



**DK/CP DN 15÷20**  
PVC-U / PVC-C / PP-H / PVDF

Pneumatically actuated 2-way diaphragm valve

# DK/CP DN 15÷20

The new DK/CP diaphragm valve is particularly suitable for shutting off and regulating abrasive or dirty fluids.

The new internal geometry of the body optimises fluid dynamic efficiency by increasing the flow rate and ensuring an optimum linearity of the flow adjustment curve.

The DK/CP is extremely compact and very light.

## PNEUMATICALLY ACTUATED 2-WAY DIAPHRAGM VALVE

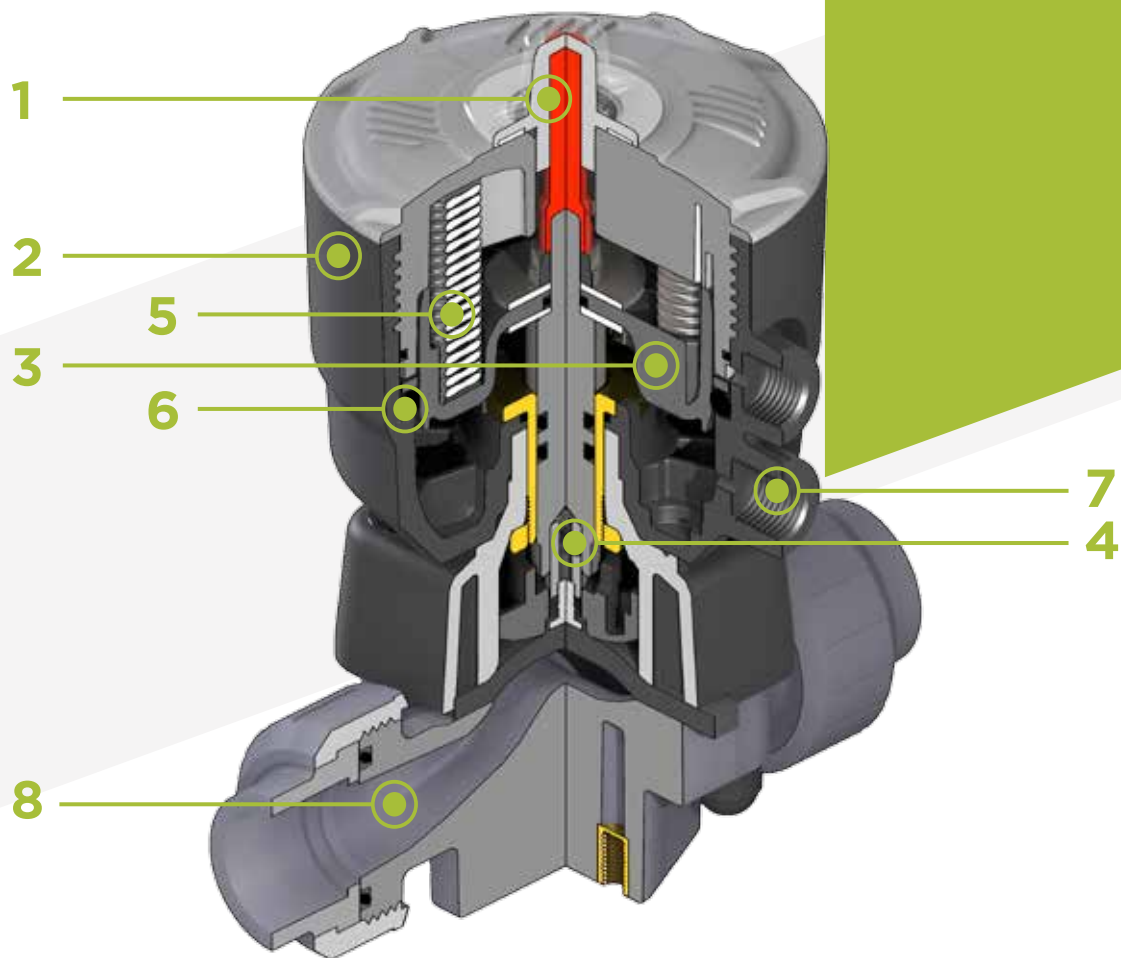
- Connection system for solvent weld, threaded and flanged joints
- **Optimised fluid dynamic design:** maximum output flow rate thanks to the optimised efficiency of the fluid dynamics that characterise the new internal geometry of the body
- **Light and compact piston actuator in PP-GR**, ideal for heavy-duty applications in chemically aggressive environments
- **High performance internal components:** piston in high strength IXEF® with high quality surface finish and Stem in stainless steel with double seal O-Ring
- Bonnet fastening screws in AISI 316 steel protected against the external environment by PE plugs. Absence of metal parts exposed to the external environment to prevent any risk of corrosion
- **CDSA** (Circular Diaphragm Sealing Angle) system that, thanks to the uniform distribution of shutter pressure on the diaphragm seal, offers the following advantages:
  - reduction in the tightening torque of the screws fixing the actuator to the valve body
  - reduced mechanical stress on all valve components (actuator, body and diaphragm)
  - easy to clean valve interior
  - low risk of the accumulation of deposits, contamination or damage to the diaphragm due to crystallisation

### Technical specifications

<b>Construction</b>	Pneumatically actuated diaphragm valve with body at maximized flow rate
<b>Size range</b>	DN 15 ÷ 20
<b>Nominal pressure</b>	PN 10 with water at 20 °C
<b>Temperature range</b>	<b>PVC-U:</b> 0 °C ÷ 60 °C - <b>PVC-C:</b> 0 °C ÷ 100 °C <b>PP-H:</b> 0 °C ÷ 100 °C - <b>PVDF:</b> -20 °C ÷ 120 °C
<b>Coupling standards</b>	<b>Solvent welding/Welding</b> EN ISO 1452, EN ISO 15493, EN ISO 15494, EN ISO 10931, BS 4346-1, DIN 8063, NF T54-028, ASTM D 2467, ASTM F 439. Can be coupled to pipes according to EN ISO 1452, EN ISO 15493, EN ISO 15494, EN ISO 10931, DIN 8062, NF T54-016, ASTM D 1785, ASTM F 441 <b>Thread:</b> ISO 228-1, DIN 2999, ASTM D 2464 <b>Flanging system:</b> ISO 7005-1, EN ISO 1452, EN ISO 15493, EN 1092-1, EN ISO 15494, EN ISO 10931, EN 558-1, DIN 2501, ANSI B16.5 Cl.150, JIS B2220
<b>Reference standards</b>	<b>Construction criteria:</b> EN ISO 16138, EN ISO 1452, EN ISO 15493, EN ISO 15494, EN ISO 10931 <b>Test methods and requirements:</b> ISO 9393 <b>Installation criteria:</b> DVS 2204, DVS 2221, DVS 2202-1, DVS 2201-1, DVS 2207-11, DVS 2207-15, DVS 2208-1, UNI 11242, UNI 11318
<b>Valve material</b>	PVC-U / PP-H / PVDF / PVC-C
<b>Diaphragm material</b>	EPDM, FPM, PTFE (on request NBR)
<b>Control options</b>	Pneumatic actuator

The new compact and light piston actuator in PP-GR makes the DK/CP the ideal choice for applications requiring very frequent valve operation and a long valve lifetime.

