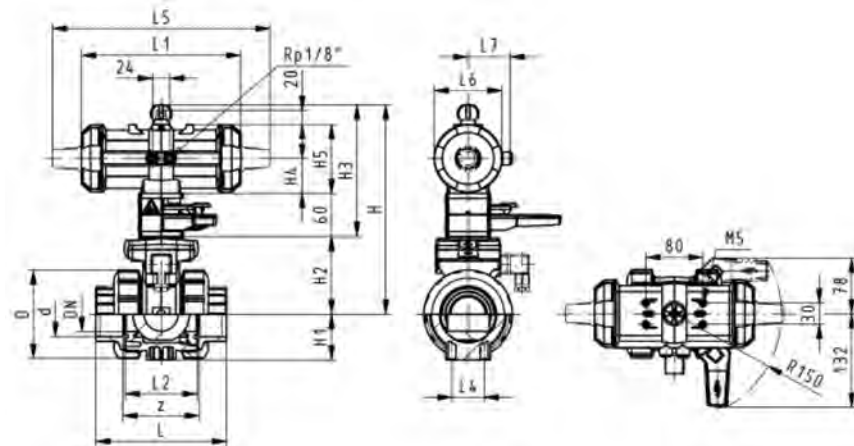
- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 092	1.500
20	15	10	185	199 232 093	1.500
25	20	10	350	199 232 094	1.600
32	25	10	700	199 232 095	1.331
40	32	10	1000	199 232 096	2.800
50	40	10	1600	199 232 097	3.100
63	50	10	3100	199 232 098	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	230	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	77	109	194	65	25	261	76	48	77
32	68	239	36	71	168	40	77	119	194	71	25	261	76	48	83
40	84	271	44	84	187	51	99	135	224	85	45	305	95	59	99
50	97	271	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	99	168	224	101	45	305	95	59	117

**d closest**  
 (mm) **inch**  
 (inch)

16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FO (Fail safe to open)**  
**With manual override**  
**With fixed flanges PVDF serrated metric**

**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

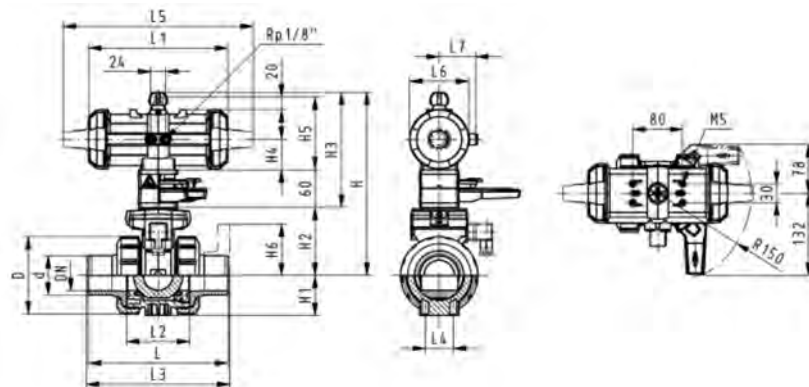
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	½	10	185	<b>199 232 023</b>	1.700
25	20	¾	10	350	<b>199 232 024</b>	1.900
32	25	1	10	700	<b>199 232 025</b>	2.100
40	32	1 ¼	10	1000	<b>199 232 026</b>	3.400
50	40	1 ½	10	1600	<b>199 232 027</b>	3.900
63	50	2	10	3100	<b>199 232 028</b>	5.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	230	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	239	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	239	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	271	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	271	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	293	64	106	187	51	99	83	224	224	101	230	45	305	95

d (mm)	L7 (mm)
20	48
25	48
32	48
40	59
50	59
63	59





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FO (Fail safe to open)**  
**With manual override**  
**With butt fusion spigots IR-Plus metric**

**Model:**

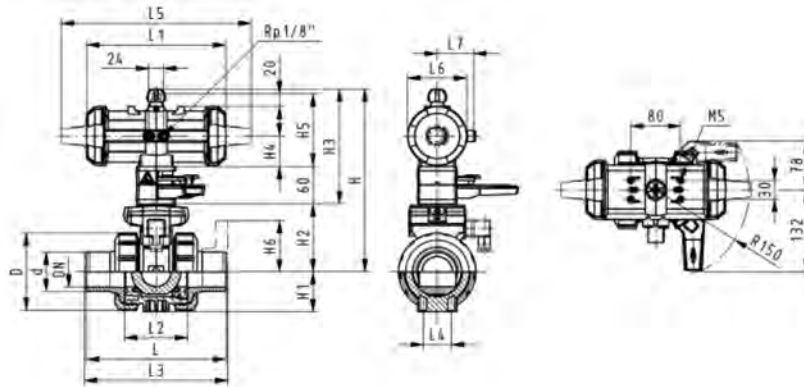
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
20	15	10	185	199 232 753	1.200
25	20	10	350	199 232 754	1.300
32	25	10	700	199 232 755	1.400
40	32	10	1000	199 232 756	2.500
50	40	10	1600	199 232 757	2.800
63	50	10	3100	199 232 758	3.700

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
20	50	159	27	62	168	40	77	130	194	56	25	261	76	48	1/2
25	58	168	30	71	168	40	77	130	194	65	25	261	76	48	3/4
32	68	168	36	71	168	40	77	130	194	71	25	261	76	48	1
40	84	202	44	84	187	51	99	130	224	85	45	305	95	59	1 1/4
50	97	202	51	84	187	51	99	130	224	89	45	305	95	59	1 1/2
63	124	225	64	106	187	51	99	130	224	101	45	305	95	59	2





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FO (Fail safe to open)**  
**With manual override**  
**With socket fusion spigots metric**

**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

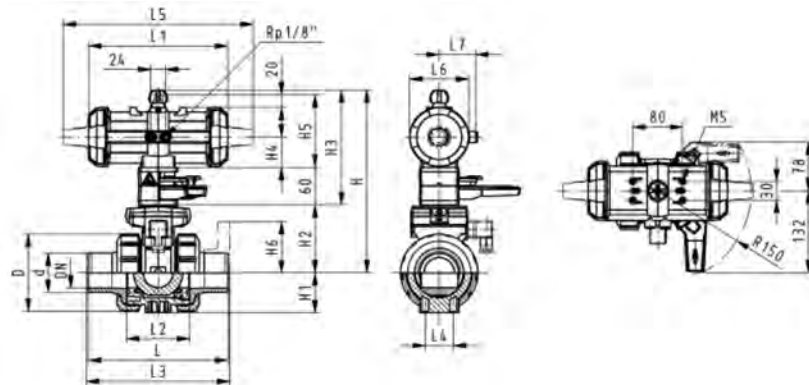
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 072	1.500
20	15	10	185	199 232 073	1.500
25	20	10	350	199 232 074	1.600
32	25	10	700	199 232 075	1.700
40	32	10	1000	199 232 076	2.800
50	40	10	1600	199 232 077	3.100
63	50	10	3100	199 232 078	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
16	50	159	27	62	168	40	77	92	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	95	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	110	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	123	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	146	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	157	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	183	224	101	230	45	305	95	59

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2







DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FO (Fail safe to open)**  
**With manual override**  
**With fusion sockets metric**

**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

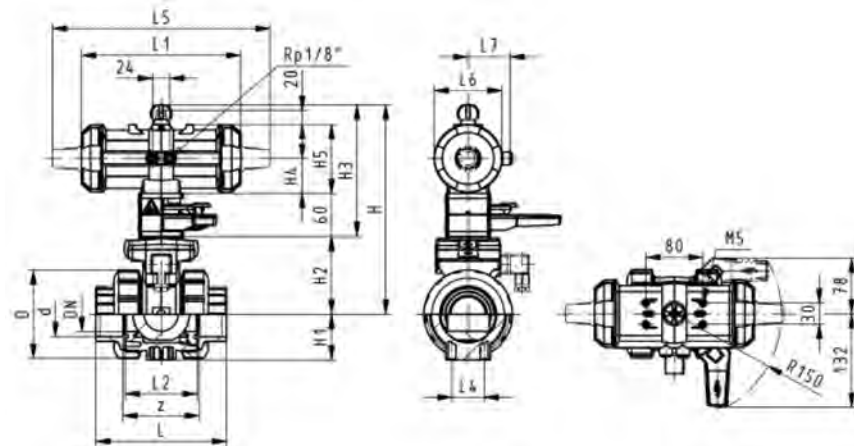
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (L/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 052	1.500
20	15	10	185	199 232 053	1.500
25	20	10	350	199 232 054	1.600
32	25	10	700	199 232 055	1.700
40	32	10	1000	199 232 056	2.800
50	40	10	1600	199 232 057	3.100
63	50	10	3100	199 232 058	3.728

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	50	230	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	77	109	194	65	25	261	76	48	77
32	68	239	36	71	168	40	77	119	194	71	25	261	76	48	83
40	84	271	44	84	187	51	99	135	224	85	45	305	95	59	99
50	97	271	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	99	168	224	101	45	305	95	59	117

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FC (Fail safe to close)**  
**With manual override**  
**With fixed flanges PVDF serrated metric**

**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

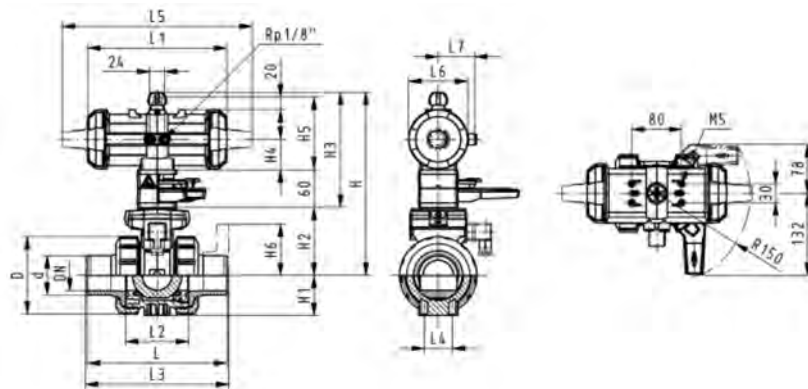
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	½	10	185	<b>199 232 003</b>	1.700
25	20	¾	10	350	<b>199 232 004</b>	1.900
32	25	1	10	700	<b>199 232 005</b>	2.100
40	32	1 ¼	10	1000	<b>199 232 006</b>	3.400
50	40	1 ½	10	1600	<b>199 232 007</b>	3.900
63	50	2	10	3100	<b>199 232 008</b>	5.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
20	50	230	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	239	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	239	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	271	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	271	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	293	64	106	187	51	99	83	224	224	101	230	45	305	95

d (mm)	L7 (mm)
20	48
25	48
32	48
40	59
50	59
63	59





DN10/15 - 50



DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FC (Fail safe to close)**  
**With manual override**  
**With butt fusion spigots IR-Plus metric**

**Model:**

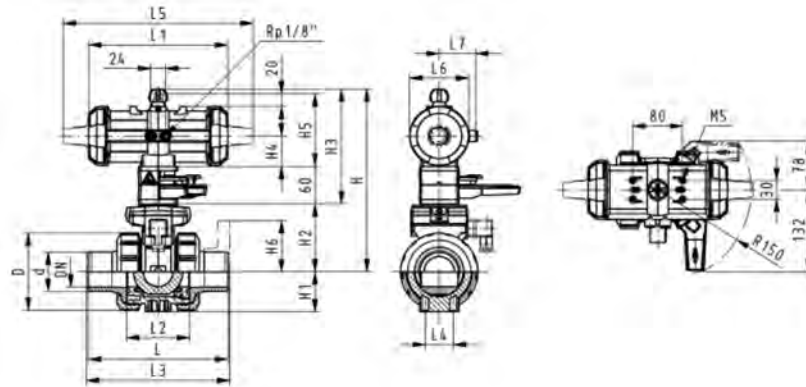
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
20	15	10	185	199 232 713	1.200
25	20	10	350	199 232 714	1.300
32	25	10	700	199 232 715	1.566
40	32	10	1000	199 232 716	2.602
50	40	10	1600	199 232 717	2.887
63	50	10	3100	199 232 718	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	closest inch (inch)
20	50	230	27	62	168	40	77	130	194	56	25	261	76	48	½
25	58	239	30	71	168	40	77	143	194	65	25	261	76	48	¾
32	68	239	36	71	168	40	77	150	194	71	25	261	76	48	1
40	84	271	44	84	187	51	99	171	224	85	45	305	95	59	1 ¼
50	97	271	51	84	187	51	99	191	224	89	45	305	95	59	1 ½
63	124	293	64	106	187	51	99	220	224	101	45	305	95	59	2





DN10/15 - 50



DN10/15 - 50

**SYGEF Standard**  
**Ball valve type 232**  
**Function FC (Fail safe to close)**  
**With manual override**  
**With socket fusion spigots metric**

**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°(<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

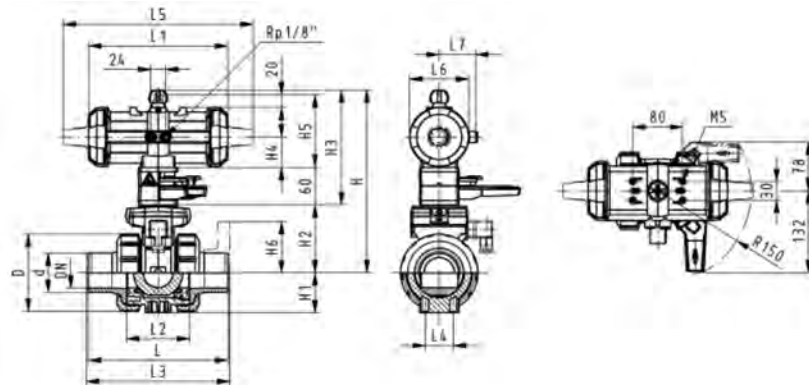
**Option:**

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 032	1.500
20	15	10	185	199 232 033	1.304
25	20	10	350	199 232 034	1.439
32	25	10	700	199 232 035	1.700
40	32	10	1000	199 232 036	3.105
50	40	10	1600	199 232 037	3.100
63	50	10	3100	199 232 038	4.000

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
16	50	159	27	62	168	40	77	92	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	95	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	110	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	123	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	146	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	157	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	183	224	101	230	45	305	95	59

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



# Butterfly valves electric



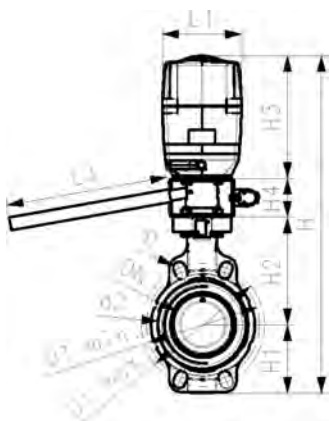
## SYGEF Standard Butterfly valve type 145 100-230V With manual override

### Model:

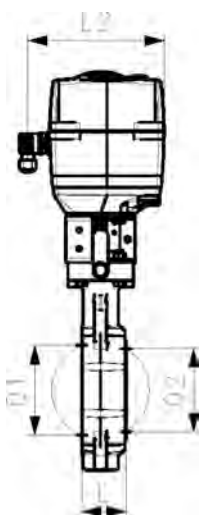
- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

### Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
63	50	2	10	1470	199 145 562	5.718
75	65	2 ½	10	2200	199 145 563	5.830
90	80	3	10	3000	199 145 564	6.010
110	100	4	10	6500	199 145 565	6.662
140	125	5	10	11500	199 145 566	7.257
160	150	6	10	16600	199 145 567	8.477
225	200	8	10	39600	199 145 568	15.138



d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
63	EA-45	104	19	120	125	475	77	134	188	75	45	122	180	250
75	EA-45	115	19	140	145	488	83	140	188	75	46	122	180	250
90	EA-120	131	19	150	160	488	89	146	188	60	49	122	180	250
110	EA-120	161	19	175	191	520	104	167	188	60	56	122	180	250
140	EA-120	187	23	210	216	547	117	181	188	60	64	122	180	250
160	EA-120	215	24	241	241	568	130	189	188	60	72	122	180	250
225	EA-250	267	23	290	295	635	158	210	208	60	73	122	180	250

d (mm)	Q1 (mm)	Q2 (mm)
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169



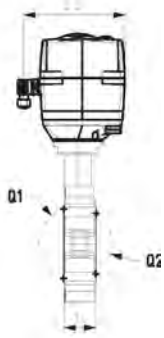
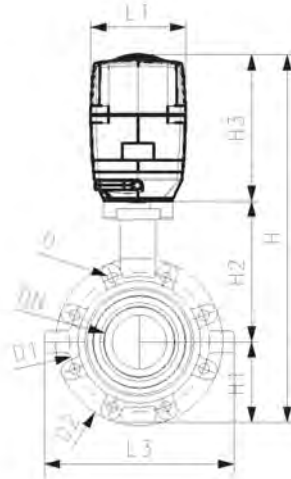
**SYGEF Standard**  
**Lugstyle butterfly valve type 146 100-230V**  
**Without manual override**

**Model:**

- Voltage 100-230 V, 50-60 Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

**Option:**

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
63	2	50	10	1470	<b>199 146 582</b>	4.299
75	2 ½	65	10	2200	<b>199 146 583</b>	4.456
90	3	80	10	3000	<b>199 146 584</b>	4.701
110	4	100	10	6500	<b>199 146 585</b>	5.606
140	5	125	10	11500	<b>199 146 586</b>	7.120
160	6	150	10	16600	<b>199 146 587</b>	8.881
225	8	200	10	39600	<b>199 146 588</b>	13.625
280	10	250	6	55200	<b>199 146 589</b>	24.385
315	12	300	4	80000	<b>199 146 590</b>	30.916

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	EA-45	160	M16	125	399	77	134	188	45	122	180	165	40	
75	EA-45	180	M16	145	411	83	140	188	46	122	180	182	54	35
90	EA-120	195	M16	160	423	89	146	188	49	122	180	210	67	50
110	EA-120	226	M16	180	461	106	167	188	56	122	180	240	88	74
140	EA-120	258	M16	210	490	121	181	188	64	122	180	272	113	97
160	EA-120	284	M20	240	510	133	189	188	72	122	180	300	139	123
225	EA-120	341	M20	295	577	159	210	208	73	122	180	360	178	169
280	EA-120	412	M20	350	677	205	164	208	113	122	180	440	210	207
315	EA-250	482	M20	400	727	234	285	208	113	122	180	510	256	253



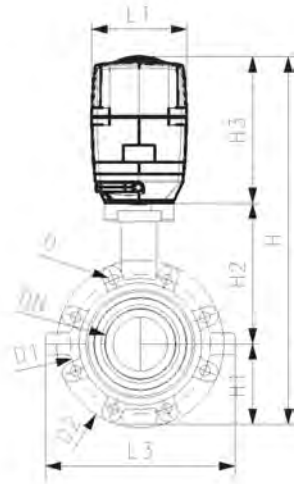
**SYGEF Standard**  
**Lugstyle butterfly valve type 147 100-230V**  
**Without manual override**

**Model:**

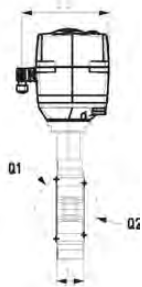
- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension ANSI/ASME B 16.5 Class 150

**Option:**

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d	Size	DN	PN	kv-value	FPM
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code
(l/min)					
63	2	50	10	1470	<b>199 147 582</b>
75	2 ½	65	10	2200	<b>199 147 583</b>
90	3	80	10	3000	<b>199 147 584</b>
110	4	100	10	6500	<b>199 147 585</b>
140	5	125	10	11500	<b>199 147 586</b>
160	6	150	10	16600	<b>199 147 587</b>
225	8	200	10	39600	<b>199 147 588</b>
280	10	250	6	55200	<b>199 147 589</b>
315	12	300	4	80000	<b>199 147 590</b>



d	Size	Actuator	d2	D	H	H1	H2	H3	D1	L	L1	L2	L3	Q1
(mm)	(inch)	unit type	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	2	EA-45	150	UNC 5/8	399	77	134	188	139.7	45	122	180	150	40
75	2 ½	EA-45	170	UNC 5/8	411	83	140	188	120.6	46	122	180	160	54
90	3	EA-120	177	UNC 5/8	423	89	146	188	152.4	49	122	180	175	67
110	4	EA-120	216	UNC 5/8	459	104	167	188	190.5	56	122	180	244	88
140	5	EA-120	246	UNC 3/4	486	117	181	188	215.9	64	122	180	272	113
160	6	EA-120	273	UNC 3/4	507	130	189	188	241.3	72	122	180	297	139
225	8	EA-250	334	UNC 3/4	576	158	210	208	298.4	73	122	180	360	178
280	10	EA-250	412	UNC 7/8	677	205	264	208	362.0	113	122	180	440	210
315	12	EA-250	482	UNC 7/8	727	234	285	208	431.8	113	122	180	510	256

d	Size	Q2
(mm)	(inch)	(mm)
63	2	
75	2 ½	35
90	3	50
110	4	74
140	5	97
160	6	123
225	8	169
280	10	207
315	12	253

# Butterfly valves pneumatic

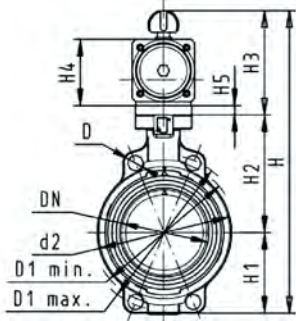


## SYGEF Standard Butterfly valve type 240 FC (Fail safe to close) Without manual override

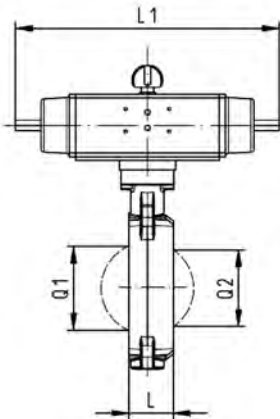
### Model:

- Material: PVDF
- Control range 90°<
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	PTFE Code	Weight (kg)
63	2	50	10	1470	199 240 462	3.758	199 240 522	3.258
75	2 ½	65	10	2200	199 240 463	3.173	199 240 523	3.370
90	3	80	10	3000	199 240 464	3.550	199 240 524	3.550
110	4	100	10	6500	199 240 465	5.439	199 240 525	5.400
140	5	125	10	11500	199 240 466	6.997	199 240 526	6.997
160	6	150	10	16600	199 240 467	10.538	199 240 527	10.538
225	8	200	10	39600	199 240 468	15.138	199 240 528	15.138
280	10	250	10	55200	199 240 469	29.670	199 240 529	32.529
315	12	300	10	80000	199 240 470	38.156	199 240 530	38.156



d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)
63	PA-30 FC	104	19	120	125	327	77	134	117	70	15	45	276
75	PA-30 FC	115	19	140	145	340	83	140	117	70	15	46	276
90	PA-35 FC	131	19	150	160	361	89	146	126	78	15	49	326
110	PA-40 FC	161	19	175	191	400	104	167	129	86		56	370
140	PA-45 FC	187	23	210	216	436	117	181	139	96		64	411
160	PA-50 FC	215	24	241	241	468	130	189	149	106		72	423
225	PA-55 FC	267	23	290	295	529	158	210	161	118		73	452
280	PA-65 FC	329	25	353	362	808	205	264	191	148		113	648
315	PA-70 FC	379	25	400	432	866	228	285	196	157		113	663



d (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253

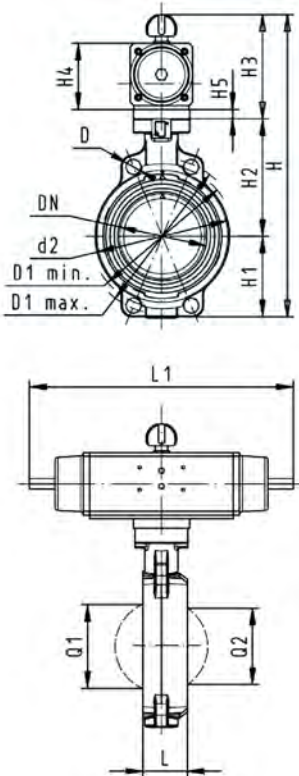




**SYGEF Standard**  
**Butterfly valve type 240**  
**FO (Fail safe to open)**  
**Without manual override**

**Model:**

- Material: PVDF
- Control range 90°<
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	PTFE Code	Weight (kg)
63	2	50	10	1470	199 240 482	3.258	199 240 542	3.258
75	2 ½	65	10	2200	199 240 483	3.370	199 240 543	3.370
90	3	80	10	3000	199 240 484	3.550	199 240 544	3.550
110	4	100	10	6500	199 240 485	5.422	199 240 545	5.400
140	5	125	10	11500	199 240 486	6.997	199 240 546	6.997
160	6	150	10	16600	199 240 487	10.538	199 240 547	10.538
225	8	200	10	39600	199 240 488	15.138	199 240 548	15.000
280	10	250	10	55200	199 240 489	32.529	199 240 549	32.529
315	12	300	10	80000	199 240 490	37.419	199 240 550	37.419

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)
63	PA-30 FO	104	19	120	125	327	77	134	117	70	15	45	276
75	PA-30 FO	115	19	140	145	340	83	140	117	70	15	46	276
90	PA-35 FO	131	19	150	160	361	89	146	126	78	15	49	326
110	PA-40 FO	161	19	175	191	400	104	167	129	86		56	370
140	PA-45 FO	187	23	210	216	436	117	181	139	96		64	411
160	PA-50 FO	215	24	241	241	468	130	189	149	106		72	423
225	PA-55 FO	267	23	290	295	529	158	210	161	118		73	452
280	PA-70 FO	329	25	353	362	808	205	264	191	148		113	648
315	PA-70 FO	379	25	400	432	866	228	285	196	157		113	663

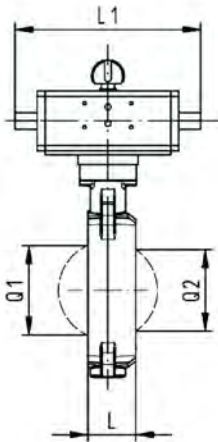
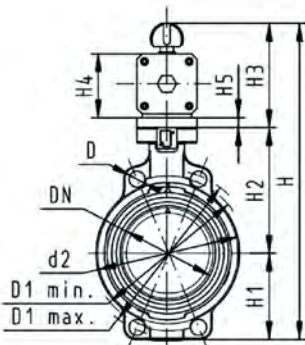
d (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253



**SYGEF Standard**  
**Butterfly valve type 240**  
**DA (Double acting)**  
**Without manual override**

**Model:**

- Material: PVDF
- Control range 90°<
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	PTFE Code	Weight (kg)
63	2	50	10	1470	<b>199 240 502</b>	2.368	<b>199 240 562</b>	2.108
75	2 ½	65	10	2200	<b>199 240 503</b>	2.488	<b>199 240 563</b>	2.220
90	3	80	10	3000	<b>199 240 504</b>	2.970	<b>199 240 564</b>	2.881
110	4	100	10	6500	<b>199 240 505</b>	3.987	<b>199 240 565</b>	3.652
140	5	125	10	11500	<b>199 240 506</b>	4.247	<b>199 240 566</b>	4.247
160	6	150	10	16600	<b>199 240 507</b>	7.017	<b>199 240 567</b>	7.017
225	8	200	10	39600	<b>199 240 508</b>	9.138	<b>199 240 568</b>	9.138
280	10	250	10	55200	<b>199 240 509</b>	20.233	<b>199 240 569</b>	20.233
315	12	300	10	80000	<b>199 240 510</b>	28.223	<b>199 240 570</b>	28.223

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)
63	PA-35 DA	104	19	120	125	317	77	134	107	60	15	45	177
75	PA-35 DA	115	19	140	145	330	83	140	107	60	15	46	177
90	PA-40 DA	131	19	150	160	348	89	146	113	66	15	49	190
110	PA-45 DA	161	19	175	191	372	104	167	102	71		56	235
140	PA-45 DA	187	23	210	216	408	117	181	111	78		64	235
160	PA-55 DA	215	24	241	241	448	130	189	129	86		72	279
225	PA-55 DA	267	23	290	295	507	158	210	139	96		73	279
280	PA-65 DA	329	25	353	362	748	205	264	161	118		113	350
315	PA-70 DA	379	25	400	432	816	228	285	173	130		113	381

d (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	55	40	
75	55	54	35
90	60	67	50
110	65	88	74
140	72	113	97
160	80	139	123
225	90	178	169
280	112	210	207
315	125	256	253



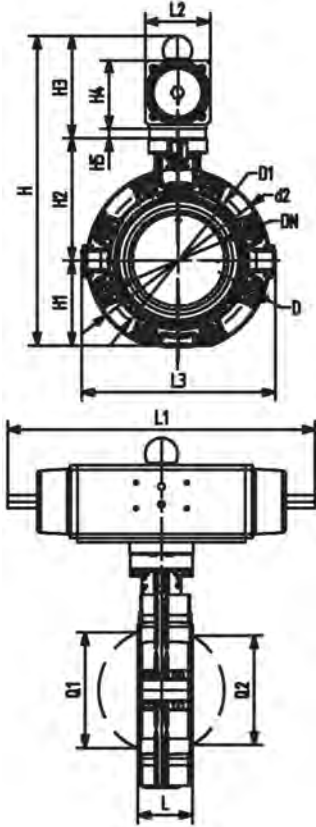
**SYGEF Standard**  
**Lugstyle butterfly valve type 243**  
**FC (Fail safe to close)**  
**Without manual override**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
63	2	50	10	1470	<b>199 243 462</b>	3.499
75	2 ½	65	10	2200	<b>199 243 463</b>	3.656
90	3	80	10	3000	<b>199 243 464</b>	4.692
110	4	100	10	6500	<b>199 243 465</b>	6.406
140	5	125	10	11500	<b>199 243 466</b>	9.222
160	6	150	10	16600	<b>199 243 467</b>	12.902
225	8	200	10	39600	<b>199 243 468</b>	16.691
280	10	250	10	55200	<b>199 243 469</b>	33.880
315	12	300	10	80000	<b>199 243 470</b>	43.985

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
63	PA-30 FC	160	M16	125	399	77	134	117	70	15	45	276	65	165
75	PA-30 FC	180	M16	145	340	83	140	117	70	15	46	276	65	182
90	PA-35 FC	195	M16	160	361	89	146	126	78	15	49	326	72	210
110	PA-40 FC	226	M16	180	402	106	167	129	86		56	370	80	240
140	PA-45 FC	258	M16	210	441	121	181	139	96		64	411	90	272
160	PA-50 FC	284	M20	240	471	133	189	149	106		72	423	100	300
225	PA-55 FC	341	M20	295	530	159	210	161	118		73	452	112	360
280	PA-65 FC	412	M20	350	660	205	264	191	148		113	648	137	440
315	PA-70 FC	482	M20	400	715	234	285	196	157		113	663	145	510

d (mm)	Q1 (mm)	Q2 (mm)
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253



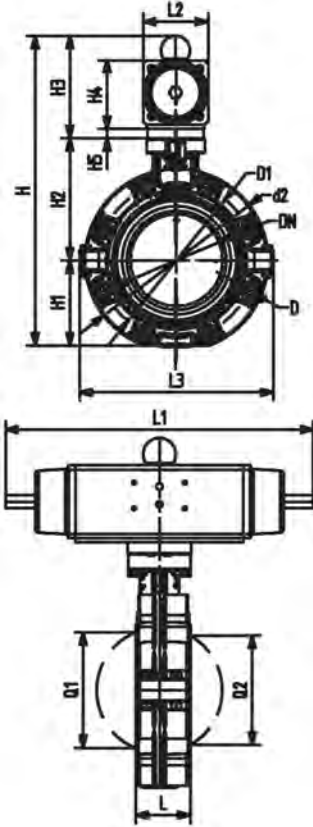
**SYGEF Standard**  
**Lugstyle butterfly valve type 243**  
**FO (Fail safe to open)**  
**Without manual override**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
63	2	50	10	1470	<b>199 243 482</b>	3.499
75	2 ½	65	10	2200	<b>199 243 483</b>	3.656
90	3	80	10	3000	<b>199 243 484</b>	4.692
110	4	100	10	6500	<b>199 243 485</b>	6.406
140	5	125	10	11500	<b>199 243 486</b>	9.222
160	6	150	10	16600	<b>199 243 487</b>	12.902
225	8	200	10	39600	<b>199 243 488</b>	16.691
280	10	250	10	55200	<b>199 243 489</b>	33.880
315	12	300	10	80000	<b>199 243 490</b>	43.985

d (mm)	Actuator unit type	d2 (mm)	D	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
63	PA-30 FO	160	M16	125	328	77	134	117	70	15	45	276	65	165
75	PA-30 FO	180	M16	145	340	83	140	117	70	15	46	276	65	182
90	PA-35 FO	195	M16	160	361	89	146	126	78	15	49	326	72	210
110	PA-40 FO	226	M16	180	402	106	167	129	86		56	370	80	240
140	PA-45 FO	258	M16	210	441	121	181	139	96		64	411	90	272
160	PA-50 FO	284	M20	240	471	133	189	149	106		72	423	100	300
225	PA-55 FO	341	M20	295	530	159	210	161	118		73	452	112	360
280	PA-70 FO	412	M20	350	660	205	264	191	148		113	648	137	440
315	PA-70 FO	482	M20	400	715	234	285	196	157		113	663	145	510

d (mm)	Q1 (mm)	Q2 (mm)
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253



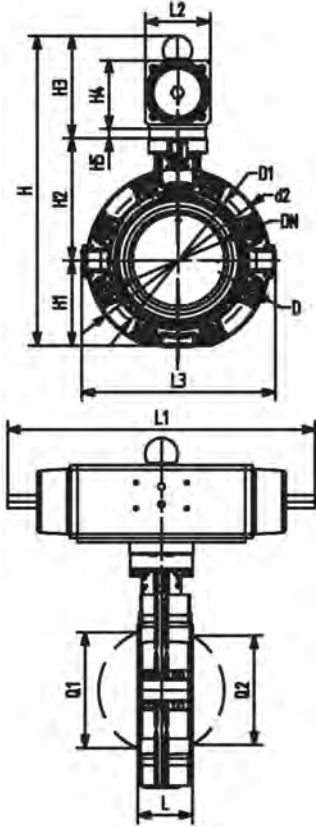
**SYGEF Standard**  
**Lugstyle butterfly valve type 243**  
**DA (Double acting)**  
**Without manual override**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
63	2	50	10	1470	<b>199 243 502</b>	3.499
75	2 ½	65	10	2200	<b>199 243 503</b>	3.656
90	3	80	10	3000	<b>199 243 504</b>	4.692
110	4	100	10	6500	<b>199 243 505</b>	6.406
140	5	125	10	11500	<b>199 243 506</b>	9.222
160	6	150	10	16600	<b>199 243 507</b>	12.902
225	8	200	10	39600	<b>199 243 508</b>	16.691
280	10	250	10	55200	<b>199 243 509</b>	33.880
315	12	300	10	80000	<b>199 243 510</b>	43.985

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
63	PA-35 DA	160	M16	125	318	77	134	107	60	15	45	177	55	165
75	PA-35 DA	180	M16	145	330	83	140	107	60	15	46	177	55	182
90	PA-40 DA	195	M16	160	348	89	146	113	66	15	49	190	60	210
110	PA-45 DA	226	M16	180	384	106	167	111	78		56	235	72	240
140	PA-45 DA	258	M16	210	413	121	181	111	78		64	235	72	272
160	PA-55 DA	284	M20	240	461	133	189	139	96		72	279	90	300
225	PA-55 DA	341	M20	295	508	159	210	139	96		73	279	90	360
280	PA-65 DA	412	M20	350	630	205	264	161	118		113	350	112	440
315	PA-70 DA	482	M20	400	692	234	285	173	130		113	381	124	510

d (mm)	Q1 (mm)	Q2 (mm)
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253



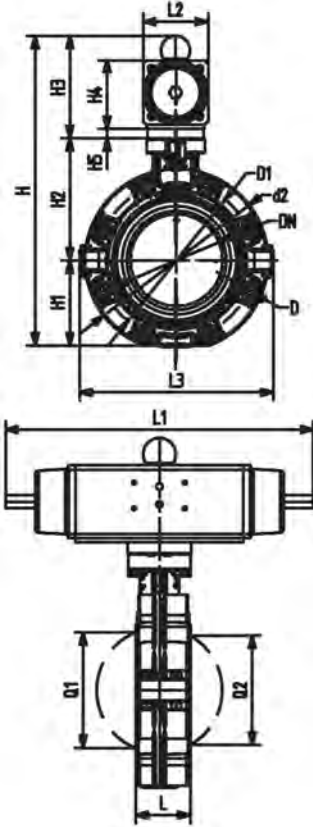
**SYGEF Standard**  
**Lugstyle butterfly valve type 244 ANSI**  
**FC (Fail safe to close)**  
**Without manual override**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
				(l/min)		
63	2	50	10	1470	<b>199 244 462</b>	
75	2 ½	65	10	2200	<b>199 244 463</b>	
90	3	80	10	3000	<b>199 244 464</b>	
110	4	100	10	6500	<b>199 244 465</b>	
140	5	125	10	11500	<b>199 244 466</b>	
160	6	150	10	16600	<b>199 244 467</b>	12.902
225	8	200	10	39600	<b>199 244 468</b>	
280		250	10	55200	<b>199 244 469</b>	
315		300	10	80000	<b>199 244 470</b>	

Actuator unit type	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
PA-30 FC	160	UNC 5/8	120.6	328	77	134	117	70	15	45	276	65	165
PA-30 FC	180	UNC 5/8	139.7	340	83	140	117	70	15	46	276	65	182
PA-35 FC	195	UNC 5/8	152.4	361	89	146	126	78	15	49	326	72	210
PA-40 FC	226	UNC 5/8	190.5	402	106	167	129	86		56	370	80	240
PA-45 FC	258	UNC 3/4	215.9	441	121	181	139	96		64	411	90	272
PA-50 FC	284	UNC 3/4	241.3	471	133	189	149	106		72	423	100	300
PA-55 FC	341	UNC 3/4	298.4	530	159	210	161	118		73	452	112	360
PA-65 FC	412	UNC 3/4	362.0	660	205	264	191	148		113	648	137	440
PA-70 FC	482	UNC 3/4	431.8	715	234	285	196	157		113	663	145	510

Q1	Q2
(mm)	(mm)
40	
54	35
67	50
88	74
113	97
139	123
178	169
210	207
256	253



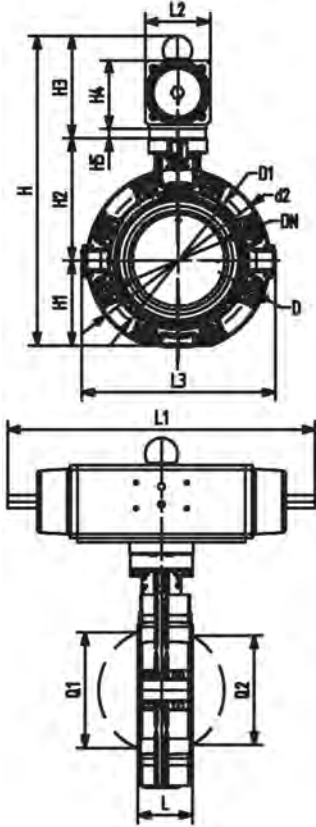
**SYGEF Standard**  
**Lugstyle butterfly valve type 244 ANSI**  
**FO (Fail safe to open)**  
**Without manual override**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
				(l/min)		
63	2	50	10	1470	<b>199 244 482</b>	3.499
75	2 ½	65	10	2200	<b>199 244 483</b>	3.656
90	3	80	10	3000	<b>199 244 484</b>	4.692
110	4	100	10	6500	<b>199 244 485</b>	6.406
140	5	125	10	11500	<b>199 244 486</b>	9.222
160	6	150	10	16600	<b>199 244 487</b>	12.902
225	8	200	10	39600	<b>199 244 488</b>	16.691
280	10	250	10	55200	<b>199 244 489</b>	33.880
315	12	300	10	80000	<b>199 244 490</b>	43.985

Actuator unit type	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
PA-30 FO	160	UNC 5/8	120.6	328	77	134	117	70	15	45	276	65	165
PA-30 FO	180	UNC 5/8	139.7	340	83	140	117	70	15	46	276	65	182
PA-35 FO	195	UNC 5/8	152.4	361	89	146	126	78	15	49	326	72	210
PA-40 FO	226	UNC 5/8	190.5	402	106	167	129	86		56	370	80	240
PA-45 FO	258	UNC 3/4	215.9	441	121	181	139	96		64	411	90	272
PA-50 FO	284	UNC 3/4	241.3	471	133	189	149	106		72	423	100	300
PA-55 FO	341	UNC 3/4	298.4	530	159	210	161	118		73	452	112	360
PA-70 FO	412	UNC 3/4	362.0	660	205	264	191	148		113	648	137	440
PA-70 FO	482	UNC 3/4	431.8	715	234	285	196	157		113	663	145	510

Q1	Q2
(mm)	(mm)
40	
54	35
67	50
88	74
113	97
139	123
178	169
210	207
256	253



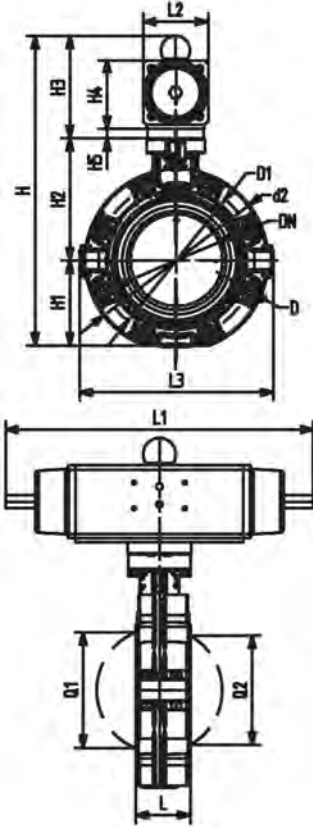
**SYGEF Standard**  
**Lugstyle butterfly valve type 244 ANSI**  
**DA (Double acting)**  
**Without manual override**

**Model:**

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150

**Option:**

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
				(l/min)		
63	2	50	10	1470	<b>199 244 502</b>	4.198
75	2 ½	65	10	2200	<b>199 244 503</b>	4.561
90	3	80	10	3000	<b>199 244 504</b>	5.470
110	4	100	10	6500	<b>199 244 505</b>	7.750
140	5	125	10	11500	<b>199 244 506</b>	9.731
160	6	150	10	16600	<b>199 244 507</b>	13.500
225	8	200	10	39600	<b>199 244 508</b>	19.114
280	10	250	10	55200	<b>199 244 509</b>	
315	12	300	10	80000	<b>199 244 510</b>	

