



# CM/CP DN 12÷15

PVC-U/PVC-C/PP-H/PVDF

PNEUMATICALLY ACTUATED COMPACT DIAPHRAGM  
VALVE



# CM/CP DN 12÷15

The CM/CP is a pneumatically actuated valve with a compact structure and high flow capacity. The CM/CP is actuated by a dry running piston that can be actuated by all fluids or gases provided they are neutral and clean. The extremely compact structure of this valve permits easy installation even in highly confined spaces.

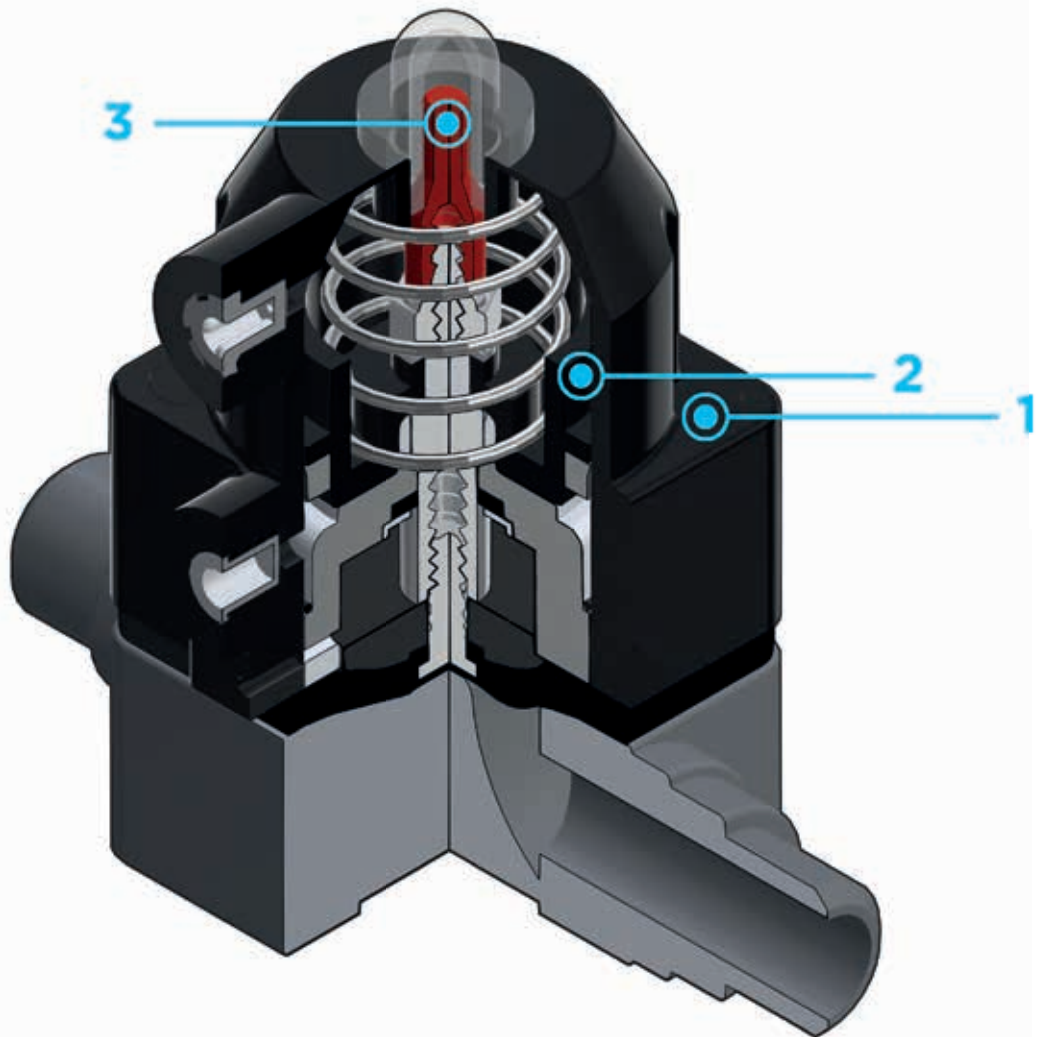
## PNEUMATICALLY ACTUATED COMPACT DIAPHRAGM VALVE

- The valve is impervious to fluids containing impurities
- It has an high flow rate
- It can be installed in any position
- It has an extremely compact structure
- It is actuated by a dry running piston and does not require maintenance
- It has no protruding screws and is fully free of impurity deposits
- Allows for an easy diaphragm seal replacement
- The Standard version valve comes with a position indicator.