Technical specifications - pneumatic actuator	
<b>Construction</b>	Single-acting (NC-NO) and double-acting (DA) pneumatic piston actuator
<b>Actuator Material</b>	<b>Body and bonnet:</b> PP-GR <b>Position indicator cap</b> PC
<b>Control air pressure</b>	<b>Minimum:</b> according to the working pressure and operation of the actuator (see detailed graphs) <b>Maximum:</b> NC: 7 bar - NO: 5 bar - DA: 5 bar
<b>Power supply</b>	Dry or lubricated filtered compressed air. If using other fluids, contact the FIP service centre
<b>Control fluid temperature</b>	Max 40 °C
<b>Working temperature</b>	-20 °C ÷ 50 °C
<b>Standard equipment</b>	• Optical position indicator
<b>Accessories</b>	<ul style="list-style-type: none"> <li>• Stroke limiter with position indicator</li> <li>• Stroke limiter with position indicator and emergency manual override</li> <li>• Limit switch boxes</li> <li>• Electro-pneumatic positioner</li> <li>• Pilot solenoid valves 3-5/2 ways for direct or manifold mounting</li> <li>• Distance plate</li> </ul>



**1 High visibility optical position indicator** protected by a transparent cover with O-Ring

**2 Light and compact piston actuator in PP-GR**, ideal for heavy-duty applications in chemically aggressive environments with a **diaphragm perimeter containment system** that ensures the perfect compression of the rubber without any lateral expansion

**3 Piston in high strength IXEF®**. The high quality finish of the external surface guarantees perfect slidability over the seal and ensures a long working life without any actuator maintenance

**4 High strength stainless steel stem** with double O-Ring

**Floating pin connection** between the actuator stem and diaphragm to prevent concentrated loads, improve the seal and extend its lifetime

**5** Actuator equipped with **6 independent cartridge springs** arranged radially to uniformly distribute the load on the piston

**6 Dual function main gasket.**  
**Piston seal:** the gasket does not move but sits securely on the actuator cylinder instead of the piston.

**External seal:** The gasket positioned above the threaded joint between the bonnet and cylinder ensures that the coupling is not stressed by the pressure inside the actuator

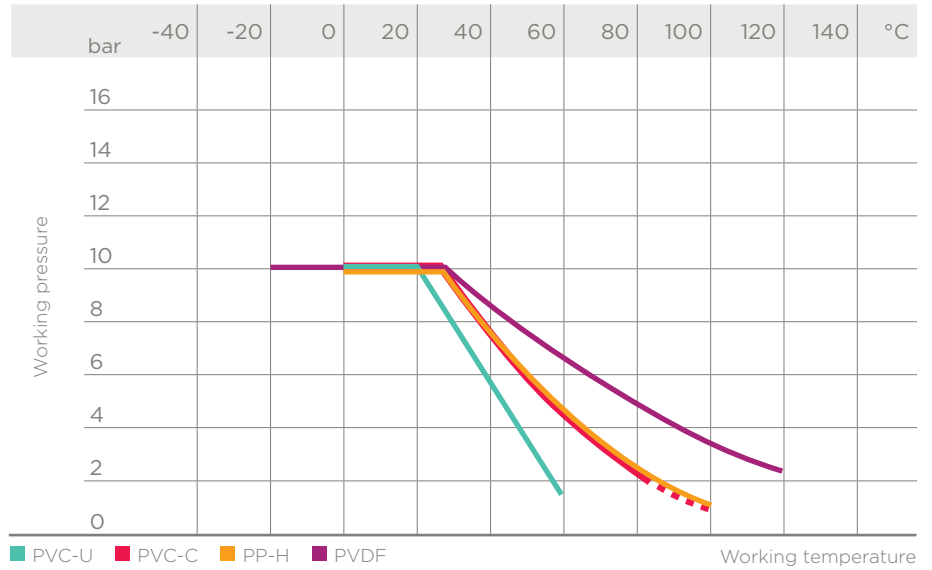
**7** Easy to install, even in confined spaces: **compressed air inlets with G 1/4" threaded adjustable connections** to enable alignment with the piping

**8 New design of valve body interior**  
**Substantially increased flow coefficient** and reduced pressure drop. The degree of efficiency reached has also enabled **the size and weight** of the valve to be **reduced**  
**Adjustment linearity:** the internal profiles of the valve also greatly improve its characteristic curve, resulting in **extremely sensitive and precise adjustment** along the entire stroke of the shutter

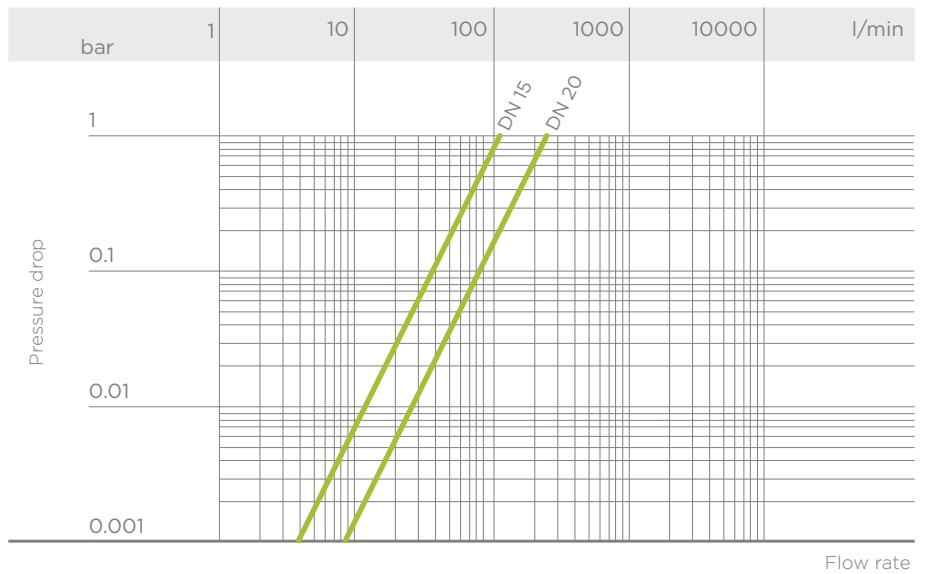
# TECHNICAL DATA

## PRESSURE VARIATION ACCORDING TO TEMPERATURE

For water and harmless fluids to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).