Actuator unit type	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
PA-35 DA	160	UNC 5/8	120.6	318	77	134	107	60	15	45	177	55	165
PA-35 DA	180	UNC 5/8	139.7	330	83	140	107	60	15	46	177	55	182
PA-40 DA	195	UNC 5/8	152.4	348	89	146	113	66	15	49	190	60	210
PA-45 DA	226	UNC 5/8	190.5	384	106	167	111	78		56	235	72	240
PA-45 DA	258	UNC 3/4	215.9	413	121	181	111	78		64	235	72	272
PA-55 DA	284	UNC 3/4	241.3	461	133	189	139	96		72	279	90	300
PA-55 DA	341	UNC 3/4	298.4	508	159	210	139	96		73	279	90	360
PA-65 DA	412	UNC 3/4	362.0	630	205	264	161	118		113	350	112	440
PA-70 DA	482	UNC 3/4	431.8	692	234	285	173	130		113	381	124	510

Q1	Q2
(mm)	(mm)
40	
54	35
67	50
88	74
113	97
139	123
178	169
210	207
256	253



# Diaphragm valves pneumatic



## SYGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) Unions with fusion sockets metric

### Model:

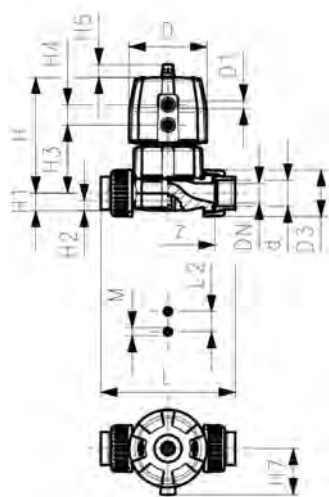
- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

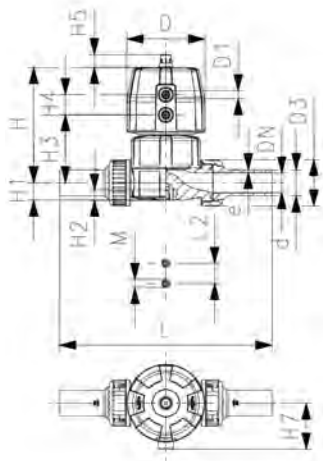
Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10/10*	125	<b>185 624 032</b>	0.611	<b>185 624 052</b>	0.611
25	20	10/10*	271	<b>185 624 033</b>	1.216	<b>185 624 053</b>	1.216
32	25	10/10*	481	<b>185 624 034</b>	1.565	<b>185 624 054</b>	1.565
40	32	10/10*	759	<b>185 624 035</b>	2.489	<b>185 624 055</b>	2.489
50	40	10/10*	1263	<b>185 624 036</b>	4.266	<b>185 624 056</b>	4.266
63	50	10/6*	1728	<b>185 624 037</b>	5.358	<b>185 624 057</b>	5.358

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	128	25	M6	100	7
25	96	1/8	132	18	12	73	25	16	57	150	25	M6	118	10
32	96	1/8	143	22	12	84	25	16	57	162	25	M6	126	13
40	120	1/8	173	26	15	99	26	26	69	184	45	M8	144	15
50	150	1/8	214	32	15	119	36	26	88	210	45	M8	164	19
63	150	1/8	226	39	15	132	36	26	88	248	45	M8	194	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**SYGEF Standard  
Diaphragm valve DIASTAR Ten  
FC (Fail safe to close)  
Unions with butt fusion spigots metric**

**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	<b>185 624 132</b>	0.630	<b>185 624 152</b>	1.100
25	20	10	271	<b>185 624 133</b>	1.405	<b>185 624 153</b>	1.760
32	25	10	481	<b>185 624 134</b>	1.515	<b>185 624 154</b>	2.610
40	32	10	759	<b>185 624 135</b>	2.570	<b>185 624 155</b>	3.760
50	40	10	1263	<b>185 624 136</b>	4.697	<b>185 624 156</b>	6.220
63	50	6	1728	<b>185 624 137</b>	5.327	<b>185 624 157</b>	7.800

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	196	25	M6	2	7
25	96	1/8	132	18	12	73	25	16	57	221	25	M6	2	10
32	96	1/8	143	22	12	84	25	16	57	234	25	M6	2	13
40	120	1/8	173	26	15	99	26	26	69	260	45	M8	2	15
50	150	1/4	214	32	15	119	36	26	88	284	45	M8	3	19
63	150	1/4	226	39	15	132	36	26	88	321	45	M8	3	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**With backing flanges PP-V Inch ANSI**

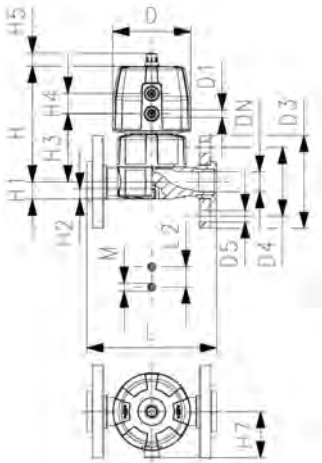
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
½	15	10	125	<b>185 627 732</b>	0.870	<b>185 627 752</b>	0.870
¾	20	10	271	<b>185 627 733</b>	1.473	<b>185 627 753</b>	1.473
1	25	10	481	<b>185 627 734</b>	1.791	<b>185 627 754</b>	1.791
1 ¼	32	10	759	<b>185 627 735</b>	2.854	<b>185 627 755</b>	2.854
1 ½	40	10	1263	<b>185 627 736</b>	4.481	<b>185 627 756</b>	4.481
2	50	6	1728	<b>185 627 737</b>	5.762	<b>185 627 757</b>	5.762

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	68	¾	95	60	16	101	14	12	60	24	16	43	130	25	M6
¾	96	¾	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	96	¾	115	79	16	143	22	12	84	25	16	69	160	25	M6
1 ¼	120	¾	140	89	16	173	26	15	99	26	26	69	180	45	M8
1 ½	150	¾	150	98	16	193	32	15	119	36	26	88	200	45	M8
2	150	¾	165	121	19	205	39	15	132	36	26	88	230	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23



**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**With backing flanges PP-V metric/BS**

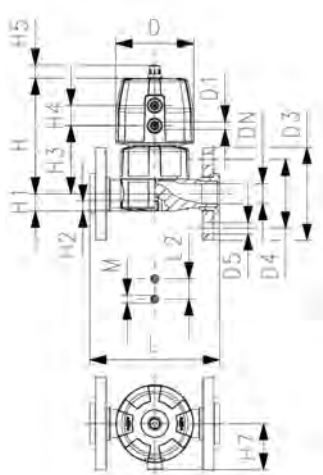
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	<b>185 627 132</b>	0.754	<b>185 627 152</b>	0.754
25	20	10	271	<b>185 627 133</b>	1.473	<b>185 627 153</b>	1.473
32	25	10	481	<b>185 627 134</b>	1.699	<b>185 627 154</b>	1.699
40	32	10	759	<b>185 627 135</b>	2.854	<b>185 627 155</b>	2.854
50	40	10	1263	<b>185 627 136</b>	4.481	<b>185 627 156</b>	4.481
63	50	6	1728	<b>185 627 137</b>	5.686	<b>185 627 157</b>	5.686

d	D	D1_G	D3	D4	D5	H	H1	H2	H3	H4	H5	H7	L	L2	M
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	68	⅜	95	65	14	101	14	12	60	24	16	43	130	25	M6
25	96	⅜	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	96	⅜	115	85	14	143	22	12	84	25	16	69	160	25	M6
40	120	⅜	140	100	18	173	26	15	99	26	26	69	180	45	M8
50	150	⅜	150	110	18	193	32	15	119	36	26	88	200	45	M8
63	150	⅜	165	125	18	205	39	15	132	36	26	88	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	½
25	10	¾
32	13	1
40	15	1 ¼
50	19	1 ½
63	23	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**With backing flanges PP-V Inch ANSI**

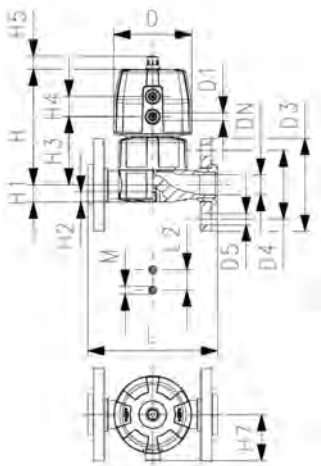
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



Size (inch)	DN (mm)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
1/2	15	125	<b>185 647 732</b>	0.820	<b>185 647 752</b>	0.820
3/4	20	271	<b>185 647 733</b>	1.299	<b>185 647 753</b>	1.299
1	25	481	<b>185 647 734</b>	1.611	<b>185 647 754</b>	1.611
1 1/4	32	759	<b>185 647 735</b>	2.494	<b>185 647 755</b>	2.494
1 1/2	40	1263	<b>185 647 736</b>	4.391	<b>185 647 756</b>	4.391
2	50	1728	<b>185 647 737</b>	5.672	<b>185 647 757</b>	5.672

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
1/2	68	3/8	95	60	16	101	14	12	60	24	16	57	130	25	M6
3/4	96	1/2	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	96	5/8	115	79	16	143	22	12	84	25	16	69	160	25	M6
1 1/4	120	3/4	140	89	16	173	26	15	99	26	26	88	180	45	M8
1 1/2	150	7/8	150	98	16	214	32	15	119	36	26	103	200	45	M8
2	150	1	165	121	19	226	39	15	132	36	26	103	230	45	M8

Size (inch)	Lift = Hx (mm)
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23



**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**With backing flanges PP-V metric/BS**

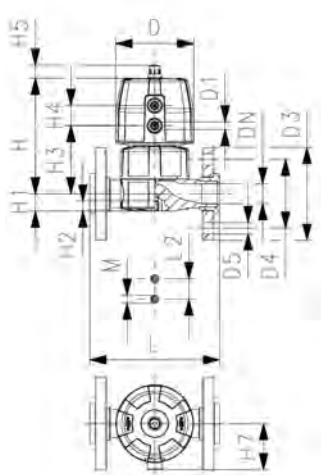
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	<b>185 647 132</b>	0.820	<b>185 647 152</b>	0.820
25	20	271	<b>185 647 133</b>	1.299	<b>185 647 153</b>	1.299
32	25	481	<b>185 647 134</b>	1.611	<b>185 647 154</b>	1.611
40	32	759	<b>185 647 135</b>	2.494	<b>185 647 155</b>	2.494
50	40	1263	<b>185 647 136</b>	4.391	<b>185 647 156</b>	4.391
63	50	1728	<b>185 647 137</b>	5.040	<b>185 647 157</b>	5.040

d	D	D1_G	D3	D4	D5	H	H1	H2	H3	H4	H5	H7	L	L2	M
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	68	⅜	95	65	14	101	14	12	60	24	16	57	130	25	M6
25	96	⅜	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	96	⅜	115	85	14	143	22	12	84	25	16	69	160	25	M6
40	120	⅜	140	100	18	173	26	15	99	26	26	88	180	45	M8
50	150	⅜	150	110	18	214	32	15	119	36	26	103	200	45	M8
63	150	⅜	165	125	18	226	39	15	132	36	26	103	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	½
25	10	¾
32	13	1
40	15	1 ¼
50	19	1 ½
63	23	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**With backing flanges PP-V Inch ANSI**

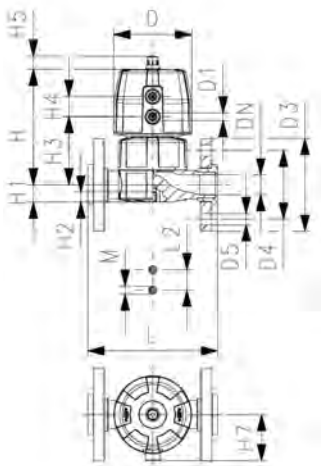
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
1/2	15	10	125	<b>185 657 732</b>	0.804	<b>185 657 752</b>	0.804
3/4	20	10	271	<b>185 657 733</b>	1.263	<b>185 657 753</b>	1.263
1	25	10	481	<b>185 657 734</b>	1.581	<b>185 657 754</b>	1.581
1 1/4	32	10	759	<b>185 657 735</b>	2.434	<b>185 657 755</b>	2.434
1 1/2	40	10	1263	<b>185 657 736</b>	3.641	<b>185 657 756</b>	3.641
2	50	6	1728	<b>185 657 737</b>	4.922	<b>185 657 757</b>	4.922

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
1/2	68	3/8	95	60	16	101	14	12	60	24	16	57	130	25	M6
3/4	96	1/2	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	96	3/8	115	79	16	143	22	12	84	25	16	69	160	25	M6
1 1/4	120	1/2	140	89	16	173	26	15	99	26	26	88	180	45	M8
1 1/2	150	3/4	150	98	16	214	32	15	119	36	26	103	200	45	M8
2	150	1/2	165	121	19	226	39	15	132	36	26	103	230	45	M8

Size (inch)	Lift = Hx (mm)
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23



**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**With backing flanges PP-V metric/BS**

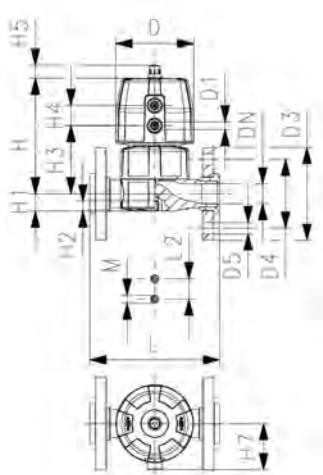
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	<b>185 657 132</b>	0.804	<b>185 657 152</b>	0.804
25	20	271	<b>185 657 133</b>	1.200	<b>185 657 153</b>	1.200
32	25	481	<b>185 657 134</b>	1.581	<b>185 657 154</b>	1.581
40	32	759	<b>185 657 135</b>	2.434	<b>185 657 155</b>	2.434
50	40	1263	<b>185 657 136</b>	3.937	<b>185 657 156</b>	3.937
63	50	1728	<b>185 657 137</b>	4.922	<b>185 657 157</b>	4.922

d	D	D1_G	D3	D4	D5	H	H1	H2	H3	H4	H5	H7	L	L2	M
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	68	⅜	95	65	14	101	14	12	60	24	16	57	130	25	M6
25	96	⅜	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	96	⅜	115	85	14	143	22	12	84	25	16	69	160	25	M6
40	120	⅜	140	100	18	173	26	15	99	26	26	88	180	45	M8
50	150	⅜	150	110	18	214	32	15	119	36	26	103	200	45	M8
63	150	⅜	165	125	18	226	39	15	132	36	26	103	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	½
25	10	¾
32	13	1
40	15	1 ¼
50	19	1 ½
63	23	2





**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**With butt fusion spigots metric**

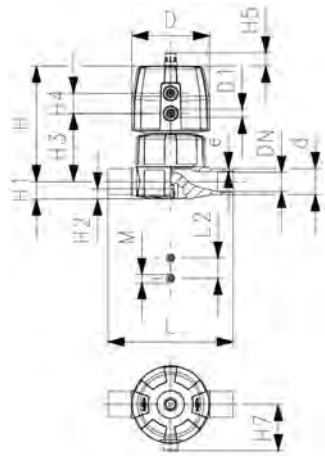
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	<b>185 655 132</b>	0.603	<b>185 655 152</b>	0.603
25	20	271	<b>185 655 133</b>	0.981	<b>185 655 153</b>	0.981
32	25	481	<b>185 655 134</b>	1.193	<b>185 655 154</b>	1.193
40	32	759	<b>185 655 135</b>	1.823	<b>185 655 155</b>	1.823
50	40	1263	<b>185 655 136</b>	2.986	<b>185 655 156</b>	2.986
63	50	1728	<b>185 655 137</b>	3.796	<b>185 655 157</b>	3.796

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	2	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	2	10
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	2	13
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	2	15
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	3	19
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	3	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**With socket fusion spigots metric**

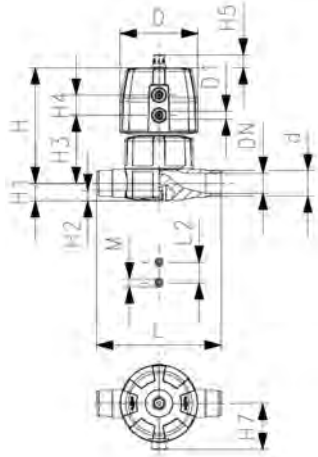
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	<b>185 655 032</b>	0.604	<b>185 655 052</b>	0.604
25	20	271	<b>185 655 033</b>	0.989	<b>185 655 053</b>	0.989
32	25	481	<b>185 655 034</b>	1.201	<b>185 655 054</b>	1.201
40	32	759	<b>185 655 035</b>	1.848	<b>185 655 055</b>	1.848
50	40	1263	<b>185 655 036</b>	3.031	<b>185 655 056</b>	3.031
63	50	1728	<b>185 655 037</b>	3.878	<b>185 655 057</b>	3.878

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	68	⅝	101	14	12	60	24	16	43	124	25	M6	7	½
25	96	⅝	132	18	12	73	25	16	57	144	25	M6	10	¾
32	96	⅝	143	22	12	84	25	16	57	154	25	M6	13	1
40	120	⅝	173	26	15	99	26	26	69	174	45	M8	15	1 ¼
50	150	⅝	214	32	15	119	36	26	88	194	45	M8	19	1 ½
63	150	⅝	226	39	15	132	36	26	88	224	45	M8	23	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**With backing flanges PP-V Inch ANSI**

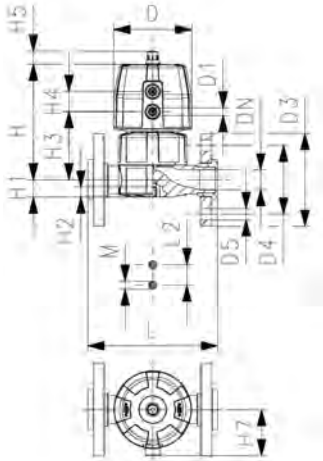
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **both sides**



Size (inch)	DN (mm)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
½	15	125	<b>185 687 732</b>	1.281	<b>185 687 752</b>	1.281
¾	20	271	<b>185 687 733</b>	1.491	<b>185 687 753</b>	1.491
1	25	481	<b>185 687 734</b>	2.398	<b>185 687 754</b>	2.410
1 ¼	32	759	<b>185 687 735</b>	3.961	<b>185 687 755</b>	3.961
1 ½	40	1263	<b>185 687 736</b>	5.944	<b>185 687 756</b>	5.944
2	50	1728	<b>185 687 737</b>	7.277	<b>185 687 757</b>	7.277

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
½	96	¾	95	60	16	127	14	12	68	25	16	57	130	25	M6
¾	96	¾	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	120	¾	115	79	16	167	22	12	93	26	26	69	160	25	M6
1 ¼	150	¾	140	89	16	196	26	15	101	36	26	88	180	45	M8
1 ½	180	¾	150	98	16	239	32	15	124	37	26	103	200	45	M8
2	180	¾	165	121	19	251	39	15	137	37	26	103	230	45	M8

Size (inch)	Lift = Hx (mm)
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23



**SYGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**With backing flanges PP-V metric/BS**

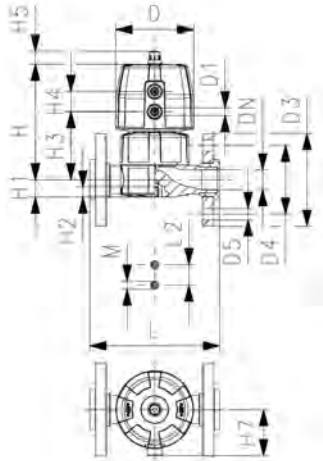
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **both sides**



d (mm)	DN (mm)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	<b>185 687 132</b>	1.281	<b>185 687 152</b>	1.281
25	20	271	<b>185 687 133</b>	1.491	<b>185 687 153</b>	1.491
32	25	481	<b>185 687 134</b>	2.410	<b>185 687 154</b>	2.410
40	32	759	<b>185 687 135</b>	3.961	<b>185 687 155</b>	3.961
50	40	1263	<b>185 687 136</b>	5.944	<b>185 687 156</b>	5.944
63	50	1728	<b>185 687 137</b>	7.277	<b>185 687 157</b>	7.277

d (mm)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
20	96	⅜	95	65	14	127	14	12	68	25	16	57	130	25	M6
25	96	⅜	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	120	⅜	115	85	14	167	22	12	93	26	26	69	160	25	M6
40	150	⅜	140	100	18	196	26	15	101	36	26	88	180	45	M8
50	180	⅜	150	110	18	239	32	15	124	37	26	103	200	45	M8
63	180	⅜	165	125	18	251	39	15	137	37	26	103	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	½
25	10	¾
32	13	1
40	15	1 ¼
50	19	1 ½
63	23	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**With butt fusion spigots metric**

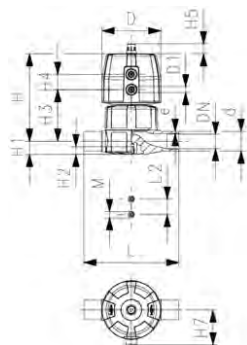
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **both sides**



d (mm)	DN (mm)	PN (psi)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	150/150*	125	<b>185 685 132</b>	0.972	<b>185 685 152</b>	0.972
25	20	150/150*	271	<b>185 685 133</b>	1.209	<b>185 685 153</b>	1.209
32	25	150/150*	481	<b>185 685 134</b>	2.022	<b>185 685 154</b>	2.022
40	32	150/150*	759	<b>185 685 135</b>	3.350	<b>185 685 155</b>	3.350
50	40	150/150*	1263	<b>185 685 136</b>	5.289	<b>185 685 156</b>	5.289
63	50	150/150*	1728	<b>185 685 137</b>	6.151	<b>185 685 157</b>	6.151

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	124	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	120	⅜	167	22	12	93	26	26	69	154	25	M6	2.4	13
40	150	¼	196	26	15	101	36	26	88	174	45	M8	2.4	15
50	180	¼	239	32	15	124	37	26	103	194	45	M8	3.0	19
63	180	¼	251	39	15	137	37	26	103	224	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**With socket fusion spigots metric**

**Model:**

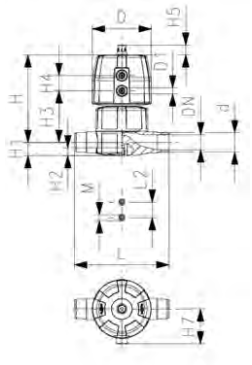
- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **both sides**



d	DN	PN	PN*	kv-value	PTFE/EPDM	Weight	PTFE/FPM	Weight
(mm)	(mm)	(psi)	(bar)	( $\Delta p=1$ bar)	Code	(kg)	Code	(kg)
				(l/min)				
20	15	150/150*	10/10*	125	<b>185 685 032</b>	1.081	<b>185 685 052</b>	1.081
25	20	150/150*	10/10*	271	<b>185 685 033</b>	1.217	<b>185 685 053</b>	1.217
32	25	150/150*	10/10*	481	<b>185 685 034</b>	2.030	<b>185 685 054</b>	2.030
40	32	150/150*	10/10*	759	<b>185 685 035</b>	3.375	<b>185 685 055</b>	3.375
50	40	150/150*	10/10*	1263	<b>185 685 036</b>	5.334	<b>185 685 056</b>	5.334
63	50	150/150*	10/10*	1728	<b>185 685 037</b>	6.233	<b>185 685 057</b>	6.233

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	Lift = Hx	closest inch
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(inch)
20	96	⅜	127	14	12	68	25	16	57	124	25	M6	7	½
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	10	¾
32	120	⅜	167	22	12	93	26	26	69	154	25	M6	13	1
40	150	¼	196	26	15	101	36	26	88	174	45	M8	15	1 ¼
50	180	¼	239	32	15	124	37	26	103	194	45	M8	19	1 ½
63	180	¼	251	39	15	137	37	26	103	224	45	M8	23	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**Unions with butt fusion spigots metric**

**Model:**

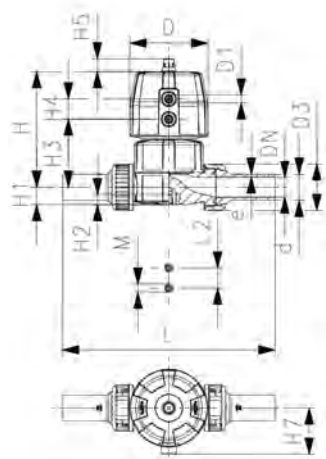
- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **both sides**



d (mm)	DN (mm)	PN (psi)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	150/150*	10/10*	125	<b>185 684 132</b>	1.185	<b>185 684 152</b>	1.185
25	20	150/150*	10/10*	271	<b>185 684 133</b>	1.386	<b>185 684 153</b>	1.386
32	25	150/150*	10/10*	481	<b>185 684 134</b>	2.537	<b>185 684 154</b>	2.537
40	32	150/150*	10/10*	759	<b>185 684 135</b>	3.735	<b>185 684 155</b>	3.735
50	40	150/150*	10/10*	1263	<b>185 684 136</b>	5.757	<b>185 684 156</b>	5.757
63	50	150/150*	10/10*	1728	<b>185 684 137</b>	6.991	<b>185 684 157</b>	6.991

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	196	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	120	⅜	167	22	12	93	26	26	69	234	25	M6	2.4	13
40	150	¼	196	26	15	101	36	26	88	260	45	M8	2.4	15
50	180	¼	239	32	15	124	37	26	103	284	45	M8	3.0	19
63	180	¼	251	39	15	137	37	26	103	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**Unions with fusion sockets metric**

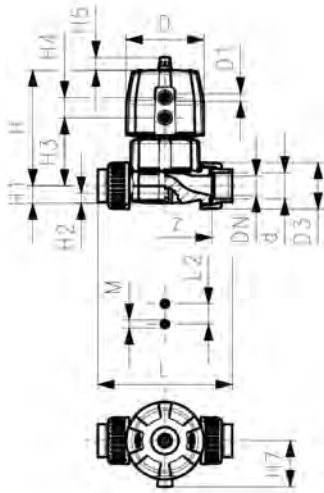
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **both sides**



d (mm)	DN (mm)	PN (psi)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	150/150*	125	<b>185 684 032</b>	0.957	<b>185 684 052</b>	1.147
25	20	150/150*	271	<b>185 684 033</b>	1.233	<b>185 684 053</b>	1.233
32	25	150/150*	481	<b>185 684 034</b>	2.184	<b>185 684 054</b>	2.184
40	32	150/150*	759	<b>185 684 035</b>	3.643	<b>185 684 055</b>	3.643
50	40	150/150*	1263	<b>185 684 036</b>	5.729	<b>185 684 056</b>	5.729
63	50	150/150*	1728	<b>185 684 037</b>	6.873	<b>185 684 057</b>	6.873

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	128	25	M6	100	7
25	96	⅜	132	18	12	73	25	16	57	150	25	M6	118	10
32	120	⅜	167	22	12	93	26	26	69	162	25	M6	126	13
40	150	⅜	196	26	15	101	36	26	88	184	45	M8	144	15
50	180	⅜	239	32	15	124	37	26	103	210	45	M8	164	19
63	180	⅜	251	39	15	137	37	26	103	248	45	M8	194	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2





**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**Unions with butt fusion spigots metric**

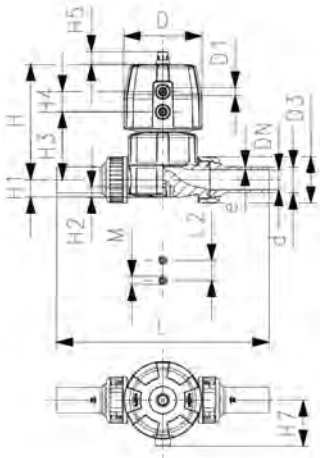
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	<b>185 654 132</b>	0.708	<b>185 654 152</b>	0.708
25	20	271	<b>185 654 133</b>	1.158	<b>185 654 153</b>	1.158
32	25	481	<b>185 654 134</b>	1.399	<b>185 654 154</b>	1.399
40	32	759	<b>185 654 135</b>	2.208	<b>185 654 155</b>	2.208
50	40	1263	<b>185 654 136</b>	3.454	<b>185 654 156</b>	3.454
63	50	1728	<b>185 654 137</b>	4.636	<b>185 654 157</b>	4.636

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	196	25	M6	2	7
25	96	3/8	132	18	12	73	25	16	57	221	25	M6	2	10
32	96	1/2	143	22	12	84	25	16	57	234	25	M6	2	13
40	120	5/8	173	26	15	99	26	26	69	260	45	M8	2	15
50	150	3/4	214	32	15	119	36	26	69	284	45	M8	3	19
63	150	1/2	226	39	15	132	36	26	69	321	45	M8	3	23

d (mm)	closest inch (inch)
20	3/8
25	1/2
32	1
40	1 1/4
50	1 1/2
63	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**Unions with fusion sockets metric**

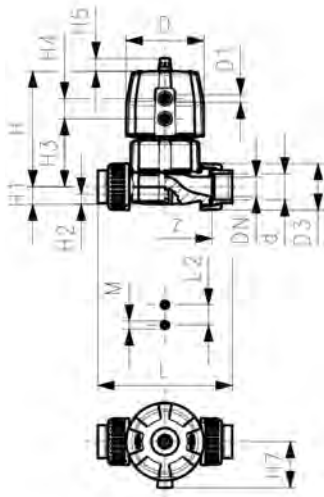
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	<b>185 654 032</b>	0.565	<b>185 654 052</b>	0.565
25	20	271	<b>185 654 033</b>	1.116	<b>185 654 053</b>	1.116
32	25	481	<b>185 654 034</b>	1.328	<b>185 654 054</b>	1.355
40	32	759	<b>185 654 035</b>	2.116	<b>185 654 055</b>	2.116
50	40	1263	<b>185 654 036</b>	3.426	<b>185 654 056</b>	3.426
63	50	1728	<b>185 654 037</b>	4.518	<b>185 654 057</b>	4.518

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	128	25	M6	100	7
25	96	1/8	132	18	12	73	25	16	57	150	25	M6	118	10
32	96	1/8	143	22	12	84	25	16	57	162	25	M6	126	13
40	120	1/8	173	26	15	99	26	26	69	184	45	M8	144	15
50	150	1/4	214	32	15	119	36	26	88	210	45	M8	164	19
63	150	1/4	226	39	15	132	36	26	88	248	45	M8	194	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**With butt fusion spigots metric**

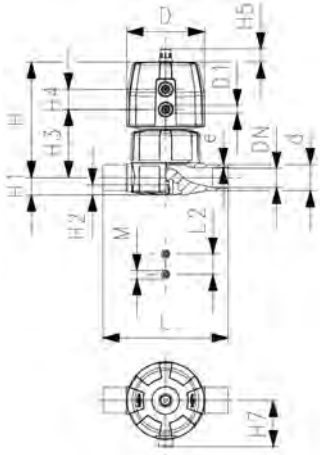
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

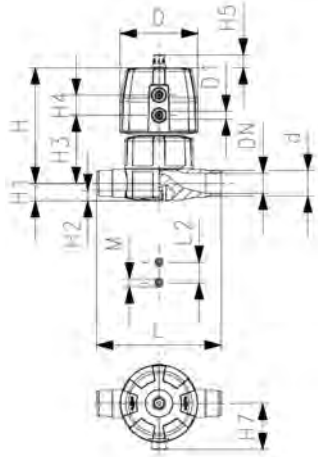
Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	<b>185 645 132</b>	0.619	<b>185 645 152</b>	0.619
25	20	10	271	<b>185 645 133</b>	1.017	<b>185 645 153</b>	1.017
32	25	10	481	<b>185 645 134</b>	1.223	<b>185 645 154</b>	1.223
40	32	10	759	<b>185 645 135</b>	1.883	<b>185 645 155</b>	1.883
50	40	10	1263	<b>185 645 136</b>	3.701	<b>185 645 156</b>	3.736
63	50	6	1728	<b>185 645 137</b>	4.546	<b>185 645 157</b>	4.546

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	2	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	2	10
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	2	13
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	2	15
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	3	19
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	3	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**With socket fusion spigots metric**

**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

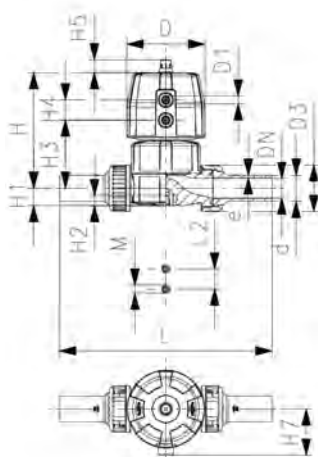
**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	<b>185 645 032</b>	0.620	<b>185 645 052</b>	0.620
25	20	10	271	<b>185 645 033</b>	1.025	<b>185 645 053</b>	1.025
32	25	10	481	<b>185 645 034</b>	1.231	<b>185 645 054</b>	1.231
40	32	10	759	<b>185 645 035</b>	1.908	<b>185 645 055</b>	1.908
50	40	10	1263	<b>185 645 036</b>	3.781	<b>185 645 056</b>	3.781
63	50	6	1728	<b>185 645 037</b>	4.628	<b>185 645 057</b>	4.628

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	68	⅜	101	14	12	60	24	16	43	124	25	M6	7	⅓
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	10	⅜
32	96	⅜	143	22	12	84	25	16	57	154	25	M6	13	1
40	120	⅜	173	26	15	99	26	26	69	174	45	M8	15	1 ¼
50	150	⅜	214	32	15	119	36	26	88	194	45	M8	19	1 ½
63	150	⅜	226	39	15	132	36	26	88	224	45	M8	23	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**Unions with butt fusion spigots metric**

**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

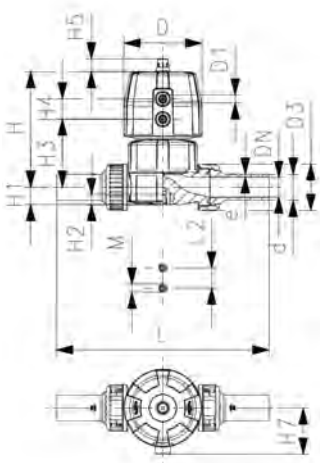
**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**

d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	<b>185 644 132</b>	0.724	<b>185 644 152</b>	0.600
25	20	10	271	<b>185 644 133</b>	1.194	<b>185 644 153</b>	1.194
32	25	10	481	<b>185 644 134</b>	1.429	<b>185 644 154</b>	1.429
40	32	10	759	<b>185 644 135</b>	2.268	<b>185 644 155</b>	2.268
50	40	10	1263	<b>185 644 136</b>	4.204	<b>185 644 156</b>	4.204
63	50	6	1728	<b>185 644 137</b>	5.386	<b>185 644 157</b>	5.386

table continued on the next page



d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	196	25	M6	2	7
25	96	3/8	132	18	12	73	25	16	57	221	25	M6	2	10
32	96	1/4	143	22	12	84	25	16	57	234	25	M6	2	13
40	120	1/2	173	26	15	99	26	26	69	260	45	M8	2	15
50	150	3/4	214	32	15	119	36	26	69	284	45	M8	3	19
63	150	1/2	226	39	15	132	36	26	69	321	45	M8	3	23

d (mm)	closest inch (inch)
20	3/8
25	1/2
32	1
40	1 1/4
50	1 1/2
63	2



**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**Unions with fusion sockets metric**

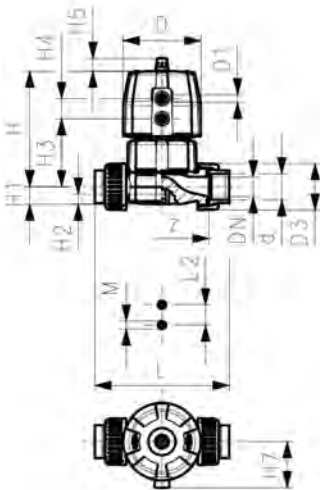
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

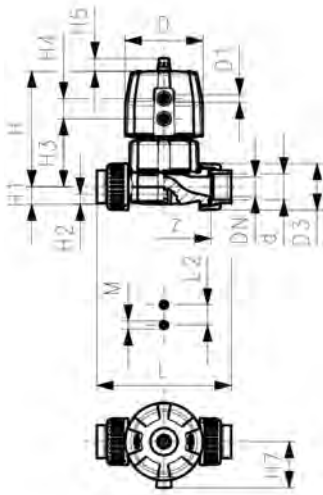
Working Pressure: **one side**



d (mm)	DN (mm)	kv-value (Δp=1 bar) (l/min)	PN (bar)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	10	<b>185 644 032</b>	0.686	<b>185 644 052</b>	0.686
25	20	271	10	<b>185 644 033</b>	1.152	<b>185 644 053</b>	1.152
32	25	481	10	<b>185 644 034</b>	1.385	<b>185 644 054</b>	1.385
40	32	759	10	<b>185 644 035</b>	2.176	<b>185 644 055</b>	2.176
50	40	1263	10	<b>185 644 036</b>	4.176	<b>185 644 056</b>	4.176
63	50	1728	6	<b>185 644 037</b>	5.268	<b>185 644 057</b>	5.268

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	128	25	M6	100	7
25	96	3/8	132	18	12	73	25	16	57	150	25	M6	118	10
32	96	1/4	143	22	12	84	25	16	57	162	25	M6	126	13
40	120	1/2	173	26	15	99	26	26	69	184	45	M8	144	15
50	150	3/4	214	32	15	119	36	26	88	210	45	M8	164	19
63	150	1/2	226	39	15	132	36	26	88	248	45	M8	194	23

table continued on the next page



d (mm)	closest inch (inch)
20	¾
25	1
32	1 ¼
40	1 ½
50	2
63	2 ¼



**SYGEF Standard  
Diaphragm valve DIASTAR Ten  
FC (Fail safe to close)  
With butt fusion spigots metric**

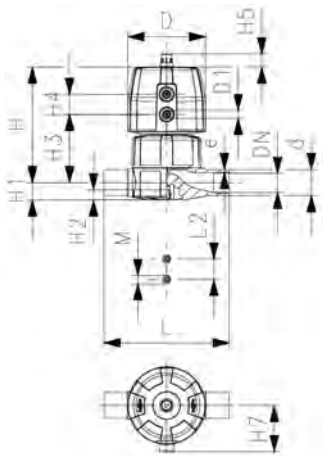
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	<b>185 625 132</b>	0.541	<b>185 625 152</b>	0.541
25	20	10	271	<b>185 625 133</b>	1.191	<b>185 625 153</b>	1.191
32	25	10	481	<b>185 625 134</b>	1.403	<b>185 625 154</b>	1.403
40	32	10	759	<b>185 625 135</b>	2.243	<b>185 625 155</b>	2.243
50	40	10	1263	<b>185 625 136</b>	3.826	<b>185 625 156</b>	3.826
63	50	6	1728	<b>185 625 137</b>	4.636	<b>185 625 157</b>	4.636

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	¾	101	14	12	60	24	16	43	124	25	M6	2	7
25	96	1	132	18	12	73	25	16	57	144	25	M6	2	10
32	96	1	143	22	12	84	25	16	57	154	25	M6	2	13
40	120	1 ¼	173	26	15	99	26	26	69	174	45	M8	2	15
50	150	1 ½	214	32	15	119	36	26	88	194	45	M8	3	19
63	150	1 ½	226	39	15	132	36	26	88	224	45	M8	3	23

d (mm)	closest inch (inch)
20	¾
25	1
32	1 ¼
40	1 ½
50	2
63	2 ¼



**SYGEF Standard**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**With socket fusion spigots metric**

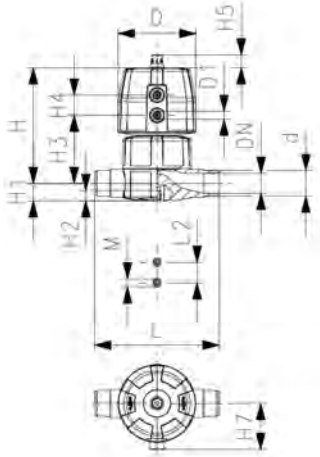
**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	<b>185 625 032</b>	0.670	<b>185 625 052</b>	0.670
25	20	10	271	<b>185 625 033</b>	1.199	<b>185 625 053</b>	1.199
32	25	10	481	<b>185 625 034</b>	1.411	<b>185 625 054</b>	1.411
40	32	10	759	<b>185 625 035</b>	2.268	<b>185 625 055</b>	2.268
50	40	10	1263	<b>185 625 036</b>	3.871	<b>185 625 056</b>	3.871
63	50	6	1728	<b>185 625 037</b>	4.718	<b>185 625 057</b>	4.718

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	7	1/2
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	10	3/4
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	13	1
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	15	1 1/4
50	150	1/8	214	32	15	119	36	26	88	194	45	M8	19	1 1/2
63	150	1/8	226	39	15	132	36	26	88	224	45	M8	23	2

# Diaphragm valves pneumatic



**SYGEF Standard**  
**Diaphragm valve type DIASTAR 025**  
**Function FC (Fail safe to close)**  
**With fixed flanges PVDF Inch ANSI**

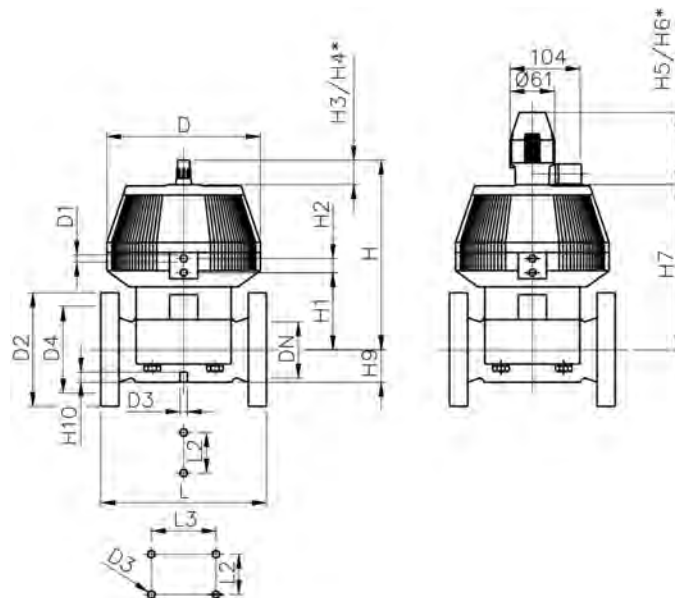
**Model:**

- Material: PVDF
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	<b>d</b> (mm)	<b>Size</b> (inch)	<b>DN</b> (mm)	<b>PN</b> (bar)	<b>kv-value</b> ( $\Delta p=1$ bar) (L/min)	<b>PTFE/EPDM</b> <b>Code</b>	<b>Weight</b> (kg)
*		2 ½	65	10	992	<b>199 025 327</b>	14.200
**	90	3	80	10	1700	<b>199 025 358</b>	18.948
		4	100	6	2700	<b>199 025 329</b>	26.500