Technical specifications - CM	
<b>Construction</b>	Compact single wear diaphragm valve
<b>Size range</b>	DN 12 ÷ 15
<b>Nominal pressure</b>	PN 6 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 - 140°C
<b>PVC-U coupling standards</b>	<b>Solvent welding:</b> EN ISO 1452, EN ISO 15493, BS 4346-1, DIN 8063, NF T54-028, ASTM D 2467, JIS K 6743. Can be coupled to pipes according to EN ISO 1452, EN ISO 15493, DIN 8062, NF T54-016, ASTM D 1785, JIS K 6741. <b>Thread:</b> ISO 228-1, DIN 2999, ASTM D 2464, JIS B 0203.
<b>PVC-C coupling standards</b>	<b>Solvent welding:</b> EN ISO 15493 Can be coupled to pipes according to EN ISO 15493
<b>PP-H coupling standards</b>	<b>Welding:</b> EN ISO 15494. Can be coupled to pipes according to EN ISO 15494 <b>Thread:</b> ISO 228-1, DIN 2999 <b>Flanging system:</b> ISO 7005-1, EN 1092-1, EN ISO 15494, EN 558-1, DIN 2501, ANSI B16.5 cl.150
<b>PVDF coupling standards</b>	<b>Welding:</b> EN ISO 10931 Can be coupled to pipes according to EN ISO 10931 <b>Thread:</b> ISO 228-1, DIN 2999
<b>Reference standards</b>	<b>PVC-U construction criteria:</b> EN ISO 16138, EN ISO 1452, EN ISO 15493 <b>PVC-C construction criteria:</b> EN ISO 16138, EN ISO 15493 <b>PP-H construction criteria:</b> EN ISO 16138, EN ISO 15494 <b>PVDF construction criteria:</b> EN ISO 16138, EN ISO 10931 <b>Test methods and requirements:</b> ISO 9393 <b>PVC-U/PVC-C installation criteria:</b> DVS 2204, DVS 2221, UNI 11242 <b>PP-H installation criteria:</b> DVS 2202-1, DVS 2207-11, DVS 2208-1, UNI 11318 <b>PVDF installation criteria:</b> DVS 2202-1, DVS 2207-15, DVS 2208-1
<b>Valve material</b>	PVC-U / PVC-C / PP-H / PVDF
<b>Seal material</b>	EPDM, FKM, PTFE
<b>Control options</b>	Pneumatic actuator

The new compact and light piston actuator in PP-GR makes the CM/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 working pressure and actuator function (see 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>Temperature range</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>• Electromechanical limit switches</li> <li>• Inductive limit switches (proximity)</li> <li>• Pilot solenoid valves 3-5/2 ways for direct or manifold mounting</li> <li>• Distance plate</li> </ul>



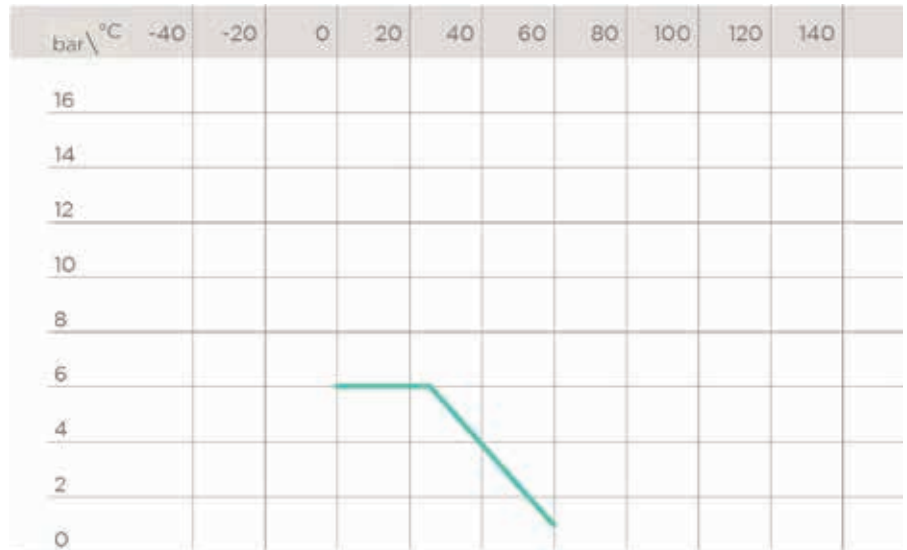
- 1** Compact and lightweight piston actuator in PP-GR, free of exposed metallic parts, particularly suited for use in severe environmental and chemically aggressive conditions.
- 2** High strength IXEF piston guarantees high reliability over time without maintenance.
- 3** High visibility graduated optical position indicator protected by a transparent cap with a seal O-Ring.