## PRESSURE DROP GRAPH



## K<sub>v</sub>100 FLOW COEFFICIENT

The K<sub>v</sub>100 flow coefficient is the Q flow of litres per minute of water at a temperature of 20°C that will generate Δp= 1 bar pressure drop at a certain valve position.

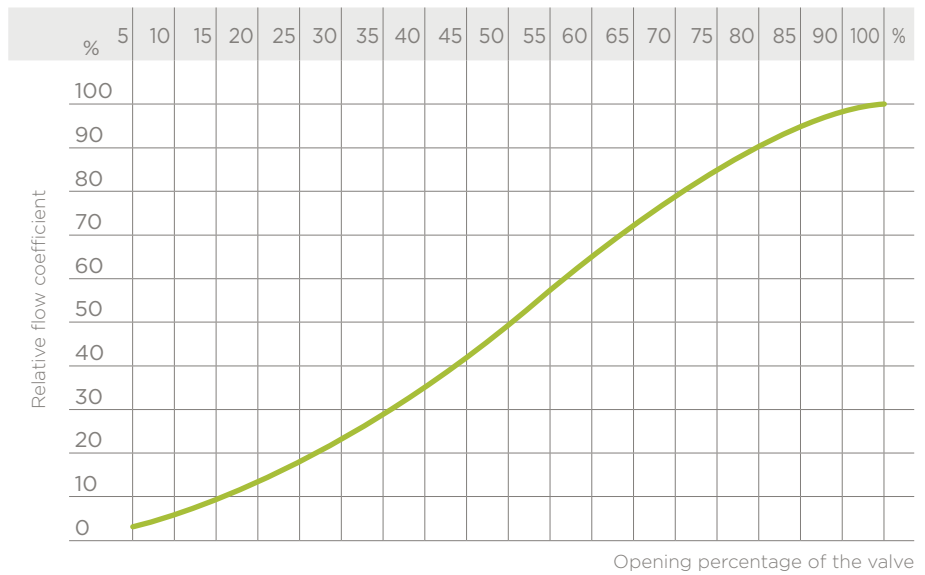
The K<sub>v</sub>100 values shown in the table are calculated with the valve completely open.

DN	15	20
K <sub>v</sub> 100 l/min	112	261

# TECHNICAL DATA

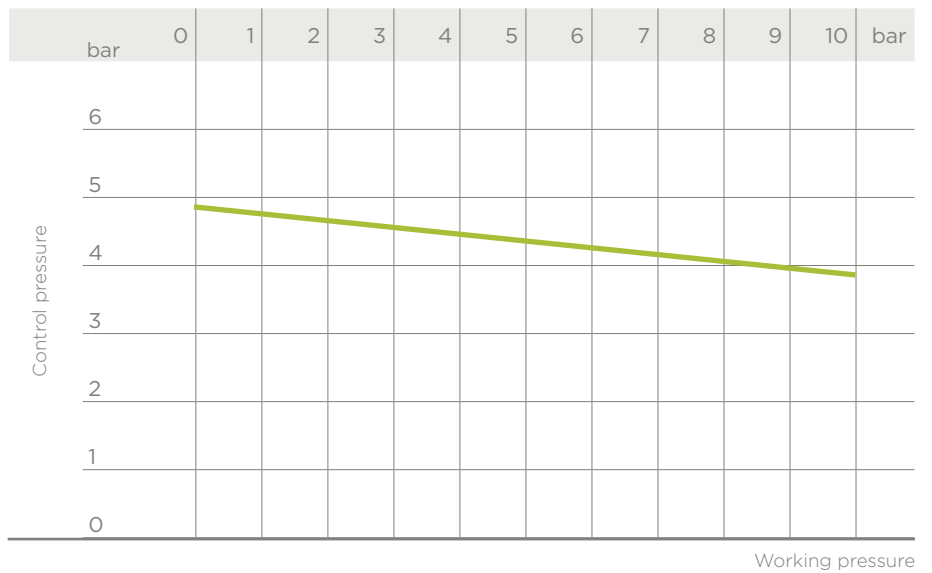
## RELATIVE FLOW COEFFICIENT GRAPH

The relative flow coefficient refers to the variation in the flow rate as a function of the valve opening stroke



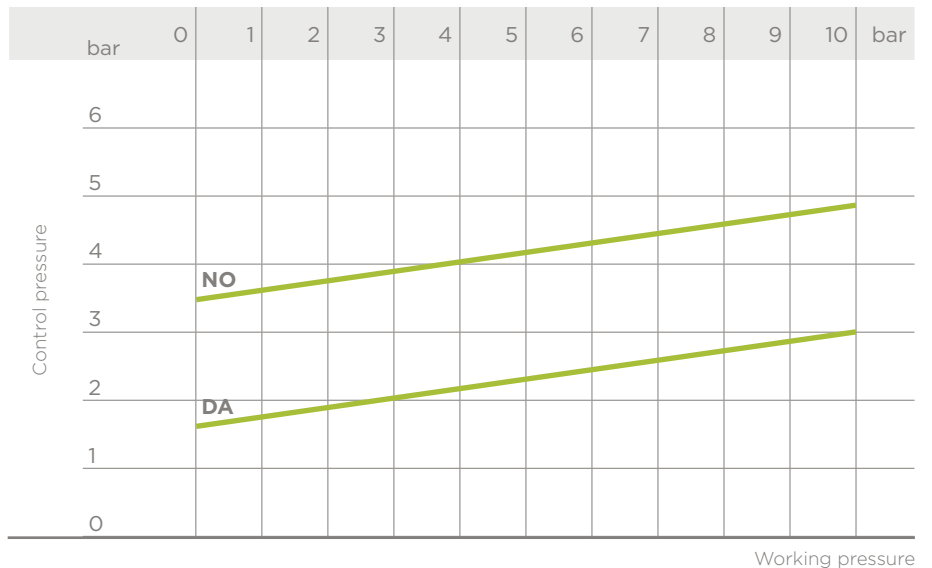
## CONTROL PRESSURE ACCORDING TO WORKING PRESSURE DK/CP NC