	<b>D</b> (mm)	<b>D1_G</b> (inch)	<b>D2</b> (mm)	<b>D3[M]</b> (mm)	<b>D4</b> (mm)	<b>H</b> (mm)	<b>H1</b> (mm)	<b>H2</b> (mm)	<b>H3</b> (mm)	<b>H4</b> (mm)	<b>H5</b> (mm)	<b>H6</b> (mm)	<b>H7</b> (mm)	<b>H9</b> (mm)	<b>H10</b> (mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20

	<b>L</b> (mm)	<b>L2</b> (mm)
*	290	70
**	310	120
	350	120







**SYGEF Standard**  
**Diaphragm valve type DIASTAR 025**  
**Function FC (Fail safe to close)**  
**With fixed flanges PVDF metric**

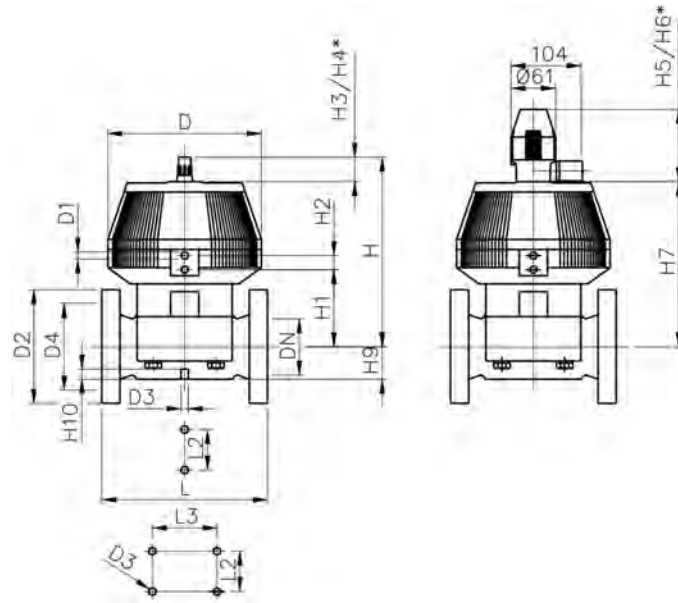
**Model:**

- Material: PVDF
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
	(l/min)						
*	75	2 ½	65	10	992	<b>199 025 357</b>	13.600
**	90	3	80	10	1700	<b>199 025 358</b>	18.948
	110	4	100	6	2700	<b>199 025 359</b>	32.500

	d	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9
	(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69

	d	H10	L	L2
	(mm)	(mm)	(mm)	(mm)
*	75	15	290	70
**	90	15	310	120
	110	20	350	120





**SYGEF Standard**  
**Diaphragm valve type DIASTAR 025**  
**Function FO (Fail safe to open)**  
**With fixed flanges PVDF metric**

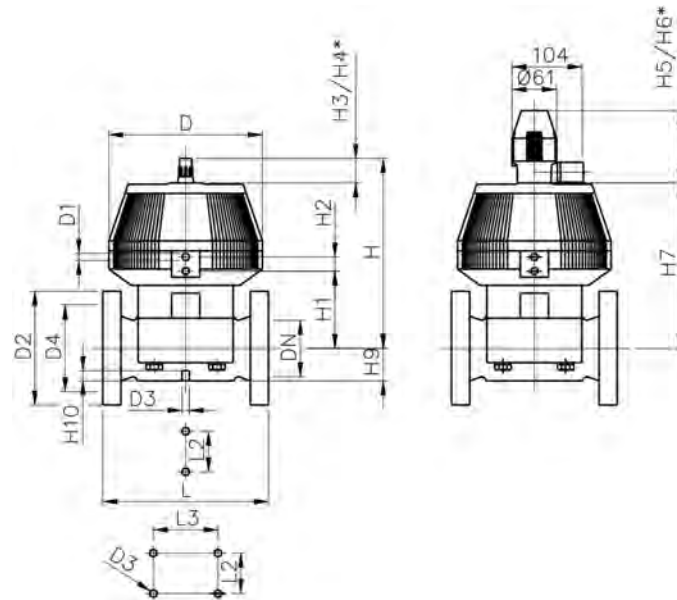
**Model:**

- Material: PVDF
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
*	75	65	2 ½	10	992	<b>199 025 367</b>	13.600
**	90	80	3	10	1700	<b>199 025 368</b>	17.400
	110	100	4	6	2700	<b>199 025 369</b>	24.700
**	160	150	6	6	6033	<b>199 025 370</b>	19.000

	d (mm)	D (mm)	D1_G (inch)	D2 (mm)	D3[M] (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H9 (mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	¼	285	12	240	455	237	24	46	100	129	195	409	108

	d (mm)	H10 (mm)	L (mm)	L2 (mm)	L3 (mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200





**SYGEF Standard**  
**Diaphragm valve type DIASTAR 025**  
**Function FO (Fail safe to open)**  
**With fixed flanges PVDF Inch ANSI**

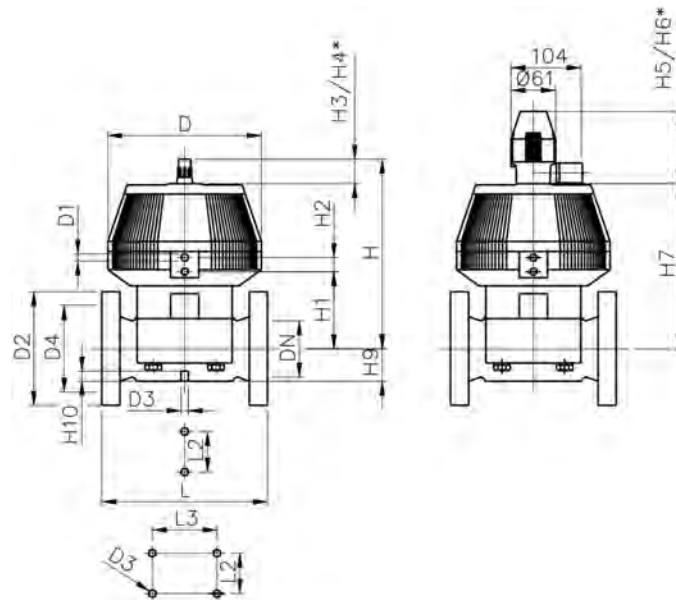
**Model:**

- Material: PVDF
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)
*		2 ½	65	10	992	<b>199 025 337</b>	12.200
**	90	3	80	10	1700	<b>199 025 368</b>	17.400
		4	100	6	2700	<b>199 025 339</b>	23.400
**	160	6	150	6	6033	<b>199 025 370</b>	19.000

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	¼	285	12	240	455	237	24	46	100	129	195	409	108	20

	L	L2	L3
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200





**SYGEF Standard**  
**Diaphragm valve type DIASTAR 025**  
**Function DA (Double acting)**  
**With fixed flanges PVDF metric**

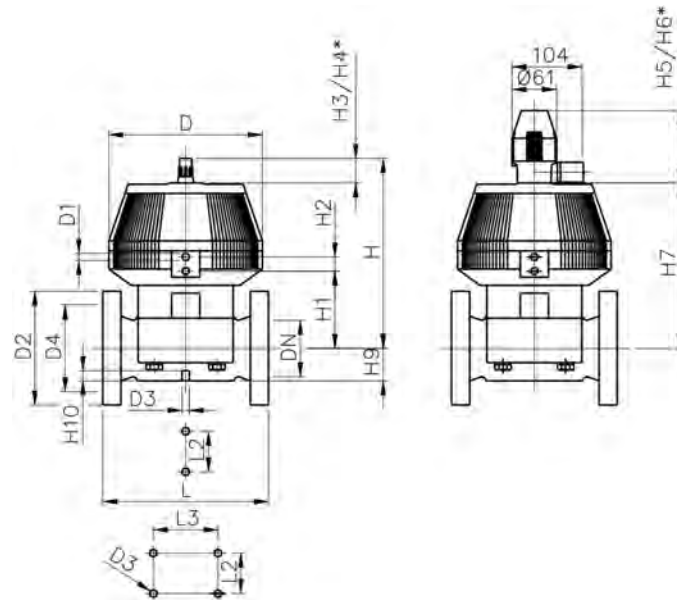
**Model:**

- Material: PVDF
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
*	75	65	2 ½	10	992	<b>199 025 377</b>	13.600
**	90	80	3	10	1700	<b>199 025 378</b>	17.400
	110	100	4	6	2700	<b>199 025 379</b>	25.534
**	160	150	6	6	6033	<b>199 025 380</b>	35.000

	d (mm)	D (mm)	D1_G (inch)	D2 (mm)	D3[M] (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H9 (mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	¼	285	12	240	455	237	24	46	100	129	195	409	108

	d (mm)	H10 (mm)	L (mm)	L2 (mm)	L3 (mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200





**SYGEF Standard**  
**Diaphragm valve type DIASTAR 025**  
**Function DA (Double acting)**  
**With fixed flanges PVDF Inch ANSI**

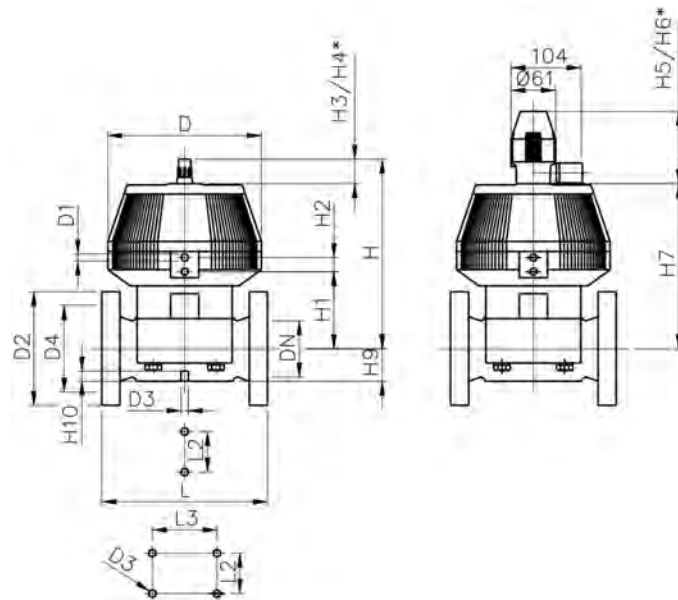
**Model:**

- Material: PVDF
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)
*		2 ½	65	10	992	<b>199 025 347</b>	13.000
**	90	3	80	10	1700	<b>199 025 378</b>	17.400
		4	100	6	2700	<b>199 025 349</b>	24.100
**	160	6	150	6	6033	<b>199 025 380</b>	35.000

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	¼	285	12	240	455	237	24	46	100	129	195	409	108	20

	L	L2	L3
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200



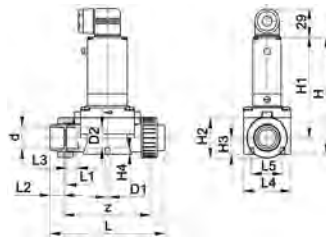
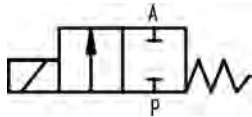
# Solenoid valve



## Solenoid valve type 165 Straight-through valve 2/2 ways 230V 50Hz

### Model:

- Function A, PN 0.5-6bar
- Material PVDF: with fusion socket metric
- Material PVC-U: with solvent cement socket metric
- Protection class IP 65
- Electrical connection: cable plug
- With manual override



d (mm)	DN (mm)	kv-value ( $\Delta p=1$ bar) (L/min)	PVC-U EPDM Code	PVC-U FPM Code	PVDF EPDM Code	PVDF FPM Code
20	15	83	199 165 012	199 165 002		
25	20	100	199 165 013	199 165 003		
32	25	233	199 165 014	199 165 004		
40	32	267	199 165 015	199 165 005		
50	40	500	199 165 016	199 165 006		
63	50	600	199 165 017	199 165 007		
20	15	83			199 165 412	199 165 402
25	20	100			199 165 413	199 165 403
32	25	233			199 165 414	199 165 404
40	32	500			199 165 415	199 165 405
50	40	500			199 165 416	199 165 406
63	50	600			199 165 417	199 165 407

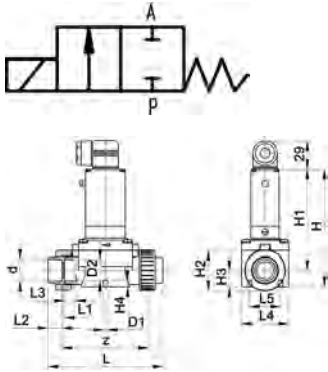
d (mm)	H4 (mm)	L2 (mm)	L5 (mm)	z (mm)	H2 (mm)	L (mm)	L1 (mm)	H (mm)	H3 (mm)	H1 (mm)	L4 (mm)
20	8	16	40	116	53	148	110	148	22	122	63
25	8	19	40	116	53	154	110	148	22	122	62
32	15	22	45	147	76	190	141	175	31	137	85
40	15	26	45	147	76	198	141	175	31	137	85
50	15	31	45	198	105	254	192	212	42	160	115
63	15	38	45	198	105	268	192	212	42	160	115
20	8	16	40	120	53	147	109	148	22	122	63
25	8	18	40	120	53	151	109	148	22	122	62
32	15	20	45	150	76	185	139	175	31	137	85
40	15	22	45	150	76	189	139	175	31	137	85
50	15	25	45	200	105	245	189	212	42	160	115
63	15	29	45	200	105	253	189	212	42	160	115



**Solenoid valve type 165**  
**Straight-through valve 2/2 ways**  
**115V 50Hz**

**Model:**

- Function A, PN 0.5-6bar
- Material PVDF: with fusion socket metric
- Material PVC-U: with solvent cement socket metric
- Protection class IP 65
- Electrical connection: cable plug
- With manual override



d (mm)	DN (mm)	kv-value ( $\Delta p=1$ bar) (L/min)	PVC-U EPDM Code	PVC-U FPM Code	PVDF EPDM Code	PVDF FPM Code
20	15	83	199 165 042	199 165 032		
25	20	100	199 165 043	199 165 033		
32	25	233	199 165 044	199 165 034		
40	32	267	199 165 045	199 165 035		
50	40	500	199 165 046	199 165 036		
63	50	600	199 165 047	199 165 037		
20	15	83			199 165 442	199 165 432
25	20	100			199 165 443	199 165 433
32	25	233			199 165 444	199 165 434
40	32	267			199 165 445	199 165 435
50	40	500			199 165 446	199 165 436
63	50	600			199 165 447	199 165 437

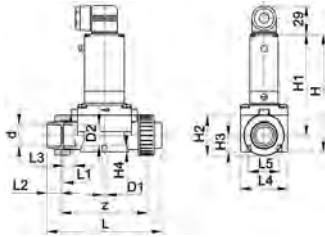
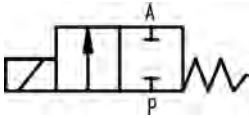
d (mm)	H4 (mm)	L2 (mm)	L5 (mm)	z (mm)	H2 (mm)	L (mm)	L1 (mm)	H (mm)	H3 (mm)	H1 (mm)	L4 (mm)
20	8	16	40	116	53	148	110	148	22	122	63
25	8	19	40	116	53	154	110	148	22	122	62
32	15	22	45	147	76	190	141	175	31	137	85
40	15	26	45	147	76	198	141	175	31	137	85
50	15	31	45	198	105	254	192	212	42	160	115
63	15	38	45	198	105	268	192	212	42	160	115
20	8	16	40	120	53	147	109	148	22	122	63
25	8	18	40	120	53	151	109	148	22	122	62
32	15	20	45	150	76	185	139	175	31	137	85
40	15	22	45	150	76	189	139	175	31	137	85
50	15	25	45	200	105	245	189	212	42	160	115
63	15	29	45	200	105	253	189	212	42	160	115



**Solenoid valve type 165**  
**Straight-through valve 2/2 ways**  
**24V DC**

**Model:**

- Function A, PN 0.5-6bar
- Material PVDF: with fusion socket metric
- Material PVC-U: with solvent cement socket metric
- Protection class IP 65
- Electrical connection: cable plug
- With manual override



d (mm)	DN (mm)	kv-value ( $\Delta p=1$ bar) (L/min)	PVC-U EPDM Code	PVC-U FPM Code	PVDF EPDM Code	PVDF FPM Code
20	15	83	199 165 022	199 165 072		
25	20	100	199 165 023	199 165 073		
32	25	233	199 165 024	199 165 074		
40	32	267	199 165 025	199 165 075		
50	40	500	199 165 026	199 165 076		
63	50	600	199 165 027	199 165 077		
20	15	83			199 165 422	199 165 452
25	20	100			199 165 423	199 165 453
32	25	233			199 165 424	199 165 454
40	32	267			199 165 425	199 165 455
50	40	500			199 165 426	199 165 456
63	50	600			199 165 427	199 165 457

d (mm)	H4 (mm)	L2 (mm)	L5 (mm)	z (mm)	H2 (mm)	L (mm)	L1 (mm)	H (mm)	H3 (mm)	H1 (mm)	L4 (mm)
20	8	16	40	116	53	148	110	148	22	122	63
25	8	19	40	116	53	154	110	148	22	122	62
32	15	22	45	147	76	190	141	175	31	137	85
40	15	26	45	147	76	198	141	175	31	137	85
50	15	31	45	198	105	254	192	212	42	160	115
63	15	38	45	198	105	268	192	212	42	160	115
20	8	16	40	120	53	147	109	148	22	122	63
25	8	18	40	120	53	151	109	148	22	122	62
32	15	20	45	150	76	185	139	175	31	137	85
40	15	22	45	150	76	189	139	175	31	137	85
50	15	25	45	200	105	245	189	212	42	160	115
63	15	29	45	200	105	253	189	212	42	160	115

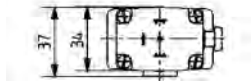
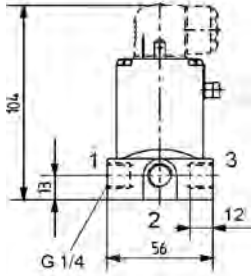
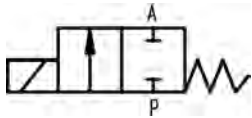




### Solenoid valve type 166 Straight-through valve 2/2 ways

#### Model:

- Material: PVDF, PP-H
- Function A
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



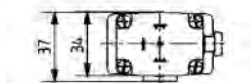
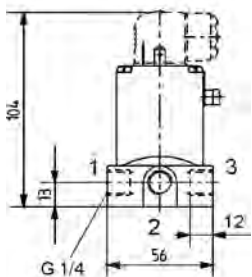
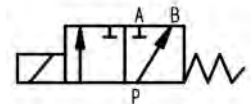
DN (mm)	D1_G (inch)	Voltage	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code
3	1/4	24V DC	0.0 - 8.0	4	199 166 000	199 166 005	199 166 505
4	1/4	24V DC	0.0 - 4.0	5	199 166 001	199 166 006	199 166 506
5	1/4	24V DC	0.0 - 3.0	6	199 166 002	199 166 007	199 166 507
3	1/4	230V 50Hz $\pm$ 10%	0.0 - 10.0	4	199 166 010	199 166 015	199 166 515
4	1/4	230V 50Hz $\pm$ 10%	0.0 - 5.0	5	199 166 011	199 166 016	199 166 516
5	1/4	230V 50Hz $\pm$ 10%	0.0 - 4.5	6	199 166 012	199 166 017	199 166 517



### Solenoid valve type 166 Distribution valve 3/2 ways

#### Model:

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



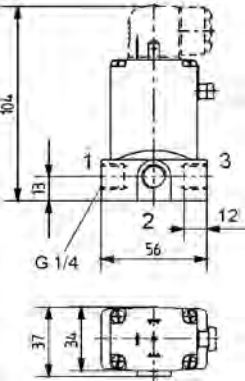
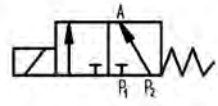
DN (mm)	D1_G (inch)	Voltage	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	Function	EPDM Code	FPM Code
4	1/4	24V AC/DC	0 - 4	5	F	199 166 201	199 166 206
4	1/4	230V 50Hz $\pm$ 10%	0 - 5	5	A	199 166 011	199 166 016



**Solenoid valve type 166**  
**Mixing valve 3/2 ways**

**Model:**

- Material: PVDF, PP-H
- Function E
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN (mm)	D1_G (inch)	Voltage	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code
3	1/4	24V AC/DC	0 - 4	4	<b>199 166 150</b>	<b>199 166 155</b>	
3	1/4	230V 50Hz $\pm$ 10%	0 - 6	4	<b>199 166 160</b>	<b>199 166 165</b>	
4	1/4	24V AC/DC	0 - 2	5	<b>199 166 151</b>	<b>199 166 156</b>	<b>199 166 656</b>
4	1/4	230V 50Hz $\pm$ 10%	0 - 3	5	<b>199 166 161</b>	<b>199 166 166</b>	<b>199 166 666</b>

# AQUATAP



## Type 530 AquaTap Recirculating Laboratory Faucet Made of SYGEF PVDF with 5/8" PFA Tubing and Flare Connections

- The faucet is made from high purity PVDF
- Mounting hole diameter 2" - 2 1/8"

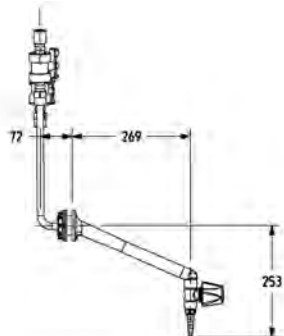
description	Code
Deck Mount Hose Barb	175 530 101
Wall Mount to Ceiling Hose Barb	175 530 102
Wall Mount to Floor Hose Barb	175 530 103
Deck Mount Dual Head	175 530 104
Deck Mount Short Version Female 3/8" NPT	175 530 105
Wall Mount Short to Ceiling	175 530 106
Wall Mount with Hose Barb to Floor Short	175 530 107
Wall Mount with Hose Barb to Mounting Elevation	175 530 118



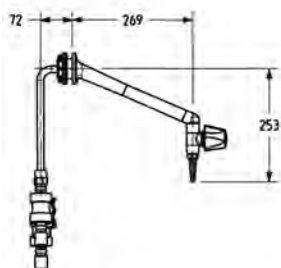
Deck mount with hose barb



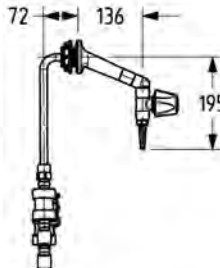
Short deck mount with loose hose barb



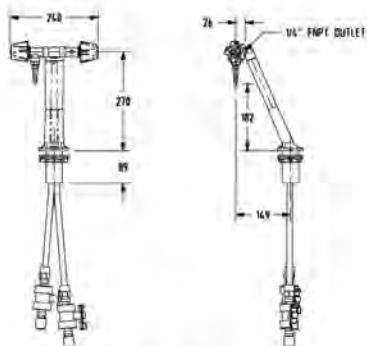
Wall mount to ceiling



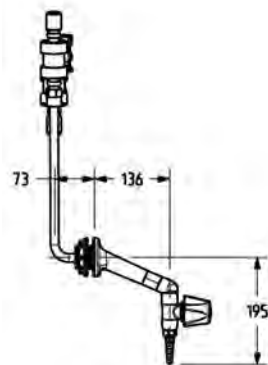
Wall mount to floor



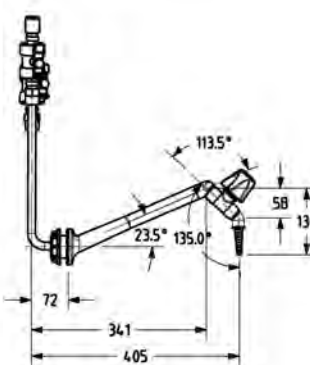
Wall mount to floor short



Deck mount dual head



Wall mount to ceiling short



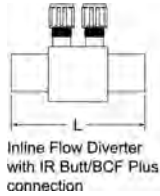
Wall mount with hose barb at mounting level



**PROGEF Standard PP Inline Flow Diverter  
IR Plus Fusion**

- Shipped with nuts and tube blankoffs
- Other dimension available upon request
- NOTE: Inline Flow Diverter is designed to be used with Georg Fischer Aquatap Faucet and is not sold separately.

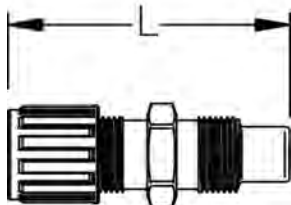
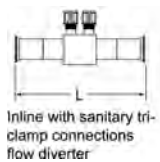
d (mm)	L (mm)	Ports 1/1 Code	Ports 2/2 Code	Ports 3/3 Code
25	180	<b>167 530 123</b>		
32	180	<b>167 530 124</b>	<b>167 530 144</b>	<b>167 530 164</b>
40	180	<b>167 530 125</b>	<b>167 530 145</b>	<b>167 530 165</b>
50	180	<b>167 530 126</b>	<b>167 530 146</b>	<b>167 530 166</b>
63	180	<b>167 530 127</b>	<b>167 530 147</b>	<b>167 530 167</b>
75	180	<b>167 530 128</b>	<b>167 530 148</b>	<b>167 530 168</b>



**PROGEF Standard PP Inline Flow Diverter  
Sanitary Tri-Clamp**

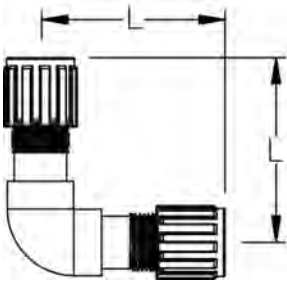
- Shipped with nuts and tube blankoffs
- NOTE: Inline Flow Diverter is designed to be used with Georg Fischer Aquatap Faucet and is not sold separately.

### (inch)	L (mm)	Ports 1/1 Code	Ports 2/2 Code	Ports 3/3 Code
1 1/2	294	<b>167 530 225</b>	<b>167 530 245</b>	<b>167 530 265</b>
2	316	<b>167 530 226</b>	<b>167 530 246</b>	<b>167 530 266</b>
2 1/2	314	<b>167 530 227</b>	<b>167 530 247</b>	<b>167 530 267</b>



**Straight Coupler, Flare Adapter**

Size	L (mm)	PVDF Code	Weight (lb)
5/8" Flare Adapters	75	<b>175 530 011</b>	0.093



### 90° Elbow, Flare Adapter

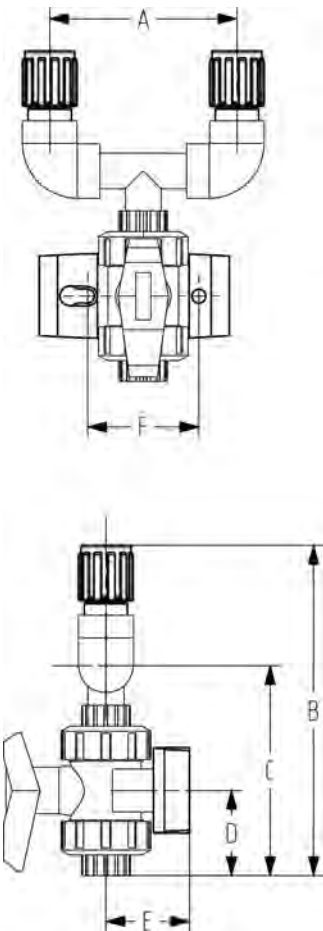
Size	L (mm)	PVDF Code
5/8" Flare Adapters	85	175 530 012



### Point of Use (POU) Tee Valve

- must be used with inline flow diverter

EPDM Code	FPM Code	Size	A (inch)	B (inch)	C (inch)	D (inch)	E (inch)	F (inch)
157 320 001	157 321 001	1/2" FNPT x 5/8" Tube Flare	104.2	184.2	117.3	47.6	46.6	70.0



### 5/8" Compression Fittings

description	PVDF Code	Natural PP Code
5/8" Tube x 5/8" Tube Straight Coupler	175 530 013	168 530 013
5/8" Tube x 5/8" Tube 90 Elbow	175 530 014	168 530 014
5/8" Tube x 1/2" Tube MNPT Tee	175 530 015	168 530 015
5/8" Tube x 1/2" Tube NPT Male Adapter	175 530 016	168 530 016
5/8" Tube x 1/2" Tube NPT Female Adapter	175 530 017	168 530 017

### Flexible 5/8" Tubing

- PFA comes in 25 ft. bundles.
- PE comes in 100 ft. bundles.

description	Material	Code
5/8" dia x 0.65 wall Tubing (Plain)	PFA	178 530 001
5/8" dia x 0.65 wall Tubing (Plain)	PE	193 530 001

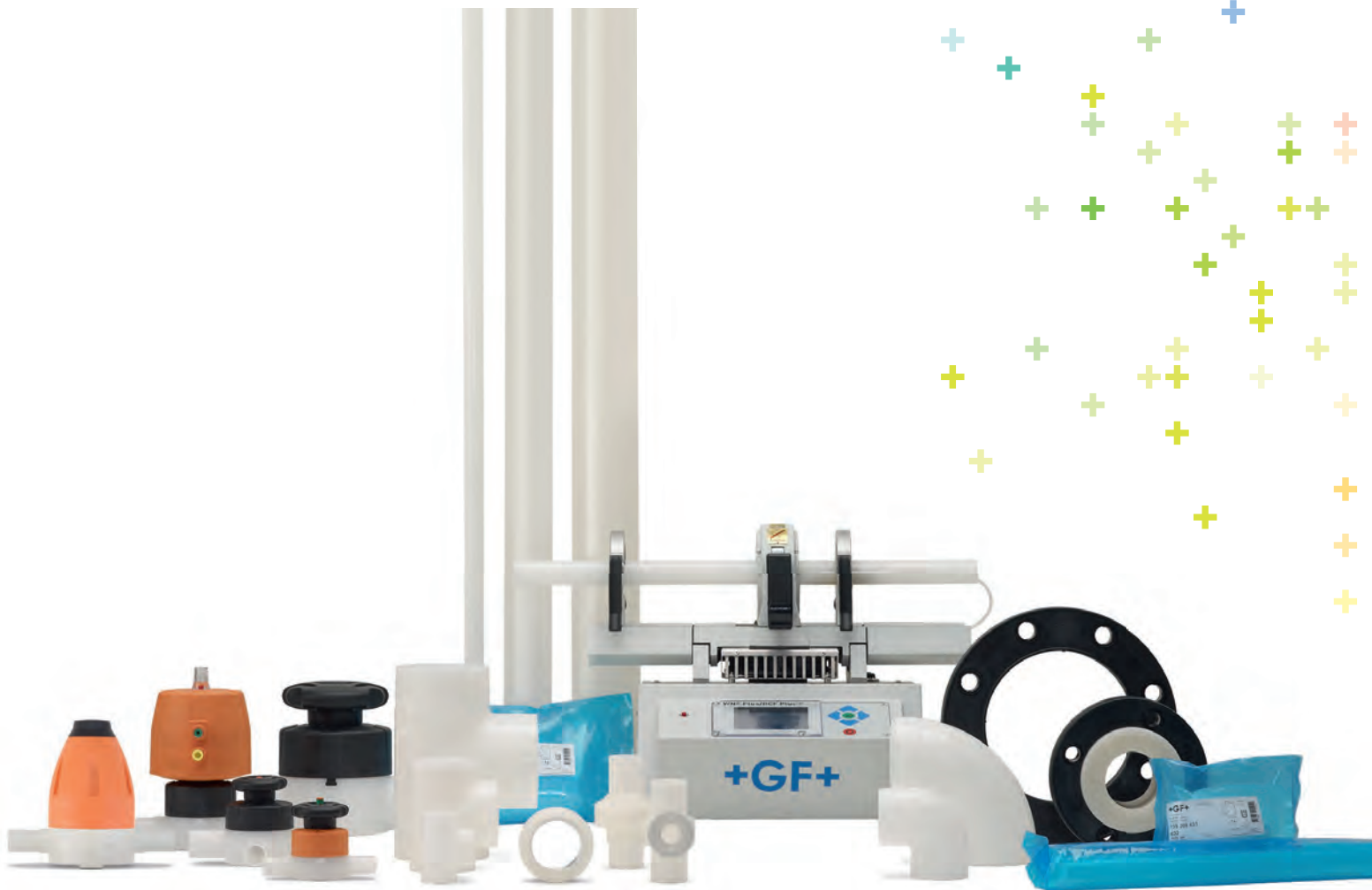
### Accessories

description	Code
90 Bend Tube Protector	150 530 002
Tube Clip	150 530 003
5/8" Flare Nut	175 530 010
5/8" Tube Blankoff	193 530 010
Faucet Isolation Clamp	150 530 001
ADA Handle	150 530 202
Aerator Outlet	150 530 204
Barb Outlet	150 530 203



# SYGEF Plus

Piping systems in PVDF-HP





# SYGEF Plus – System Specification

<b>Material</b>	High Purity Polyvinylidene fluoride (PVDF HP)
Colour	Virgin material, opaque
Density	~1.78 g/cm <sup>3</sup> (ISO 1183 / ASTM D 792)
Surface tension	30–35 mJ/m <sup>2</sup>
Thermal expansion coefficient	0.12–0.18 mm/mK (DIN 53752)
E-modulus	≥1700 N/mm <sup>2</sup> (EN ISO 527 / ASTM D 790)
Thermal conductivity	0.19 W/mK (EN12664)
Surface resistivity	5 x 10 <sup>14</sup> Ωcm (IEC 60093)
<b>Dimension</b>	d20 (½") – d450 (18") in accordance to ISO 10931
<b>Pressure rating</b>	Pipes/fittings: PN16 (d20 – d315), PN10 (d90 – d450) Valves: separate specification
<b>Temperature rating</b>	From –20 °C to +140 °C (–4 °F to +284 °F)
<b>Production</b>	Fittings/diaphragm valves: injection moulded Pipes: extruded Produced under clean room ISO 14644-1 Class 7 (U.S. Fed. Std. 209E Class 10'000) conditions. Subsequent assembling, quality inspection and cleaning is carried out using 18 MΩ pure water under clean room ISO 14644-1 Class 5-6 (U.S. Fed. Std. 209E Class 100-1000) conditions.
<b>Surface finish compliant to Semi F57</b>	Inner surface (PN10/SDR33): ≤d225 Ra ≤0.2µm (8µin) / >d225 Ra ≤0.3µm (12µin) / ≥d280 Ra ≤0.4µm (16µin) / ≥d355 Ra ≤0.65µm (26µin) for injection moulded and extruded components
<b>Marking</b>	All components are embossed with a permanent identification during the production process to ensure full traceability. Lot No Material Dimension Pressure Rating
<b>Testing and inspection (ISO 10931)</b>	Inclusions Visual inspection Surface finish Dimension tolerance Pressure testing Periodic leachout per SEMI F40/F57
<b>Approvals/conformance</b>	DIBt ASME BPE FDA CFR 21 177.2510 USP 25 class VI (physiological non-toxic) SEMI F57 FM-4910 listing
<b>Welding technology</b>	BCF Plus, bead and crevice free fusion, size d20 (½") – d110 (4") IR Plus, infrared fusion (DVS 2207-6), size d20 (½") – d450 (18")
<b>Documentation*</b>	Certificate of Conformance with FDA, USP EN 10204 2.2 EN 10204 3.1
<b>Packing</b>	Pipes capped and each component double bagged in an specified inner bag and an outer bag under clean room ISO 14644-1 Class 6 (U.S. Fed. Std. 209E Class 1000) conditions.
<b>Labeling</b>	Brand Name Product Description Code Number Material Dimension
<b>Main applications</b>	Uses include delivery of ultrapure water in the semiconductor/electronic industry, pharmaceutical grade purified water (WFI/PW) and analytical DI water to highest purity requirements. A wide range of sanitisation methods is suitable such as Ozone, hot water or steam.

\* On request

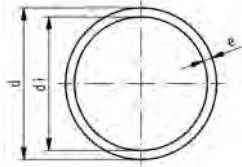
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# Pipes

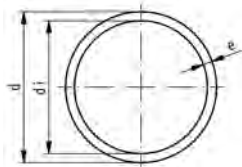


## SYGEF Plus pipe SDR33/PN10

### Model:

- Material: PVDF-HP
- Length: Lengths of 5 m

d (mm)	PN (bar)	FM	Code	Weight (kg/m)	e (mm)	di (mm)
90	10	BCF, IR	<b>175 481 665</b>	1.480	2.8	84.4
110	10	BCF, IR	<b>175 481 666</b>	2.200	3.4	103.2
125	10	IR	<b>175 481 667</b>	2.840	3.9	117.2
140	10	IR	<b>175 481 673</b>	3.520	4.3	131.4
160	10	IR	<b>175 481 668</b>	4.540	4.9	150.2
200	10	IR	<b>175 481 669</b>	7.190	6.2	187.6
225	10	IR	<b>175 481 670</b>	8.950	6.9	211.2
250	10	IR	<b>175 481 671</b>	11.100	7.7	234.6
280	10	IR	<b>175 481 656</b>	13.900	8.6	262.8
315	10	IR	<b>175 481 674</b>	17.600	9.7	295.6
355	10	IR	<b>175 481 657</b>	20.960	10.9	333.2
400	10	IR	<b>175 481 658</b>	26.650	12.3	375.4
450	10	IR	<b>175 481 659</b>	33.640	13.8	422.4



## SYGEF Plus pipe SDR21/PN16

### Model:

- Material: PVDF-HP
- Length: Lengths of 5 m

d (mm)	PN (bar)	FM	Code	Weight (kg/m)	e (mm)	di (mm)
16	16	BCF, IR	<b>175 481 202</b>	0.171	1.9	12.2
20	16	BCF, IR	<b>175 481 203</b>	0.210	1.9	16.2
25	16	BCF, IR	<b>175 481 204</b>	0.269	1.9	21.2
32	16	BCF, IR	<b>175 481 205</b>	0.435	2.4	27.2
40	16	BCF, IR	<b>175 481 206</b>	0.563	2.4	35.2
50	16	BCF, IR	<b>175 481 207</b>	0.850	3.0	44.0
63	16	BCF, IR	<b>175 481 208</b>	1.090	3.0	57.0
75	16	BCF, IR	<b>175 481 209</b>	1.550	3.6	67.8
90	16	BCF, IR	<b>175 481 210</b>	2.230	4.3	81.4
110	16	BCF, IR	<b>175 481 211</b>	3.330	5.3	99.4
140	16	IR	<b>175 481 213</b>	5.312	6.7	126.6
160	16	IR	<b>175 481 214</b>	6.961	7.7	144.6
200	16	IR	<b>175 481 216</b>	10.862	9.6	180.8
225	16	IR	<b>175 481 217</b>	13.700	10.8	202.6
250	16	IR	<b>175 481 218</b>	17.150	11.9	226.2
280	16	IR	<b>175 481 219</b>	21.660	13.4	253.2
315	16	IR	<b>175 481 220</b>	27.220	15.0	285.0

# Fittings

## Butt fusion fittings

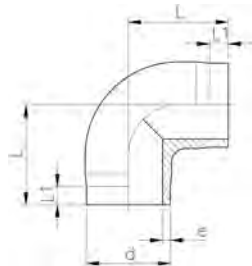
### SYGEF Plus elbow 90° SDR21/PN16



**Model:**

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	<b>735 108 631</b>	0.026	1.9	38	25
25	16	BCF, IR	<b>735 108 632</b>	0.033	1.9	42	26
32	16	BCF, IR	<b>735 108 633</b>	0.056	2.4	46	26
40	16	BCF, IR	<b>735 108 634</b>	0.075	2.4	51	28
50	16	BCF, IR	<b>735 108 635</b>	0.128	3.0	58	28
63	16	BCF, IR	<b>735 108 636</b>	0.211	3.0	66	28



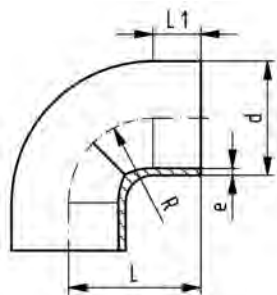
### SYGEF Plus bend 90° SDR21/PN16



**Model:**

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
20	16	BCF, IR	<b>735 018 731</b>	0.024	1.9	38	23	15
25	16	BCF, IR	<b>735 018 732</b>	0.022	1.9	42	23	19
32	16	BCF, IR	<b>735 018 733</b>	0.038	2.4	46	22	24
40	16	BCF, IR	<b>735 018 734</b>	0.055	2.4	51	21	30
50	16	BCF, IR	<b>735 018 735</b>	0.095	3.0	58	21	37
63	16	BCF, IR	<b>735 018 736</b>	0.138	3.0	66	21	45
75	16	BCF, IR	<b>735 018 737</b>	0.309	3.6	75	23	62
90	16	BCF, IR	<b>735 018 738</b>	0.490	4.3	90	23	77
110	16	BCF, IR	<b>735 018 739</b>	0.793	5.3	110	23	98
140	16	IR	<b>735 018 741</b>	1.665	6.7	140	33	121
160	16	IR	<b>735 018 742</b>	2.346	7.7	160	33	141
200	16	IR	<b>735 018 744</b>	4.104	9.6	200	33	181
225	16	IR	<b>735 018 745</b>	5.859	10.8	220	33	200
250	16	IR	<b>735 018 746</b>	6.536	11.9	254	48	232
280	16	IR	<b>735 018 747</b>	9.182	13.4	283	48	262
315	16	IR	<b>735 018 748</b>	13.031	15.0	321	48	297

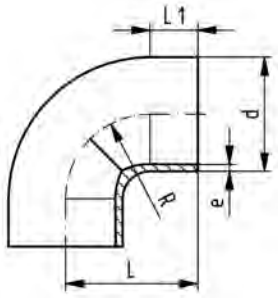




### SYGEF Plus bend 90° SDR33/PN10

**Model:**

- Material: PVDF-HP



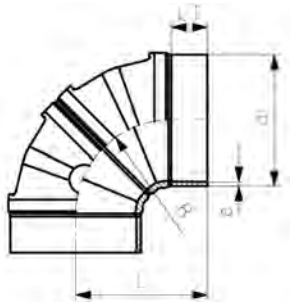
d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
90	10	BCF, IR	<b>735 018 538</b>	0.391	2.8	90	23	77
110	10	BCF, IR	<b>735 018 539</b>	0.577	3.4	110	23	98
125	10	IR	<b>735 018 540</b>	0.874	3.9	125	28	112
140	10	IR	<b>735 018 541</b>	1.325	4.3	140	33	121
160	10	IR	<b>735 018 542</b>	1.831	4.9	160	33	141
200	10	IR	<b>735 018 544</b>	3.244	6.2	200	33	181
225	10	IR	<b>735 018 545</b>	4.266	6.9	220	33	200
250	10	IR	<b>735 018 546</b>	4.304	7.7	254	48	232
280	10	IR	<b>735 018 547</b>	6.370	8.6	283	48	262
315	10	IR	<b>735 018 548</b>	9.032	9.7	321	48	297