# TECHNICAL DATA

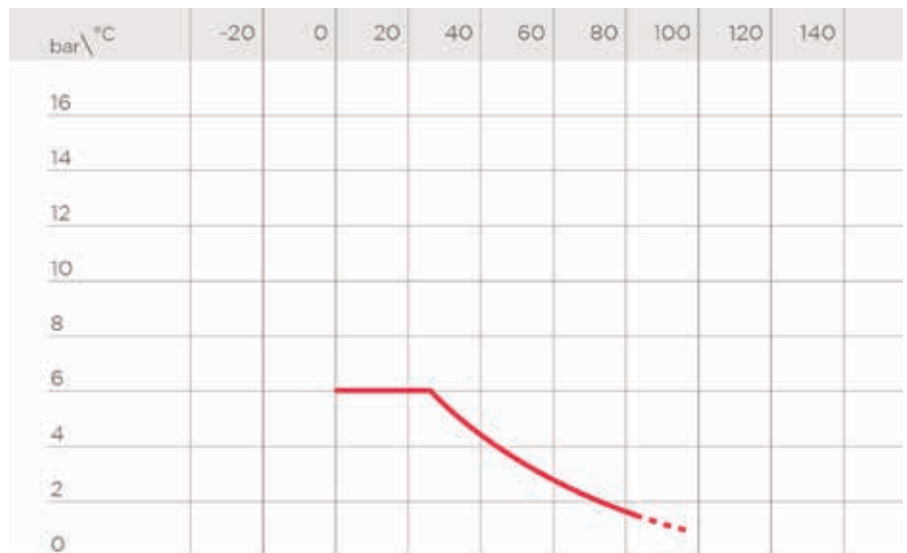
## PRESSURE VARIATION ACCORDING TO TEMPERATURE

### PVC-U BODY

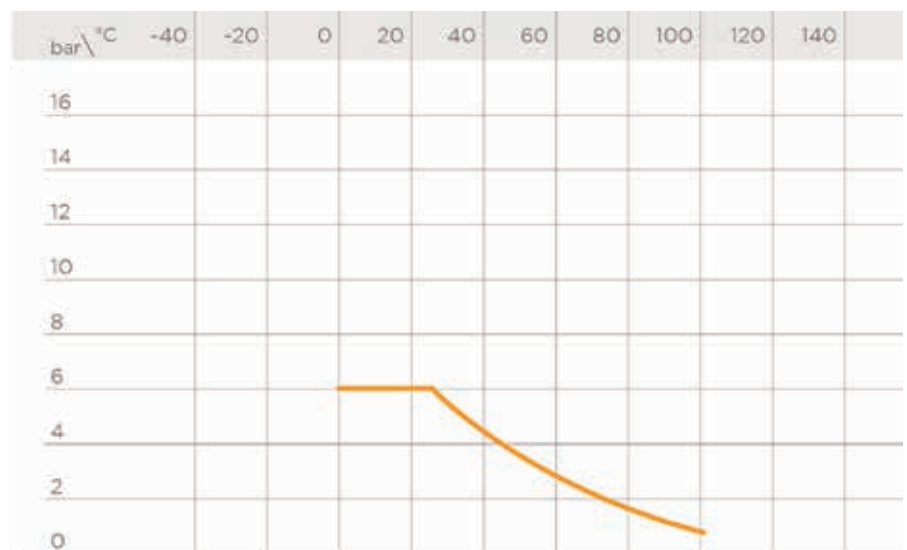
For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).