Minimum control pressure according to working pressure with EPDM/FPM diaphragm



## CONTROL PRESSURE ACCORDING TO WORKING PRESSURE DK/CP NO-DA

Minimum control pressure according to working pressure with EPDM/FPM diaphragm



## FUNCTIONAL CHARACTERISTICS

	Double-acting (DA)	normally closed (NC)	Single-acting (SA)
Function type	double-acting	normally closed (NC)	normally open (NO)
Valve opening	air	air	spring
Valve closing	air	spring	air

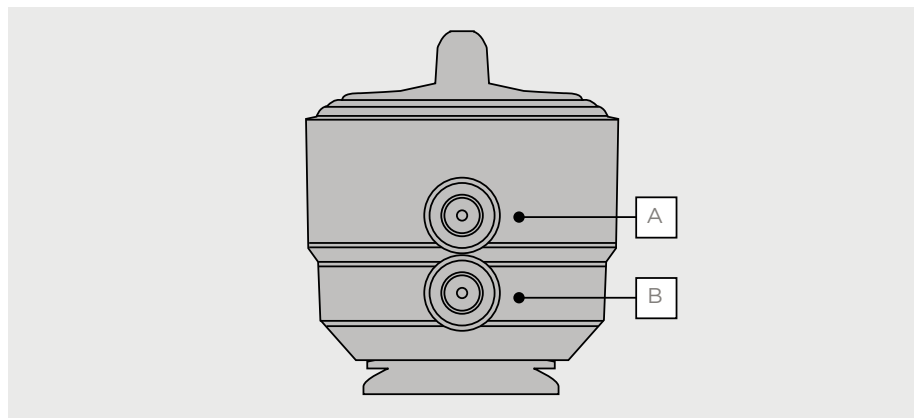
## ACTUATOR CAPACITY

NI: Normal-liter  
Volume at atmospheric pressure

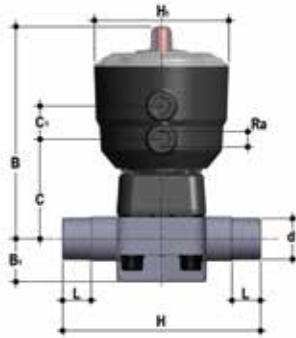
DN	15	20
NC	0.12 NI	0.12 NI
NO	0.16 NI	0.16 NI
DA	0.23 NI	0.23 NI

## COMPRESSED AIR CONNECTIONS

Function type	Double-acting (DA)	Normally closed (NC)	Normally open (NO)
Valve opening	Inlet B	Inlet B	-
Valve closing	Inlet A	-	Inlet A



# DK/CP RANGE DIMENSIONS



## DKDV/CP DKDC/CP DKDM/CP DKDF/CP

Pneumatically actuated diaphragm valve with male ends, metric series  
PVC-U, PP-H, PVDF, PVC-C

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	H	H <sub>1</sub>	L	Ra	NC	NO	<sup>g</sup> DA
20	15	10	148	25	66	24	124	97	16	1/4"	695	695	575
25	20	10	151	29.5	69	24	144	97	19	1/4"	717	717	597

Figures for PVC-U version

## DK/CP NC Codes

d	DN	DKDV/CP PVC-U			DKDC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKDVNC020E	DKDVNC020F	DKDVNC020P	DKDCNC020E	DKDCNC020F	DKDCNC020P
25	20	DKDVNC025E	DKDVNC025F	DKDVNC025P	DKDCNC025E	DKDCNC025F	DKDCNC025P

d	DN	DKDM/CP PP-H			DKDF/CP PVDF		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKDMNC020E	DKDMNC020F	DKDMNC020P	DKDFNC020E	DKDFNC020F	DKDFNC020P
25	20	DKDMNC025E	DKDMNC025F	DKDMNC025P	DKDFNC025E	DKDFNC025F	DKDFNC025P

## DK/CP NO Codes

d	DN	DKDV/CP PVC-U			DKDC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKDVNO020E	DKDVNO020F	DKDVNO020P	DKDCNO020E	DKDCNO020F	DKDCNO020P
25	20	DKDVNO025E	DKDVNO025F	DKDVNO025P	DKDCNO025E	DKDCNO025F	DKDCNO025P

d	DN	DKDM/CP PP-H			DKDF/CP PVDF		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKDMNO020E	DKDMNO020F	DKDMNO020P	DKDFNO020E	DKDFNO020F	DKDFNO020P
25	20	DKDMNO025E	DKDMNO025F	DKDMNO025P	DKDFNO025E	DKDFNO025F	DKDFNO025P

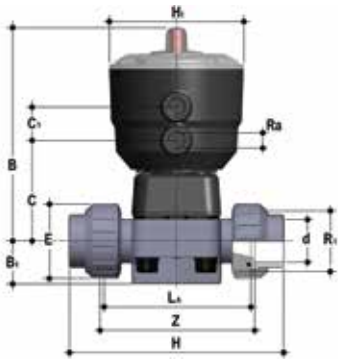
## DK/CP DA Codes

d	DN	DKDV/CP PVC-U			DKDC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKDVDA020E	DKDVDA020F	DKDVDA020P	DKDCDA020E	DKDCDA020F	DKDCDA020P
25	20	DKDVDA025E	DKDVDA025F	DKDVDA025P	DKDCDA025E	DKDCDA025F	DKDCDA025P

d	DN	DKDM/CP PP-H			DKDF/CP PVDF		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKDMDA020E	DKDMDA020F	DKDMDA020P	DKDFDA020E	DKDFDA020F	DKDFDA020P
25	20	DKDMDA025E	DKDMDA025F	DKDMDA025P	DKDFDA025E	DKDFDA025F	DKDFDA025P





## DKUIV/CP DKUIC/CP DKUIM/CP DKUIF/CP

Pneumatically actuated diaphragm valve with female ends, metric series  
PVC-U, PP-H, PVDF, PVC-C

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	La	R <sub>1</sub>	Ra	Z	NC	NO	g DA
20	15	10	148	25	66	24	41	129	97	90	1"	1/4"	100	735	735	615
25	20	10	151	29.5	69	24	50	154	97	108	1 1/4"	1/4"	116	797	797	677