### SYGEF Plus bend 90° SDR33/PN10

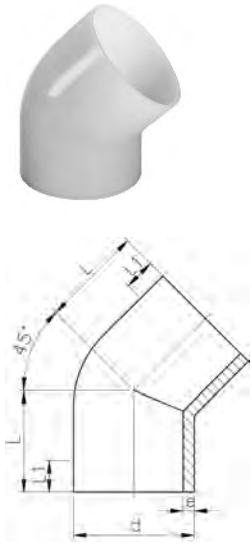
**Model:**

- Material: PVDF-HP



d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
355	10	IR	<b>735 018 549</b>	18.072	10.9	359	100	257
400	10	IR	<b>735 018 550</b>	23.985	12.3	392	100	290
450	10	IR	<b>735 018 551</b>	32.047	13.8	430	100	328

### SYGEF Plus elbow 45° SDR21/PN16

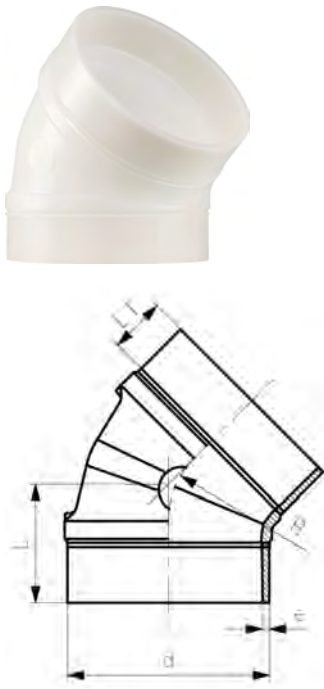


**Model:**

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	<b>735 158 631</b>	0.023	1.9	32	25
25	16	BCF, IR	<b>735 158 632</b>	0.020	1.9	34	26
32	16	BCF, IR	<b>735 158 633</b>	0.045	2.4	36	26
40	16	BCF, IR	<b>735 158 634</b>	0.061	2.4	39	28
50	16	BCF, IR	<b>735 158 635</b>	0.093	3.0	42	30
63	16	BCF, IR	<b>735 158 636</b>	0.131	3.0	47	31
75	16	BCF, IR	<b>735 158 637</b>	0.198	3.6	49	32
90	16	BCF, IR	<b>735 158 638</b>	0.326	4.3	57	37
110	16	BCF, IR	<b>735 158 639</b>	0.574	5.3	70	46
140	16	IR	<b>735 158 641</b>	1.095	6.7	88	57
160	16	IR	<b>735 158 642</b>	1.605	7.7	100	62
200	16	IR	<b>735 158 644</b>	3.018	9.6	124	77
225	16	IR	<b>735 158 645</b>	4.324	10.8	140	88

### SYGEF Plus bend 45° SDR21/PN16



**Model:**

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
250	16	IR	<b>735 158 646</b>	3.669	11.9	120	47	232
280	16	IR	<b>735 158 647</b>	5.099	13.4	133	47	262
315	16	IR	<b>735 158 648</b>	7.162	15.0	147	47	297

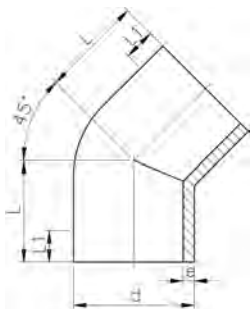


### SYGEF Plus elbow 45° SDR33/PN10

**Model:**

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
90	10	BCF, IR	<b>735 158 538</b>	0.181	2.8	57	37
110	10	BCF, IR	<b>735 158 539</b>	0.330	3.4	70	46
125	10	IR	<b>735 158 540</b>	0.490	3.9	79	51
140	10	IR	<b>735 158 541</b>	0.827	4.3	88	57
160	10	IR	<b>735 158 542</b>	1.186	4.9	100	62
200	10	IR	<b>735 158 544</b>	2.148	6.2	124	77
225	10	IR	<b>735 158 545</b>	3.114	6.9	140	88

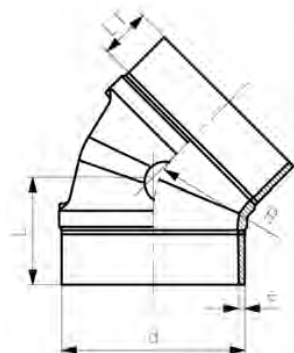


### SYGEF Plus bend 45° SDR33/PN10

**Model:**

- Material: PVDF-HP

d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
250	10	IR	<b>735 158 546</b>	2.402	7.7	120	47	232
280	10	IR	<b>735 158 547</b>	3.518	8.6	133	47	262
315	10	IR	<b>735 158 548</b>	4.923	9.7	147	47	297
355	10	IR	<b>735 158 549</b>	11.491	10.9	208	100	257
400	10	IR	<b>735 158 550</b>	15.114	12.3	222	100	290
450	10	IR	<b>735 158 551</b>	19.963	13.8	238	100	328



### SYGEF Plus tee 90° equal SDR21/PN16



**Model:**

- Material: PVDF-HP



d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
20	16	BCF, IR	735 208 631	0.029	1.9	38	25
25	16	BCF, IR	735 208 632	0.047	1.9	42	27
32	16	BCF, IR	735 208 633	0.076	2.4	46	27
40	16	BCF, IR	735 208 634	0.104	2.4	51	28
50	16	BCF, IR	735 208 635	0.170	3.0	58	28
63	16	BCF, IR	735 208 636	0.280	3.0	66	28
75	16	BCF, IR	735 208 637	0.403	3.6	75	32
90	16	BCF, IR	735 208 638	0.678	4.3	90	39
110	16	BCF, IR	735 208 639	1.185	5.3	110	48
140	16	IR	735 208 641	2.384	6.7	140	62
160	16	IR	735 208 642	3.408	7.7	160	71
200	16	IR	735 208 644	6.845	9.6	200	80
225	16	IR	735 208 645	9.755	10.8	220	86
250	16	IR	735 208 646	10.823	11.9	223	70
280	16	IR	735 208 647	16.061	13.4	256	74
315	16	IR	735 208 648	21.422	15.0	274	74

### SYGEF Plus tee 90° equal SDR33/PN10



**Model:**

- Material: PVDF-HP



d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)
90	10	BCF, IR	735 208 538	0.546	2.8	90	39
110	10	BCF, IR	735 208 539	0.898	3.4	110	48
125	10	IR	735 208 540	1.280	3.9	125	56
140	10	IR	735 208 541	1.707	4.3	140	62
160	10	IR	735 208 542	2.523	4.9	160	71
200	10	IR	735 208 544	5.373	6.2	200	80
225	10	IR	735 208 545	7.270	6.9	220	86
250	10	IR	735 208 546	6.939	7.7	223	70
280	10	IR	735 208 547	10.475	8.6	256	74
315	10	IR	735 208 548	13.882	9.7	274	74



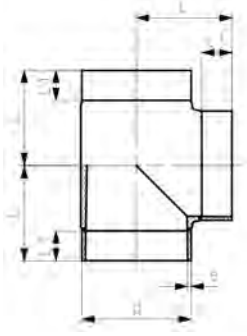


**SYGEF Plus tee 90° equal SDR33/PN10**

**Model:**

- Material: PVDF-HP

<b>d</b> (mm)	<b>PN</b> (bar)	<b>FM</b>	<b>Code</b>	<b>Weight</b> (kg)	<b>e</b> (mm)	<b>L</b> (mm)	<b>L1</b> (mm)
355	10	IR	<b>735 208 549</b>	21.542	10.9	311	100
400	10	IR	<b>735 208 550</b>	29.042	12.3	332	100
450	10	IR	<b>735 208 551</b>	38.877	13.8	357	100

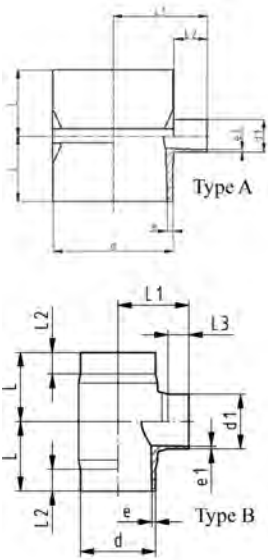




### SYGEF Plus tee 90° reduced SDR21/PN16

**Model:**

- Material: PVDF-HP

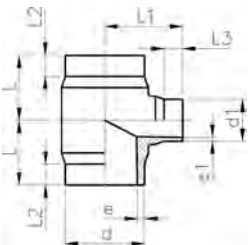


	d - d1 (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
A	63 - 20	16	BCF, IR	<b>735 208 956</b>	0.250	3.0	1.9	60	67	25	35
A	63 - 25	16	BCF, IR	<b>735 208 957</b>	0.245	3.0	1.9	60	66	25	34
A	63 - 32	16	BCF, IR	<b>735 208 958</b>	0.257	3.0	2.4	60	67	25	25
A	63 - 40	16	BCF, IR	<b>735 208 959</b>	0.254	3.0	2.4	60	66	25	26
A	75 - 20	16	BCF, IR	<b>735 208 961</b>	0.348	3.6	1.9	65	69	25	31
A	75 - 25	16	BCF, IR	<b>735 208 962</b>	0.356	3.6	1.9	65	72	25	34
A	75 - 32	16	BCF, IR	<b>735 208 963</b>	0.308	3.6	2.4	65	69	25	31
A	75 - 40	16	BCF, IR	<b>735 208 964</b>	0.312	3.6	2.4	65	72	25	26
A	75 - 50	16	BCF, IR	<b>735 208 965</b>	0.372	3.6	3.0	65	69	25	26
A	90 - 20	16	BCF, IR	<b>735 208 967</b>	0.470	4.3	1.9	65	76	25	31
A	90 - 25	16	BCF, IR	<b>735 208 968</b>	0.466	4.3	1.9	65	79	25	34
A	90 - 32	16	BCF, IR	<b>735 208 969</b>	0.405	4.3	2.4	65	76	25	31
A	90 - 40	16	BCF, IR	<b>735 208 970</b>	0.476	4.3	2.4	65	79	25	26
A	90 - 50	16	BCF, IR	<b>735 208 971</b>	0.452	4.3	3.0	65	76	25	26
B	90 - 63	16	BCF, IR	<b>735 208 972</b>	0.611	4.3	3.0	80	85	25	25
A	110 - 20	16	BCF, IR	<b>735 208 974</b>	0.641	5.3	1.9	65	86	25	31
A	110 - 25	16	BCF, IR	<b>735 208 975</b>	0.570	5.3	1.9	65	89	25	34
A	110 - 32	16	BCF, IR	<b>735 208 976</b>	0.570	5.3	2.4	65	86	25	31
A	110 - 40	16	BCF, IR	<b>735 208 977</b>	0.640	5.3	2.4	65	89	25	26
A	110 - 50	16	BCF, IR	<b>735 208 978</b>	0.640	5.3	3.0	65	86	25	26
B	110 - 63	16	BCF, IR	<b>735 208 979</b>	0.925	5.3	3.0	90	95	30	25
B	110 - 75	16	BCF, IR	<b>735 208 980</b>	0.950	5.3	3.0	90	95	30	25
B	110 - 90	16	BCF, IR	<b>735 208 981</b>	0.959	5.3	4.3	90	95	30	25
B	160 - 90	16	IR	<b>735 208 687</b>	3.091	7.7	4.3	155	130	60	25
B	160 - 110	16	IR	<b>735 208 686</b>	3.078	7.7	5.3	155	130	60	25
B	225 - 90	16	IR	<b>735 208 695</b>	5.423	10.8	4.3	155	160	60	25
B	225 - 110	16	IR	<b>735 208 694</b>	6.100	10.8	5.3	155	160	60	25

### SYGEF Plus tee 90° reduced SDR33/PN10

**Model:**

- Material: PVDF-HP

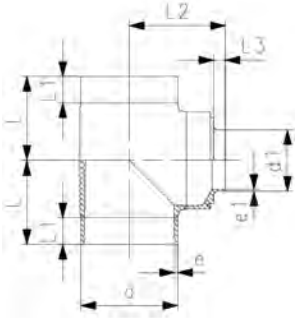


	d - d1 (mm)	PN (bar)	SDR	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
	160 - 90	10	33 - 21	IR	<b>735 208 587</b>	2.431	4.9	4.3	155	130	60	25
	160 - 110	10	33 - 21	IR	<b>735 208 586</b>	2.494	4.9	5.3	155	130	60	25
	225 - 90	10	33 - 21	IR	<b>735 208 595</b>	4.499	6.9	4.3	155	160	60	25
	225 - 110	10	33 - 21	IR	<b>735 208 594</b>	4.586	6.9	5.3	155	160	60	25
	225 - 160	10	33 - 33	IR	<b>735 208 593</b>	4.239	6.9	4.9	155	170	60	35

## SYGEF Plus tee 90° reduced SDR33/PN10

### Model:

- Material: PVDF-HP
- \* For welding d1 on IR315, left side of the machine need to be disassembled



d - d1 (mm)	PN (bar)	d fusion	d1 fusion	Code	Weight (kg)
355 - 225	10	IR450	IR315	<b>735 209 815</b>	23.459
355 - 315	10	IR450	IR450, IR315	<b>735 209 818</b>	22.645
400 - 225	10	IR450	IR315	<b>735 209 827</b>	31.921
400 - 315	10	IR450	IR450, IR315	<b>735 209 830</b>	30.925
* 450 - 225	10	IR450	IR315	<b>735 209 840</b>	43.035
* 450 - 315	10	IR450	IR450, IR315	<b>735 209 843</b>	41.891

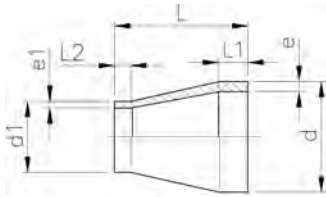
d - d1 (mm)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
355 - 225	10.9	6.9	309	353	100	43
355 - 315	10.9	9.7	309	348	100	55
400 - 225	12.3	6.9	332	376	100	43
400 - 315	12.3	9.7	332	371	100	55
* 450 - 225	13.8	6.9	357	401	100	43
* 450 - 315	13.8	9.7	357	396	100	55

## SYGEF Plus reducer SDR21/PN16



### Model:

- Material: PVDF-HP



d - d1 (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
25 - 20	16	BCF, IR	<b>735 908 600</b>	0.012	1.9	1.9	50	22	22
32 - 20	16	BCF, IR	<b>735 908 602</b>	0.017	2.4	1.9	50	22	22
32 - 25	16	BCF, IR	<b>735 908 601</b>	0.018	2.4	1.9	50	22	22
40 - 20	16	BCF, IR	<b>735 908 605</b>	0.024	2.4	1.9	58	22	24
40 - 25	16	BCF, IR	<b>735 908 604</b>	0.025	2.4	1.9	55	22	24
40 - 32	16	BCF, IR	<b>735 908 603</b>	0.029	2.4	2.4	55	22	24
50 - 25	16	BCF, IR	<b>735 908 608</b>	0.054	3.0	1.9	60	22	25
50 - 32	16	BCF, IR	<b>735 908 607</b>	0.059	3.0	2.4	60	22	25
50 - 40	16	BCF, IR	<b>735 908 606</b>	0.060	3.0	2.4	60	22	25
63 - 32	16	BCF, IR	<b>735 908 611</b>	0.078	3.0	2.4	65	22	25
63 - 40	16	BCF, IR	<b>735 908 610</b>	0.082	3.0	2.4	65	22	25
63 - 50	16	BCF, IR	<b>735 908 609</b>	0.090	3.0	3.0	65	22	25
75 - 40	16	BCF, IR	<b>735 908 614</b>	0.109	3.6	2.4	68	24	25
75 - 50	16	BCF, IR	<b>735 908 613</b>	0.125	3.6	3.0	65	24	25
75 - 63	16	BCF, IR	<b>735 908 612</b>	0.128	3.6	3.0	65	24	25
90 - 63	16	BCF, IR	<b>735 908 616</b>	0.164	4.3	3.0	75	25	30
90 - 75	16	BCF, IR	<b>735 908 615</b>	0.187	4.3	3.6	75	25	35
110 - 63	16	BCF, IR	<b>735 908 619</b>	0.301	5.3	3.0	90	30	30
110 - 75	16	BCF, IR	<b>735 908 618</b>	0.290	5.3	3.6	90	30	35
110 - 90	16	BCF, IR	<b>735 908 617</b>	0.321	5.3	4.3	90	30	35
140 - 110	16	IR	<b>735 908 621</b>	0.614	6.7	5.3	110	40	40
160 - 110	16	IR	<b>735 908 623</b>	0.803	7.7	5.3	120	40	40
160 - 140	16	IR	<b>735 908 622</b>	0.899	7.7	6.7	120	40	40
200 - 160	16	IR	<b>735 908 624</b>	1.474	9.6	7.7	145	40	35
225 - 110	16	IR	<b>735 908 625</b>	1.540	10.8	5.3	160	55	40
225 - 160	16	IR	<b>735 908 626</b>	1.842	10.8	7.7	160	55	28
225 - 200	16	IR	<b>735 908 627</b>	2.142	10.8	9.6	160	55	50

### SYGEF Plus reducer SDR21/PN16



Typ A



Typ B

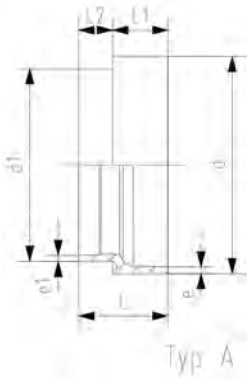
**Model:**

- Material: PVDF-HP

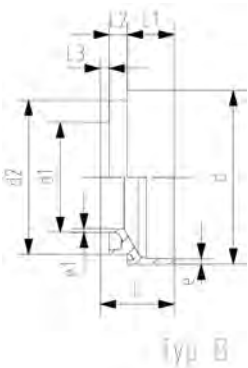
**Note:**

for Typ B, clamping for welding spigot d1 needs to be done on diameter d2

d - d1 (mm)	PN (bar)	fusion	d - d1	Code	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Type	d2 (mm)
250 - 160	16	IR		<b>735 908 628</b>	11.9	7.7	100	42	33	10	B	225
250 - 225	16	IR		<b>735 908 629</b>	11.9	10.8	90	42	33		A	
280 - 160	16	IR		<b>735 908 630</b>	13.4	7.7	100	50	33	10	B	225
280 - 225	16	IR		<b>735 908 631</b>	13.4	10.8	90	50	33		A	
315 - 160	16	IR		<b>735 908 632</b>	15.0	7.7	115	50	33	10	B	225
315 - 225	16	IR		<b>735 908 633</b>	15.0	10.8	105	50	33		A	



Typ A



Typ B

### SYGEF Plus reducer SDR33/PN10

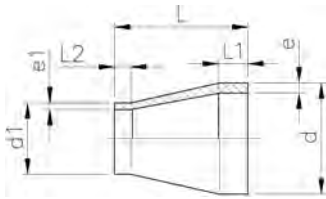


**Model:**

- Material: PVDF-HP

d - d1 (mm)	PN (bar)	SDR	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
90 - 63	10	33 - 21	BCF, IR	<b>735 908 511</b>	0.149	2.8	3.0	75	25	30
110 - 63	10	33 - 21	BCF, IR	<b>735 908 513</b>	0.164	3.4	3.0	90	30	30
110 - 90	10	33 - 33	BCF, IR	<b>735 908 515</b>	0.239	3.4	2.8	90	30	35
125 - 110	10	33 - 21	IR	<b>735 908 500</b>	0.406	3.9	5.3	100	35	40
140 - 110	10	33 - 21	IR	<b>735 908 502</b>	0.455	4.3	5.3	110	40	40
140 - 125	10	33 - 33	IR	<b>735 908 501</b>	0.439	4.3	3.9	110	40	40
160 - 110	10	33 - 33	IR	<b>735 908 521</b>	0.550	4.9	3.4	120	40	40
160 - 110	10	33 - 21	IR	<b>735 908 504</b>	0.627	4.9	5.3	120	40	40
160 - 140	10	33 - 33	IR	<b>735 908 503</b>	0.634	4.9	4.3	120	40	40
200 - 160	10	33 - 33	IR	<b>735 908 505</b>	1.032	6.2	4.9	145	50	40
225 - 110	10	33 - 33	IR	<b>735 908 526</b>	1.120	6.9	3.4	160	55	35
225 - 110	10	33 - 21	IR	<b>735 908 506</b>	1.373	6.9	5.3	160	55	35

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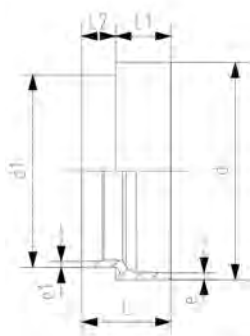
d - d1 (mm)	PN (bar)	SDR	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
225 - 160	10	33 - 33	IR	<b>735 908 507</b>	1.349	6.9	4.9	160	55	40
225 - 200	10	33 - 33	IR	<b>735 908 508</b>	1.475	6.9	6.2	160	55	50
250 - 225	10	33 - 33	IR	<b>735 908 531</b>	2.215	7.7	6.9	182	60	55
280 - 225	10	33 - 33	IR	<b>735 908 532</b>	2.955	8.6	6.9	206	70	55
315 - 225	10	33 - 33	IR	<b>735 908 533</b>	3.910	9.7	6.9	231	80	55



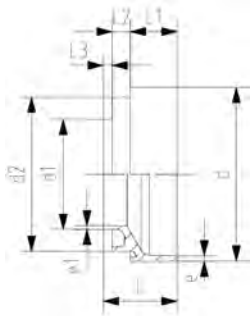
Typ A



Typ B



Typ A



Typ B

### SYGEF Plus reducer SDR 33/PN10

#### Model:

- Material: PVDF-HP

#### Note:

for Typ B, clamping for welding spigot d1 needs to be done on diameter d2

d - d1 (mm)	PN (bar)	SDR	fusion d - d1	Code
250 - 160	10	33 - 33	IR	<b>735 908 522</b>
250 - 160	10	33 - 21	IR	<b>735 908 542</b>
250 - 225	10	33 - 33	IR	<b>735 908 524</b>
250 - 225	10	33 - 21	IR	<b>735 908 544</b>
280 - 160	10	33 - 33	IR	<b>735 908 525</b>
280 - 160	10	33 - 21	IR	<b>735 908 545</b>
280 - 225	10	33 - 33	IR	<b>735 908 527</b>
280 - 225	10	33 - 21	IR	<b>735 908 547</b>
315 - 160	10	33 - 33	IR	<b>735 908 528</b>
315 - 160	10	33 - 21	IR	<b>735 908 548</b>
315 - 225	10	33 - 33	IR	<b>735 908 530</b>
315 - 225	10	33 - 21	IR	<b>735 908 550</b>
355 - 225	10	33 - 33	IR	<b>735 908 535</b>
355 - 315	10	33 - 33	IR	<b>735 908 534</b>
400 - 225	10	33 - 33	IR450 - IR315	<b>735 908 537</b>
400 - 315	10	33 - 33	IR	<b>735 908 536</b>
450 - 225	10	33 - 33	IR450 - IR315	<b>735 908 539</b>
450 - 315	10	33 - 33	IR	<b>735 908 538</b>

d - d1 (mm)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Type	d2 (mm)
250 - 160	7.7	4.9	100	42	33	10	B	225
250 - 160	7.7	7.7	100	42	33	10	B	225
250 - 225	7.7	6.9	90	42	33		A	
250 - 225	7.7	10.8	90	42	33		A	
280 - 160	8.6	4.9	100	50	33	10	B	225
280 - 160	8.6	7.7	100	50	33	10	B	225
280 - 225	8.6	6.9	90	50	33		A	
280 - 225	8.6	10.8	90	50	33		A	
315 - 160	9.7	4.9	115	50	33	10	B	225
315 - 160	9.7	7.7	115	50	33	10	B	225
315 - 225	9.7	6.9	105	50	33		A	
315 - 225	9.7	10.8	105	50	33		A	
355 - 225	10.9	6.9	150	120	43		A	
355 - 315	10.9	9.7	145	120	55		A	
400 - 225	12.3	6.9	150	120	43		A	
400 - 315	12.3	9.7	145	120	55		A	
450 - 225	13.8	6.9	150	120	43		A	
450 - 315	13.8	9.7	145	120	55		A	

## SYGEF Plus flush style reducer SDR21/PN16

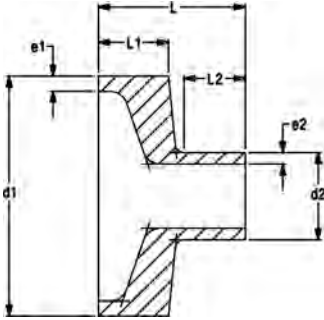


### Model:

- Material: PVDF-HP
- Machined version

### Note:

\*Clamping on IR machine for welding both spigots, need to be done on d1



	d1 (mm)	d2 (mm)	PN (bar)	d1 fusion	d2 fusion	Code	Weight (kg)	e1 (mm)	e2 (mm)	L (mm)	L1 (mm)	L2 (mm)
*	40	20	16	IR63	-	735 909 104	0.030	2.4	1.9	30	22	8
*	40	25	16	IR63	-	735 909 105	0.027	2.4	1.9	30	22	8
*	40	32	16	IR63	-	735 909 106	0.024	2.4	2.4	31	22	9
*	50	20	16	IR63	-	735 909 107	0.047	3.0	1.9	30	22	8
*	50	25	16	IR63	-	735 909 108	0.045	3.0	1.9	30	22	8
*	50	32	16	IR63	-	735 909 109	0.043	3.0	2.4	31	22	9
*	50	40	16	IR63	-	735 909 110	0.036	3.0	2.4	31	22	9
*	63	20	16	IR63	-	735 909 111	0.073	3.0	1.9	30	22	8
*	63	25	16	IR63	-	735 909 112	0.071	3.0	1.9	30	22	8
*	63	32	16	IR63	-	735 909 113	0.068	3.0	2.4	31	22	9
*	63	40	16	IR63	-	735 909 114	0.062	3.0	2.4	31	22	9
*	63	50	16	IR63	-	735 909 115	0.056	3.0	3	33	22	11
	75	20	16	IR225	IR63	735 909 116	0.115	3.6	1.9	48	23	25
	75	25	16	IR225	IR63	735 909 117	0.113	3.6	1.9	48	23	25
	75	32	16	IR225	IR63	735 909 118	0.106	3.6	2.4	49	23	26
	75	40	16	IR225	IR63	735 909 119	0.103	3.6	2.4	49	23	26
	75	50	16	IR225	IR63	735 909 120	0.105	3.6	3	50	23	27
*	75	63	16	IR225	-	735 909 121	0.072	3.6	3	34	23	11
	90	20	16	IR225	IR63	735 909 122	0.160	4.3	1.9	48	23	25
	90	25	16	IR225	IR63	735 909 123	0.157	4.3	1.9	48	23	25
	90	32	16	IR225	IR63	735 909 124	0.156	4.3	2.4	49	23	26
	90	40	16	IR225	IR63	735 909 125	0.149	4.3	2.4	49	23	26
	90	50	16	IR225	IR63	735 909 126	0.149	4.3	3	50	23	27
*	90	63	16	IR225	-	735 909 127	0.123	4.3	3	34	23	11
*	90	75	16	IR225	-	735 909 128	0.107	4.3	3.6	36	23	13
	110	20	16	IR225	IR63	735 909 129	0.244	5.3	1.9	48	23	25
	110	25	16	IR225	IR63	735 909 130	0.241	5.3	1.9	48	23	25
	110	32	16	IR225	IR63	735 909 131	0.240	5.3	2.4	49	23	26
	110	40	16	IR225	IR63	735 909 132	0.233	5.3	2.4	49	23	26
	110	50	16	IR225	IR63	735 909 133	0.227	5.3	3	50	23	27
*	110	63	16	IR225	-	735 909 134	0.195	5.3	3	34	23	11
*	110	75	16	IR225	-	735 909 135	0.192	5.3	3.6	36	23	13
*	110	90	16	IR225	-	735 909 136	0.169	5.3	4.3	37	23	14
*	280	250	16	IR315	-	735 909 195	2.228	13.4	11.9	77	57	20
*	315	250	16	IR315	-	735 909 205	3.872	15.0	11.9	88	68	20

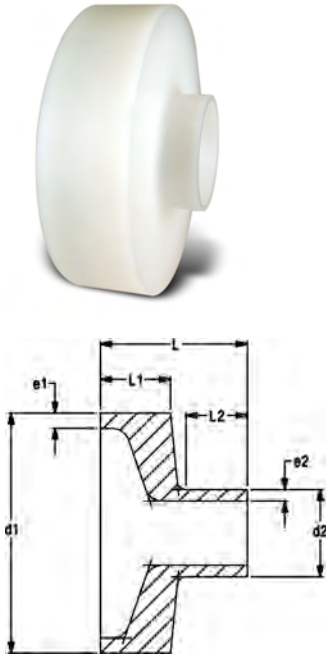
**SYGEF Plus flush style reducer SDR33/PN10**

**Model:**

- Material: PVDF-HP
- Machined version

**Note:**

\*Clamping on IR machine for welding both spigots, need to be done on d1

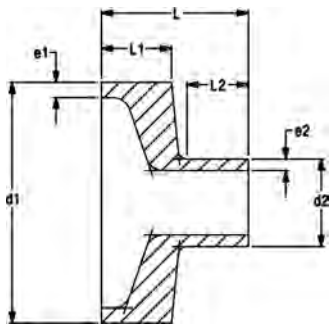


	<b>d1</b> (mm)	<b>d2</b> (mm)	<b>PN</b> (bar)	<b>d1 fusion</b>	<b>d2 fusion</b>	<b>Code</b>	<b>Weight</b> (kg)
*	160	63	10 - 16	IR225	-	<b>735 909 356</b>	0.714
*	160	75	10 - 16	IR225	-	<b>735 909 357</b>	0.654
*	160	90	10 - 16	IR225	-	<b>735 909 358</b>	0.593
*	160	110	10 - 16	IR225	-	<b>735 909 359</b>	0.556
*	200	63	10 - 16	IR225	-	<b>735 909 362</b>	1.180
*	200	75	10 - 16	IR225	-	<b>735 909 363</b>	1.120
*	200	90	10 - 16	IR225	-	<b>735 909 364</b>	1.059
*	200	110	10 - 16	IR225	-	<b>735 909 365</b>	0.974
*	200	160	10 - 10	IR225	-	<b>735 909 768</b>	0.691
*	225	63	10 - 16	IR225	-	<b>735 909 369</b>	1.477
*	225	75	10 - 16	IR225	-	<b>735 909 370</b>	1.480
*	225	90	10 - 16	IR225	-	<b>735 909 371</b>	1.415
*	225	110	10 - 16	IR225	-	<b>735 909 372</b>	1.384
*	225	160	10 - 10	IR225	-	<b>735 909 775</b>	0.906
*	225	200	10 - 10	IR225	-	<b>735 909 776</b>	0.720
	250	63	10 - 16	IR315	IR225	<b>735 909 377</b>	2.081
	250	75	10 - 16	IR315	IR225	<b>735 909 378</b>	2.120
	250	90	10 - 16	IR315	IR225	<b>735 909 379</b>	2.139
	250	110	10 - 16	IR315	IR225	<b>735 909 380</b>	2.109
	250	160	10 - 10	IR315	IR225	<b>735 909 783</b>	1.369
	250	200	10 - 10	IR315	IR225	<b>735 909 784</b>	1.240
	250	225	10 - 10	IR315	IR225	<b>735 909 785</b>	1.052
	315	63	10 - 16	IR315	IR225	<b>735 909 396</b>	4.135
	315	75	10 - 16	IR315	IR225	<b>735 909 397</b>	4.009
	315	90	10 - 16	IR315	IR225	<b>735 909 398</b>	4.067
	315	110	10 - 16	IR315	IR225	<b>735 909 399</b>	4.201
	315	160	10 - 10	IR315	IR225	<b>735 909 802</b>	3.049
	315	200	10 - 10	IR315	IR225	<b>735 909 803</b>	2.663
	315	225	10 - 10	IR315	IR225	<b>735 909 804</b>	2.423
*	315	250	10 - 10	IR315	-	<b>735 909 805</b>	2.707

	<b>d1</b> (mm)	<b>d2</b> (mm)	<b>e1</b> (mm)	<b>e2</b> (mm)	<b>L</b> (mm)	<b>L1</b> (mm)	<b>L2</b> (mm)
*	160	63	4.9	3	44	33	11
*	160	75	4.9	3.6	46	33	13
*	160	90	4.9	4.3	47	33	14
*	160	110	4.9	5.3	50	33	17
*	200	63	6.2	3	45	33	12
*	200	75	6.2	3.6	46	33	13
*	200	90	6.2	4.3	47	33	14
*	200	110	6.2	5.3	50	33	17
*	200	160	6.2	4.9	48	33	15
*	225	63	6.9	3	46	34	12
*	225	75	6.9	3.6	48	35	13
*	225	90	6.9	4.3	50	36	14
*	225	110	6.9	5.3	53	36	17
*	225	160	6.9	4.9	48	33	15
*	225	200	6.9	6.2	51	33	18
	250	63	7.7	3	72	42	30
	250	75	7.7	3.6	71	43	28
	250	90	7.7	4.3	73	44	29
	250	110	7.7	5.3	76	45	31
	250	160	7.7	4.9	74	34	40
	250	200	7.7	6.2	76	34	42
	250	225	7.7	6.9	77	34	43

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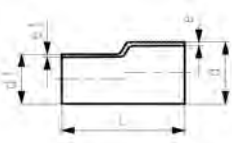
	d1 (mm)	d2 (mm)	e1 (mm)	e2 (mm)	L (mm)	L1 (mm)	L2 (mm)
	315	63	9.7	3	85	47	38
	315	75	9.7	3.6	90	47	43
	315	90	9.7	4.3	92	48	44
	315	110	9.7	5.3	96	50	46
	315	160	9.7	4.9	84	44	40
	315	200	9.7	6.2	86	44	42
	315	225	9.7	6.9	85	42	43
*	315	250	9.7	7.7	77	54	23



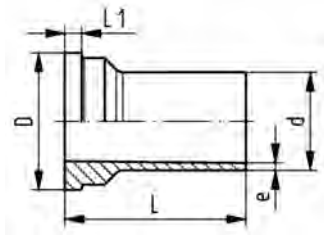
### SYGEF Plus reducing bush eccentric PN16

#### Model:

- Material: PVDF-HP



d - d1 (mm)	FM	Code	Weight (kg)	e (mm)	e1 (mm)	L (mm)
25 - 20	BCF, IR	<b>735 938 737</b>	0.020	1.9	1.9	80
32 - 20	BCF, IR	<b>735 938 742</b>	0.027	2.4	1.9	80
32 - 25	BCF, IR	<b>735 938 741</b>	0.030	2.4	1.9	80
40 - 20	BCF, IR	<b>735 938 748</b>	0.051	2.4	1.9	100
40 - 25	BCF, IR	<b>735 938 747</b>	0.043	2.4	1.9	100
40 - 32	BCF, IR	<b>735 938 746</b>	0.050	2.4	2.4	100
50 - 32	BCF, IR	<b>735 938 753</b>	0.068	3.0	2.4	100
50 - 40	BCF, IR	<b>735 938 752</b>	0.074	3.0	2.4	100
63 - 32	BCF, IR	<b>735 938 760</b>	0.105	3.0	2.4	100
63 - 40	BCF, IR	<b>735 938 759</b>	0.106	3.0	2.4	100
63 - 50	BCF, IR	<b>735 938 758</b>	0.097	3.0	3.0	100

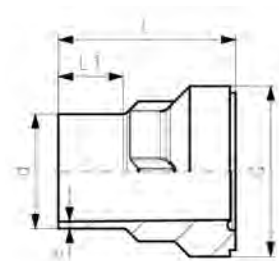


### SYGEF Plus union end PN16

**Model:**

- Suitable for vortex sensor
- Material: PVDF-HP
- Suitable for SYGEF Plus union butt fusion
- Suitable for diaphragm valves type 314 and 514

FM	d	PN	Code	Weight	e	L1	D	L
	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)
BCF, IR	20	16	<b>735 608 626</b>	0.019	1.9	5	30	53
BCF, IR	25	16	<b>735 608 627</b>	0.030	1.9	5	39	56
BCF, IR	32	16	<b>735 608 628</b>	0.043	2.4	6	45	59
BCF, IR	40	16	<b>735 608 629</b>	0.070	2.4	6	57	62
BCF, IR	50	16	<b>735 608 630</b>	0.191	3.0	7	63	65
BCF, IR	63	16	<b>735 608 631</b>	0.130	3.0	8	78	68
BCF, IR	75	16	<b>735 608 637</b>	0.194	3.6	9	101	66
BCF, IR	90	16	<b>735 608 638</b>	0.189	4.3	9	101	65
BCF, IR	110	16	<b>735 608 639</b>	0.264	5.3	10	121	65

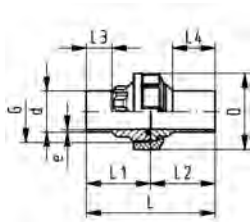


### SYGEF Plus union bush PN16

**Model:**

- Material: PVDF-HP
- Suitable for SYGEF Plus union butt fusion
- d75, d90 and d100 with buttress shaped thread

FM	d	PN	Code	Weight	e	L	G	L1
	(mm)	(bar)		(kg)	(mm)	(mm)	(inch)	(mm)
BCF, IR	20	16	<b>735 648 626</b>	0.024	1.9	53	1	25
BCF, IR	25	16	<b>735 648 627</b>	0.041	1.9	56	1 1/4	25
BCF, IR	32	16	<b>735 648 628</b>	0.056	2.4	59	1 1/2	25
BCF, IR	40	16	<b>735 648 629</b>	0.089	2.4	62	2	25
BCF, IR	50	16	<b>735 648 630</b>	0.116	3.0	65	2 1/4	25
BCF, IR	63	16	<b>735 648 631</b>	0.172	3.0	68	2 3/4	25
BCF, IR	75	16	<b>735 648 637</b>	0.261	3.6	66	S 107.5 x 3.6	24
BCF, IR	90	16	<b>735 648 638</b>	0.258	4.3	65	S 107.5 x 3.6	24
BCF, IR	110	16	<b>735 648 639</b>	0.343	5.3	65	S 127.5 x 3.6	25

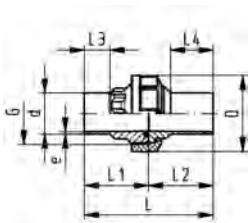


### SYGEF Plus union (FPM white) SDR21/PN16

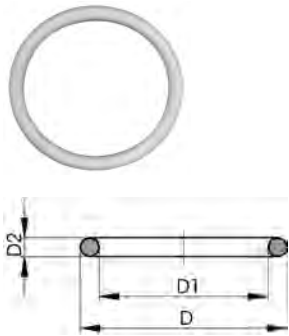
**Model:**

- Material: PVDF-HP
- FDA compliant
- d75, d90 and d100 with buttress shaped thread
- Please see installation instruction

d	PN	FM	Code	Weight
(mm)	(bar)			(kg)
20	16	BCF, IR	<b>735 528 626</b>	0.082
25	16	BCF, IR	<b>735 528 627</b>	0.123
32	16	BCF, IR	<b>735 528 628</b>	0.166
40	16	BCF, IR	<b>735 528 629</b>	0.263
50	16	BCF, IR	<b>735 528 630</b>	0.372
63	16	BCF, IR	<b>735 528 631</b>	0.463
75	16	BCF, IR	<b>735 528 637</b>	0.740
90	16	BCF, IR	<b>735 528 638</b>	0.798
110	16	BCF, IR	<b>735 528 639</b>	1.020



d (mm)	G (R/Rp BS Thread) (inch)	e (mm)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)
20	1	1.9	43	106	53	53	25	37
25	1 1/4	1.9	53	112	56	56	25	38
32	1 1/2	2.4	60	118	59	59	25	40
40	2	2.4	74	124	62	62	25	41
50	2 1/4	3.0	82	130	65	65	25	43
63	2 3/4	3.0	100	136	68	68	25	44
75	S 107.5 x 3.6	3.6	133	132	66	66	24	34
90	S 107.5 x 3.6	4.3	133	130	65	65	24	48
110	S 127.5 x 3.6	5.3	155	130	65	65	25	45



### O-ring white

d (mm)	PN (bar)	FPM Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)
20	16	749 411 005	0.002	21	15.5	2.6
25	16	749 411 006	0.002	27	20.2	3.5
32	16	749 411 120	0.002	34	26.6	3.5
40	16	749 411 062	0.002	42	34.5	3.5
50	16	749 411 172	0.003	51	44.0	3.5
63	16	749 411 054	0.003	63	55.0	4.0
75	16	749 411 013	0.010	80	69.2	5.3
90	16	749 411 014	0.012	93	81.9	5.3
110	16	749 411 015	0.015	117	101.0	5.3



### SYGEF Plus installation fitting SDR21/PN16

**Model:**

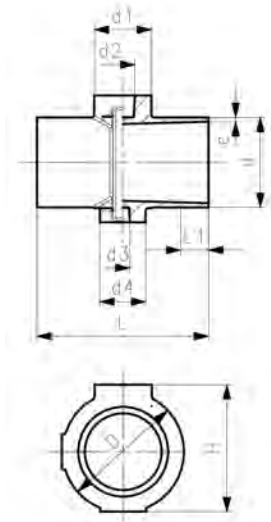
- Material: PVDF-HP
- Injection-moulded version

**Range of use:**

- compatible with all signet sensors excepting flow sensors

**Note:**

Thread needs to be milled, HAND HELD DRILLING MUST NOT BE DONE



d (mm)	PN (bar)	FM	Code	Weight (kg)
63	16	BCF, IR	<b>735 918 811</b>	0.147
75	16	BCF, IR	<b>735 918 812</b>	0.210
90	16	BCF, IR	<b>735 918 813</b>	0.265
110	16	BCF, IR	<b>735 918 814</b>	0.355
140	16	IR	<b>735 918 816</b>	1.319
160	16	IR	<b>735 918 817</b>	1.601
225	16	IR	<b>735 918 820</b>	2.698

d (mm)	D (mm)	e (mm)	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	H (mm)	L (mm)	L1 (mm)	Rp/NPT (inch)
63	85	3.0	40	17	10	32	89	120	25	¼ - ¾
75	96	3.6	40	17	10	40	101	130	25	¼ - ¾
90	110	4.3	40	17	10	40	116	130	25	¼ - ¾
110	127	5.3	40	17	10	40	136	130	25	¼ - ¾
140	171	6.7	63	17	10	50	171	155	40	¼ - 1
160	189	7.7	63	17	10	50	191	155	40	¼ - 1
225	248	10.8	63	17	10	50	256	155	40	¼ - 1