### PVC-C BODY



### PP-H BODY

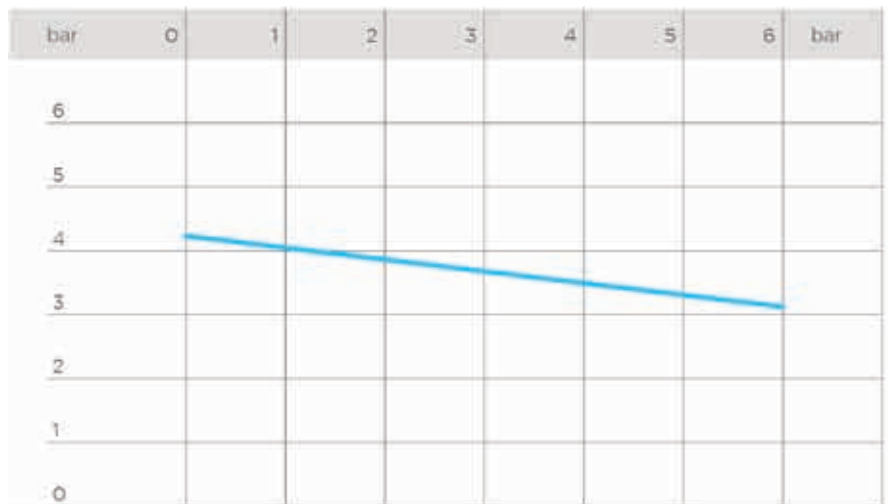


## PVDF BODY



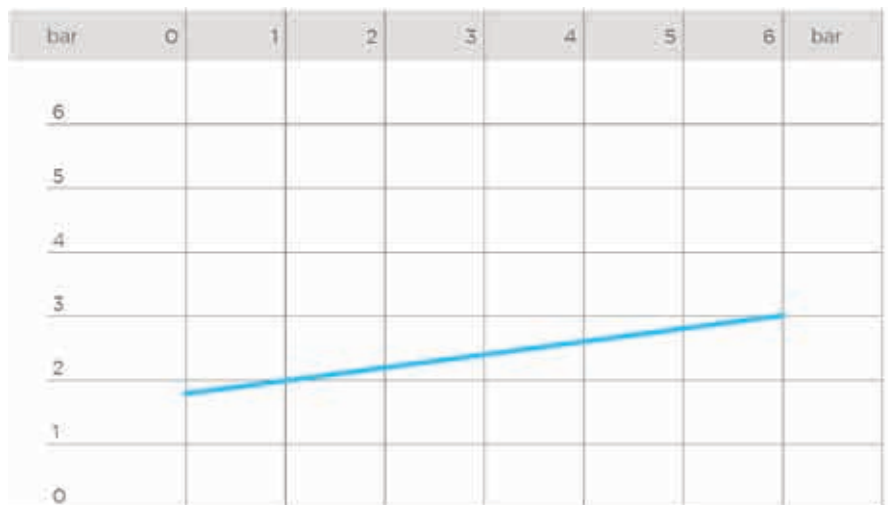
## CONTROL PRESSURE ACCORDING TO CM/CP NC WORKING PRESSURE

Minimum control pressure according to working pressure with EPDM/FKM diaphragm  
 X axis: working pressure  
 Y axis: control pressure



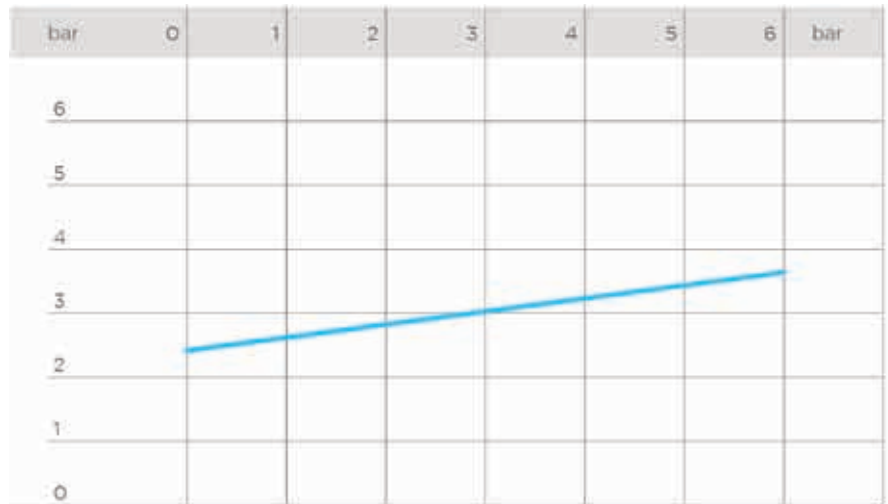
## CONTROL PRESSURE ACCORDING TO CM/CP NO WORKING PRESSURE