Figures for PVC-U version

### DK/CP NC Codes

d	DN	DKUIV/CP PVC-U			DKUIC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKUIVNC020E	DKUIVNC020F	DKUIVNC020P	DKUICNC020E	DKUICNC020F	DKUICNC020P
25	20	DKUIVNC025E	DKUIVNC025F	DKUIVNC025P	DKUICNC025E	DKUICNC025F	DKUICNC025P

d	DN	DKUIM/CP PP-H			DKUIF/CP PVDF		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKUIMNC020E	DKUIMNC020F	DKUIMNC020P	DKUIFNC020E	DKUIFNC020F	DKUIFNC020P
25	20	DKUIMNC025E	DKUIMNC025F	DKUIMNC025P	DKUIFNC025E	DKUIFNC025F	DKUIFNC025P

### DK/CP NO Codes

d	DN	DKUIV/CP PVC-U			DKUIC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKUIVNO020E	DKUIVNO020F	DKUIVNO020P	DKUICNO020E	DKUICNO020F	DKUICNO020P
25	20	DKUIVNO025E	DKUIVNO025F	DKUIVNO025P	DKUICNO025E	DKUICNO025F	DKUICNO025P

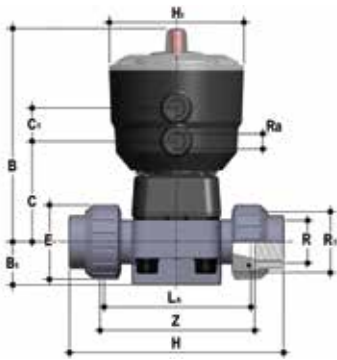
d	DN	DKUIM/CP PP-H			DKUIF/CP PVDF		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKUIMNO020E	DKUIMNO020F	DKUIMNO020P	DKUIFNO020E	DKUIFNO020F	DKUIFNO020P
25	20	DKUIMNO025E	DKUIMNO025F	DKUIMNO025P	DKUIFNO025E	DKUIFNO025F	DKUIFNO025P

### DK/CP DA Codes

d	DN	DKUIV/CP PVC-U			DKUIC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKUIVDA020E	DKUIVDA020F	DKUIVDA020P	DKUICDA020E	DKUICDA020F	DKUICDA020P
25	20	DKUIVDA025E	DKUIVDA025F	DKUIVDA025P	DKUICDA025E	DKUICDA025F	DKUICDA025P

d	DN	DKUIM/CP PP-H			DKUIF/CP PVDF		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKUIMDA020E	DKUIMDA020F	DKUIMDA020P	DKUIFDA020E	DKUIFDA020F	DKUIFDA020P
25	20	DKUIMDA025E	DKUIMDA025F	DKUIMDA025P	DKUIFDA025E	DKUIFDA025F	DKUIFDA025P



## DKUFV/CP DKUFC/CP

Pneumatically actuated diaphragm valve with BSP threaded female union ends, PVC-U, PVC-C series

R	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	La	R <sub>1</sub>	Ra	Z	NC	NO	<sup>g</sup> DA
1/2"	15	10	148	25	66	24	41	131	97	90	1"	1/4"	97	735	735	615
3/4"	20	10	151	29.5	69	24	50	151	97	108	1" 1/4	1/4"	118	797	797	677

Figures for PVC-U version

## DK/CP NC Codes

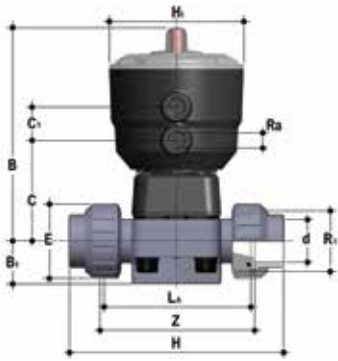
R	DN	DKUFV/CP PVC-U			DKUFC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
1/2"	15	DKUFVNC012E	DKUFVNC012F	DKUFVNC012P	DKUFCNC012E	DKUFCNC012F	DKUFCNC012P
3/4"	20	DKUFVNC034E	DKUFVNC034F	DKUFVNC034P	DKUFCNC034E	DKUFCNC034F	DKUFCNC034P

## DK/CP NO Codes

R	DN	DKUFV/CP PVC-U			DKUFC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
1/2"	15	DKUFVNO012E	DKUFVNO012F	DKUFVNO012P	DKUFCNO012E	DKUFCNO012F	DKUFCNO012P
3/4"	20	DKUFVNO034E	DKUFVNO034F	DKUFVNO034P	DKUFCNO034E	DKUFCNO034F	DKUFCNO034P

## DK/CP DA Codes

R	DN	DKUFV/CP PVC-U			DKUFC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
1/2"	15	DKUFVDA012E	DKUFVDA012F	DKUFVDA012P	DKUFCDA012E	DKUFCDA012F	DKUFCDA012P
3/4"	20	DKUFVDA034E	DKUFVDA034F	DKUFVDA034P	DKUFCDA034E	DKUFCDA034F	DKUFCDA034P



## DKUAV/CP DKUAC/CP

Pneumatically actuated diaphragm valve with female union ends for solvent welding, ASTM PVC-U, PVC-C series

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	La	R <sub>1</sub>	Ra	Z	NC	NO	g DA
1/2"	15	10	148	25	66	24	41	143	97	90	1"	1/4"	98	735	735	615
3/4"	20	10	151	29.5	69	24	50	167	97	108	1" 1/4	1/4"	115	797	797	677

Figures for PVC-U version

## DK/CP NC Codes

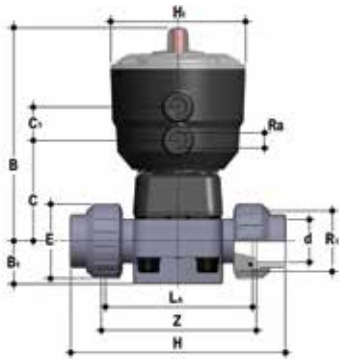
d	DN	DKUAV/CP PVC-U			DKUAC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
1/2"	15	DKUAVNC012E	DKUAVNC012F	DKUAVNC012P	DKUACNC012E	DKUACNC012F	DKUACNC012P
3/4"	20	DKUAVNC034E	DKUAVNC034F	DKUAVNC034P	DKUACNC034E	DKUACNC034F	DKUACNC034P