### SYGEF Plus installation fitting SDR33/PN10

**Model:**

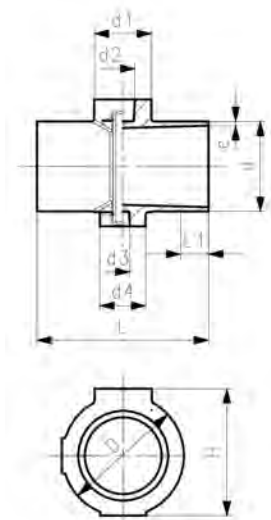
- Material: PVDF-HP
- Injection-moulded version

**Range of use:**

- compatible with all signet sensors excepting flow sensors

**Note:**

Thread needs to be milled, HAND HELD DRILLING MUST NOT BE DONE



d (mm)	PN (bar)	FM	Code	Weight (kg)
140	10	IR	<b>735 918 716</b>	0.967
160	10	IR	<b>735 918 717</b>	1.141
225	10	IR	<b>735 918 720</b>	1.845

d (mm)	D (mm)	e (mm)	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	H (mm)	L (mm)	L1 (mm)	Rp/NPT (inch)
140	171	4.3	63	17	10	50	171	155	40	¼ - 1
160	189	4.9	63	17	10	50	191	155	40	¼ - 1
225	248	6.9	63	17	10	50	256	155	40	¼ - 1



### SYGEF Plus installation fitting SDR33/PN10 & SDR21/PN16

**Model:**

- Material: PVDF-HP
- Suitable for hole diameters from 1/8" - 3/4"
- Machined version

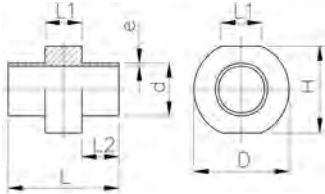
**Range of use:**

- compatible with all signet sensors excepting flow sensors

**Note:**

Hole needs to be milled, HAND HELD DRILLING MUST NOT BE DONE

\* no stock item



	d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)
*	125	10	IR	<b>735 918 565</b>	0.858	3.9	162	157	100	40	27
*	200	10	IR	<b>735 918 569</b>	1.486	6.2	231	228	110	40	32
*	200	16	IR	<b>735 918 619</b>	1.871	9.6	231	228	110	40	32
*	250	16	IR	<b>735 918 621</b>	3.331	11.9	277	274	160	40	60
*	280	16	IR	<b>735 918 622</b>	3.981	13.4	304	301	160	40	60
*	315	16	IR	<b>735 918 623</b>	4.793	15.0	336	334	160	40	60

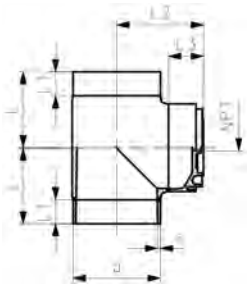


### SYGEF Plus instrument installation fitting NPT SDR33/PN10

**Model:**

- Material: PVDF-HP

	d (mm)	NPT (inch)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
	355	1/2	10	IR	<b>735 918 849</b>	25.829	10.9	313	353	100	142
	400	1/2	10	IR	<b>735 918 850</b>	34.622	12.3	332	376	100	142
	450	1/2	10	IR	<b>735 918 851</b>	45.933	13.8	357	401	100	142

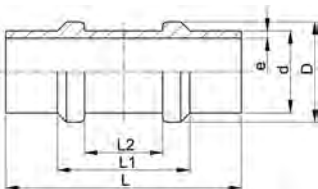


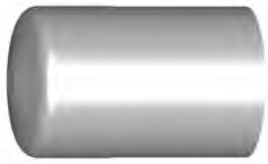
### SYGEF Plus fixpoint fitting SDR21/PN16

**Model:**

- Material: PVDF-HP

	d (mm)	PN (bar)	FM	Code	Weight (kg)	D (mm)	e (mm)	L (mm)	L1 (mm)	L2 (mm)
	20	16	BCF, IR	<b>735 918 656</b>	0.027	28	1.9	100	53	32
	25	16	BCF, IR	<b>735 918 657</b>	0.036	33	1.9	100	53	32
	32	16	BCF, IR	<b>735 918 658</b>	0.054	40	2.4	100	53	32
	40	16	BCF, IR	<b>735 918 659</b>	0.067	48	2.4	100	53	32
	50	16	BCF, IR	<b>735 918 660</b>	0.125	58	3.0	100	53	32
	63	16	BCF, IR	<b>735 918 661</b>	0.131	71	3.0	105	53	32
	75	16	BCF, IR	<b>735 918 662</b>	0.252	87	3.6	125	70	40
	90	16	BCF, IR	<b>735 918 663</b>	0.370	105	4.3	127	70	40
	110	16	BCF, IR	<b>735 918 664</b>	0.521	127	5.3	127	70	40

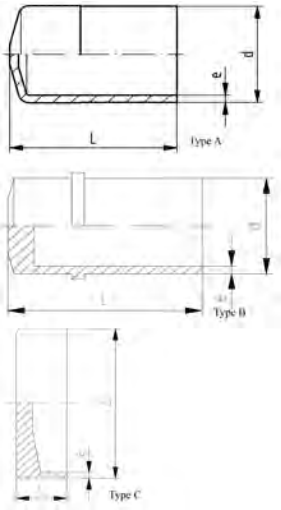




### SYGEF Plus end cap SDR21/PN16

**Model:**

- Material: PVDF-HP



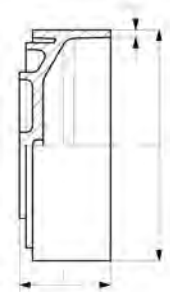
d (mm)	FM	PN (bar)	Code	Weight (kg)	e (mm)	L (mm)	Type
20	BCF, IR	16	<b>735 968 106</b>	0.017	1.9	47	A
25	BCF, IR	16	<b>735 968 107</b>	0.012	1.9	47	A
32	BCF, IR	16	<b>735 968 108</b>	0.034	2.4	52	A
40	BCF, IR	16	<b>735 991 654</b>	0.068	2.4	59	B
50	BCF, IR	16	<b>735 991 655</b>	0.104	3.0	64	B
63	BCF, IR	16	<b>735 991 656</b>	0.165	3.0	69	B
75	IR	16	<b>735 991 657</b>	0.283	3.6	40	C
90	IR	16	<b>735 991 658</b>	0.292	4.3	40	C
110	IR	16	<b>735 991 659</b>	0.812	5.3	40	C



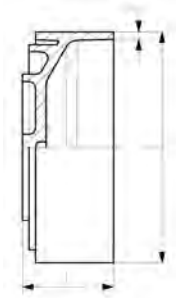
### SYGEF Plus end cap SDR21/PN16

**Model:**

- Material: PVDF-HP



d (mm)	PN (bar)	FM	Code	Weight (kg)	e (mm)	L (mm)
250	16	IR	<b>735 968 046</b>	2.514	11.9	122
280	16	IR	<b>735 968 047</b>	3.114	13.4	122
315	16	IR	<b>735 968 048</b>	4.209	15.0	124

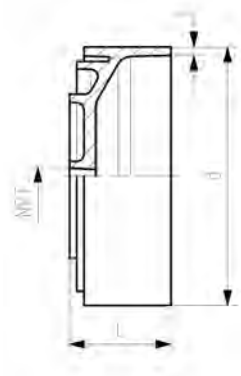


### SYGEF Plus end cap SDR33/PN10

**Model:**

- Material: PVDF-HP
- \* machined version

	d (mm)	PN (bar)	FM	Code	e (mm)	L (mm)
*	160	10	IR	<b>735 991 661</b>	4.9	50
*	200	10	IR	<b>735 991 662</b>	6.2	50
*	225	10	IR	<b>735 991 663</b>	6.9	50
NEW	250	10	IR	<b>735 968 546</b>	7.7	114
NEW	280	10	IR	<b>735 968 547</b>	8.6	115
NEW	315	10	IR	<b>735 968 548</b>	9.7	130
	355	10	IR	<b>735 968 549</b>	10.9	150
	400	10	IR	<b>735 968 550</b>	12.3	150
	450	10	IR	<b>735 968 551</b>	13.8	150



### SYGEF Plus end cap with thread SDR33/PN10

**Model:**

- Material: PVDF-HP

	d (mm)	NPT (inch)	PN (bar)	FM	Code	e (mm)	L (mm)
NEW	250	½	10	IR	<b>735 968 625</b>	7.7	114
NEW	280	½	10	IR	<b>735 968 630</b>	8.6	115
NEW	315	½	10	IR	<b>735 968 635</b>	9.7	130
	355	½	10	IR	<b>735 968 640</b>	10.9	150
	400	½	10	IR	<b>735 968 645</b>	12.3	150
	450	½	10	IR	<b>735 968 650</b>	13.8	150

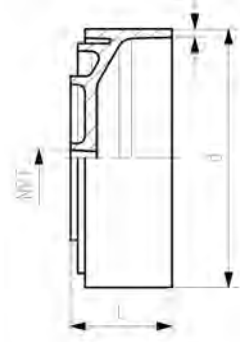


### SYGEF Plus end cap with thread SDR21/PN16

**Model:**

- Material: PVDF-HP

d	NPT	PN	FM	Code	Weight	e	L
(mm)	(inch)	(bar)			(kg)	(mm)	(mm)
250	½	16	IR	<b>735 968 425</b>	2.508	11.9	114
280	½	16	IR	<b>735 968 430</b>	3.107	13.4	115
315	½	16	IR	<b>735 968 435</b>	4.201	15.0	130



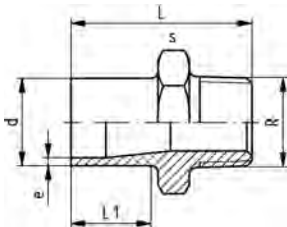
## Transition fittings



### SYGEF Plus adaptor nipple male thread R SDR21/PN16

**Model:**

- Material: PVDF-HP
- With taper male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature



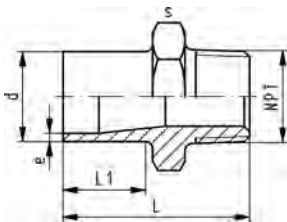
d	R	PN	FM	Code	Weight	e	L	s	L1
(mm)	(inch)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)
20	½	16	BCF, IR	<b>735 910 706</b>	0.039	1.9	53	32	28
25	¾	16	BCF, IR	<b>735 910 707</b>	0.021	1.9	55	36	28
32	1	16	BCF, IR	<b>735 910 708</b>	0.034	2.4	57	46	28
40	1 ¼	16	BCF, IR	<b>735 910 709</b>	0.058	2.4	60	55	28
50	1 ½	16	BCF, IR	<b>735 910 710</b>	0.087	3.0	63	65	28
63	2	16	BCF, IR	<b>735 910 711</b>	0.118	3.0	69	75	29



### SYGEF Plus adaptor nipple male thread NPT SDR21/PN16

**Model:**

- Material: PVDF-HP
- With taper male thread
- Connection to plastic thread only
- Avoid stresses when installing and large changes in temperature
- Do not use thread sealing pastes that are harmful to PVDF



d	NPT	PN	FM	Code	Weight	e	L	L1	s
(mm)	(inch)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)
20	½	16	BCF, IR	<b>735 914 306</b>	0.016	1.9	53	28	32
25	¾	16	BCF, IR	<b>735 914 307</b>	0.021	1.9	55	28	36
32	1	16	BCF, IR	<b>735 914 308</b>	0.035	2.4	57	28	46
40	1 ¼	16	BCF, IR	<b>735 914 309</b>	0.057	2.4	60	28	55
50	1 ½	16	BCF, IR	<b>735 914 310</b>	0.134	3.0	63	28	65
63	2	16	BCF, IR	<b>735 914 311</b>	0.119	3.0	69	29	75





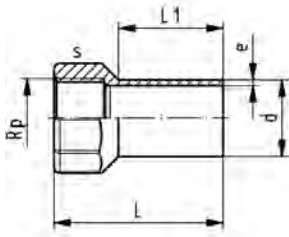
### SYGEF Plus adaptor socket female Rp SDR21/PN16

**Model:**

- Material: PVDF-HP
- With butt fusion spigot and parallel female thread Rp
- Avoid stresses when installing and large changes in temperature
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF

**Note:**

\* Please keep strictly to the GF internal installation preferences



d	Rp	PN	FM	Code	Weight	L	L1	e	s
(mm)	(inch)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)
20	3/8	16	BCF, IR	<b>735 910 785</b>	0.030	54	30	1.9	32
20	1/2	16	BCF, IR	<b>735 910 786</b>	0.026	54	30	1.9	32
25	3/4	16	BCF, IR	<b>735 910 787</b>	0.032	58	30	1.9	38
32	1	16	BCF, IR	<b>735 910 788</b>	0.065	63	30	2.4	48
40	1 1/4	16	BCF, IR	<b>735 910 789</b>	0.092	67	30	2.4	58
50	1 1/2	16	BCF, IR	<b>735 910 790</b>	0.108	67	30	3.0	65
*	63	2	16	BCF, IR	<b>735 910 791</b>	0.195	73	30	80



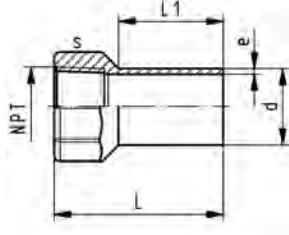
### SYGEF Plus adaptor socket female NPT SDR21/PN16

**Model:**

- Material: PVDF-HP
- With butt fusion spigot and taper female thread NPT
- Avoid stresses when installing and large changes in temperature
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVDF

**Note:**

\* Please keep strictly to the GF internal installation preferences



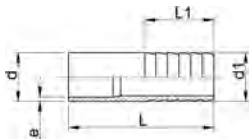
d	NPT	PN	FM	Code	Weight	e	L	s	L1
(mm)	(inch)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)
20	3/8	16	BCF, IR	<b>735 914 785</b>	0.029	1.9	54	32	30
20	1/2	16	BCF, IR	<b>735 914 786</b>	0.027	1.9	54	32	30
25	3/4	16	BCF, IR	<b>735 914 787</b>	0.033	1.9	58	38	30
32	1	16	BCF, IR	<b>735 914 788</b>	0.066	2.4	63	48	30
40	1 1/4	16	BCF, IR	<b>735 914 789</b>	0.085	2.4	67	58	30
50	1 1/2	16	BCF, IR	<b>735 914 790</b>	0.108	3.0	67	65	30
*	63	2	16	BCF, IR	<b>735 914 791</b>	0.190	3.0	73	80



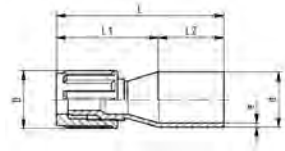
### SYGEF Plus hose adapters

**Model:**

- Material: PVDF-HP
- With butt fusion spigot and parallel hose connection.



d - d1	PN	FM	Code	Weight	e	L	L1
(mm)	(bar)			(kg)	(mm)	(mm)	(mm)
20 - 20	16	BCF, IR	<b>735 968 731</b>	0.015	1.9	64	27
25 - 25	16	BCF, IR	<b>735 968 732</b>	0.024	1.9	75	36
32 - 32	16	BCF, IR	<b>735 968 733</b>	0.042	2.4	82	36
40 - 40	16	BCF, IR	<b>735 968 734</b>	0.063	2.4	84	42
50 - 50	16	BCF, IR	<b>735 968 735</b>	0.150	3.0	90	48
63 - 60	16	BCF, IR	<b>735 968 736</b>	0.002	3.0	100	50



## SYGEF Plus flare transition fitting SDR33/PN10

### Model:

- Welding dimension: PN16
- Material: PVDF-HP

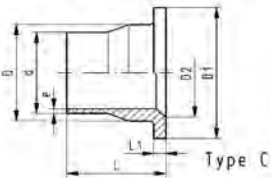
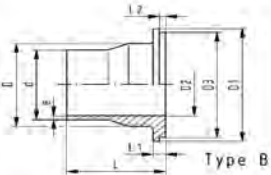
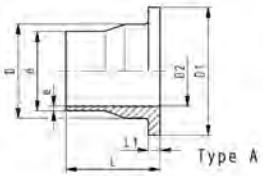
d	tube size	PN	FM	Code	Weight	e	L	L1	L2	D
(mm)	(inch)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
20	¾	10	BCF, IR	<b>735 598 430</b>	0.028	1.9	75	45	30	21
20	¾	10	BCF, IR	<b>735 598 431</b>	0.022	1.9	76	46	30	23
20	½	10	BCF, IR	<b>735 598 432</b>	0.034	1.9	77	47	30	26
20	¾	10	BCF, IR	<b>735 598 433</b>	0.043	1.9	78	48	30	34
25	¾	10	BCF, IR	<b>735 598 435</b>	0.033	1.9	75	45	30	21
25	¾	10	BCF, IR	<b>735 598 436</b>	0.025	1.9	76	46	30	23
25	½	10	BCF, IR	<b>735 598 437</b>	0.028	1.9	77	47	30	26
25	¾	10	BCF, IR	<b>735 598 438</b>	0.050	1.9	78	48	30	34
25	1	10	BCF, IR	<b>735 598 439</b>	0.102	1.9	87	57	30	46
32	½	10	BCF, IR	<b>735 598 442</b>	0.036	2.4	77	47	30	26
32	¾	10	BCF, IR	<b>735 598 443</b>	0.048	2.4	78	48	30	34
32	1	10	BCF, IR	<b>735 598 444</b>	0.107	2.4	87	57	30	46

## SYGEF Plus flange adaptor jointing face serrated SDR21/PN16



### Model:

- Material: PVDF-HP



d (mm)	DN (mm)	PN (bar)	FM	Code	Weight (kg)
20	15	16	BCF, IR	<b>735 798 831</b>	0.042
25	20	16	BCF, IR	<b>735 798 832</b>	0.060
32	25	16	BCF, IR	<b>735 798 833</b>	0.066
40	32	16	BCF, IR	<b>735 798 834</b>	0.121
50	40	16	BCF, IR	<b>735 798 835</b>	0.165
63	50	16	BCF, IR	<b>735 798 836</b>	0.237
75	65	16	BCF, IR	<b>735 798 837</b>	0.361
90	80	16	BCF, IR	<b>735 798 838</b>	0.444
110	100	16	BCF, IR	<b>735 798 839</b>	0.626
140	125	16	IR	<b>735 798 841</b>	0.970
160	150	16	IR	<b>735 798 842</b>	1.208
200	200	16	IR	<b>735 798 844</b>	2.139
225	200	16	IR	<b>735 798 845</b>	2.210
250	250	16	IR	<b>735 798 846</b>	3.541
280	250	16	IR	<b>735 798 847</b>	3.583
315	300	16	IR	<b>735 798 848</b>	5.040

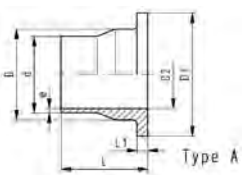
d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	e (mm)	L (mm)	L1 (mm)	L2 (mm)	Type
20	26	45	15		1.9	54	6		A
25	32	58	20	54	1.9	56	7	4	B
32	40	68	26	63	2.4	58	7	4	B
40	49	78	34	73	2.4	68	8	4	B
50	60	88	43	82	3.0	69	8	4	B
63	75	102	56		3.0	72	9		A
75	89	122	66		3.6	80	10		A
90	105	138	78	133	4.3	81	12	4	B
110	125	158	100		5.3	81	13		C
140	155	188	127		6.7	90	16		C
160	175	212	151		7.7	93	17		C
200	232	268	207		9.6	102	22		C
225	235	268	207		10.8	102	22		C
250	285	320	249		11.9	122	25		C
280	291	320	249		13.4	122	25		C
315	335	320	370		15.0	124	28		C

## SYGEF Plus flange adaptor ANSI jointing face serrated SDR21/PN16



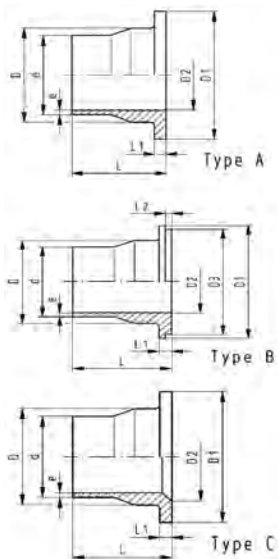
### Model:

- Material: PVDF-HP
- Other dimensions identical with metric version



d (mm)	FM	PN (bar)	Code	Weight (kg)	L1 (mm)	L (mm)	D (mm)	D2 (mm)	D1 (mm)	Type	e (mm)
25	BCF, IR	16	<b>735 798 882</b>	0.058	7	56	32	20	54	A	1.9
32	BCF, IR	16	<b>735 798 883</b>	0.084	7	58	40	26	63	A	2.4
40	BCF, IR	16	<b>735 798 884</b>	0.115	8	68	49	34	73	A	2.4
50	BCF, IR	16	<b>735 798 885</b>	0.160	8	69	60	43	82	A	3.0
90	BCF, IR	16	<b>735 798 886</b>	0.435	12	81	105	78	133	A	4.3

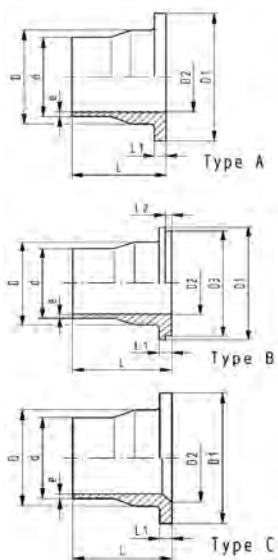
### SYGEF Plus flange adaptor jointing face serrated PN10



d (mm)	DN (mm)	FM (bar)	PN (bar)	Code	Weight (kg)
160	150	IR	10	<b>735 798 892</b>	1.037
225	200	IR	10	<b>735 798 895</b>	1.742
250	250	IR	10	<b>735 798 596</b>	2.730
280	250	IR	10	<b>735 798 597</b>	2.715
315	300	IR	10	<b>735 798 598</b>	3.657

D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	e (mm)	L (mm)	L1 (mm)	L2 (mm)	Type
175	212	151		5	93	17		
235	268	207		7	102	22		
285	320	250		8	120	22		
291	320	250		9	120	22		
335	370	300		10	120	22		

### SYGEF Plus flange adaptor jointing face serrated SDR33/PN10



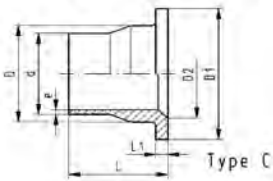
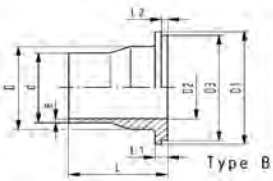
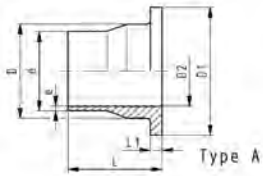
#### Model:

- Material: PVDF-HP

d (mm)	DN (mm)	PN (bar)	FM	Code	Weight (kg)
90	80	10	BCF, IR	<b>735 798 888</b>	0.413
110	100	10	BCF, IR	<b>735 798 889</b>	0.540
125	100	10	IR	<b>735 798 590</b>	0.515
140	125	10	IR	<b>735 798 891</b>	0.800
160	150	10	IR	<b>735 798 892</b>	1.037
200	200	10	IR	<b>735 798 894</b>	1.766
225	200	10	IR	<b>735 798 895</b>	1.742
250	250	10	IR	<b>735 798 596</b>	2.730
280	250	10	IR	<b>735 798 597</b>	2.715
315	300	10	IR	<b>735 798 598</b>	3.657
355	350	10	IR	<b>735 798 549</b>	6.572
400	400	10	IR	<b>735 798 550</b>	7.970
450	450	10	IR	<b>735 798 551</b>	10.605

d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	e (mm)	L (mm)	L1 (mm)	L2 (mm)	Type
90	105	138	78	133	2.8	81	12	4	B
110	125	158	100		3.4	81	13		A
125	132	158	114		3.9	82	14		A
140	155	188	127		4.3	90	16		A
160	175	212	151		4.9	93	17		C
200	232	268	207		6.2	102	22		C
225	235	268	207		6.9	102	22		A
250	285	320	249		7.7	120	22		C
280	291	320	249		8.6	120	22		A

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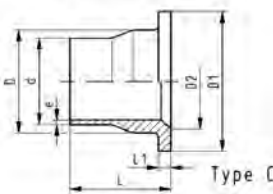
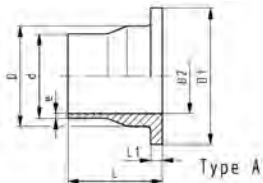


d	D	D1	D2	D3	e	L	L1	L2	Type
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
315	335	370	300		9.7	120	22		C
355	373	430	330		10.9	170	30		A
400	427	482	396		12.3	175	32		C
450	467	530	430		13.8	180	36		C

### SYGEF Plus flange adaptor JIS SDR21/PN16

#### Model:

- Material: PVDF-HP

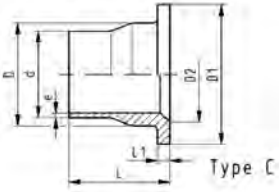
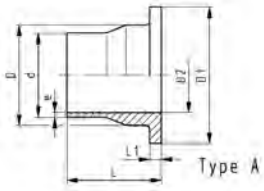


d	DN	PN	FM	Code	Weight	D	D1	D2	e	L	L1	Type
(mm)	(mm)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
20	15	16	BCF, IR	<b>735 805 926</b>	0.025	26	34	15	2	54	6	A
25	20	16	BCF, IR	<b>735 805 927</b>	0.041	32	41	20	2	56	7	A
32	25	16	BCF, IR	<b>735 805 928</b>	0.066	40	50	26	2	58	7	A
40	32	16	BCF, IR	<b>735 805 929</b>	0.101	49	61	34	2	68	8	A
50	40	16	BCF, IR	<b>735 805 930</b>	0.139	60	73	42	3	69	8	A
63	50	16	BCF, IR	<b>735 805 931</b>	0.200	75	90	56	3	72	9	A
75	65	16	BCF, IR	<b>735 805 932</b>	0.308	89	106	66	4	80	10	A
90	80	16	BCF, IR	<b>735 805 933</b>	0.387	105	125	78	4	80	11	A
110	100	16	BCF, IR	<b>735 805 934</b>	0.556	125	150	100	5	80	12	C
140	125	16	IR	<b>735 798 841</b>	0.970	155	188	127	7	90	16	C
160	150	16	IR	<b>735 798 842</b>	1.208	175	212	151	8	93	17	C
225	200	16	IR	<b>735 798 845</b>	2.210	235	268	207	11	102	22	C
250	250	16	IR	<b>735 798 846</b>	3.541	285	320	249	12	122	25	C
280	250	16	IR	<b>735 798 847</b>	3.583	291	320	249	13	122	25	C
315	300	16	IR	<b>735 798 848</b>	5.040	335	320	370	15	124	28	C

## SYGEF Plus flange adaptor JIS PN10

### Model:

- Material: PVDF-HP



d	DN	PN	FM	Code	Weight	e	Type	D2	D1	L	D	L1
(mm)	(mm)	(bar)			(kg)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)
140	125	10	IR	<b>735 805 936</b>	0.844	4.4	A	127	188	89	155	15
160	150	10	IR	<b>735 805 937</b>	0.998	4.9	C	151	212	92	175	16
225	200	10	IR	<b>735 805 940</b>	1.719	6.9	A	207	268	100	235	20

# Flanges and Gaskets



## Backing flange PP-V metric For butt fusion systems metric

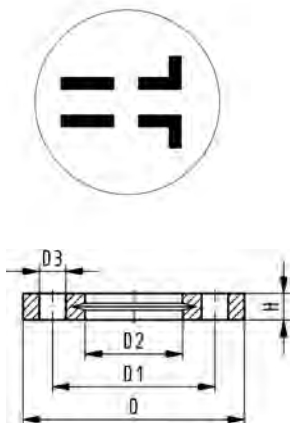
### Model:

- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

<sup>1)</sup> Suitable for socket- and butt fusion systems

\* Combined version, metric-ANSI



	d	DN	PN	Code	Weight	D	D1	D2	D3	H	AL	SC
	(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)		
1	20	15	16	<b>727 700 406</b>	0.093	95	65	28	14	16	4	M12
1	25	20	16	<b>727 700 407</b>	0.120	105	75	34	14	17	4	M12
1	32	25	16	<b>727 700 408</b>	0.151	115	85	42	14	18	4	M12
1	40	32	16	<b>727 700 409</b>	0.244	140	100	51	18	20	4	M16
1	50	40	16	<b>727 700 410</b>	0.297	150	110	62	18	22	4	M16
1	63	50	16	<b>727 700 411</b>	0.362	165	125	78	18	24	4	M16
1	75	65	16	<b>727 700 412</b>	0.487	185	145	92	18	26	4	M16
	90	80	16	<b>727 700 513</b>	0.544	200	160	108	18	27	8	M16
	110	100	16	<b>727 700 514</b>	0.643	220	180	128	18	28	8	M16
	125	100	16	<b>727 700 515</b>	0.635	220	180	135	18	28	8	M16
	140	125	16	<b>727 700 516</b>	0.842	250	210	158	18	30	8	M16
*	160	150	16	<b>727 700 517</b>	1.200	285	241	178	22	32	8	M20
	180	150	16	<b>727 700 518</b>	1.200	285	240	188	22	32	8	M20
*	200	200	16	<b>727 700 519</b>	1.400	340	297	235	22	34	8	M20
*	225	200	16	<b>727 700 520</b>	1.400	340	297	238	22	34	8	M20
	250	250	16	<b>727 700 521</b>	2.052	395	350	288	22	38	12	M20
	280	250	16	<b>727 700 522</b>	1.700	395	350	294	22	38	12	M20
	315	300	16	<b>727 700 523</b>	2.400	445	400	338	22	42	12	M20
	355	350	10	<b>727 700 524</b>	4.440	515	460	376	22	46	16	M20
	400	400	10	<b>727 700 525</b>	5.624	574	515	430	26	50	16	M24



## Backing flange PP-V Inch ANSI For butt fusion systems metric

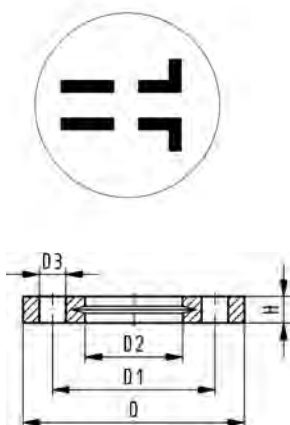
### Model:

- Full-plastic flange PP-GF (30 % glass-fibre reinforced)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- Special flange adapter ANSI for d25 - d50 and d90 required

AL: number of holes

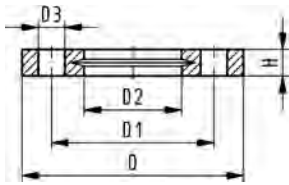
<sup>1)</sup> Suitable for socket- and butt fusion systems

\* Combined version, metric-ANSI



	Size	d	DN	PN	Code	Weight	D	D1	D2	D3	H	AL	SC
	(inch)	(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)		
1	½	20	15	16	<b>727 701 406</b>	0.091	95	60	28	16	16	4	M12
1	¾	25	20	16	<b>727 701 407</b>	0.120	105	70	34	16	17	4	M12
1	1	32	25	16	<b>727 701 408</b>	0.147	115	79	42	16	18	4	M12
1	1 ¼	40	32	16	<b>727 701 409</b>	0.246	140	89	51	16	20	4	M16
1	1 ½	50	40	16	<b>727 701 410</b>	0.299	150	98	62	16	22	4	M16
1	2	63	50	16	<b>727 701 411</b>	0.361	165	121	78	19	24	4	M16
1	2 ½	75	65	16	<b>727 701 412</b>	0.492	185	140	92	19	26	4	M16
	3	90	80	16	<b>727 701 513</b>	0.607	200	152	108	19	27	4	M16
	4	110	100	16	<b>727 701 514</b>	0.736	229	190	128	19	28	8	M16
*	6	160	150	16	<b>727 700 517</b>	1.200	285	241	178	22	32	8	M20
*	8	200	200	16	<b>727 700 519</b>	1.400	340	297	235	22	34	8	M20

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	Size	d	DN	PN	Code	Weight	D	D1	D2	D3	H	AL	SC
	(inch)	(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)		
*	8	225	200	16	<b>727 700 520</b>	1.400	340	297	238	22	34	8	M20
	10	250	250	16	<b>727 701 521</b>	2.241	406	362	288	26	38	12	M20
	10	280	250	16	<b>727 701 522</b>	2.173	406	362	294	26	38	12	M20
	12	315	300	16	<b>727 701 523</b>	3.627	483	432	338	26	42	12	M20



### Backing flange PP-Steel For butt fusion systems metric

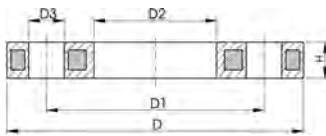
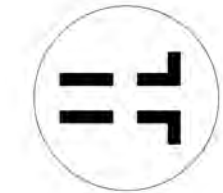
#### Model:

- Bolt circle PN 10
- Material: PP (30% glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

AL: number of holes

\*Combined version, bolt circle metric - ANSI

\*\*Galvanized steel; suitable for underground laying



	d	d	DN	PN	Code	Weight	D	D1	D2	D3	H	AL	SC
	(mm)	(inch)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)		
	20		15	16	<b>727 700 206</b>	0.216	95	65	28	14	12	4	M12
	25		20	16	<b>727 700 207</b>	0.279	105	75	34	14	12	4	M12
	32		25	16	<b>727 700 208</b>	0.429	115	85	42	14	16	4	M12
	40		32	16	<b>727 700 209</b>	0.621	140	100	51	18	16	4	M16
	50		40	16	<b>727 700 210</b>	0.722	150	110	62	18	20	4	M16
	63		50	16	<b>727 700 211</b>	1.084	165	125	78	18	20	4	M16
	75		65	16	<b>727 700 212</b>	1.349	185	145	92	18	20	4	M16
	90		80	16	<b>727 700 313</b>	1.390	200	160	108	18	20	8	M16
	110		100	16	<b>727 700 314</b>	1.407	220	180	128	18	20	8	M16
	125		100	16	<b>727 700 315</b>	1.408	220	180	135	18	20	8	M16
	140		125	16	<b>727 700 716</b>	2.318	250	210	158	18	26	8	M16
*	160	6	150	16	<b>727 700 717</b>	3.491	285	241	178	22	26	8	M20
	180		150	16	<b>727 700 718</b>	3.108	285	241	188	22	26	8	M20
*	200	8	200	16	<b>727 700 719</b>	5.600	340	297	235	22	29	8	M20
*	225	8	200	16	<b>727 700 720</b>	5.533	340	297	238	22	29	8	M20
	250		250	16	<b>727 700 721</b>	6.632	395	350	288	22	32	12	M20
	280		250	16	<b>727 700 722</b>	6.573	395	350	294	22	32	12	M20
	315		300	16	<b>727 700 723</b>	7.903	445	400	338	22	36	12	M20
	355		350	16	<b>727 700 724</b>	14.587	515	460	376	23	42	16	M20
	400		400	16	<b>727 700 725</b>	20.034	574	515	430	26	42	16	M24
**	450		450	10	<b>724 705 026</b>	38.000	615	565	470	26	36	20	M24





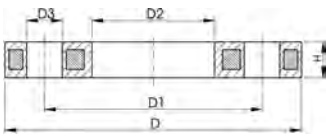
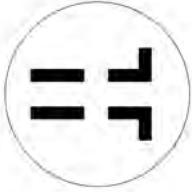
### Backing flange PP-Steel Inch/ANSI For butt fusion systems metric

**Model:**

- Material: PP (30% glass-fibre reinforced) with steel ring
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- Special flange adapter ANSI for d25 - d50 and d90 required

\*Combined version, bolt circle metric - ANSI

AL: number of holes



d (inch)	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC	
½	20	15	16	<b>727 701 206</b>	0.213	95	60	28	16	12	4	M12	
¾	25	20	16	<b>727 701 207</b>	0.260	105	70	34	16	12	4	M12	
1	32	25	16	<b>727 701 208</b>	0.416	115	79	42	16	16	4	M12	
1 ¼	40	32	16	<b>727 701 209</b>	0.730	140	89	51	16	16	4	M16	
1 ½	50	40	16	<b>727 701 210</b>	0.809	150	98	62	16	18	4	M16	
2	63	50	16	<b>727 701 211</b>	0.866	165	121	78	19	18	4	M16	
2 ½	75	65	16	<b>727 701 212</b>	1.117	185	140	92	19	18	4	M16	
3	90	80	16	<b>727 701 313</b>	1.499	200	152	108	19	20	4	M16	
4	110	100	16	<b>727 701 314</b>	1.739	229	190	128	19	20	8	M16	
*	6	160	150	16	<b>727 700 717</b>	3.491	285	241	178	22	26	8	M20
*	8	200	200	16	<b>727 700 719</b>	5.600	340	297	235	22	29	8	M20
*	8	225	200	16	<b>727 700 720</b>	5.533	340	297	238	22	29	8	M20
	10	250/280	250	10	<b>727 701 321</b>	6.000	406	362	293	25	30	12	M24
	12	315	300	10	<b>727 701 322</b>	11.800	483	432	338	25	34	12	M24
	14	355	350	10	<b>727 701 323</b>	17.900	540	476	376	29	42	12	M27
	16	400	400	10	<b>727 701 324</b>	24.500	597	539	429	29	44	16	M27
	20	450/500	500	10	<b>727 701 325</b>	33.600	712	635	540	32	53	20	M30



### Profiled backing flange PP-Steel metric For butt fusion systems metric

**Model:**

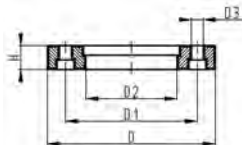
- PP with glass-fibre reinforcement and GGG 50 insert
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 10**

**Note:**

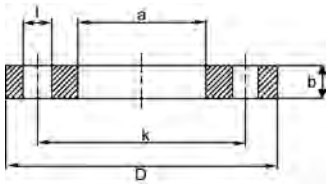
flat side = bolt side profiled side = flange adaptor side

AL: number of holes

\* Galvanized steel S235-JR, suitable for underground laying



d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC	
*	450	450	10	<b>724 705 026</b>	38.000	615	565	470	26	36	20	M24
	450	500	10	<b>724 700 426</b>	25.600	685	620	517	26	56	20	M24

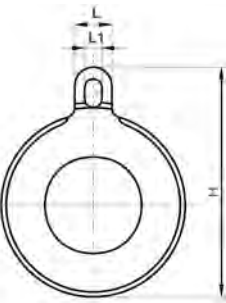


### PVDF Coated Steel for Butt Fusion Systems Inch/ANSI Flange Ring blue coated steel

**Material: PVDF blue coated steel**

Bolt holes drilled in accordance with ANSI B16.5, Class 150 pattern

d	Size	Code	D	a	k	b	l	Bolt Holes
(mm)	(inch)		(inch)	(inch)	(inch)	(inch)	(inch)	
20	¾	155 701 806	3.50	1.10	2.36	0.28	0.63	4
25	¾	155 701 807	3.86	1.34	2.76	0.28	0.63	4
32	1	155 701 808	4.25	1.65	3.11	0.28	0.63	4
40	1 ¼	155 701 809	4.61	2.01	3.50	0.32	0.63	4
50	1 ½	155 701 810	5.00	2.44	3.86	0.32	0.63	4
63	2	155 701 811	5.98	3.07	4.76	0.39	0.75	4
75	2 ½	155 701 812	7.01	3.62	5.51	0.39	0.75	4
90	3	155 701 813	7.48	4.33	5.98	0.39	0.75	4
110	4	155 703 814	9.02	5.24	7.48	0.39	0.75	8
160	6	155 701 917	10.98	7.05	9.48	0.50	0.88	8
200	8	155 701 919	13.50	9.30	11.73	0.63	0.88	8
225	9	155 701 920	13.50	9.42	11.73	0.63	0.88	8
250	10	155 701 921	16.00	11.35	14.25	0.88	0.88	12
315	12	155 701 923	19.00	13.31	17.00	1.00	1.00	12
355	14	155 701 924	21.00	14.80	18.75	1.00	1.00	12
400	16	155 701 925	23.50	16.93	21.25	1.13	1.13	16



### SYGEF Plus Gasket

**Model:**

- For Use with Steel Flange Rings
- \* Non-Returnable/Non-Cancelable

d	Pipe Size	Code	Weight	H	L	L1
(mm)	(inch)		(lb)	(inch)	(inch)	(inch)
25	¾	731 400 753	0.002	2.99	0.79	0.51
32	1	731 400 755	0.053	3.58	0.98	0.63
40	1 ¼	731 400 757	0.079	3.98	0.98	0.63
50	1 ½	731 400 759	0.084	4.33	0.98	0.63
63	2	731 400 760	0.132	5.04	0.98	0.63
75	2 ½	731 400 761	0.179	5.83	0.98	0.63
90	3	731 400 763	0.132	6.34	0.98	0.63
110	4	731 400 764	0.220	7.44	0.98	0.63
160	6	731 400 667	0.309	9.61	1.18	0.79
200/225	8/9	731 400 670	0.441	11.81	1.18	0.79
250	10	731 400 671	0.002	14.17	1.38	0.87
315	12	731 400 672	0.650	16.50	1.38	0.87

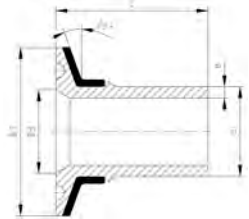
# Sanitary adaptors



**SYGEF Plus sanitary adaptor**  
With stainless reinforcement SDR21/PN16  
Ferrule ISO 1127

**Model:**

- Material: PVDF-HP
- \* Model without chamfer



d (mm)	FM	DN (mm)	PN (bar)	Code	Weight (kg)	D3 (mm)	D1 (mm)	e (mm)	L (mm)	
20	BCF, IR	15	16	<b>735 598 006</b>	0.032	18	51	2	50	
25	BCF, IR	20	16	<b>735 598 008</b>	0.042	23	51	2	55	
25	BCF, IR	25	16	<b>735 598 009</b>	0.041	30	51	2	55	
32	BCF, IR	25	16	<b>735 598 010</b>	0.045	30	51	2	57	
40	BCF, IR	32	16	<b>735 598 014</b>	0.073	38	64	2	67	
*	50	BCF, IR	40	16	<b>735 598 016</b>	0.083	44	64	3	68
*	63	BCF, IR	50	16	<b>735 598 018</b>	0.107	56	78	3	71