Minimum control pressure (Y axis) according to working pressure (X axis) with EPDM/FKM diaphragm  
 X axis: working pressure  
 Y axis: control pressure

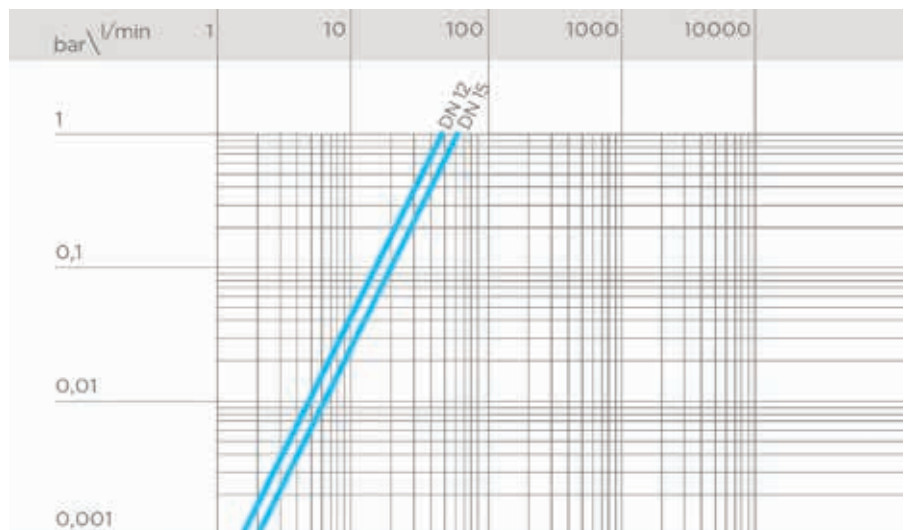


## CONTROL PRESSURE ACCORDING TO CM/CP DA WORKING PRESSURE

Minimum control pressure (Y axis) according to working pressure (X axis) with EPDM/FKM diaphragm  
 X axis: working pressure  
 Y axis: control pressure



## 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	12	15
Kv100 l/min	47	58

# PNEUMATIC ACTUATOR DATA

## FUNCTIONAL CHARACTERISTICS

Function type	double-acting	Normally closed (NC)	Normally Open (NO)
Valve opening	air	air	spring
Valve closing	air	spring	air

## ACTUATOR CAPACITY

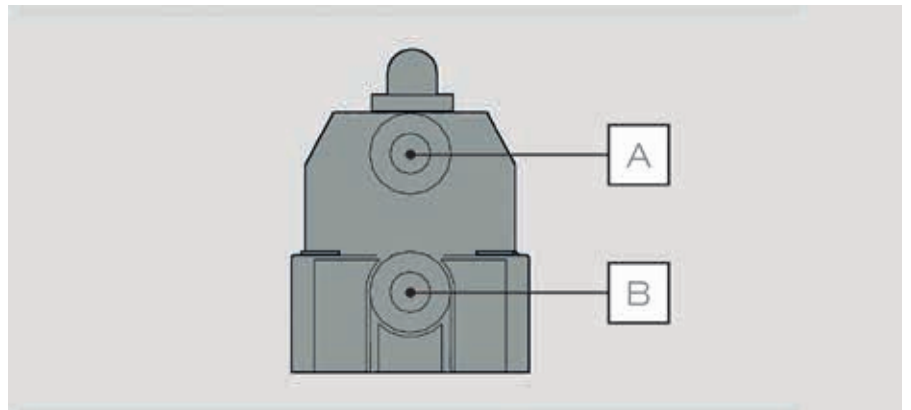
L: litre, equivalent to  $10^{-3} \text{ m}^3$

Air consumption in normal litres (or normal cubic metres) per operating cycle can be calculated by correcting according to operating conditions such as control air pressure.