## DK/CP NO Codes

d	DN	DKUAV/CP PVC-U			DKUAC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
1/2"	15	DKUAVNO012E	DKUAVNO012F	DKUAVNO012P	DKUACNO012E	DKUACNO012F	DKUACNO012P
3/4"	20	DKUAVNO034E	DKUAVNO034F	DKUAVNO034P	DKUACNO034E	DKUACNO034F	DKUACNO034P

## DK/CP DA Codes

d	DN	DKUAV/CP PVC-U			DKUAC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
1/2"	15	DKUAVDA012E	DKUAVDA012F	DKUAVDA012P	DKUACDA012E	DKUACDA012F	DKUACDA012P
3/4"	20	DKUAVDA034E	DKUAVDA034F	DKUAVDA034P	DKUACDA034E	DKUACDA034F	DKUACDA034P



## DKULV/CP

Pneumatically actuated diaphragm valve with female union ends for solvent welding, BS PVC-U series

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	E	H	H <sub>1</sub>	La	R <sub>1</sub>	Ra	Z	NC	NO	g DA
1/2"	15	10	148	25	66	24	41	131	97	90	1"	1/4"	97	735	735	615
3/4"	20	10	151	29.5	69	24	50	154	97	108	1" 1/4	1/4"	116	797	797	677

## DK/CP NC Codes

d	DN	EPDM	FPM	DKULV/CP PVC-U PTFE
1/2"	15	DKULVNC012E	DKULVNC012F	DKULVNC012P
3/4"	20	DKULVNC034E	DKULVNC034F	DKULVNC034P

## DK/CP NO Codes

d	DN	EPDM	FPM	DKULV/CP PVC-U PTFE
1/2"	15	DKULVNO012E	DKULVNO012F	DKULVNO012P
3/4"	20	DKULVNO034E	DKULVNO034F	DKULVNO034P

## DK/CP DA Codes

d	DN	EPDM	FPM	DKULV/CP PVC-U PTFE
1/2"	15	DKULVDA012E	DKULVDA012F	DKULVDA012P
3/4"	20	DKULVDA034E	DKULVDA034F	DKULVDA034P



## DKOV/CP DKOC/CP DKOM/CP DKOF/CP

Pneumatically actuated diaphragm valve with fixed flanges drilled PN10/16. Face to face according to EN 558-1 PVC-U, PP-H, PVDF, PVC-C

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	Ra	U	Sp	NC	NO	g DA
20	15	10	148	25	66	24	65	14	135	97	1/4"	4	13.5	925	925	805
25	20	10	151	29.5	69	24	75	14	150	97	1/4"	4	13.5	917	917	797

Figures for PVC-U version

### DK/CP NC Codes

d	DN	DKOV/CP PVC-U			DKOC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKOVNC020E	DKOVNC020F	DKOVNC020P	DKOCNC020E	DKOCNC020F	DKOCNC020P
25	20	DKOVNC025E	DKOVNC025F	DKOVNC025P	DKOCNC025E	DKOCNC025F	DKOCNC025P

d	DN	DKOM/CP PP-H			DKOF/CP PVDF		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKOMNC020E	DKOMNC020F	DKOMNC020P	DKOFNC020E	DKOFNC020F	DKOFNC020P
25	20	DKOMNC025E	DKOMNC025F	DKOMNC025P	DKOFNC025E	DKOFNC025F	DKOFNC025P

### DK/CP NO Codes

d	DN	DKOV/CP PVC-U			DKOC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKOVNO020E	DKOVNO020F	DKOVNO020P	DKOCNO020E	DKOCNO020F	DKOCNO020P
25	20	DKOVNO025E	DKOVNO025F	DKOVNO025P	DKOCNO025E	DKOCNO025F	DKOCNO025P

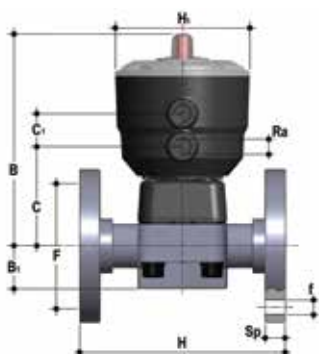
d	DN	DKOM/CP PP-H			DKOF/CP PVDF		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKOMNO020E	DKOMNO020F	DKOMNO020P	DKOFNO020E	DKOFNO020F	DKOFNO020P
25	20	DKOMNO025E	DKOMNO025F	DKOMNO025P	DKOFNO025E	DKOFNO025F	DKOFNO025P

### DK/CP DA Codes

d	DN	DKOV/CP PVC-U			DKOC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKOVDA020E	DKOVDA020F	DKOVDA020P	DKOCDA020E	DKOCDA020F	DKOCDA020P
25	20	DKOVDA025E	DKOVDA025F	DKOVDA025P	DKOCDA025E	DKOCDA025F	DKOCDA025P

d	DN	DKOM/CP PP-H			DKOF/CP PVDF		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
20	15	DKOMDA020E	DKOMDA020F	DKOMDA020P	DKOFDA020E	DKOFDA020F	DKOFDA020P
25	20	DKOMDA025E	DKOMDA025F	DKOMDA025P	DKOFDA025E	DKOFDA025F	DKOFDA025P



## DKOAV/CP DKOAC/CP DKOAM/CP DKOAF/CP

Pneumatically actuated diaphragm valve with fixed flanges, drilled ANSI B16.5 cl. 150  
#FF PVC-U, PP-H, PVDF, PVC-C

d	DN	PN	B	B <sub>1</sub>	C	C <sub>1</sub>	F	Øf	H	H <sub>1</sub>	Ra	U	Sp	NC	NO	g DA
1/2"	15	10	148	25	66	24	60	14	108	97	1/4"	4	13.5	902	925	805
3/4"	20	10	151	29.5	69	24	69.9	15.9	150	97	1/4"	4	13.5	917	917	797

Figures for PVC-U version

### DK/CP NC Codes

d	DN	DKOAV/CP PVC-U			DKOAC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
1/2"	15	DKOAVNC012E	DKOAVNC012F	DKOAVNC012P	DKOACNC012E	DKOACNC012F	DKOACNC012P
3/4"	20	DKOAVNC034E	DKOAVNC034F	DKOAVNC034P	DKOACNC034E	DKOACNC034F	DKOACNC034P

d	DN	DKOAM/CP PP-H			DKOAF/CP PVDF		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
1/2"	15	DKOAMNC012E	DKOAMNC012F	DKOAMNC012P	DKOAFNC012E	DKOAFNC012F	DKOAFNC012P
3/4"	20	DKOAMNC034E	DKOAMNC034F	DKOAMNC034P	DKOAFNC034E	DKOAFNC034F	DKOAFNC034P