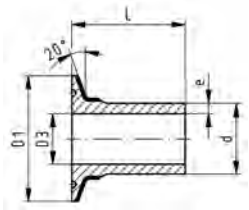
**SYGEF Plus sanitary adaptor**  
With stainless reinforcement SDR21/PN16  
For PVDF-PVDF connection

**Model:**

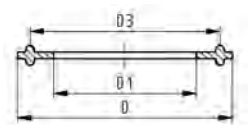
- Material: PVDF-HP
- without chamfer for complete evacuation even in horizontal installation

**Note:**

to be connected with standard clamp - please see dimension D1



d (mm)	FM	PN (bar)	Code	Weight (kg)	L (mm)	e (mm)	D1 (mm)	D3 (mm)
20	BCF, IR	16	<b>735 598 806</b>	0.041	49	2	51	17
25	BCF, IR	16	<b>735 598 807</b>	0.044	55	2	51	20
32	BCF, IR	16	<b>735 598 808</b>	0.061	57	2	51	26
40	BCF, IR	16	<b>735 598 809</b>	0.079	67	2	64	33
50	BCF, IR	16	<b>735 598 810</b>	0.090	68	3	64	42
63	BCF, IR	16	<b>735 598 811</b>	0.118	71	3	78	55



**Gasket PTFE**

**Model:**

- Special gaskets for sanitary adaptors PVDF-PVDF connection only

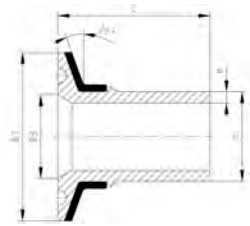
d (mm)	Code	Weight (kg)	D1 (mm)	D3 (mm)	D (mm)
20	<b>743 400 806</b>	0.018	17	44	51
25	<b>743 400 807</b>	0.017	20	44	51
32	<b>743 400 808</b>	0.017	26	44	51
40	<b>743 400 809</b>	0.022	34	57	64
50	<b>743 400 810</b>	0.019	43	57	64
63	<b>743 400 811</b>	0.027	55	71	78



**SYGEF Plus sanitary adaptor**  
**With stainless reinforcement SDR21/PN16**  
**Ferrule for mebrane manometer**

**Model:**

- Material: PVDF-HP



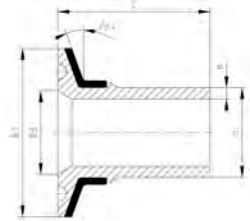
d (mm)	DN (mm)	PN (bar)	FM	Code	Weight (kg)	D1 (mm)	D3 (mm)	L (mm)	e (mm)
20	15	16	BCF, IR	<b>735 598 506</b>	0.038	51	34	49	1.9
25	20	16	BCF, IR	<b>735 598 508</b>	0.041	51	34	55	1.9
32	25	16	BCF, IR	<b>735 598 510</b>	0.045	51	34	57	2.4



**SYGEF Plus sanitary adaptor**  
**With stainless reinforcement SDR21/PN16**  
**JIS G3447**

**Model:**

- Material: PVDF-HP



DN	FM	d (mm)	PN (bar)	Code	Weight (kg)	D3 (mm)	D1 (mm)	e (mm)	L (mm)
15 A	BCF, IR	20	16	<b>735 598 406</b>	0.020	18	34	1.9	49
1 S	BCF, IR	25	16	<b>735 598 408</b>	0.042	23	51	1.9	55
1 1/4 S	BCF, IR	32	16	<b>735 598 410</b>	0.045	30	51	2.4	57
1 1/2 S	BCF, IR	40	16	<b>735 598 414</b>	0.047	35	51	2.4	67
2 S	BCF, IR	50	16	<b>735 598 416</b>	0.082	48	64	3.0	68
2 1/2 S	BCF, IR	63	16	<b>735 598 418</b>	0.107	60	78	3.0	71



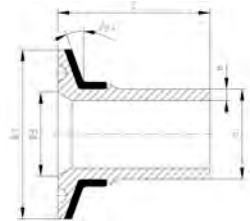
**SYGEF Plus sanitary adaptor**  
**With stainless reinforcement SDR21/PN16**  
**ASME BPE**

**Model:**

- Material: PVDF-HP

<sup>1</sup> Model without stainless reinforcement

\* Model without chamfer



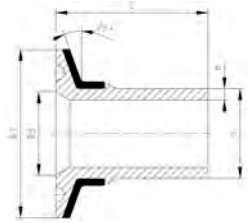
d (mm)	Size (inch)	PN (bar)	FM	Code	Weight (kg)	e (mm)	D1 (mm)	D3 (mm)	L (mm)	
1*	20	¾	16	BCF, IR	<b>735 598 357</b>	0.011	1.9	25	16	49
	25	1	16	BCF, IR	<b>735 598 359</b>	0.042	1.9	51	22	55
	32	1 ½	16	BCF, IR	<b>735 598 362</b>	0.061	2.4	51	35	57
	40	1 ½	16	BCF, IR	<b>735 598 365</b>	0.047	2.4	51	36	57
	50	2	16	BCF, IR	<b>735 598 367</b>	0.118	3.0	64	48	68
	63	2 ½	16	BCF, IR	<b>735 598 369</b>	0.142	3.0	78	60	71



**SYGEF Plus sanitary adaptor**  
**With stainless reinforcement SDR21/PN16**  
**ISO 2852**

**Model:**

- Material: PVDF-HP



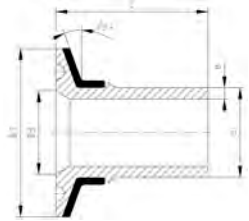
	FM	DN	d	PN	Code	Weight	D3	e	D1	L
	(mm)	(mm)	(bar)			(kg)	(mm)	(mm)	(mm)	(mm)
BCF, IR	25	25	16	<b>735 598 309</b>	0.042	22	1.9	51	55	
BCF, IR	32	32	16	<b>735 598 312</b>	0.045	32	2.4	51	57	
BCF, IR	40	40	16	<b>735 598 315</b>	0.047	36	2.4	51	67	
BCF, IR	50	50	16	<b>735 598 317</b>	0.081	49	3.0	64	68	
BCF, IR	65	63	16	<b>735 598 319</b>	0.107	60	3.0	78	71	



**SYGEF Plus sanitary adaptor**  
**With stainless reinforcement PN16**  
**DIN 3017**

**Model:**

- Material: PVDF-HP



	DN	d	FM	PN	Code	Weight	e	D1	D3	L
	(mm)	(mm)		(bar)		(kg)	(mm)	(mm)	(mm)	(mm)
	25	25	BCF, IR	16	<b>735 598 259</b>	0.042	1.9	51	22	55
	32	32	BCF, IR	16	<b>735 598 262</b>	0.042	2.4	51	32	57
	40	40	BCF, IR	16	<b>735 598 265</b>	0.047	2.4	51	36	67
	50	50	BCF, IR	16	<b>735 598 267</b>	0.081	3.0	64	49	68
	65	63	BCF, IR	16	<b>735 598 269</b>	0.107	3.0	78	60	71



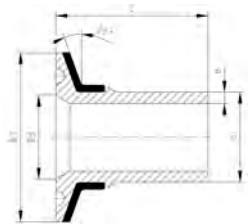
**SYGEF Plus sanitary adaptor**  
**With stainless reinforcement SDR21/PN16**  
**Ferrule 3A Standard**

**Model:**

- Material: PVDF-HP

<sup>1</sup> Model without stainless reinforcement

\* Model without chamfer



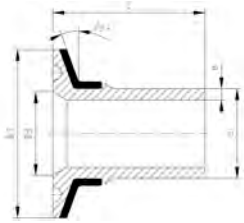
	d	PN	Inch	FM	Code	Weight	L	e	D1	D3
	(mm)	(bar)	(inch)			(kg)	(mm)	(mm)	(mm)	(mm)
1*	20	16	3/4	BCF, IR	<b>735 598 207</b>	0.011	50	1.9	25	16
*	25	16	1	BCF, IR	<b>735 598 209</b>	0.054	55	1.9	51	22
	32	16	1 1/2	BCF, IR	<b>735 598 213</b>	0.044	57	2.4	51	35
	40	16	1 1/2	BCF, IR	<b>735 598 215</b>	0.047	67	2.4	51	36
	50	16	2	BCF, IR	<b>735 598 217</b>	0.082	68	3.0	64	48
	63	16	2 1/2	BCF, IR	<b>735 598 219</b>	0.107	71	3.0	78	60



**SYGEF Plus sanitary adaptor**  
**With stainless reinforcement SDR21/PN16**  
**Ferrule BS Inch 4825**

**Model:**

- Material: PVDF-HP
- \* Model without chamfer



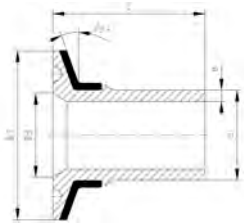
	Inch (inch)	FM	PN (bar)	d (mm)	Code	Weight (kg)	D1 (mm)	D3 (mm)	e (mm)	L (mm)
	3/4	BCF, IR	16	20	<b>735 598 157</b>	0.040	51	22	1.9	50
*	1	BCF, IR	16	25	<b>735 598 159</b>	0.055	51	22	1.9	55
	1 1/2	BCF, IR	16	32	<b>735 598 163</b>	0.044	51	35	2.4	57
	1 1/2	BCF, IR	16	40	<b>735 598 165</b>	0.047	51	36	2.4	67
	2	BCF, IR	16	50	<b>735 598 167</b>	0.082	64	48	3.0	68
	2 1/2	BCF, IR	16	63	<b>735 598 169</b>	0.107	78	60	3.0	71



**SYGEF Plus sanitary adaptor**  
**With stainless reinforcement SDR21/PN16**  
**Ferrule DIN 32676**

**Model:**

- Material: PVDF-HP
- \* Model without chamfer



	d (mm)	FM	DN (mm)	PN (bar)	Code	Weight (kg)	D3 (mm)	L (mm)	e (mm)	D1 (mm)
*	20	BCF, IR	15	16	<b>735 598 056</b>	0.020	16	50	2	34
	20	BCF, IR	20	16	<b>735 598 057</b>	0.020	20	50	2	34
	25	BCF, IR	25	16	<b>735 598 059</b>	0.056	26	55	2	51
	32	BCF, IR	32	16	<b>735 598 062</b>	0.045	32	57	2	51
	40	BCF, IR	40	16	<b>735 598 065</b>	0.047	38	67	2	51
	50	BCF, IR	50	16	<b>735 598 067</b>	0.081	50	68	3	64

# Installation fittings



## SYGEF Plus Installation fitting with sanitary adaptor SDR21/PN16

### Model:

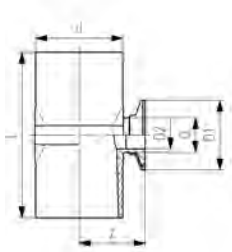
- without chamfer for complete evacuation even in horizontal installation
- Material: PVDF-HP
- d [mm] = main line
- D [mm] = connector line

### Range of use:

- for pressure gauges
- for sampling valves
- for sanitary adaptor PVDF connection

### Note:

\* machined T



	d (mm)	D (mm)	FM	PN	Code	Weight (kg)	L (mm)	D2 (mm)	D1 (mm)	Z (mm)
*	20	20	BCF, IR	16	<b>735 318 101</b>	0.100	110	34.1	50.5	32.7
*	25	25	BCF, IR	16	<b>735 318 202</b>	0.097	110	34.1	50.5	35.2
*	32	32	BCF, IR	16	<b>735 318 303</b>	0.138	124	34.1	50.5	38.7
*	40	25	BCF, IR	16	<b>735 318 204</b>	0.100	124	19.9	50.5	42.7
*	40	32	BCF, IR	16	<b>735 318 304</b>	0.100	124	25.6	50.5	42.7
*	50	25	BCF, IR	16	<b>735 318 205</b>	0.100	124	19.9	50.5	47.7
*	50	32	BCF, IR	16	<b>735 318 305</b>	0.100	124	25.6	50.5	47.7
*	50	50	BCF, IR	16	<b>735 318 505</b>	0.100	124	42.2	64.0	47.7
	63	25	BCF, IR	16	<b>735 318 206</b>	0.258	120	19.9	50.5	54.2
	63	32	BCF, IR	16	<b>735 318 306</b>	0.269	120	25.6	50.5	54.2
*	63	50	BCF, IR	16	<b>735 318 506</b>	0.100	120	42.2	64.0	54.2
*	63	63	BCF, IR	16	<b>735 318 606</b>	0.100	138	55.1	77.5	54.2
	75	25	BCF, IR	16	<b>735 318 207</b>	0.352	130	19.9	50.5	60.2
	75	32	BCF, IR	16	<b>735 318 307</b>	0.357	130	25.6	50.5	60.2
	75	50	BCF, IR	16	<b>735 318 507</b>	0.402	130	42.2	64.0	60.2
*	75	63	BCF, IR	16	<b>735 318 607</b>	0.619	130	55.1	77.5	60.2
	90	25	BCF, IR	16	<b>735 318 208</b>	0.449	130	19.9	50.5	67.7
	90	32	BCF, IR	16	<b>735 318 308</b>	0.454	130	25.6	50.5	67.7
	90	50	BCF, IR	16	<b>735 318 508</b>	0.496	130	42.2	64.0	67.7
	90	63	BCF, IR	16	<b>735 318 608</b>	0.658	138	55.1	77.5	67.7
	110	25	BCF, IR	16	<b>735 318 209</b>	0.614	130	19.9	50.5	77.7
	110	32	BCF, IR	16	<b>735 318 309</b>	0.619	130	25.6	50.5	77.7
	110	50	BCF, IR	16	<b>735 318 509</b>	0.662	130	42.2	64.0	77.7
	110	63	BCF, IR	16	<b>735 318 609</b>	0.686	180	55.1	77.5	109.0

# SYGEF Plus

## Valves





# Valves SYGEF Plus

## SYGEF Plus metric/ASTM/ANSI

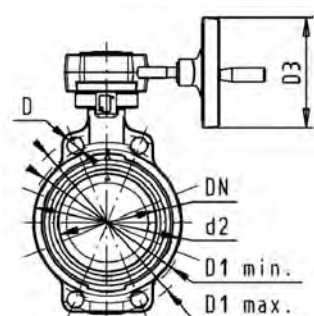
### Hand-operated valves



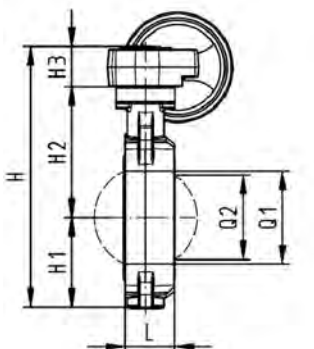
**SYGEF Plus**  
Butterfly valve type 567  
Reduction gear with handwheel

**Model:**

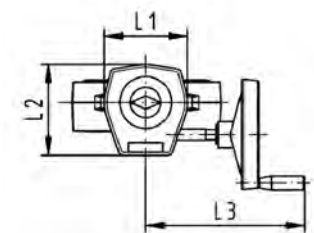
- Material: PVDF-HP
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220



d	Size	DN	PN	kv-value	PTFE	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
				(L/min)		
63	2	50	10	1470	<b>175 567 622</b>	3.118
75	2 1/2	65	10	2200	<b>175 567 623</b>	3.230
90	3	80	10	3000	<b>175 567 624</b>	3.410
110	4	100	10	6500	<b>175 567 625</b>	4.062
140	5	125	10	11500	<b>175 567 626</b>	4.657
160	6	150	10	16600	<b>175 567 627</b>	5.877
225	8	200	10	39600	<b>175 567 628</b>	7.998
280	10	250	10	55200	<b>175 567 629</b>	12.884
315	12	300	10	80000	<b>175 567 630</b>	20.763



d	d2	D	D1	D1	D3	H	H1	H2	H3	L	L1	L2	L3	Q1
(mm)	(mm)	(mm)	min.	max.	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
			(mm)	(mm)										
63	104	19	120	125	150	278	77	134	50	45	110	120	155	40
75	115	19	140	145	150	291	83	140	50	46	110	120	155	54
90	131	19	150	160	150	303	89	146	50	49	110	120	155	67
110	160	19	175	191	150	339	104	167	50	56	110	120	155	88
140	187	23	210	216	150	365	117	181	50	64	110	120	155	113
160	215	24	241	241	150	387	130	189	50	72	110	120	155	139
225	267	23	290	295	150	436	158	210	50	73	110	120	155	178
280	329	25	353	362	200	529	205	264	55	113	130	140	200	210
315	379	25	400	432	200	573	228	285	55	113	130	140	200	256



d	Q2
(mm)	(mm)
63	
75	35
90	50
110	74
140	97
160	123
225	169
280	207
315	253

**SYGEF Plus**  
**Diaphragm valve type 514**  
**With butt fusion spigots metric**

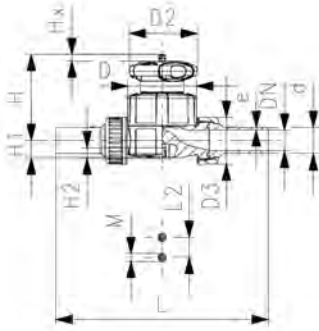


**Model:**

- Material: PVDF-HP
- Ideally suited for High Purity applications, recommended for oxidizing acids.
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
20	15	16	125	<b>180 514 132</b>	0.399
25	20	16	271	<b>180 514 133</b>	0.597
32	25	16	481	<b>180 514 134</b>	1.111
40	32	16	759	<b>180 514 135</b>	1.286
50	40	16	1263	<b>180 514 136</b>	2.989
63	50	16	1728	<b>180 514 137</b>	3.164

d (mm)	D (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	43	73	14	12	196	25	M6	1.9	7	½
25	80	65	53	81	18	12	221	25	M6	1.9	10	¾
32	88	87	60	107	22	12	234	25	M6	2.4	13	1
40	101	87	74	115	26	15	260	45	M8	2.4	15	1 ¼
50	117	135	82	148	32	15	284	45	M8	3.0	19	1 ½
63	144	135	100	166	39	15	321	45	M8	3.0	25	2



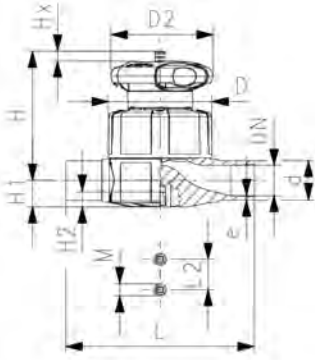
**SYGEF Plus**  
**Diaphragm valve type 515**  
**With butt fusion spigots metric**

**Model:**

- Material: PVDF-HP
- Ideally suited for High Purity applications, recommended for oxidizing acids.
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)
20	15	16	125	<b>180 515 132</b>	0.295
25	20	16	271	<b>180 515 133</b>	0.438
32	25	16	481	<b>180 515 134</b>	0.870
40	32	16	759	<b>180 515 135</b>	0.944
50	40	16	1263	<b>180 515 136</b>	1.846
63	50	16	1728	<b>180 515 137</b>	2.512

d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	73	14	12	124	25	M4	1.9	7	½
25	80	65	81	18	12	144	25	M4	1.9	10	¾
32	88	87	107	22	12	155	25	M4	2.4	13	1
40	101	87	115	26	15	176	45	M8	2.4	15	1 ¼
50	117	135	148	32	15	193	45	M8	3.0	19	1 ½
63	144	135	166	39	15	223	45	M8	3.0	25	2

**SYGEF Plus**  
**Diaphragm valve type 519**  
**With butt fusion spigots metric**

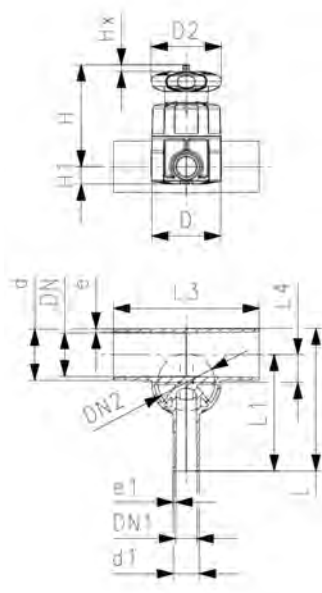


**Model:**

- Material: PVDF-HP
- Ideally suited for High Purity applications
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Smallest possible dead space
- **For water use only**
- Not suitable for oxidizing acids

**Option:**

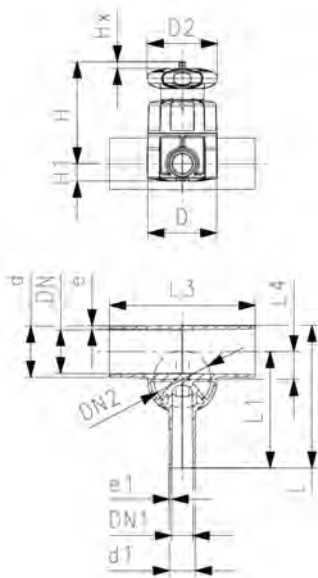
- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d (mm)	d1 (mm)	Valve Size d (mm)	DN (mm)	DN1 (mm)	DN2 (mm)	PN (bar)	kv-value (Δp=1 bar) (L/min)	PTFE/EPDM Code	Weight (kg)
20	20	20	15	15	15	16	57	<b>180 519 301</b>	0.350
25	20	25	20	15	20	16	89	<b>180 519 303</b>	0.476
25	25	25	20	20	20	16	118	<b>180 519 304</b>	0.633
32	20	25	25	15	20	16	80	<b>180 519 307</b>	0.692
32	25	25	25	20	20	16	105	<b>180 519 308</b>	0.721
32	32	32	25	25	25	16	231	<b>180 519 309</b>	0.889
40	20	32	32	15	25	16	85	<b>180 519 312</b>	0.963
40	25	32	32	20	25	16	119	<b>180 519 313</b>	0.812
40	32	32	32	25	25	16	153	<b>180 519 314</b>	0.845
40	40	32	32	32	25	16	187	<b>180 519 315</b>	0.866
50	20	25	40	15	20	16	86	<b>180 519 318</b>	0.789
50	25	32	40	20	25	16	160	<b>180 519 319</b>	0.905
50	32	32	40	25	25	16	206	<b>180 519 320</b>	0.926
50	40	63	40	32	50	16	524	<b>180 519 321</b>	2.381
50	50	63	40	40	50	16	667	<b>180 519 322</b>	2.387
63	20	25	50	15	20	16	84	<b>180 519 325</b>	0.784
63	25	32	50	20	25	16	150	<b>180 519 326</b>	1.411
63	32	32	50	25	25	16	184	<b>180 519 327</b>	1.018
63	40	63	50	32	50	16	471	<b>180 519 328</b>	2.606
63	50	63	50	40	50	16	610	<b>180 519 329</b>	2.884
63	63	63	50	50	50	16	747	<b>180 519 330</b>	2.653
90	20	32	80	15	25	16	82	<b>180 519 341</b>	1.304
90	25	32	80	20	25	16	103	<b>180 519 342</b>	1.703
90	32	32	80	25	25	16	129	<b>180 519 343</b>	1.719
90	50	63	80	40	50	16	623	<b>180 519 345</b>	3.164
90	63	63	80	50	50	16	696	<b>180 519 346</b>	3.172
110	20	32	100	15	25	16	78	<b>180 519 351</b>	1.966
110	25	32	100	20	25	16	103	<b>180 519 352</b>	1.972
110	32	32	100	25	25	16	131	<b>180 519 353</b>	1.975
110	50	63	100	40	50	16	604	<b>180 519 355</b>	3.491
110	63	63	100	50	50	16	661	<b>180 519 356</b>	3.580

d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	e1 (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	75	14.0	117	96	162	12	1.9	1.9	7	½
25	80	65	80	17.5	133	108	162	16	1.9	1.9	10	¾
25	80	65	80	17.5	133	108	162	16	1.9	1.9	10	¾
32	80	65	84	21.5	142	120	162	19	2.4	1.9	10	1
32	80	65	84	21.5	142	120	162	19	2.4	1.9	10	1
32	88	87	107	21.5	145	120	160	19	2.4	2.4	13	1
40	88	87	115	21.5	149	128	180	23	2.4	1.9	13	1 ¼
40	88	87	115	21.5	149	128	180	23	2.4	1.9	13	1 ¼
40	88	87	115	21.5	149	128	180	23	2.4	2.4	13	1 ¼
40	88	87	115	21.5	174	153	180	23	2.4	2.4	13	1 ¼
50	80	65	97	17.5	160	134	180	27	3.0	1.9	10	1 ½

table continued on the next page



d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	e1 (mm)	Lift = Hx (mm)	closest inch (inch)
50	88	87	120	21.5	160	134	180	28	3.0	1.9	13	1 ½
50	88	87	120	21.5	160	134	180	28	3.0	2.4	13	1 ½
50	144	135	164	32.0	209	169	209	33	3.0	2.4	25	1 ½
50	144	135	164	32.0	209	169	209	33	3.0	3.0	25	1 ½
63	80	65	104	17.5	177	144	180	33	3.0	1.9	10	2
63	88	87	127	21.5	177	144	180	35	3.0	1.9	13	2
63	88	87	127	21.5	177	144	180	35	3.0	2.4	13	2
63	144	135	170	39.0	225	192	220	39	3.0	2.4	25	2
63	144	135	170	39.0	225	192	220	39	3.0	3.0	25	2
63	144	135	170	39.0	225	192	220	39	3.0	3.0	25	2
90	88	87	140	21.5	205	159	190	47	4.3	1.9	13	3
90	88	87	140	21.5	205	159	190	47	4.3	1.9	13	3
90	88	87	140	21.5	205	159	190	47	4.3	2.4	13	3
90	144	135	184	39.0	254	207	250	51	4.3	3.0	25	3
90	144	135	184	39.0	254	207	250	51	4.3	3.0	25	3
110	88	87	149	21.5	227	171	190	56	5.3	1.9	13	4
110	88	87	149	21.5	227	171	190	56	5.3	1.9	13	4
110	88	87	149	21.5	227	171	190	56	5.3	2.4	13	4
110	144	135	194	39.0	276	219	250	60	5.3	3.0	25	4
110	144	135	194	39.0	276	219	250	60	5.3	3.0	25	4



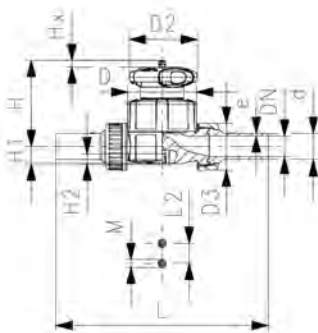
**SYGEF Plus**  
**Diaphragm valve type 514**  
**With butt fusion spigots metric**

**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	PTFE/EPDM Code	PTFE/FPM Code	Weight (kg)
20	15	10	125	181 514 132	181 514 152	0.399
25	20	10	271	181 514 133	181 514 153	0.597
32	25	10	481	181 514 134	181 514 154	1.111
40	32	10	759	181 514 135	181 514 155	1.286
50	40	10	1263	181 514 136	181 514 156	2.989
63	50	10	1728	181 514 137	181 514 157	3.164

d (mm)	D (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	43	73	14	12	196	25	M6	1.9	7	½
25	80	65	53	81	18	12	221	25	M6	1.9	10	¾
32	88	87	60	107	22	12	234	25	M6	2.4	13	1
40	101	87	74	115	26	15	260	45	M8	2.4	15	1 ¼
50	117	135	82	148	32	15	284	45	M8	3.0	19	1 ½
63	144	135	100	166	39	15	321	45	M8	3.0	25	2



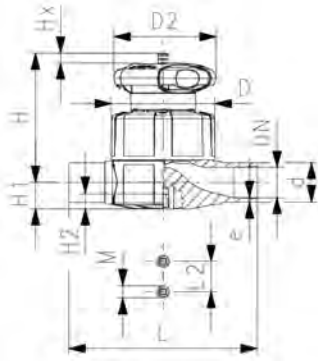
**SYGEF Plus**  
**Diaphragm valve type 515**  
 With butt fusion spigots metric

**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d	DN	PN	kv-value	PTFE/EPDM	PTFE/FPM	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	Code	(kg)
			(l/min)			
20	15	10	125	181 515 132	181 515 152	0.295
25	20	10	271	181 515 133	181 515 153	0.438
32	25	10	481	181 515 134	181 515 154	0.870
40	32	10	759	181 515 135	181 515 155	1.103
50	40	10	1263	181 515 136	181 515 156	1.846
63	50	10	1728	181 515 137	181 515 157	2.512

d	D	D2	H	H1	H2	L	L2	M	e	Lift = Hx	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)	(inch)
20	65	65	73	14	12	124	25	M6	1.9	7	1/2
25	80	65	81	18	12	144	25	M6	1.9	10	3/4
32	88	87	107	22	12	155	25	M6	2.4	13	1
40	101	87	115	26	15	176	45	M8	2.4	15	1 1/4
50	117	135	148	32	15	193	45	M8	3.0	19	1 1/2
63	144	135	166	39	15	223	45	M8	3.0	25	2



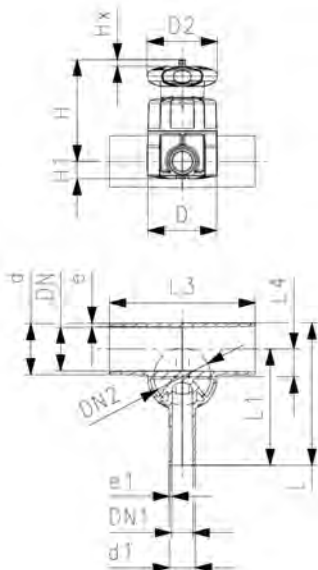
**SYGEF Plus**  
**Diaphragm valve type 519**  
 With butt fusion spigots metric

**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Smallest possible dead space

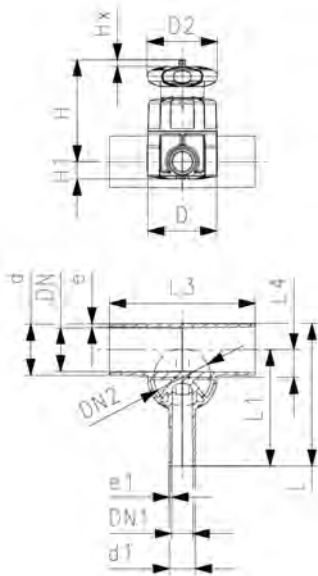
**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d	DN	PN	kv-value	PTFE/EPDM	PTFE/FPM	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	Code	(kg)
			(l/min)			
20	15	10	57	181 519 301	181 519 501	0.350
25	20	10	89	181 519 303	181 519 503	0.476
25	20	10	118	181 519 304	181 519 504	0.633
32	25	10	80	181 519 307	181 519 507	0.692
32	25	10	105	181 519 308	181 519 508	0.721
32	25	10	231	181 519 309	181 519 509	0.889
40	32	10	85	181 519 312	181 519 512	0.963
40	32	10	119	181 519 313	181 519 513	0.812
40	32	10	153	181 519 314	181 519 514	0.845
40	32	10	187	181 519 315	181 519 515	0.866
50	40	10	86	181 519 318	181 519 518	0.789
50	40	10	160	181 519 319	181 519 519	0.905
50	40	10	206	181 519 320	181 519 520	0.926
50	40	10	524	181 519 321	181 519 521	2.381

table continued on the next page

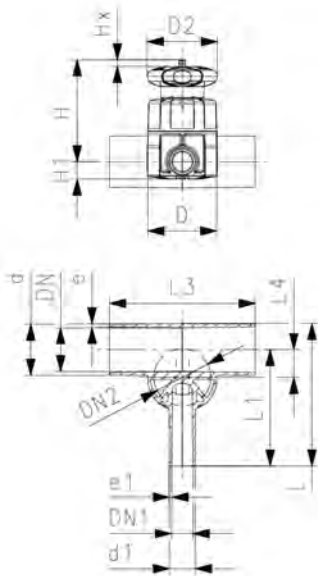


d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	PTFE/FPM Code	Weight (kg)
50	40	10	667	181 519 322	181 519 522	2.387
63	50	10	84	181 519 325	181 519 525	0.784
63	50	10	150	181 519 326	181 519 526	1.411
63	50	10	184	181 519 327	181 519 527	1.018
63	50	10	471	181 519 328	181 519 528	2.606
63	50	10	610	181 519 329	181 519 529	3.458
63	50	10	747	181 519 330	181 519 530	2.653
90	80	10	82	181 519 341	181 519 541	1.304
90	80	10	103	181 519 342	181 519 542	1.703
90	80	10	129	181 519 343	181 519 543	1.719
90	80	10	623	181 519 345	181 519 545	3.164
90	80	10	696	181 519 346	181 519 546	3.172
110	100	10	78	181 519 351	181 519 551	1.966
110	100	10	103	181 519 352	181 519 552	1.972
110	100	10	131	181 519 353	181 519 553	1.975
110	100	10	604	181 519 355	181 519 555	4.327
110	100	10	661	181 519 356	181 519 556	3.580

d (mm)	D (mm)	D2 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	closest inch (inch)	d1 (mm)	Valve Size d (mm)
20	65	65	75	14.0	117	96	162	12	1.9	7	1/2	20	20
25	80	65	80	17.5	133	108	162	16	1.9	10	3/4	20	25
25	80	65	80	17.5	133	108	162	16	1.9	10	3/4	25	25
32	80	65	84	21.5	142	120	162	19	2.4	10	1	20	25
32	80	65	84	21.5	142	120	162	19	2.4	10	1	25	25
32	88	87	107	21.5	145	120	160	19	2.4	13	1	32	32
40	88	87	115	21.5	149	128	180	23	2.4	13	1 1/4	20	32
40	88	87	115	21.5	149	128	180	23	2.4	13	1 1/4	25	32
40	88	87	115	21.5	149	128	180	23	2.4	13	1 1/4	32	32
40	88	87	115	21.5	174	153	180	23	2.4	13	1 1/4	40	32
50	80	65	97	17.5	160	134	180	27	3.0	10	1 1/2	20	25
50	88	87	120	21.5	160	134	180	28	3.0	13	1 1/2	25	32
50	88	87	120	21.5	160	134	180	28	3.0	13	1 1/2	32	32
50	144	135	164	32.0	209	169	209	33	3.0	25	1 1/2	40	63
50	144	135	164	32.0	209	169	209	33	3.0	25	1 1/2	50	63
63	80	65	104	17.5	177	144	180	33	3.0	10	2	20	25
63	88	87	127	21.5	177	144	180	35	3.0	13	2	25	32
63	88	87	127	21.5	177	144	180	35	3.0	13	2	32	32
63	144	135	170	39.0	225	192	220	39	3.0	25	2	40	63
63	144	135	170	39.0	225	192	220	39	3.0	25	2	50	63
63	144	135	170	39.0	225	192	220	39	3.0	25	2	63	63
90	88	87	140	21.5	205	159	190	47	4.3	13	3	20	32
90	88	87	140	21.5	205	159	190	47	4.3	13	3	25	32
90	88	87	140	21.5	205	159	190	47	4.3	13	3	32	32
90	144	135	184	39.0	254	207	250	51	4.3	25	3	50	63
90	144	135	184	39.0	254	207	250	51	4.3	25	3	63	63
110	88	87	149	21.5	227	171	190	56	5.3	13	4	20	32
110	88	87	149	21.5	227	171	190	56	5.3	13	4	25	32
110	88	87	149	21.5	227	171	190	56	5.3	13	4	32	32
110	144	135	194	39.0	276	219	250	60	5.3	25	4	50	63
110	144	135	194	39.0	276	219	250	60	5.3	25	4	63	63

d (mm)	DN1 (mm)	DN2 (mm)	e1 (mm)
20	15	15	1.9
25	15	20	1.9
25	20	20	1.9
32	15	20	1.9
32	20	20	1.9
32	25	25	2.4
40	15	25	1.9

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d	DN1	DN2	e1
(mm)	(mm)	(mm)	(mm)
40	20	25	1.9
40	25	25	2.4
40	32	25	2.4
50	15	20	1.9
50	20	25	1.9
50	25	25	2.4
50	32	50	2.4
50	40	50	3.0
63	15	20	1.9
63	20	25	1.9
63	25	25	2.4
63	32	50	2.4
63	40	50	3.0
63	50	50	3.0
90	15	25	1.9
90	20	25	1.9
90	25	25	2.4
90	40	50	3.0
90	50	50	3.0
110	15	25	1.9
110	20	25	1.9
110	25	25	2.4
110	40	50	3.0
110	50	50	3.0



**SYGEF Plus**  
**Diaphragm valve type 317**  
**With flanges metric**

**Model:**

- Material: PVDF-HP
- DN 15-65 with backing flange
- DN 80-150 with fixed flange
- Overall length according to EN 558
- Diaphragm, PTFE with EPDM backing diaphragm (FDA compliant)

**Option:**

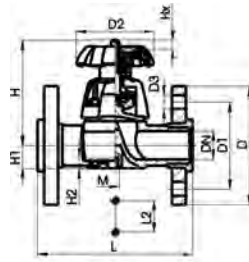
- Handwheel with built-in locking mechanism (standard version is nonlockable)

**\* DN80 and DN150 fixed flanges metric and inch ANSI B16.5**

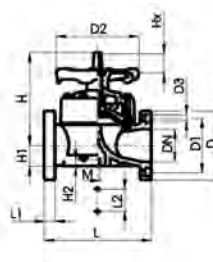
	d	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
					(l/min)		
	75	2 ½	65	10	992	<b>175 317 453</b>	5.700
*	90	3	80	10	1700	<b>175 317 054</b>	11.057
	110	4	100	10	2700	<b>175 317 055</b>	16.112
*	160	6	150	7	6033	<b>175 317 057</b>	31.000



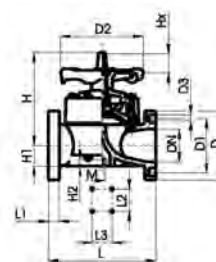
	d	D	D1	D2	D3	H	H1	H2	L	L1	L2	M	AL
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
	75	185	145	152	18	201	46	15	290		70	M8	4
*	90	200	152	270	18	265	57	23	310	35	120	M12	8
	110	225	180	270	18	302	68	23	350	35	120	M12	8
*	160	285	240	400	22	437	108	23	480	26	100	M12	8



DN 15-65



DN 80-100



DN 150



### SYGEF Plus Diaphragm valve type 317 Flanged version Inch ANSI

#### Model:

- Material: PVDF-HP
- DN 15-65 with backing flange
- DN 80-150 with fixed flange
- Overall length according to EN 558
- Diaphragm, PTFE with EPDM backing diaphragm (FDA compliant)

#### Option:

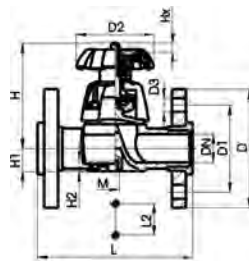
- Handwheel with built-in locking mechanism (standard version is nonlockable)

\* **DN80 and DN150 fixed flanges metric and inch ANSI B16.5**

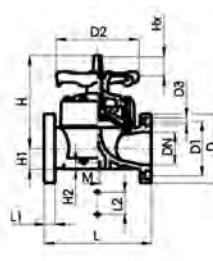
d	Size	DN	PN	kv-value	PTFE with	Weight
(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	EPDM supp.	(kg)
				(L/min)	Diaphragm	
					Code	

	75	2 ½	65	10	992	175 317 568	5.700
*	90	3	80	10	1700	175 317 054	11.057
	110	4	100	10	2700	175 317 355	14.950

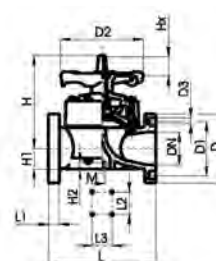
	d	D	D1	D2	D3	H	H1	H2	L	L1	L2	M	AL
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
	75	185	140	152	18	201	46	15	290		70	M8	4
*	90	200	152	270	18	265	57	23	310	35	120	M12	8
	110	225	191	270	18	302	68	23	350	35	120	M12	8



DN 15-65



DN 80-100



DN 150

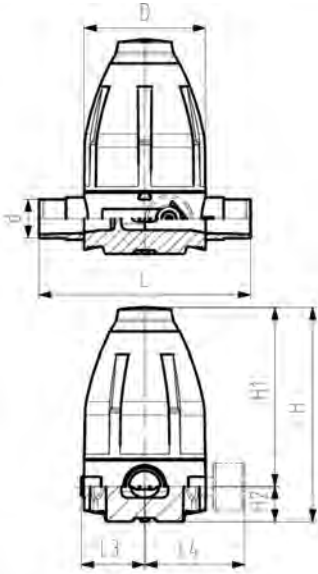
# Actuated valves



**SYGEF Plus**  
**Pressure reducing valve type 582**  
**With butt fusion spigots metric**  
**Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
  - Integrated stainless steel mounting inserts
  - 0.5-9.0 bar (7-130 psi)
- 0.3-3.0 bar (4-44 psi) on request  
 Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings Code	FPM	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L3 (mm)	L5 (mm)	M	closest inch (inch)
20	15	10	<b>180 582 012</b>		79	132	111	21	14	150	42	40	M6	½
25	20	10	<b>180 582 013</b>		100	177	148	29	14	190	53	46	M6	¾
32	25	10	<b>180 582 014</b>		100	177	148	29	14	190	53	46	M6	1
40	32	10	<b>180 582 015</b>		147	251	207	44	21	240	76	65	M8	1 ¼
50	40	10	<b>180 582 016</b>		147	251	207	44	21	240	76	65	M8	1 ½
63	50	10	<b>180 582 017</b>		147	251	207	44	21	260	76	65	M8	2



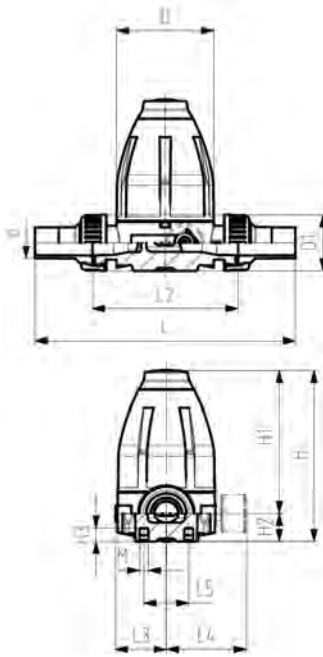
**SYGEF Plus**  
**Pressure reducing valve type 582**  
**Unions with butt fusion spigots metric**  
**Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d	DN	PN	O-rings	FPM	Code
(mm)	(mm)	(bar)			
20	15	10	180	582	512
25	20	10	180	582	513
32	25	10	180	582	514
40	32	10	180	582	515
50	40	10	180	582	516
63	50	10	180	582	517

d	D	H	H1	H2	H3	L	L2	L3	L5	M	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(inch)
20	79	132	111	21	12	226	120	42	40	M6	½
25	100	177	148	29	14	262	150	53	46	M6	¾
32	100	177	148	29	14	268	150	53	46	M6	1
40	147	251	207	44	21	329	205	76	65	M8	1 ¼
50	147	251	207	44	21	335	205	76	65	M8	1 ½
63	147	251	207	44	21	341	205	76	65	M8	2