DN	15	20
NC	0.027 L	0.027 L
NO	0.027 L	0.027 L
DA	0.054 L	0.054 L

## COMPRESSED AIR CONNECTIONS

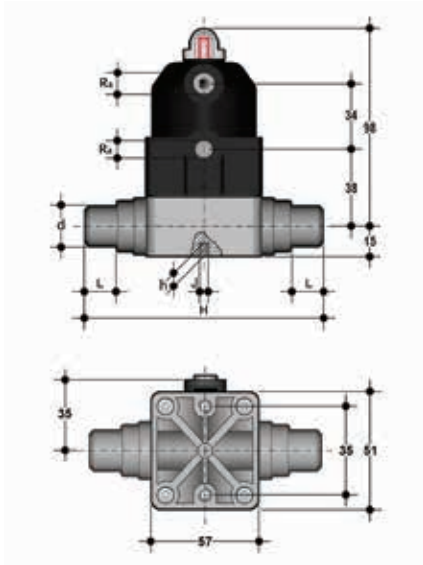
Function type	Double-acting (DA)	Normally closed (NC)	Normally Open (NO)
Valve opening	Inlet B	Inlet B	-
Valve closing	Inlet A	-	Inlet A





# DIMENSIONS

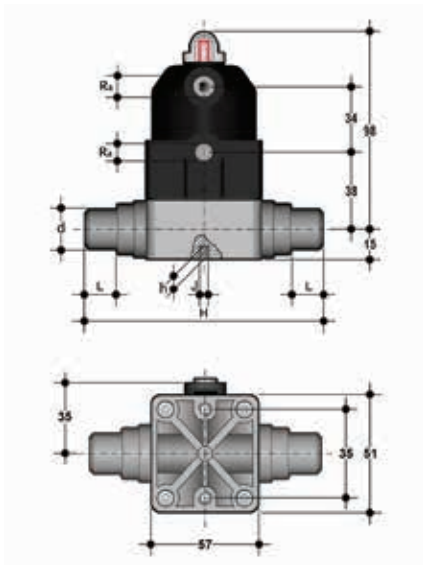
## CM/CP DN 12÷15 PVC-U



### CMDV/CP NC

Compact diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Normally Closed function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	340	CMDVNC020E	CMDVNC020F	CMDVNC020P



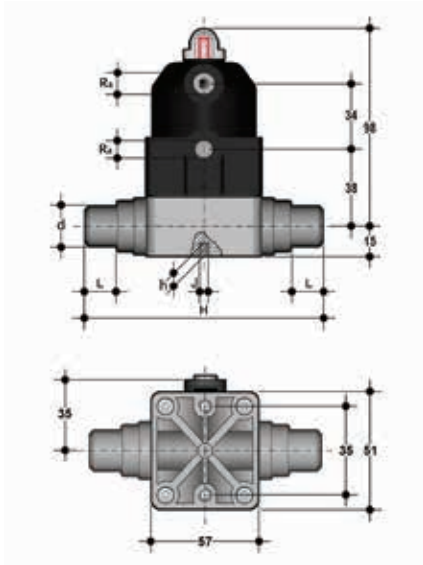
### CMDV/CP NO

Compact diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Normally Open function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	340	CMDVNO020E	CMDVNO020F	CMDVNO020P

# DIMENSIONS

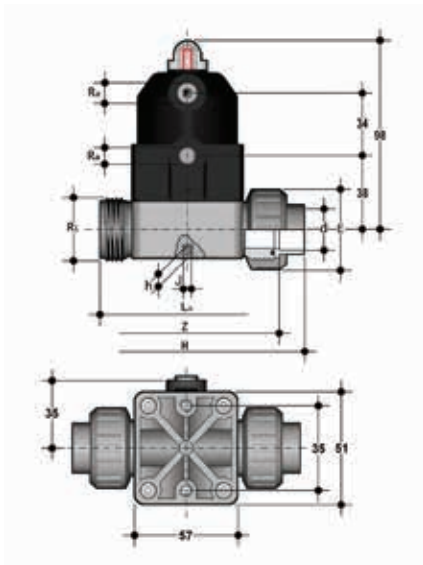
## CM/CP DN 12÷15 PVC-U



### CMDV/CP DA

Compact diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Double-Acting function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	340	CMDVDA020E	CMDVDA020F	CMDVDA020P