### DK/CP NO Codes

d	DN	DKOAV/CP PVC-U			DKOAC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
1/2"	15	DKOAVNO012E	DKOAVNO012F	DKOAVNO012P	DKOACNO012E	DKOACNO012F	DKOACNO012P
3/4"	20	DKOAVNO034E	DKOAVNO034F	DKOAVNO034P	DKOACNO034E	DKOACNO034F	DKOACNO034P

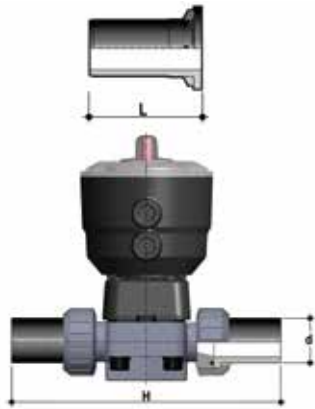
d	DN	DKOAM/CP PP-H			DKOAF/CP PVDF		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
1/2"	15	DKOAMNO012E	DKOAMNO012F	DKOAMNO012P	DKOAFNO012E	DKOAFNO012F	DKOAFNO012P
3/4"	20	DKOAMNO034E	DKOAMNO034F	DKOAMNO034P	DKOAFNO034E	DKOAFNO034F	DKOAFNO034P

### DK/CP DA Codes

d	DN	DKOAV/CP PVC-U			DKOAC/CP PVC-C		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
1/2"	15	DKOAVDA012E	DKOAVDA012F	DKOAVDA012P	DKOACDA012E	DKOACDA012F	DKOACDA012P
3/4"	20	DKOAVDA034E	DKOAVDA034F	DKOAVDA034P	DKOACDA034E	DKOACDA034F	DKOACDA034P

d	DN	DKOAM/CP PP-H			DKOAF/CP PVDF		
		EPDM	FPM	PTFE	EPDM	FPM	PTFE
1/2"	15	DKOAMDA012E	DKOAMDA012F	DKOAMDA012P	DKOAFDA012E	DKOAFDA012F	DKOAFDA012P
3/4"	20	DKOAMDA034E	DKOAMDA034F	DKOAMDA034P	DKOAFDA034E	DKOAFDA034F	DKOAFDA034P

# ACCESSORIES



## Q/BBE-L

Long spigot PE100 end connectors for electrofusion or butt welding

d	DN	L	H	SDR	Code
20	15	95	280	11	QBBEL11020
25	20	95	298	11	QBBEL11025

## Q/BBM-L

Long spigot PP-H end connectors for butt welding

d	DN	L	H	SDR	Code
20	15	95	280	11	QBBML11020
25	20	95	298	11	QBBML11025

## Q/BBM-C

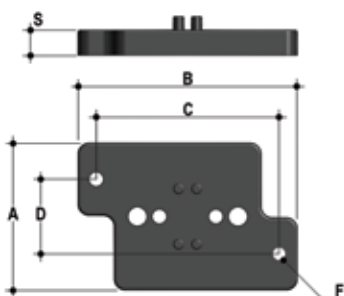
Short spigot PP-H end connectors for butt welding

d	DN	L	H	SDR	Code
20	15	55	200	11	QBBMC11020
25	20	55	218	11	QBBMC11025

## Q/BBF-L

Long spigot PVDF end connectors for butt welding

d	DN	L	H	SDR	Code
20	15	95	280	21	QBBFL21020
25	20	95	298	21	QBBFL21025



## PMDK

Wall mounting plate

d	DN	A	B	C	D	F	S	Code
20	15	65	97	81	33	5.5	11	PMDK1
25	20	65	97	81	33	5.5	11	PMDK1

# FASTENING AND SUPPORTING

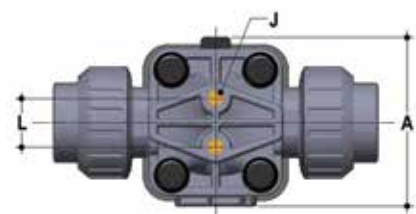


All valves, whether manual or actuated, must be adequately supported in many applications.

The DK valve series is therefore provided with an integrated bracket that permits direct anchoring of the valve body without the need of other components.

For wall installation, dedicated PMDK mounting plates which are available as accessories can be used. These plates should be fastened to the valve before wall installation.

The PMDK plate also allows the DK valve to be aligned with FIP ZIKM pipe clips.



d	DN	A	L	J
20	15	74	25	M6 x 10
25	20	74	25	M6 x 10

# CUSTOMISATION

The DK/CP DN 15÷20 valve can be customised using a customisation plate in white PVC.

The customisation plate (B), housed in the transparent protection cap (A), can be removed and, once overturned, used for indicating identification serial numbers or service indications on the valves such as, for example, the valve function in the system, the conveyed fluid, but also specific information for customer service, such as the customer name or installation date or location on the valves. The waterproof transparent protection cap with seal O-Ring protect the customisation plate against deterioration.

To access the customisation plate, proceed as follows:

- 1) Disconnect the valve from the pneumatic connections
- 2) Unscrew the transparent protection cap (fig. 1)
- 3) Remove the plate and proceed with the customisation (fig. 2).
- 4) Re-assemble everything making sure that the transparent protection cap O-Ring remains in its seating.