**SYGEF Plus**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**Unions with butt fusion spigots metric**

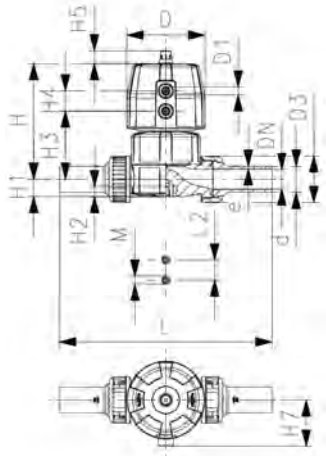
**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	<b>180 624 132</b>	0.761	<b>180 624 152</b>	1.100
25	20	10	271	<b>180 624 133</b>	1.201	<b>180 624 153</b>	1.760
32	25	10	481	<b>180 624 134</b>	1.563	<b>180 624 154</b>	2.610
40	32	10	759	<b>180 624 135</b>	2.623	<b>180 624 155</b>	3.760
50	40	10	1263	<b>180 624 136</b>	4.323	<b>180 624 156</b>	6.220
63	50	6	1728	<b>180 624 137</b>	5.365	<b>180 624 157</b>	7.800

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	196	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	96	1/8	143	22	12	84	25	16	57	234	25	M6	2.4	13
40	120	1/8	173	26	15	99	26	26	69	260	45	M8	2.4	15
50	150	1/4	214	32	15	119	36	26	88	284	45	M8	3.0	19
63	150	1/4	226	39	15	132	36	26	88	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**SYGEF Plus**  
**Diaphragm valve DIASTAR Ten**  
**FC (Fail safe to close)**  
**With butt fusion spigots metric**

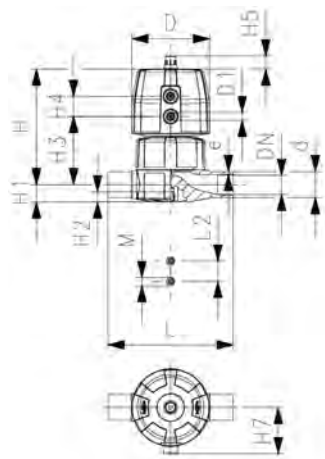
**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	<b>180 625 132</b>	0.668	<b>180 625 152</b>	0.541
25	20	10	271	<b>180 625 133</b>	1.113	<b>180 625 153</b>	1.191
32	25	10	481	<b>180 625 134</b>	1.402	<b>180 625 154</b>	1.403
40	32	10	759	<b>180 625 135</b>	2.242	<b>180 625 155</b>	2.243
50	40	10	1263	<b>180 625 136</b>	4.367	<b>180 625 156</b>	3.826
63	50	6	1728	<b>180 625 137</b>	4.635	<b>180 625 157</b>	4.636

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	2.4	13
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	2.4	15
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	3.0	19
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	3.0	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**SYGEF Plus**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**Unions with butt fusion spigots metric**

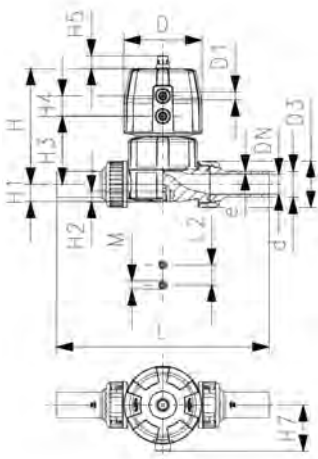
**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
20	15	10	125	<b>180 644 132</b>	0.711
25	20	10	271	<b>180 644 133</b>	1.189
32	25	10	481	<b>180 644 134</b>	1.350
40	32	10	759	<b>180 644 135</b>	2.263
50	40	10	1263	<b>180 644 136</b>	4.233
63	50	10	1728	<b>180 644 137</b>	5.275

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	196	25	M6	1.9	7
25	96	3/8	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	96	1/2	143	22	12	84	25	16	57	234	25	M6	2.4	13
40	120	5/8	173	26	15	99	26	26	69	260	45	M8	2.4	15
50	150	3/4	214	32	15	119	36	26	69	284	45	M8	3.0	19
63	150	1/2	226	39	15	132	36	26	69	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	3/8
25	1/2
32	1
40	1 1/4
50	1 1/2
63	2



**SYGEF Plus**  
**Diaphragm valve DIASTAR Ten**  
**FO (Fail safe to open)**  
**With butt fusion spigots metric**

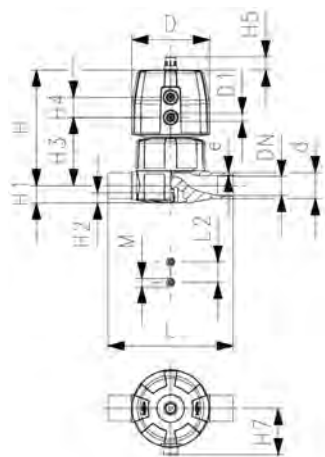
**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
20	15	10	125	<b>180 645 132</b>	0.618
25	20	10	271	<b>180 645 133</b>	1.016
32	25	10	481	<b>180 645 134</b>	1.222
40	32	10	759	<b>180 645 135</b>	1.882
50	40	10	1263	<b>180 645 136</b>	3.735
63	50	10	1728	<b>180 645 137</b>	4.545

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	2.4	13
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	2.4	15
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	3.0	19
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	3.0	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**SYGEF Plus**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**With butt fusion spigots metric**

**Model:**

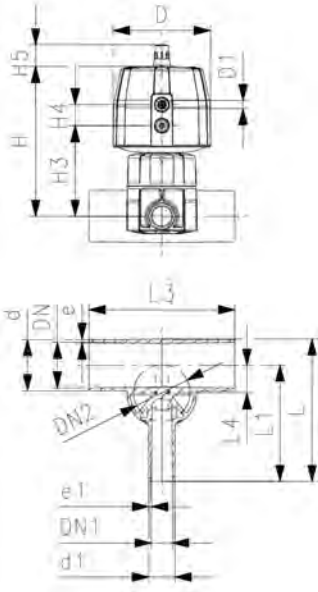
- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**

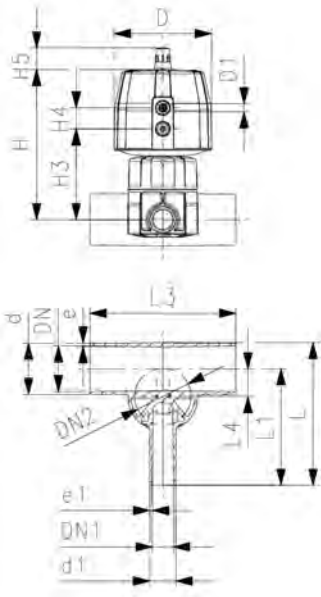


d (mm)	DN (mm)	PN* (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)
20	15	16/10*	57	180 659 301	0.635
25	20	16/10*	89	180 659 303	1.002
25	20	16/10*	118	180 659 304	1.005
32	25	16/10*	80	180 659 307	1.055
32	25	16/10*	105	180 659 308	1.059
32	25	16/10*	231	180 659 309	1.234
40	32	16/10*	85	180 659 312	1.288
40	32	16/10*	119	180 659 313	1.292
40	32	16/10*	153	180 659 314	1.310
40	32	16/10*	187	180 659 315	1.339
50	40	16/10*	86	180 659 318	1.174
50	40	16/10*	160	180 659 319	1.378
50	40	16/10*	206	180 659 320	1.383
50	40	16/10*	524	180 659 321	3.667
50	40	16/10*	667	180 659 322	3.677
63	50	16/10*	84	180 659 325	1.251
63	50	16/10*	150	180 659 326	1.463
63	50	16/10*	184	180 659 327	1.469
63	50	16/10*	471	180 659 328	3.844
63	50	16/10*	610	180 659 329	3.909
63	50	16/10*	747	180 659 330	3.922
90	80	16/10*	82	180 659 341	1.748
90	80	16/10*	103	180 659 342	1.755
90	80	16/10*	129	180 659 343	1.771
90	80	16/10*	623	180 659 345	4.362
90	80	16/10*	696	180 659 346	4.390
110	100	16/10*	78	180 659 351	2.018
110	100	16/10*	103	180 659 352	2.024
110	100	16/10*	131	180 659 353	2.041
110	100	16/10*	604	180 659 355	4.778
110	100	16/10*	661	180 659 356	4.808

d (mm)	D (mm)	D1 (inch)	H (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	Valve Size d (mm)	DN1 (mm)
20	68	1/8	104	63	24	16	117	96	162	12	2	7	20	15
25	96	1/8	131	73	25	16	133	108	162	16	2	10	25	15
25	96	1/8	131	73	25	16	133	108	162	16	2	10	25	20
32	96	1/8	135	76	25	16	142	120	162	19	3	10	25	15
32	96	1/8	135	76	25	16	142	120	162	19	3	10	25	20
32	96	1/8	143	84	25	16	145	120	160	19	3	13	32	25
40	96	1/8	151	92	25	16	149	128	180	23	4	13	32	15
40	96	1/8	151	92	25	16	149	128	180	23	4	13	32	20
40	96	1/8	151	92	25	16	149	128	180	23	4	13	32	25
40	96	1/8	151	92	25	16	174	153	180	23	4	13	32	32
50	96	1/8	148	90	25	16	160	134	180	27	5	10	25	15

table continued on the next page





d (mm)	D (mm)	D1 (inch)	H (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	Valve Size d (mm)	DN1 (mm)
50	96	3/8	156	97	25	16	160	134	180	28	5	13	32	20
50	96	3/8	156	97	25	16	160	134	180	28	5	13	32	25
50	150	1/4	224	129	36	26	209	169	209	33	5	23	63	32
50	150	1/4	224	129	36	26	209	169	209	33	5	23	63	40
63	96	3/8	155	96	25	16	177	144	180	33	6	10	25	15
63	96	3/8	163	104	25	16	177	144	180	35	6	13	32	20
63	96	3/8	163	104	25	16	177	144	180	35	6	13	32	25
63	150	1/4	230	136	36	26	225	192	220	39	6	23	63	32
63	150	1/4	230	136	36	26	225	192	220	39	6	23	63	40
63	150	1/4	230	136	36	26	225	192	220	39	6	23	63	50
90	96	3/8	176	117	25	16	205	159	190	47	8	13	32	15
90	96	3/8	176	117	25	16	205	159	190	47	8	13	32	20
90	96	3/8	176	117	25	16	205	159	190	47	8	13	32	25
90	150	1/4	244	150	36	26	254	207	250	51	8	23	63	40
90	150	1/4	244	150	36	26	254	207	250	51	8	23	63	50
110	96	3/8	185	126	25	16	227	171	190	56	10	13	32	15
110	96	3/8	185	126	25	16	227	171	190	56	10	13	32	20
110	96	3/8	185	126	25	16	227	171	190	56	10	13	32	25
110	150	1/4	254	160	36	26	276	219	250	60	10	23	63	40
110	150	1/4	254	160	36	26	276	219	250	60	10	23	63	50

d (mm)	DN2 (mm)	d1 (mm)	e1 (mm)
20	15	20	2
25	20	20	2
25	20	25	2
32	20	20	2
32	20	25	2
32	25	32	3
40	25	20	2
40	25	25	2
40	25	32	3
40	25	40	4
50	20	20	2
50	25	25	2
50	25	32	3
50	50	40	4
50	50	50	5
63	20	20	2
63	25	25	2
63	25	32	3
63	50	40	4
63	50	50	5
63	50	63	6
90	25	20	2
90	25	25	2
90	25	32	3
90	50	50	5
90	50	63	6
110	25	20	2
110	25	25	2
110	25	32	3
110	50	50	5
110	50	63	6



**SYGEF Plus**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**With butt fusion spigots metric**

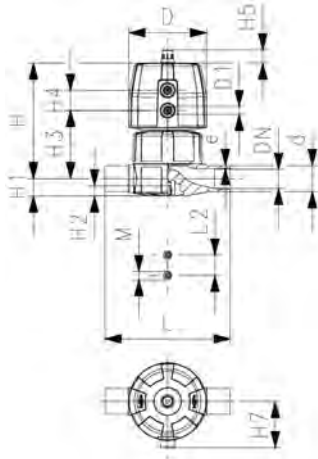
**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
20	15	10	125	<b>180 655 132</b>	0.602
25	20	10	271	<b>180 655 133</b>	0.980
32	25	10	481	<b>180 655 134</b>	1.192
40	32	10	759	<b>180 655 135</b>	1.822
50	40	10	1263	<b>180 655 136</b>	2.985
63	50	10	1728	<b>180 655 137</b>	3.795

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	2.4	13
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	2.4	15
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	3.0	19
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	3.0	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



**SYGEF Plus**  
**Diaphragm valve DIASTAR Ten**  
**DA (Double acting)**  
**Unions with butt fusion spigots metric**

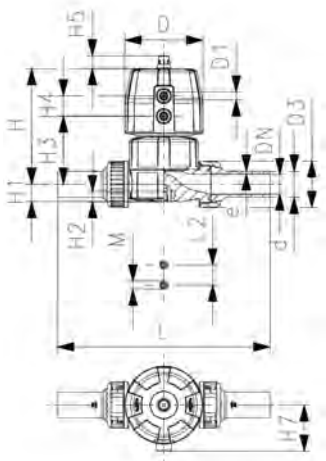
**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
20	15	10	125	<b>180 654 132</b>	0.695
25	20	10	271	<b>180 654 133</b>	1.153
32	25	10	481	<b>180 654 134</b>	1.396
40	32	10	759	<b>180 654 135</b>	2.203
50	40	10	1263	<b>180 654 136</b>	3.483
63	50	10	1728	<b>180 654 137</b>	4.525

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	196	25	M6	1.9	7
25	96	3/8	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	96	1/2	143	22	12	84	25	16	57	234	25	M6	2.4	13
40	120	5/8	173	26	15	99	26	26	69	260	45	M8	2.4	15
50	150	3/4	214	32	15	119	36	26	69	284	45	M8	3.0	19
63	150	1/2	226	39	15	132	36	26	69	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	3/8
25	1/2
32	1
40	1 1/4
50	1 1/2
63	2



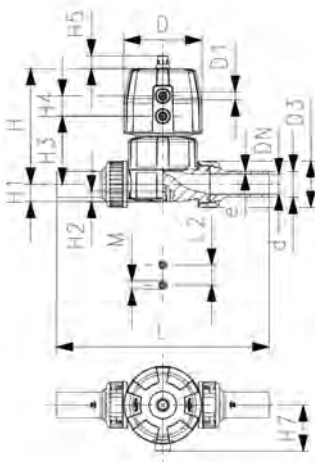
**SYGEF Plus**  
**Diaphragm valve DIASTAR Sixteen**  
**FC (Fail safe to close)**  
**Unions with butt fusion spigots metric**

**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length
- Ideally suited for High Purity applications, not recommended for oxidizing acids

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
20	15	16	125	<b>180 634 132</b>	1.172
25	20	16	271	<b>180 634 133</b>	1.381
32	25	16	481	<b>180 634 134</b>	2.225
40	32	16	759	<b>180 634 135</b>	3.730
50	40	16	1263	<b>180 634 136</b>	5.786
63	50	10	1728	<b>180 634 137</b>	6.880

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	1/8	127	14	12	68	25	16	57	196	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	120	1/8	167	22	12	93	26	26	69	234	25	M6	2.4	13
40	150	1/4	196	26	15	101	36	26	88	260	45	M8	2.4	15
50	180	1/4	239	32	15	124	37	26	103	284	45	M8	3.0	19
63	180	1/4	251	39	15	137	37	26	103	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



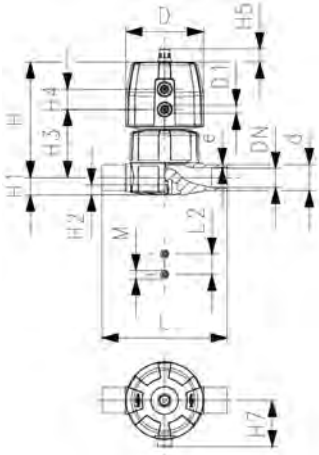
**SYGEF Plus**  
**Diaphragm valve DIASTAR Sixteen**  
**FC (Fail safe to close)**  
**With butt fusion spigots metric**

**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Ideally suited for High Purity applications, recommended for oxidizing acids.

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)
20	15	16	125	<b>180 635 132</b>	1.259
25	20	16	271	<b>180 635 133</b>	1.208
32	25	16	481	<b>180 635 134</b>	2.021
40	32	16	759	<b>180 635 135</b>	3.349
50	40	16	1263	<b>180 635 136</b>	5.288
63	50	10	1728	<b>180 635 137</b>	6.150

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	124	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	120	⅜	167	22	12	93	26	26	69	154	25	M6	2.4	13
40	150	⅜	196	26	15	101	36	26	88	174	45	M8	2.4	15
50	180	⅜	239	32	15	124	37	26	103	194	45	M8	3.0	19
63	180	⅜	251	39	15	137	37	26	103	224	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



**SYGEF Plus**  
**Diaphragm valve DIASTAR Sixteen**  
**FC (Fail safe to close)**  
**With butt fusion spigots metric**

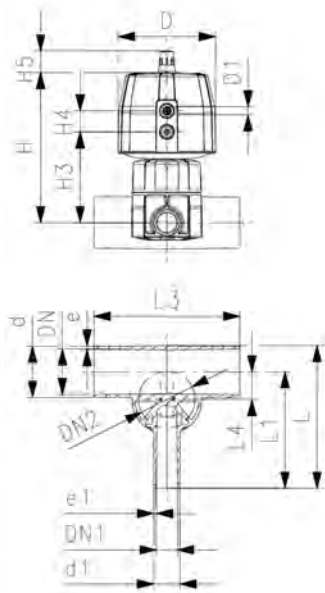
**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space
- Ideally suited for High Purity applications, not recommended for oxidizing acids

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

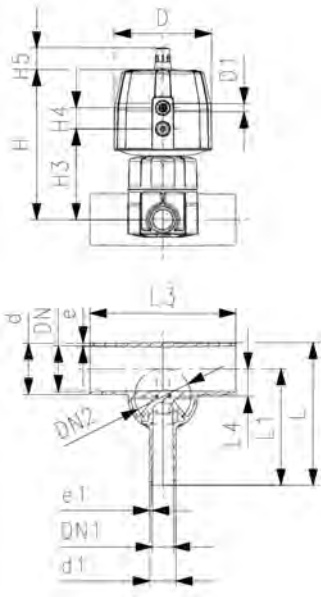
\* Available on request



d	DN	DN1	DN2	PN	kv-value	PTFE/EPDM	Weight
(mm)	(mm)	(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
					(l/min)		
20	15	15	15	16	57	<b>180 639 301</b>	1.112
25	20	15	20	16	89	<b>180 639 303</b>	1.230
25	20	20	20	16	118	<b>180 639 304</b>	1.233
32	25	15	20	16	80	<b>180 639 307</b>	1.283
32	25	20	20	16	105	<b>180 639 308</b>	1.287
32	25	25	25	16	231	<b>180 639 309</b>	2.063
40	32	15	25	16	85	<b>180 639 312</b>	2.117
40	32	20	25	16	119	<b>180 639 313</b>	2.121
40	32	25	25	16	153	<b>180 639 314</b>	2.139
40	32	32	25	16	187	<b>180 639 315</b>	2.168
50	40	15	20	16	86	<b>180 639 318</b>	1.402
50	40	20	25	16	160	<b>180 639 319</b>	2.207
50	40	25	25	16	206	<b>180 639 320</b>	2.212
50	40	32	50	10	524	<b>180 639 321</b>	6.022
50	40	40	50	10	667	<b>180 639 322</b>	6.032
63	50	15	20	16	84	<b>180 639 325</b>	1.479
63	50	20	25	16	150	<b>180 639 326</b>	2.292
63	50	25	25	16	184	<b>180 639 327</b>	2.298
63	50	32	50	10	471	<b>180 639 328</b>	6.199
63	50	40	50	10	610	<b>180 639 329</b>	6.264
63	50	50	50	10	747	<b>180 639 330</b>	6.277
90	80	15	25	16	82	<b>180 639 341</b>	2.577
90	80	20	25	16	103	<b>180 639 342</b>	2.584
90	80	25	25	16	129	<b>180 639 343</b>	2.600
90	80	40	50	10	623	<b>180 639 345</b>	6.717
90	80	50	50	10	696	<b>180 639 346</b>	6.745
110	100	15	25	16	78	<b>180 639 351</b>	2.847
110	100	20	25	16	103	<b>180 639 352</b>	2.853
110	100	25	25	16	131	<b>180 639 353</b>	2.870
110	100	40	50	10	604	<b>180 639 355</b>	7.133
110	100	50	50	10	661	<b>180 639 356</b>	7.163

d	D	D1	H	H3	H4	H5	L	L1	L3	L4	e	Lift = Hx	d1	Valve Size d
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	96	3/8	130	71	25	16	117	96	162	12	1.9	7	20	20
25	96	3/8	131	72	25	16	133	108	162	16	1.9	10	20	25
25	96	3/8	131	72	25	16	133	108	162	16	1.9	10	25	25
32	96	3/8	135	76	25	16	142	120	162	19	2.4	10	20	25
32	96	3/8	135	76	25	16	142	120	162	19	2.4	10	25	25
32	120	3/8	167	93	26	26	145	120	160	19	2.4	13	32	32
40	120	3/8	175	101	26	26	149	128	180	23	2.4	13	20	32
40	120	3/8	175	101	26	26	149	128	180	23	2.4	13	25	32
40	120	3/8	175	101	26	26	149	128	180	23	2.4	13	32	32
40	120	3/8	175	101	26	26	174	153	180	23	2.4	13	40	32
50	96	3/8	148	90	25	16	160	134	180	27	3.0	10	20	25

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d (mm)	D (mm)	D1 (inch)	H (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	d1 (mm)	Valve Size d (mm)
50	120	1/2	180	106	26	26	160	134	180	28	3.0	13	25	32
50	120	1/2	180	106	26	26	160	134	180	28	3.0	13	32	32
50	180	1/4	249	135	37	26	209	169	209	33	3.0	23	40	63
50	180	1/4	249	135	37	26	209	169	209	33	3.0	23	50	63
63	96	1/8	155	96	25	16	177	144	180	33	3.0	10	20	25
63	120	1/8	187	113	26	26	177	144	180	35	3.0	13	25	32
63	120	1/8	187	113	26	26	177	144	180	35	3.0	13	32	32
63	180	1/4	255	141	37	26	225	192	220	39	3.0	23	40	63
63	180	1/4	255	141	37	26	225	192	220	39	3.0	23	50	63
63	180	1/4	255	141	37	26	225	192	220	39	3.0	23	63	63
90	120	1/8	200	126	26	26	205	159	190	47	4.3	13	20	32
90	120	1/8	200	126	26	26	205	159	190	47	4.3	13	25	32
90	120	1/8	200	126	26	26	205	159	190	47	4.3	13	32	32
90	180	1/4	269	155	37	26	254	207	250	51	4.3	23	50	63
90	180	1/4	269	155	37	26	254	207	250	51	4.3	23	63	63
110	120	1/8	209	135	26	26	227	171	190	56	5.3	13	20	32
110	120	1/8	209	135	26	26	227	171	190	56	5.3	13	25	32
110	120	1/8	209	135	26	26	227	171	190	56	5.3	13	32	32
110	180	1/4	279	165	37	26	276	219	250	60	5.3	23	50	63
110	180	1/4	279	165	37	26	276	219	250	60	5.3	23	63	63

d (mm)	e1 (mm)
20	2
25	2
25	2
32	2
32	2
32	2
40	2
40	2
40	2
40	2
40	2
50	2
50	2
50	2
50	2
50	2
50	3
63	2
63	2
63	2
63	2
63	3
63	3
90	2
90	2
90	2
90	3
90	3
110	2
110	2
110	2
110	3
110	3



**SYGEF Plus**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**Unions with butt fusion spigots metric**

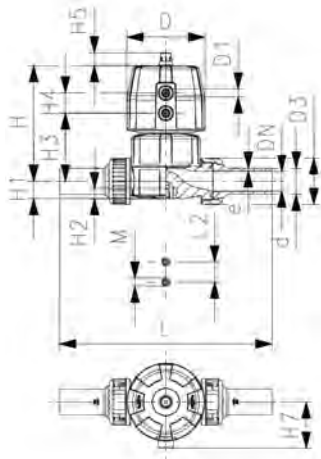
**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **both sides**



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	<b>181 684 132</b>	1.172	<b>181 684 152</b>	1.172
25	20	10	271	<b>181 684 133</b>	1.381	<b>181 684 153</b>	1.381
32	25	10	481	<b>181 684 134</b>	2.225	<b>181 684 154</b>	2.225
40	32	10	759	<b>181 684 135</b>	3.730	<b>181 684 155</b>	3.730
50	40	10	1263	<b>181 684 136</b>	5.786	<b>181 684 156</b>	5.786
63	50	10	1728	<b>181 684 137</b>	6.880	<b>181 684 157</b>	6.880

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	196	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	120	⅜	167	22	12	93	26	26	69	234	25	M6	2.4	13
40	150	⅜	196	26	15	101	36	26	88	260	45	M8	2.4	15
50	180	⅜	239	32	15	124	37	26	103	284	45	M8	3.0	19
63	180	⅜	251	39	15	137	37	26	103	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2





**SYGEF Plus**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**With butt fusion spigots metric**

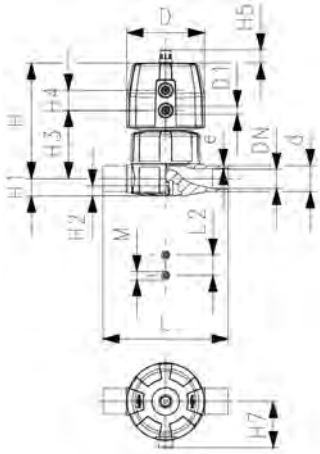
**Model:**

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **both sides**



d (mm)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	<b>181 685 132</b>	1.079	<b>181 685 152</b>	1.079
25	20	10	271	<b>181 685 133</b>	1.208	<b>181 685 153</b>	1.208
32	25	10	481	<b>181 685 134</b>	2.021	<b>181 685 154</b>	2.021
40	32	10	759	<b>181 685 135</b>	3.349	<b>181 685 155</b>	3.349
50	40	10	1263	<b>181 685 136</b>	5.288	<b>181 685 156</b>	5.288
63	50	10	1728	<b>181 685 137</b>	6.150	<b>181 685 157</b>	6.150

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	124	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	120	⅜	167	22	12	93	26	26	69	154	25	M6	2.4	13
40	150	¼	196	26	15	101	36	26	88	174	45	M8	2.4	15
50	180	¼	239	32	15	124	37	26	103	194	45	M8	3.0	19
63	180	¼	251	39	15	137	37	26	103	224	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



**SYGEF Plus**  
**Diaphragm valve DIASTAR TenPlus**  
**FC (Fail safe to close)**  
**With butt fusion spigots metric**

**Model:**

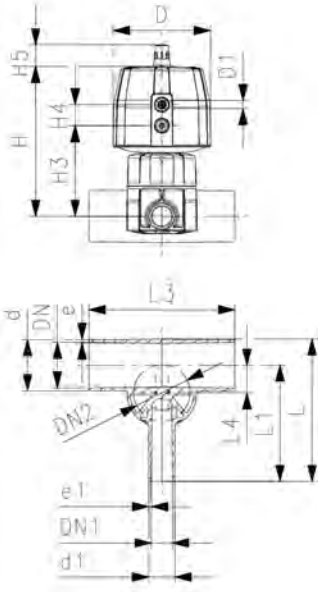
- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space

**Option:**

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **both sides**

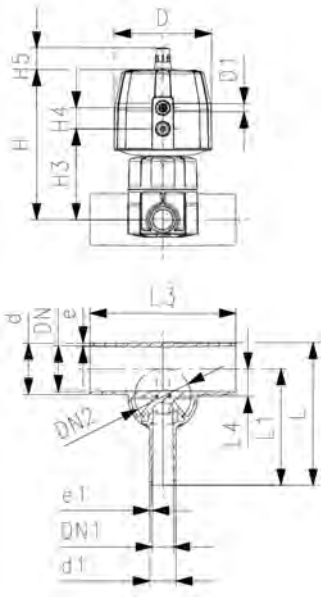
\* Available on request



d	DN	PN	kv-value	PTFE/EPDM	Weight	PTFE/FPM	Weight
(mm)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)	Code	(kg)
			(l/min)				
20	15	10	57	181 689 301	1.112	181 689 501	1.112
25	20	10	89	181 689 303	1.230	181 689 503	1.230
25	20	10	118	181 689 304	1.233	181 689 504	1.233
32	25	10	80	181 689 307	1.283	181 689 507	1.283
32	25	10	105	181 689 308	1.287	181 689 508	1.287
32	25	10	231	181 689 309	2.391	181 689 509	2.063
40	32	10	85	181 689 312	2.117	181 689 512	2.117
40	32	10	119	181 689 313	2.121	181 689 513	2.121
40	32	10	153	181 689 314	2.139	181 689 514	2.139
40	32	10	187	181 689 315	2.168	181 689 515	2.168
50	40	10	86	181 689 318	1.402	181 689 518	1.402
50	40	10	160	181 689 319	2.207	181 689 519	2.207
50	40	10	206	181 689 320	2.212	181 689 520	2.212
50	40	10	524	181 689 321	6.022	181 689 521	6.022
50	40	10	667	181 689 322	6.032	181 689 522	6.032
63	50	10	84	181 689 325	1.479	181 689 525	1.479
63	50	10	150	181 689 326	2.292	181 689 526	2.292
63	50	10	184	181 689 327	2.298	181 689 527	2.298
63	50	10	471	181 689 328	6.199	181 689 528	6.199
63	50	10	610	181 689 329	6.264	181 689 529	6.264
63	50	10	747	181 689 330	6.277	181 689 530	6.277
90	80	10	82	181 689 341	2.577	181 689 541	2.577
90	80	10	103	181 689 342	2.584	181 689 542	2.584
90	80	10	129	181 689 343	2.600	181 689 543	2.600
90	80	10	623	181 689 345	6.717	181 689 545	6.717
90	80	10	696	181 689 346	6.745	181 689 546	6.745
110	100	10	78	181 689 351	2.847	181 689 551	2.847
110	100	10	103	181 689 352	2.853	181 689 552	2.853
110	100	10	131	181 689 353	2.870	181 689 553	2.870
110	100	10	604	181 689 355	7.133	181 689 555	7.133
110	100	10	661	181 689 356	7.163	181 689 556	7.163

d	D	D1	H	H3	H4	H5	L	L1	L3	L4	e	Lift = Hx	Valve Size d	d1
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	96	1/8	130	71	25	16	117	96	162	12	1.9	7	20	20
25	96	1/8	131	72	25	16	133	108	162	16	1.9	10	25	20
25	96	1/8	131	72	25	16	133	108	162	16	1.9	10	25	25
32	96	1/8	135	76	25	16	142	120	162	19	2.4	10	25	20
32	96	1/8	135	76	25	16	142	120	162	19	2.4	10	25	25
32	120	1/8	167	93	26	26	145	120	160	19	2.4	13	32	32
40	120	1/8	175	101	26	26	149	128	180	23	2.4	13	32	20
40	120	1/8	175	101	26	26	149	128	180	23	2.4	13	32	25
40	120	1/8	175	101	26	26	149	128	180	23	2.4	13	32	32
40	120	1/8	175	101	26	26	174	153	180	23	2.4	13	32	40
50	96	1/8	148	90	25	16	160	134	180	27	3.0	10	25	20

table continued on the next page



d (mm)	D (mm)	D1 (inch)	H (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	Valve Size d (mm)	d1 (mm)
50	120	1/2	180	106	26	26	160	134	180	28	3.0	13	32	25
50	120	1/2	180	106	26	26	160	134	180	28	3.0	13	32	32
50	180	1/2	249	135	37	26	209	169	209	33	3.0	23	63	40
50	180	1/2	249	135	37	26	209	169	209	33	3.0	23	63	50
63	96	1/2	155	96	25	16	177	144	180	33	3.0	10	25	20
63	120	1/2	187	113	26	26	177	144	180	35	3.0	13	32	25
63	120	1/2	187	113	26	26	177	144	180	35	3.0	13	32	32
63	180	1/2	255	141	37	26	225	192	220	39	3.0	23	63	40
63	180	1/2	255	141	37	26	225	192	220	39	3.0	23	63	50
63	180	1/2	255	141	37	26	225	192	220	39	3.0	23	63	63
90	120	1/2	200	126	26	26	205	159	190	47	4.3	13	32	20
90	120	1/2	200	126	26	26	205	159	190	47	4.3	13	32	25
90	120	1/2	200	126	26	26	205	159	190	47	4.3	13	32	32
90	180	1/2	269	155	37	26	254	207	250	51	4.3	23	63	50
90	180	1/2	269	155	37	26	254	207	250	51	4.3	23	63	63
110	120	1/2	209	135	26	26	227	171	190	56	5.3	13	32	20
110	120	1/2	209	135	26	26	227	171	190	56	5.3	13	32	25
110	120	1/2	209	135	26	26	227	171	190	56	5.3	13	32	32
110	180	1/2	279	165	37	26	276	219	250	60	5.3	23	63	50
110	180	1/2	279	165	37	26	276	219	250	60	5.3	23	63	63

d (mm)	DN2 (mm)	DN1 (mm)	e1 (mm)
20	15	15	2
25	20	15	2
25	20	20	2
32	20	15	2
32	20	20	2
32	25	25	2
40	25	15	2
40	25	20	2
40	25	25	2
40	25	32	2
50	20	15	2
50	25	20	2
50	25	25	2
50	50	32	2
50	50	40	3
63	20	15	2
63	25	20	2
63	25	25	2
63	50	32	2
63	50	40	3
63	50	50	3
90	25	15	2
90	25	20	2
90	25	25	2
90	50	40	3
90	50	50	3
110	25	15	2
110	25	20	2
110	25	25	2
110	50	40	3
110	50	50	3



**SYGEF Plus**  
**Diaphragm valve type DIASTAR 025**  
**Function FC (Fail safe to close)**  
**With fixed flanges PVDF metric**

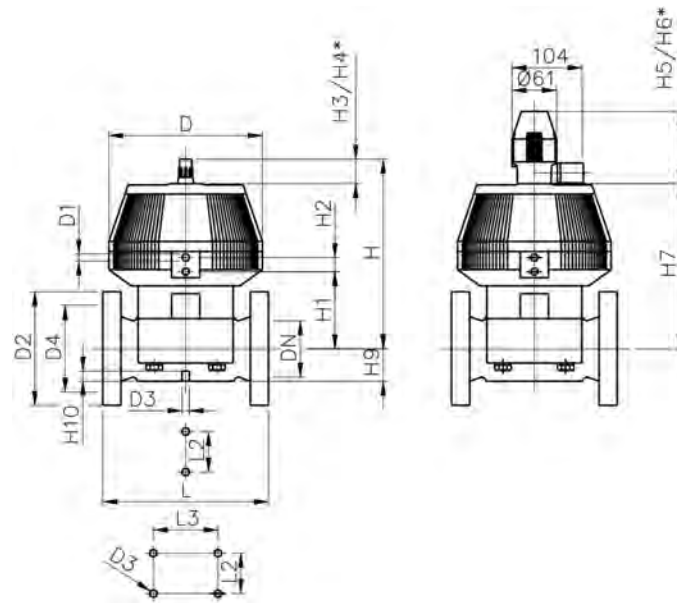
**Model:**

- Material: PVDF-HP
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: **both sides**
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
*	75	2 ½	65	10	992	<b>199 025 447</b>	13.600
**	90	3	80	10	1700	<b>199 025 448</b>	17.400
	110	4	100	6	2700	<b>199 025 449</b>	24.700

	d (mm)	D (mm)	D1_G (inch)	D2 (mm)	D3[M] (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H9 (mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69

	d (mm)	H10 (mm)	L (mm)	L2 (mm)
*	75	15	290	70
**	90	15	310	120
	110	20	350	120





**SYGEF Plus**  
**Diaphragm valve type DIASTAR 025**  
**Function FC (Fail safe to close)**  
**With fixed flanges PVDF Inch ANSI**

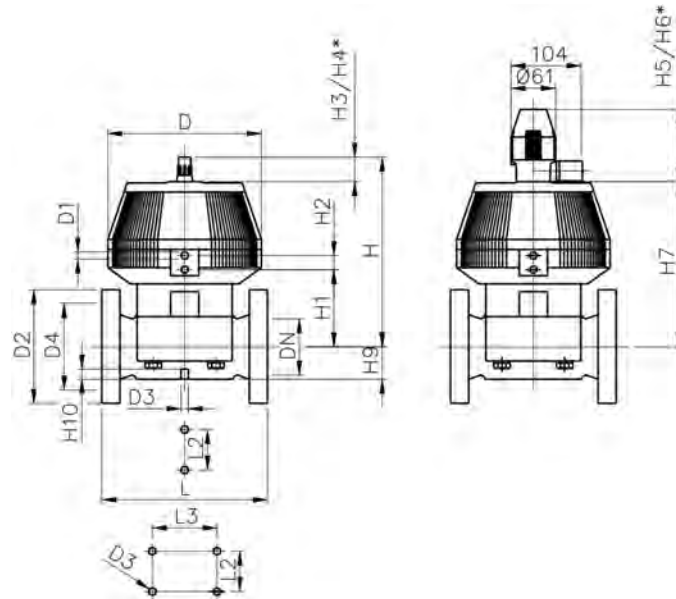
**Model:**

- Material: PVDF-HP
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: **both sides**
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
					(L/min)		
*		2 ½	65	10	992	<b>199 025 387</b>	14.200
**	90	3	80	10	1700	<b>199 025 448</b>	17.400
		4	100	6	2700	<b>199 025 389</b>	26.500

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20

	L	L2
	(mm)	(mm)
*	290	70
**	310	120
	350	120





**SYGEF Plus**  
**Diaphragm valve type DIASTAR 025**  
**Function FO (Fail safe to open)**  
**With fixed flanges PVDF metric**

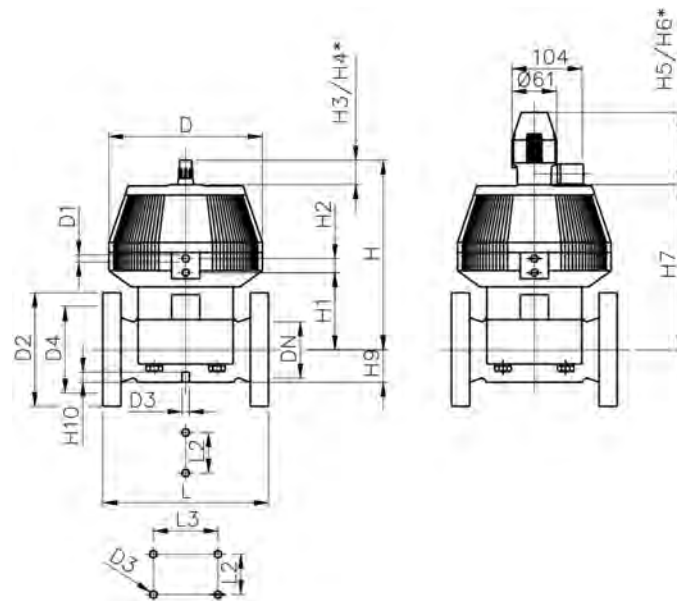
**Model:**

- Material: PVDF-HP
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
*	75	2 ½	65	10	992	<b>199 025 457</b>	13.600
**	90	3	80	10	1700	<b>199 025 458</b>	17.400
	110	4	100	6	2700	<b>199 025 459</b>	24.700
**	160	6	150	6	6033	<b>199 025 460</b>	35.000

	d (mm)	D (mm)	D1_G (inch)	D2 (mm)	D3[M] (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H9 (mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	¼	285	12	240	455	237	24	46	100	129	195	409	108

	d (mm)	H10 (mm)	L (mm)	L2 (mm)	L3 (mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200





**SYGEF Plus**  
**Diaphragm valve type DIASTAR 025**  
**Function FO (Fail safe to open)**  
**With fixed flanges PVDF Inch ANSI**

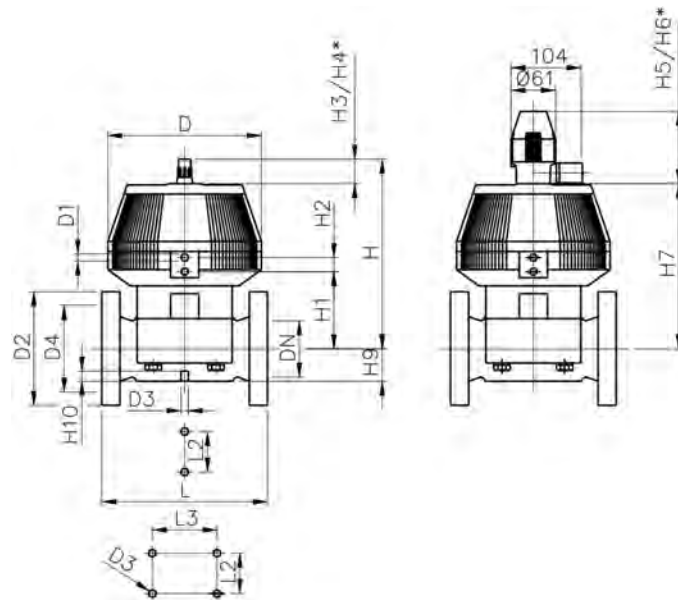
**Model:**

- Material: PVDF-HP
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	Size (inch)	DN (mm)	PN (bar)	kv-value ( $\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)
*		2 ½	65	10	992	<b>199 025 397</b>	12.200
**	90	3	80	10	1700	<b>199 025 458</b>	17.400
		4	100	6	2700	<b>199 025 399</b>	23.400
**	160	6	150	6	6033	<b>199 025 460</b>	35.000

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	¼	285	12	240	455	237	24	46	100	129	195	409	108	20

	L	L2	L3
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200





**SYGEF Plus**  
**Diaphragm valve type DIASTAR 025**  
**Function DA (Double acting)**  
**With fixed flanges PVDF metric**