Fig. 1



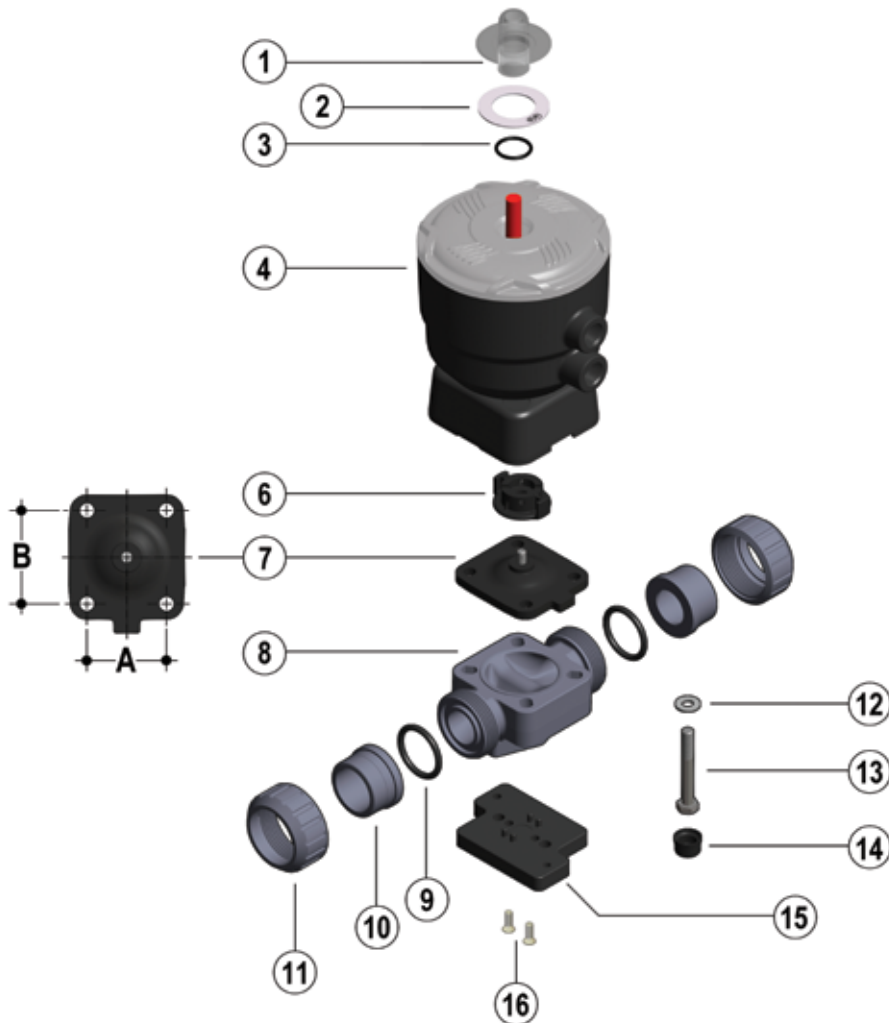
Fig. 2





# COMPONENTS

## EXPLODED VIEW DN 15÷20



DN	15	20
A	40	40
B	44	44

- 1 · Transparent cap (PC- 1)\*
- 2 · Customisation plate (PVC - 1)
- 3 · O-Ring (EPDM - 1)
- 4 · Actuator (PP-GR - 1)\*
- 6 · Compressor (IXEF® - 1)
- 7 · Diaphragm seal (EPDM, FPM, PTFE - 1)\*

- 8 · Valve body (PVC-U, PVCC, PPH, PVDF - 1)\*
- 9 · Socket seal O-ring (EPDM-FPM - 2)\*
- 10 · End connector (PVC-U, PVCC, PPH, PVDF - 2)\*
- 11 · Union nut (PVC-U, PVCC, PPH, PVDF - 2)\*

- 12 · Washer (Stainless steel- 4)
- 13 · Bolt (Stainless steel - 4)
- 14 · Protection plug (PE - 4)
- 15 · Distance plate (PP-GR - 1)\*\*
- 16 · Screw (Stainless steel - 2)\*\*

\* Spare parts

\*\* Accessories

The material of the component and the quantity supplied are indicated between brackets

## DISASSEMBLY

- 1) Isolate the valve from the line (release the pressure and empty the pipeline).
- 2) Open the valve with compressed air (NC-DA) to drain any residual liquid from the valve.
- 3) Disconnect the valve from the pneumatic and electrical connections
- 4) Fully unscrew the union nuts (11) and extract the valve sideways.
- 5) Remove the protection plugs (14) and bolts (13) with their washers (12) (this operation will be made easier if the actuator is pressurised (NC).
- 6) Separate the valve body (8) from the actuator (4).
- 7) Unscrew the diaphragm (7) and remove the compressor (6) (this operation will be made easier if the actuator is not pressurised (NC).

## ASSEMBLY

- 1) Insert the compressor (6) on the actuator stem (4) aligning it correctly in its housing (fig. 3).
- 2) Screw the diaphragm (7) onto the stem, aligning it correctly with its housing on the actuator.
- 3) Mount the actuator (4) on the valve body (8) and screw in the bolts (13) with the relative washers (12) (this operation will be made easier if the actuator is pressurised (NC).
- 4) Tighten the bolts (13) evenly (diagonally) to the tightening torque suggested on the relative instruction sheet.
- 5) Replace the protection plugs (14)
- 6) Position the valve between the end connectors (10) and tighten the union nuts (11), making sure that the socket seal O-rings (9) do not exit their seats.
- 7) Reconnect the valve to the pneumatic and electrical connections



**Note:** All operations on equipment under pressure or containing compressed springs must be carried out under safe conditions for the operator.

Fig. 3

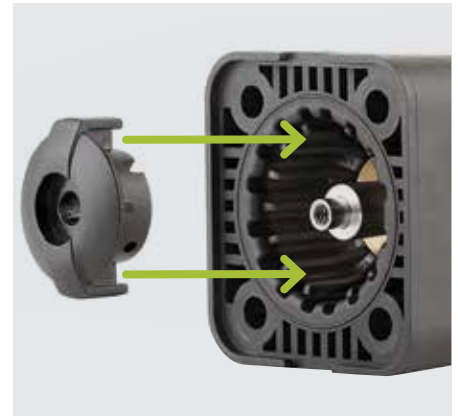


Fig. 4



## INSTALLATION

Before proceeding with installation, please follow these instructions carefully: (these instructions refer to union ends versions). The valve can be installed in any position and in any direction.

- 1) Check that the pipes to be connected to the valve are aligned in order to avoid mechanical stress on the threaded joints.
- 2) Unscrew the union nuts (11) and insert them on the pipe segments.
- 3) Solvent weld or screw the end connectors (10) onto the pipe ends.
- 4) Position the valve body between the end connectors, making sure that the socket seal O-rings (9) do not exit their seats.
- 5) Fully tighten the union nuts (11).
- 6) If necessary, support the pipework with FIP pipe clips or by means of the carrier built into the valve itself (see paragraph "Fastening and supporting").
- 7) Connect the compressed air as indicated in paragraph "Compressed air connections". For valves with electric accessories, refer to the specific technical manual supplied with the accessory.

When installing in confined spaces, the connections can be oriented in line with the piping (fig. 4).



**Note:** before putting the valve into service, check that the bolts on the valve body (8) are tightened correctly at the suggested torque.



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