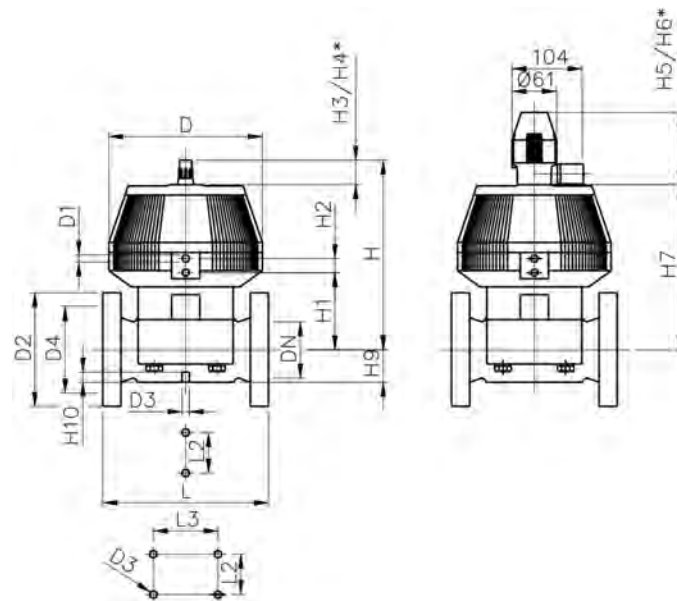
**Model:**

- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ( $\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
*	75	65	2 ½	10	992	<b>199 025 467</b>	13.600
**	90	80	3	10	1700	<b>199 025 468</b>	17.400
	110	100	4	6	2700	<b>199 025 469</b>	24.700
**	160	150	6	6	6033	<b>199 025 470</b>	35.000

	d (mm)	D (mm)	D1_G (inch)	D2 (mm)	D3[M] (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H9 (mm)
*	75	280	¼	185	8	145	344	148	24	46	100	125	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	¼	285	12	240	455	237	24	46	100	129	195	409	108

	d (mm)	H10 (mm)	L (mm)	L2 (mm)	L3 (mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200







**SYGEF Plus**  
**Diaphragm valve type DIASTAR 025**  
**Function DA (Double acting)**  
**With fixed flanges PVDF Inch ANSI**

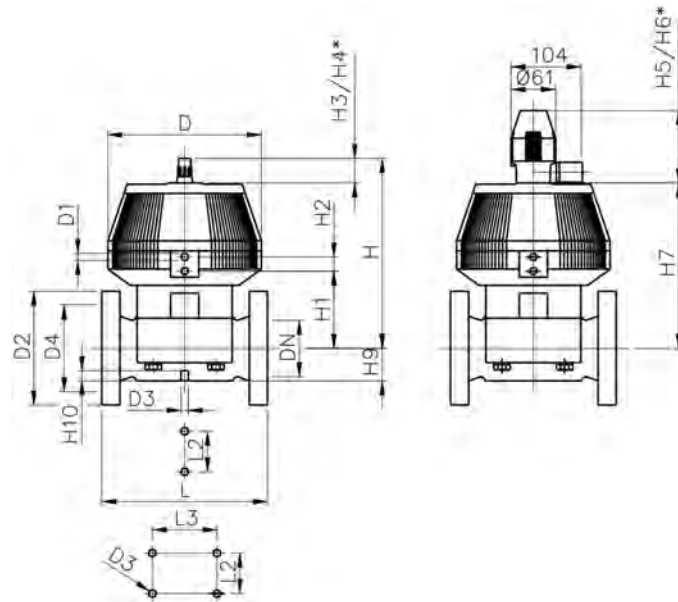
**Model:**

- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

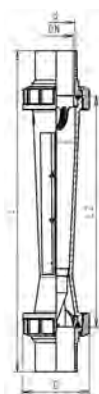
	d	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	( $\Delta p=1$ bar)	Code	(kg)
	(L/min)						
*		2 ½	65	10	992	<b>199 025 407</b>	13.600
**	90	3	80	10	1700	<b>199 025 468</b>	17.400
		4	100	6	2700	<b>199 025 409</b>	24.100
**	160	6	150	6	6033	<b>199 025 470</b>	35.000

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	125	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	¼	285	12	240	455	237	24	46	100	129	195	409	108	20

	L	L2	L3
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200



# Special version PVDF-HP



**Special version PVDF-HP**  
**Float in PTFE without magnet**  
**With fusion spigots BCF/IR**

Type	d (mm)	DN (mm)	Scale range (l/h)	Scale range (gal/min)	Taper tube in Polysulfone O-rings in FPM Code	Weight (kg)	D (mm)	L (mm)	L2 (mm)	G (inch)
SK 70	32	25	68 - 204	0.3 - 0.9	<b>198 807 209</b>	0.383	60	318	200	1 ½
SK 71	32	25	90 - 295	0.4 - 1.3	<b>198 807 210</b>	0.387	60	318	200	1 ½
SK 73	32	25	136 - 795	0.6 - 3.5	<b>198 807 202</b>	0.401	60	318	200	1 ½
SK 20	50	40	568 - 2273	2.5 - 10.0	<b>198 807 203</b>	1.030	83	466	335	2 ¼
SK 21	50	40	909 - 4091	4.0 - 18.0	<b>198 807 204</b>	0.978	83	466	335	2 ¼
SK 30	63	50	1000 - 8142	4.4 - 36.0	<b>198 807 205</b>	1.500	103	472	335	2 ¾
SK 31	63	50	1000 - 9091	4.4 - 40.0	<b>198 807 206</b>	1.500	103	472	335	2 ¾
SK 40	75	65	1848 - 11364	8.0 - 50.0	<b>198 807 207</b>	2.500	122	495	335	3 ½
SK 41	75	65	2273 - 16364	10.0 - 72.0	<b>198 807 208</b>	2.500	122	495	335	3 ½

# Machines and Tools for Industrial Applications



# Infrared plastic fusion jointing machines

## IR-63 Plus Fusion Jointing Machine and Accessories



### IR-63 Plus® Fully-Equipped Machine

#### Model:

- Fully-equipped fusion jointing machine for welding SYGEF Standard, SYGEF Plus, PROGEF Standard, PROGEF Natural, PROGEF Plus, PE 100, PFA in dimensions d 20-63 mm with integrated remote welding unit, 2 USB interfaces, monochrome display with icons and 12 languages.
- 1-phase AC (50/60 Hz) 230 V L/N/PE
- Machine housing complete (1 pcs.)
- Heater assembly (1 pcs.)
- Remote weld device (1 pcs.)
- Facing tool (1 pcs.)
- Transport box (1 pcs.)
- Pipe stop (1 pcs.)
- Clamping inserts d 20-63 mm (8 pcs. per dimension)
- End caps PE d 20-63 mm (4 pcs. per dimension)
- Power supply cable 230 V (1 pcs.)
- Extension cable for remote weld device (1 pcs.)
- Extension cable for heater (1 pcs.)
- Extension cable for facing tool (1 pcs.)
- Cleaning brush No. 8 (1 pcs.)
- Hexagon key 3 mm (1 pcs.)
- Hexagon key 4 mm (1 pcs.)
- Heater protection shield (1 pcs.)
- Clamping unit extension (8 pcs.)
- Socket wrench (facing blades) (1 pcs.)
- Screw driver, Size 0 (1 pcs.)
- Accessory Tray (1 pcs.)
- Manual (1 pcs.)

d-d (mm)	Code	Weight (kg)
20 - 63	<b>790 131 005</b>	50.000



### Clamping inserts

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d (mm)	Code	Weight (kg)	Pieces
20	<b>790 131 038</b>	0.090	1
25	<b>790 131 039</b>	0.090	1
32	<b>790 131 040</b>	0.052	1
40	<b>790 131 041</b>	0.074	1
50	<b>790 131 042</b>	0.100	1
63	<b>790 131 043</b>	0.035	1



### Set of facing knives

- A set includes two facing knives. Each facing knife has four blades. The blade may be turned three times before it must be replaced.

d-d (mm)	Code	Weight (kg)	Pieces
20 - 63	<b>790 131 045</b>	0.016	2



### Set of end caps

- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d (mm)	Code	Weight (kg)	Pieces
20	<b>790 131 030</b>	0.040	4
25	<b>790 131 031</b>	0.010	4
32	<b>790 131 032</b>	0.088	4
40	<b>790 131 033</b>	0.005	4
50	<b>790 131 034</b>	0.005	4
63	<b>790 131 035</b>	0.023	4



### Pipe stop

- The pipe stop defines the allowance when the pipes are clamped into position.

d-d (mm)	Code	Weight (kg)	Pieces
20 - 63	<b>790 131 046</b>	0.430	1



### Extension cable for clamping slide

- The extension cable enables the fusion e. g. under the ceiling.

d-d (mm)	Code	Weight (lb)	Pieces
20 - 63	<b>790 131 047</b>	1.764	1



### Extension cable for heater

- The extension cable enables the fusion e. g. under the ceiling.

d-d (mm)	Code	Weight (kg)	Pieces
20 - 63	<b>790 131 049</b>	0.767	1



### Extension cable for facing tool

- The extension cable enables the fusion e. g. under the ceiling.

d-d (mm)	Code	Weight (kg)	Pieces
20 - 63	<b>790 131 048</b>	0.438	1



### Heater protection shield

- Protects the heater from plastic chips during the facing process.

Code	Weight (kg)	Pieces
<b>790 131 051</b>	0.205	1

## IR-110 Plus Fusion Jointing Machine and Accessories



### IR-110 Plus Fully-Equipped Machine

#### Model:

- Fully-equipped fusion jointing machine for welding SYGEF Standard, SYGEF Plus, PROGEF Standard, PROGEF Natural, PROGEF Plus, ecoFIT, PFA, ECTFE in dimensions d 20-110 mm, 2 USB interfaces, monochrome display with icons and 12 languages.
- 1-phase AC (50/60 Hz) 230 V L/N/PE
- Machine housing complete (1 pcs.)
- Heater and facing tool assembly (1 pcs.)
- Transport box (1 pcs.)
- Pipe stop (1 pcs.)
- Clamping inserts d 20-90 mm (8 pcs. per dimension)
- End caps PE d 20-110 mm (4 pcs. per dimension)
- Power supply cable 230 V (1 pcs.)
- Cleaning brush No. 8 (1 pcs.)
- Hexagon keys 4 mm (1 pcs.), 5 mm (1 pcs.), 6 mm (1 pcs.)
- Socket wrench (facing blades) (1 pcs.)
- Accessory Tray (1 pcs.)
- Manual (1 pcs.)

d-d (mm)	Code	Weight (kg)
20 - 110	<b>790 132 001</b>	75.000



### Clamping inserts

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d (mm)	Code	Weight (kg)	Pieces
20	<b>790 132 051</b>	0.108	1
25	<b>790 132 052</b>	0.106	1
32	<b>790 132 053</b>	0.104	1
40	<b>790 132 054</b>	0.100	1
50	<b>790 132 055</b>	0.095	1
63	<b>790 132 156</b>	0.085	1
75	<b>790 132 157</b>	0.087	1
90	<b>790 132 158</b>	0.064	1



### Clamping inserts PFA Sch. 40 rigid pipe

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d (inch)	Code	Weight (kg)	Pieces
¼	<b>790 132 062</b>	0.109	1
½	<b>790 132 063</b>	0.107	1
¾	<b>790 132 064</b>	0.106	1
1	<b>790 132 065</b>	0.103	1
2	<b>790 132 066</b>	0.088	1



### Set of facing knives

- A set includes two facing knives. Each facing knife has four blades. The blade may be turned three times before it must be replaced.

d-d (mm)	Code	Weight (kg)	Pieces
20 - 110	<b>790 132 061</b>	0.007	2



### Set of end caps

- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d (mm)	Code	Weight (kg)	Pieces
20	<b>790 131 030</b>	0.040	4
25	<b>790 131 031</b>	0.010	4
32	<b>790 131 032</b>	0.088	4
40	<b>790 131 033</b>	0.005	4
50	<b>790 131 034</b>	0.005	4
63	<b>790 131 035</b>	0.023	4
75	<b>790 133 036</b>	0.095	4
90	<b>790 133 037</b>	0.028	4
110	<b>790 133 038</b>	0.180	4



### Pipe stop

- The pipe stop defines the allowance when the pipes are clamped into position.

d-d (mm)	Code	Weight (kg)	Pieces
20 - 110	<b>790 132 059</b>	0.700	1

# IR-225 Plus Fusion Jointing Machine and Accessories



## IR-225 Plus Fully-Equipped Machine with HP Working Table (HP = High Purity)

### Model:

- Fully-equipped fusion jointing machine for welding SYGEF Standard, SYGEF Plus, PROGEF Standard, PROGEF Natural, PROGEF Plus, ecoFIT in dimensions d 63-225 mm, 2 USB interfaces, monochrome display with icons and 12 languages.
- Machine base (1 pcs.)
- Heater assembly (1 pcs.)
- Facing tool (1 pcs.)
- Movable clamping units (1 pcs.)
- Clamping inserts d 63-225 mm (8 pcs. per dimension)
- End caps PE d 63-225 mm (4 pcs. per dimension)
- Transportation lock (1 pcs.)
- Combination ring /open-jaw wrench 13 mm (1 pcs.)
- Cleaning brush (1 pcs.)
- Connecting cable 400 V - 230 V (1 pcs.)
- Ball for lever (1 pcs.)
- Manual (1 pcs.)
- 1-phase AC (50/60 Hz) 230 V L/N/PE or 3-phase AC (50/60 Hz) 400 V/230 V L1/L2/L3/N/PE
- Working table, HP (1 pcs.)
- Pipe stop (1 pcs.)
- Hexagon key 5 mm (1 pcs.)
- Hexagon key 6 mm (1 pcs.)

d-d (mm)	Code	Weight (kg)
63 - 225	<b>790 133 009</b>	453.000



### Clamping inserts

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d (mm)	Code	Weight (kg)	Pieces
63	<b>790 133 026</b>	0.700	1
75	<b>790 133 027</b>	0.400	1
90	<b>790 133 028</b>	0.691	1
110	<b>790 133 029</b>	0.644	1
125	<b>790 133 030</b>	0.500	1
140	<b>790 133 031</b>	0.600	1
160	<b>790 133 032</b>	0.600	1
180	<b>790 133 463</b>	0.560	1
200	<b>790 133 033</b>	0.700	1
225	<b>790 133 034</b>	0.270	1



### Set of end caps

- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d (mm)	Code	Weight (kg)	Pieces
63	<b>790 131 035</b>	0.023	4
75	<b>790 133 036</b>	0.095	4
90	<b>790 133 037</b>	0.028	4
110	<b>790 133 038</b>	0.180	4
125	<b>790 133 039</b>	0.150	4
140	<b>790 133 040</b>	0.180	4

table continued on the next page



d (mm)	Code	Weight (kg)	Pieces
160	790 133 041	0.045	4
180	790 133 494	0.095	4
200	790 133 042	0.080	4
225	790 133 043	0.400	4



#### Set of facing knives

- A set includes two facing knives. Each facing knife has four blades. The blade may be turned three times before it must be replaced.

d-d (mm)	Code	Weight (kg)	Pieces
63 - 225	790 133 046	0.125	2



#### Pipe stop

- The pipe stop defines the allowance when the pipes are clamped into position.

d-d (mm)	Code	Weight (kg)	Pieces
63 - 225	790 133 047	0.150	1

## IR-315 Plus Fusion Jointing Machine



#### IR-315 Plus Fully-Equipped Machine with HP Working Table (HP = High Purity)

Fully-equipped fusion jointing machine for welding SYGEF and SYGEF Plus, in dimensions d 225-315 mm, 2 USB interfaces, monochrome display with icons and 12 languages. **Supply:** 1-phase AC (50/60 Hz) 230 V L/N/PE or 3-phase AC (50/60 Hz) 400 V/230 V L1/L2/L3/N/PE **Delivery includes:** Machine base (1 pcs.) Heater assembly (1 pcs.) Facing tool (1 pcs.) Working table, HP (1 pcs.) Movable clamping units (1 pcs.) Clamping inserts d 225-315 mm (8 pcs. per dimension) End caps PE d 225-315 mm (4 pcs. per dimension) Transportation lock (1 pcs.) Pipe stop (1 pcs.) Hexagon key 5 mm (1 pcs.) Hexagon key 6 mm (1 pcs.) Combination ring /open-jaw wrench 13 mm (1 pcs.) Cleaning brush (1 pcs.) Connecting cable 400 V - 230 V (1 pcs.) Ball for lever (1 pcs.) Manual (1 pcs.)

d-d (mm)	Code	Weight (kg)
225 - 315	790 134 001	466.000

## IR-450 Fusion Jointing Machine



#### IR-450 Fully-Equipped Machine

##### Model:

- Fully-equipped semi automated fusion jointing machine for welding SYGEF Plus in dimension d 315-450, USB interfaces and touch screen with icons
- **Only a rental pool machine**

d-d (mm)	Code
315 - 450	

# Accessories for the IR-Plus plastic fusion jointing machines



## IR-Plus Win Weld

- The PC data transfer software makes it possible to manage and evaluate easily the recorded fusion data as required.
- **incl. Recordcard / USB stick**

	<b>Code</b>	<b>Weight</b> (kg)	<b>Description</b>	<b>Pieces</b>
Only works on XP	<b>790 131 471</b>	0.150	works with USB stick up to max. 2 GB	1

# BCF plastic fusion jointing machines

## BCF Plus Plastic Fusion Jointing Machine



### BCF Plus fully equipped machine d 20 - 63 mm

Fully-equipped machine for bead and crevice free jointing of SYGEF Standard, SYGEF Plus, PROGEF Natural of the dimensions d 20-63 mm with integrated remote welding unit, 2 USB interfaces, monochrome display with icons and 12 languages.

**Supply:**

1-phase AC (50/60 Hz) 115 / 230 V L/N/PE

**Delivery includes:**

- Machine housing (1 pcs.) incl. remote welding unit (1 pcs.)
- Transport box (1 pcs.)
- HP working table (1 pcs.)
- Heating stations d 20-63 mm (6 pcs.)
- Clamping units small (2 pcs.) with clamping inserts d 20-63 mm (24 pcs.)
- Facing tool small (1 pcs.) with facing inserts d 20-63 mm (6 pcs.)
- Facing tool support (1 pcs.)
- Hose box (1 pcs.) incl. air hose (1 pcs.)
- Supporting tools small d 20-63 mm (2 pcs.)
- BReT (1 pcs.)
- Hose cutter (1 pcs.)
- Air hose reducer (6-4 mm) (1 pcs.), air hose socket (4-4 mm) (1 pcs.)
- Extension cable (1 pcs.)
- Manual (1 pcs.)

d-d (mm)	Code	Weight (kg)
20 - 63	<b>790 121 002</b>	153.000



### BCF Plus fully-equipped machine d 20 - 110 mm

Fully-equipped machine for bead and crevice free jointing of SYGEF Standard, SYGEF Plus, PROGEF Natural of the dimensions d 20-110 mm with integrated remote welding unit. Bladders to be ordered separately.

#### Supply:

1-phase AC (50/60 Hz) 115 / 230 V L/N/PE

#### Delivery includes:

- Machine housing (1 pcs.) incl. remote welding unit (1 pcs.)
- Transport box (1 pcs.)
- HP working table (1 pcs.)
- Heating stations d 20-110 mm (9 pcs.)
- Clamping units small (2 pcs.) with clamping inserts d 20-63 mm (24 pcs.)
- Clamping units big (2 pcs.) with clamping inserts d 75-110 mm (12 pcs.)
- Adapter for clamping unit d 75-110 mm (2 pcs.)
- Facing tool small (1 pcs.) with facing inserts d 20-63 mm (6 pcs.)
- Facing tool big (1 pcs.) with facing inserts d 75-110 mm (3 pcs.)
- Facing tool support (1 pcs.)
- Hose box (1 pcs.) incl. air hose (1 pcs.)
- Supporting tools small d 20-63 mm (2 pcs.)
- Supporting tools big d 75-110 mm (2 pcs.)
- BReT (1 pcs.)
- Hose cutter (1 pcs.)
- Air hose reducer (6-4 mm) (1 pcs.), air hose socket (4-4 mm) (1 pcs.)
- Extension cable (1 pcs.)
- Manual (1 pcs.)

d-d (mm)	Code	Weight (kg)
20 - 110	<b>790 121 001</b>	188.000



### BCF Plus Heating stations

d (mm)	Code	Weight (kg)	Pieces
20	<b>790 121 111</b>	1.818	1
25	<b>790 121 112</b>	1.822	1
32	<b>790 121 113</b>	1.910	1
40	<b>790 121 114</b>	2.396	1
50	<b>790 121 115</b>	2.406	1
63	<b>790 121 116</b>	2.197	1
75	<b>790 121 117</b>	3.600	1
90	<b>790 121 118</b>	3.600	1
110	<b>790 121 119</b>	3.520	1



### BCF Bladder for SYGEF PVDF

- Only suitable for welding SYGEF PVDF and not for PROGEF Natural. **Silver bladder head!**

d (mm)	Code	Weight (kg)	Pieces
20	<b>790 122 041</b>	0.014	1
25	<b>790 122 042</b>	0.020	1
32	<b>790 122 043</b>	0.037	1
40	<b>790 122 044</b>	0.078	1
50	<b>790 122 045</b>	0.132	1
63	<b>790 122 046</b>	0.138	1
75	<b>790 121 047</b>	0.203	1
90	<b>790 121 048</b>	0.265	1
110	<b>790 121 049</b>	0.552	1



### BCF Plus Bladder for PROGEF Natural

- Only suitable for welding PROGEF Natural and not for SYGEF PVDF . **Blue bladder head!** d75 - 110 same as bladder for SYGEF PVDF (silver bladder head).

d (mm)	Code	Weight (kg)	Pieces
20	<b>790 122 091</b>	0.038	1
25	<b>790 122 092</b>	0.021	1
32	<b>790 122 093</b>	0.040	1
40	<b>790 122 094</b>	0.050	1
50	<b>790 122 095</b>	0.105	1
63	<b>790 122 096</b>	0.138	1
75	<b>790 121 047</b>	0.203	1
90	<b>790 121 048</b>	0.265	1
110	<b>790 121 049</b>	0.552	1



### BCF Plus facing tool

- Inclusive crank handle, mounting material and clamping inserts. Suitable for SYGEF (PVDF) as well as PROGEF Natural.

d-d (mm)	Code	Weight (kg)	Pieces
20 - 63	<b>790 121 052</b>	2.339	1
75 - 110	<b>790 121 053</b>	3.000	1



### BCF Plus clamping inserts for the facing tool

- These dimension-specific parts are inserted into the facing tool, in order to be able to face the end of the pipes smoothly and parallel.

d (mm)	Code	Weight (kg)	Pieces
20	<b>790 121 061</b>	0.160	1
25	<b>790 121 062</b>	0.146	1
32	<b>790 121 063</b>	0.135	1
40	<b>790 121 064</b>	0.125	1
50	<b>790 121 065</b>	0.100	1
63	<b>790 121 066</b>	0.050	1
75	<b>790 121 067</b>	0.300	1
90	<b>790 121 068</b>	0.200	1
110	<b>790 121 069</b>	0.090	1



### BCF Plus facing tool mounting plate

- To fix the facing tool on the workbench.

d-d (mm)	Code	Weight (kg)	Pieces
20 - 110	<b>790 121 055</b>	1.200	1



### BCF Plus clamping units

- The clamping units are adjustable, so that all types of pipes and fittings can be clamped.

d-d (mm)	Code	Weight (kg)	Pieces
20 - 63	<b>790 121 034</b>	0.600	1
75 - 110	<b>790 121 035</b>	0.900	1



### BCF Plus adapter for clamping unit d 75-110 mm

- The adapter makes it possible, to insert clamping inserts with d 20-63 mm in clamping units with d 75-110 mm to be able to clamp pipes and fittings with d 20-63 mm with these clamping units.

d-d (mm)	Code	Weight (kg)	Pieces
75 - 110	<b>790 121 038</b>	0.250	1



### BCF Plus clamping inserts

- The clamping inserts are suitable for the clamping units of the BCF Plus machine. They are used to clamp the piping components.
- No clamping inserts are needed for d 110 mm!**

d (mm)	Code	Weight (kg)	Pieces
20	<b>790 131 038</b>	0.090	1
25	<b>790 131 039</b>	0.090	1
32	<b>790 131 040</b>	0.052	1
40	<b>790 131 041</b>	0.074	1
50	<b>790 131 042</b>	0.100	1
63	<b>790 131 043</b>	0.035	1
75	<b>790 121 036</b>	0.143	1
90	<b>790 121 037</b>	0.095	1



### BCF Plus hose box incl. hose

- For the clean and professional storage of the air hose.

d (mm)	Code	Weight (kg)	Length (m)	Pieces
4	<b>790 121 151</b>	1.114	16	1



### BCF Plus hose

- Connection hose for the BCF Plus bladder.

d (mm)	Code	Weight (kg)	Length (m)
4	<b>790 122 087</b>	0.121	16



### BCF Plus supporting tool

- Helpful to fix 45°- angle components.

d-d (mm)	Code	Weight (kg)	Pieces
20 - 63	<b>790 121 072</b>	0.542	1
75 - 110	<b>790 121 073</b>	0.942	1



### BCF Plus bladder/ hose remove tool (BReT)

- Helpful to remove bladders easily.

Code	Weight (kg)	Pieces
<b>790 121 075</b>	0.079	1



### BCF Plus extension cable

- The extension cable enable the fusion e. g. under the ceiling.

Code	Weight (kg)	Length (mm)
<b>790 122 989</b>	1.000	8

## Accessories for the BCF Plus plastic fusion jointing machine



### Hose cutter

d-d (mm)	Code	Weight (kg)	Pieces
4 - 6	<b>790 122 106</b>	0.031	1



### Socket for compressed air hose

d (mm)	Code	Weight (kg)	Pieces
4	<b>790 122 104</b>	0.002	1



### BCF Plus Win Weld

- **incl. Recordcard / USB stick**
- The PC data transfer software makes it possible to manage and evaluate easily the recorded fusion data as required.
- Works with USB stick up to max. 2 GB

	Code	Weight (kg)	Pieces
Only works on XP	<b>790 121 471</b>	0.080	1

# SG 125 Socket fusion machine



## SG 125 Socket fusion machine

- Portable heating element - socket fusion machine for use in the workshop and on job sites.
- For fusion jointing of PP, PE, PB and PVDF pipes and fittings; dimension 20 - 125 mm
- **BASE MACHINE**
- Compact, sturdy design, distortion-free machine bed
- Handwheel with torque locking mechanism for the slide movement
- Fast selection of insertion depth according to the pipe dimension
- **HEATER**
- With electronic temperature control
- High temperature accuracy over the entire heating surface
- **ADDITIONAL STANDARD EQUIPMENT**
- Universal, left and right prismatic clamping devices, complete, for clamping pipe and fittings. Additional set of prismatic clamping devices for outer clamping of pipes available as an option.
- V-shaped pipe support d 20 - 125 mm
- Back stop
- Machine specific tool set
- Timer to clock fusion times
- Including transport packaging, without accessories

	<b>d-d</b> (mm)	<b>Performance</b>	<b>Code</b>	<b>Weight</b> (kg)
20 - 125		230 V/1500 W	<b>790 310 034</b>	65.000
20 - 125		115 V/1500 W	<b>790 310 036</b>	65.000



# SG 125 Accessories



## Gloves

Code	Weight (kg)
<b>761 066 799</b>	0.115



## Heating spigots and bushes

- For socket fusion systems in PP, PE and PVDF
- Always delivered in pairs (also usable for SG 110, SG 125, not for SG 160)
- Type B according to DVS 2208-1 (mechanical calibrated pipe ends)

d (mm)	Code	Weight (kg)
20	<b>799 300 156</b>	0.090
25	<b>799 300 157</b>	0.154
32	<b>799 300 158</b>	0.211
40	<b>799 300 159</b>	0.309
50	<b>799 300 160</b>	0.434
63	<b>799 300 161</b>	0.594



## Manual pipe peeling tool

- For socket fusion systems in PP, PE and PVDF

d (mm)	Code	Weight (kg)
20	<b>799 300 260</b>	0.087
25	<b>799 300 270</b>	0.080
32	<b>799 300 280</b>	0.099
40	<b>799 300 290</b>	0.240
50	<b>799 300 300</b>	0.244
63	<b>799 300 310</b>	0.507



## Tempil sticks

Temperature (°C)	Code	Weight (kg)	Color
253	<b>761 066 796</b>	0.012	yellow
274	<b>761 066 797</b>	0.014	red



## Special transport crate

Code	Weight (kg)
<b>790 310 099</b>	26.000

# Accessories for plastic fusion jointing machines

## Accessories for the IR Plus and BFC Plus fusion machines



### KS Tangit Cleaner

- Special cleaner for plastic fusion connections in the material of PP, PE, PVDF and PB
- DVGW approved
- DW 5290 BR 0464

Size	Code	Weight (kg)
1 liter	<b>799 298 023</b>	0.872



### Degreasing Tissues

- For degreasing the PE pipe surface prior to fusion

description	Type	Code	Weight (kg)
For pipes up to d225 mm	large	<b>799 496 011</b>	0.008



### Cleaning tissue KO-TON-R

Minimum order quantity 100 pieces

- This cleaning tissue is suitable for the cleaning of the welding zone of piping components, because it is lint free and clean room checked.

Code	Weight (kg)
<b>790 122 085</b>	0.005

## PPC Plastic pipe cutter



### PPC Plastic pipe cutter

For cutting plastic pipes d10 - d160

d-d (mm)	Article	Code	Weight (kg)	Closest inch (inch)
10 - 63	PPC 63, s max. = 7.2mm	<b>790 109 001</b>	0.865	1/8 - 2
50 - 110	PPC 110, s max. = 12.7mm	<b>790 109 002</b>	1.624	1 1/2 - 4
110 - 160	PPC 160, s max. = 19.0mm	<b>790 109 003</b>	2.212	4 - 6



### Replacement cutting wheels

For plastic pipe cutter

d-d (mm)	Article	Code	Weight (kg)
10 - 63	SR 63 max. s=7,2 mm	<b>790 109 011</b>	0.004
50 - 110	SR 110/160 max. s=12,7 mm	<b>790 109 012</b>	0.015
110 - 160	SR 160 max. s=19,0 mm	<b>790 109 013</b>	0.023

## Miscellaneous accessories org



Timer with 2 stop times

Code Weight  
(kg)

<u>790 114 028</u>	<u>0.088</u>
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# General Condition of Supply of Georg Fischer Piping Systems Limited, Schaffhausen

## 1 General

- 1.1 These General Conditions shall apply to all Products supplied by Georg Fischer Piping Systems Limited («Georg Fischer») to the Purchaser.  
They shall also apply to all future business even when no express reference is made to them.
- 1.2 Any deviating or supplementary conditions especially Purchaser's general conditions of purchase and verbal agreements shall only be applicable if accepted in writing by Georg Fischer.
- 1.3 The written form shall be deemed to be fulfilled by all forms of transmission, evidenced in the form of text, such as telefax, e-mail, etc.

## 2 Tenders

- Tenders shall only be binding if they contain a specifically stated period for acceptance.

## 3 Scope of Delivery

- 3.1 Georg Fischer's product range is subject to change.
- 3.2 The confirmation of order shall govern the scope and execution of the contract.

## 4 Data and Documents

- 4.1 Technical documents such as drawings, descriptions, illustrations and data on dimensions, performance and weight as well as the reference to standards are for information purposes only. They are not warranted characteristics and are subject to change.
- 4.2 All technical documents shall remain the exclusive property of Georg Fischer and may only be used for the agreed purposes or as Georg Fischer may consent.

## 5 Confidentiality, Protection of Personal Data

- 5.1 Each party shall keep in strict confidence all commercial or technical information relating to the business of the other party, of which it has gained knowledge in the course of its dealing with the other party. Such information shall neither be disclosed to third parties nor used for other purposes than those for which the information has been supplied.
- 5.2 In the context of the contractual relation with the Purchaser personal data may be processed. The Purchaser agrees to the disclosure of said data to third parties such as foreign subcontractors and suppliers etc.

## 6 Local Laws and Regulations, Export Controls

- 6.1 The Purchaser shall bring to the attention of Georg Fischer all local laws and regulations at the place of destination which bear connection with the execution of the contract and the adherence to relevant safety regulations and approval procedures.
- 6.2 In case of re-exports, Purchaser shall be responsible for compliance with pertinent export control regulations.

## 7 Price

- 7.1 Unless agreed otherwise, the prices shall be deemed quoted net ex works (according to Incoterms 2010 of the ICC, or latest version) including standard packing. All supplementary costs such as the cost of carriage, insurance, export-, transit- and import- licences etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties etc. connected with the contract.
- 7.2 If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or contract price or are referred to specifically in the tender or confirmation of order, Georg Fischer reserve the right to revise their prices accordingly should any change occur in the relevant tariffs.

## 8 Terms of Payment

- 8.1 The Purchaser shall make payment in the manner agreed by the parties without any deductions such as discounts, costs, taxes or dues.
- 8.2 The Purchaser may only withhold or off-set payments due against counter claims which are either expressly acknowledged by Georg Fischer or finally awarded to the Purchaser.  
In particular, payment shall still be made when unessential items are still outstanding provided that the Products already delivered are not rendered unusable as a result.

## 9 Retention of Title

- 9.1 The Products shall remain the property of Georg Fischer until the Purchaser shall have settled all claims, present and future, which Georg Fischer may have against him.
- 9.2 Should the Purchaser resell Products to which title is reserved, in the ordinary course of business, he shall hereby be deemed to have tacitly assigned to Georg Fischer the proceeds deriving from their sale together with all collateral rights, securities and reservations of title until all claims held by Georg Fischer shall have been settled. Until revoked by Georg Fischer, this assignment shall not preclude Purchaser's right to collect the assigned receivables.
- 9.3 To the extent the value of the Products to which title is reserved together with collateral securities exceeds Georg Fischer's claims against the Purchaser by more than 20%, Georg Fischer shall re-assign the above proceeds to Purchaser at his request.

## 10 Delivery

- 10.1 The term of delivery shall commence as soon as the contract has been entered into, all official formalities such as import and payment permits have been obtained and all essential technical issues have been settled. The term of delivery shall be deemed duly observed when, upon its expiry, the Products are ready for despatch.
- 10.2 Delivery is subject to the following conditions, i.e. the term of delivery shall be reasonably extended:
  - a) if Georg Fischer are not supplied in time with the information necessary for the execution of the contract or if subsequent changes causing delays are made by the Purchaser.
  - b) if Georg Fischer are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer's control which renders Georg Fischer's performance commercially impractical or impossible, such as delayed or defective supplies from sub contractors labour disputes, governmental orders or regulations, shortages in materials or energy, serious disturbances in Georg Fischer's works, such as the total or partial destruction of plant and equipment or the breakdown of essential facilities, serious disruptions in transport facilities, e.g. impassable roads.  
Should the effect of force majeure exceed a period of six (6) months, either party may cancel the contract forthwith.  
Georg Fischer shall not be liable for any damage or loss of any kind whatsoever resulting from the reform, any suspension or cancellation being without prejudice to Georg Fischer's right to recover all sums due in respect of consignments delivered and costs incurred to date.
  - c) if the Purchaser is in delay with the fulfilment of his obligations under the contract, in particular, if he does not adhere to the agreed conditions of payment or if he has failed to timely provide the agreed securities.
- 10.3 If for reasons attributable to Georg Fischer the agreed term of delivery or a reasonable extension thereof is exceeded, Georg Fischer shall not be deemed in default until the Purchaser has granted to Georg Fischer in writing a reasonable extension thereof of not less than one (1) month which equally is not met.  
The Purchaser shall then be entitled to the remedies provided at law, it being however understood that, subject to limitations of Art. 16, damage claims shall be limited to max. 10% of the price of the delayed delivery.
- 10.4 Part shipments shall be allowed and Georg Fischer shall be entitled to invoice for such partial deliveries.
- 10.5 If the Purchaser fails to take delivery within a reasonable time of Products notified as ready for despatch, Georg Fischer shall be entitled to store the Products at the Purchaser's expense and risk and to invoice them as delivered. If Purchaser fails to effect payment, Georg Fischer shall be entitled to dispose of the Products.
- 10.6 Should Purchaser cancel an order without justification and should Georg Fischer not insist on the performance of the contract, Georg Fischer shall be entitled to a penalty amounting to 10% of the contract price, Georg Fischer's right to prove and claim higher damages remaining reserved.

Purchaser shall be entitled to prove, that Georg Fischer has suffered no or a considerably lower damage than the penalty forfeited.

## 11 Packing

If the Products are provided with additional packing over and above the standard packing, such packing shall be charged additionally.

## 12 Passing of Risk

- 12.1 The risk in the Products shall pass to the Purchaser as soon as they have left Georg Fischer's works (EX WORKS, Incoterms 2010 ICC, or latest version), even if delivery is made carriage-paid, under similar clauses or including installation or when carriage is organized and managed by Georg Fischer.
- 12.2 If delivery is delayed for reasons beyond Georg Fischer's control, the risk shall pass to the Purchaser when he is notified that the Products are ready for despatch.

## 13 Carriage and Insurance

- 13.1 Unless agreed otherwise, the Purchaser shall bear the cost of carriage.
  - 13.2 The Purchaser shall be responsible for transport insurance against damage of whatever kind. Even when such insurance is arranged by Georg Fischer it shall be deemed taken out by the order of and for the account of the Purchaser and at his risk.
  - 13.3 Special requests regarding carriage and insurance shall be communicated to Georg Fischer in due time. Otherwise carriage shall be arranged by Georg Fischer at their discretion, but without responsibility, by the quickest and cheapest method possible.  
In case of carriage-paid delivery transport arrangements shall be made by Georg Fischer. If the Purchaser specifies particular requirements, any extra costs involved shall be borne by him.
  - 13.4 In the event of damage or loss of the Products during carriage the Purchaser shall mark the delivery documents accordingly and immediately have the damage ascertained by the carrier. Not readily ascertainable damages sustained during carriage shall be notified to the carrier within six (6) days after receipt of the Products.
- ## 14 Inspection, Notification of Defects and Damages
- 14.1 The Products will be subject to normal inspection by Georg Fischer during manufacture. Additional tests required by the Purchaser shall be agreed upon in writing and shall be charged to the Purchaser.
  - 14.2 It shall be a condition of Georg Fischer's obligation under the warranties stated hereinafter that Georg Fischer be notified in writing by the Purchaser of any purported defect immediately upon discovery. Notice concerning weight, numbers or apparent defects is to be given latest within 30 days from receipt of the Products, notice of other defects immediately latest within seven (7) working days after discovery, in any event within the agreed warranty period.
  - 14.3 Purchaser shall not dispose of allegedly defective Products until all warranty and/or damage claims are finally settled. At its request, defective Products are to be placed at Georg Fischer's disposal.
  - 14.4 At its request, Georg Fischer shall be given the opportunity to inspect the defect and/or damage, prior to commencement of remedial work, either itself or by third party experts.

## 15 Warranty

- 15.1 At the written request of the Purchaser, Georg Fischer undertakes to repair or replace at its discretion, as quickly as possible and free of charge, all Products supplied which demonstrably suffer from faulty design, materials or workmanship, from faulty operating or installation instructions or which become defective or unusable due to faulty advice.  
In order to protect employees from toxic or radioactive substances which may have been transported through defective parts returned to Georg Fischer's sales organisation, said parts must be accompanied by a Material Safety Disclosure Form. The form may be obtained from Georg Fischer's local sales company or via [www.piping.georgfischer.com](http://www.piping.georgfischer.com).  
Replaced parts shall become property of Georg Fischer, unless Georg Fischer waives such claim.
- 15.2 For Products which are manufactured to specifications, drawings or patterns supplied by the Purchaser, Georg Fischer's warranty shall be restricted to proper materials and workmanship.
- 15.3 The Purchaser shall be entitled to rescind the contract or to demand a reduction of the contract price if
  - the repair or replacement of the defective Product is impossible
  - the defective Product is not repaired or replaced within a reasonable period
  - Georg Fischer refuses the repair or replacement or if for reasons attributable to Georg Fischer the repair or replacement is delayed.
- 15.4 For Products or essential components manufactured by a third party and supplied by Georg Fischer under this contract, Georg Fischer's warranty is limited to the warranty provided by said third party.
- 15.5 This warranty shall not apply to damage resulting from normal wear and tear, improper storage and maintenance, failure to observe the operating instructions, overstressing or overloading, unsuitable operating media, unsuitable construction work or unsuitable building ground, improper repairs or alterations by the Purchaser or third parties, the use of other than original spare parts and other reasons beyond Georg Fischer's control.
- 15.6 No action or claim may be brought by the Purchaser on account of any alleged breach of warranty or any other obligation of Georg Fischer after the expiration of twelve (12) months from receipt of the Products by the end user or at the latest within eighteen (18) months of the Products being despatched by Georg Fischer.
- 15.7 In case of Products for use in domestic installations or in utilities
  - Georg Fischer will assume the costs of dismantling the defective Product and restoring the damaged object up to CHF 1'000'000 per occurrence.
  - warranty or damage claims - contrary to Section 15.6 - are time-barred five (5) years from the date of installation or seven (7) years from the production date, whichever is earlier.

## 16 Limitation of Liability

The rights and remedies of the customer shall be exclusively governed by these General Conditions of Supply and shall be in lieu of any remedies at law. All further claims for damages, reduction of the purchase price, termination of or rescission of the contract are excluded.  
In no case whatsoever shall the customer be entitled to claim damages other than compensation for costs of remedying defects in the supplies. This in particular refers, but shall not be limited, to loss of production, loss of use, loss of orders, loss of profit, third party recovery claims and other direct or indirect or consequential damages.  
This limitation of liability equally applies to the extent Georg Fischer is liable for acts or omissions of its employees or third parties engaged for the performance of its obligations. It does not apply in case of unlawful intent or gross negligence on the part of Georg Fischer's management and in case of Georg Fischer's statutory liability, in particular under applicable product liability laws.

## 17 Severability

Should any term or clause of these General Conditions in whole or in part be found to be unenforceable or void, all other provisions shall remain in full force and effect and the unenforceable or void provision shall be replaced by a valid provision, which comes closest to the original intention of the unenforceable or invalid provision.

## 18 Place of Performance and Jurisdiction

- 18.1 Place of performance for the Products shall be the Georg Fischer works from which the Products are despatched.
- 18.2 The contract shall be governed by Swiss law without regard to conflict of law provisions that would require the application of another law.
- 18.3 Any civil action based upon any alleged breach of this contract shall be filed and prosecuted exclusively in the courts of Schaffhausen, Switzerland.  
Georg Fischer however reserves the right to file actions in any court having jurisdiction over controversies arising out of or in connection with the present contract.

# Worldwide at Home

Our sales companies and representatives ensure local customer support in over 100 countries

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