### CMUIV/CP NC

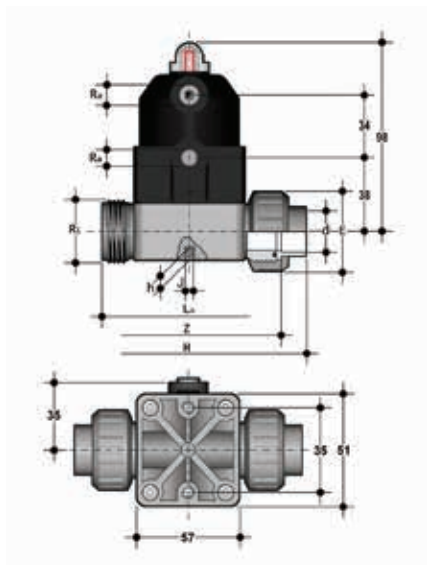
Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Normally Closed function

d	DN	PN	E	R <sub>1</sub>	R <sub>0</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUIVNC020E	CMUIVNC020F	CMUIVNC020P

\*FKM union O-ring

# DIMENSIONS

## CM/CP DN 12÷15 PVC-U

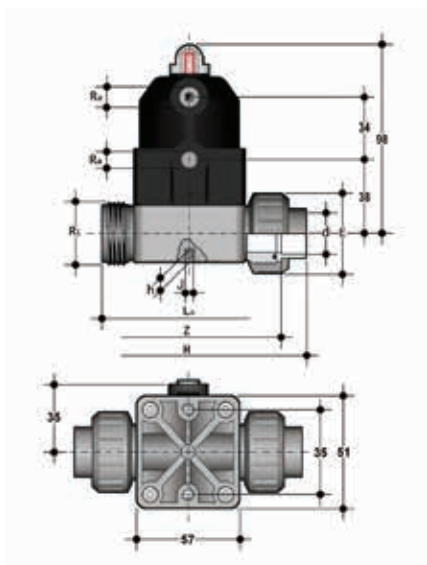


### CMUIV/CP NO

Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Normally Open function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUIVNO020E	CMUIVNO020F	CMUIVNO020P

\*FKM union O-ring



### CMUIV/CP DA

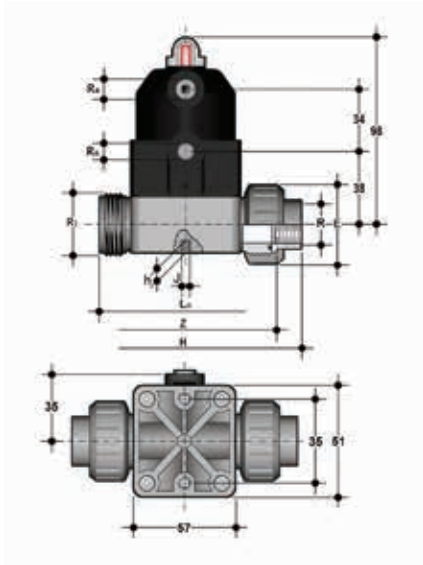
Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Double-Acting function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUIVDA020E	CMUIVDA020F	CMUIVDA020P

\*FKM union O-ring

# DIMENSIONS

## CM/CP DN 12÷15 PVC-U

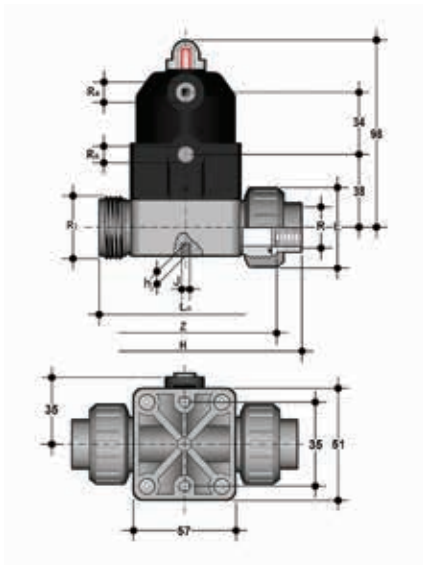


### CMUFV/CP NC

Compact diaphragm valve with female union ends, pneumatically actuated gas cylinder thread, Normally Closed function

R	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>1</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
1/2"	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUFVNC012E	CMUFVNC012F	CMUFVNC012P

\*FKM union O-ring



### CMUFV/CP NO

Compact diaphragm valve with female union ends, pneumatically actuated gas cylinder thread, Normally Open function

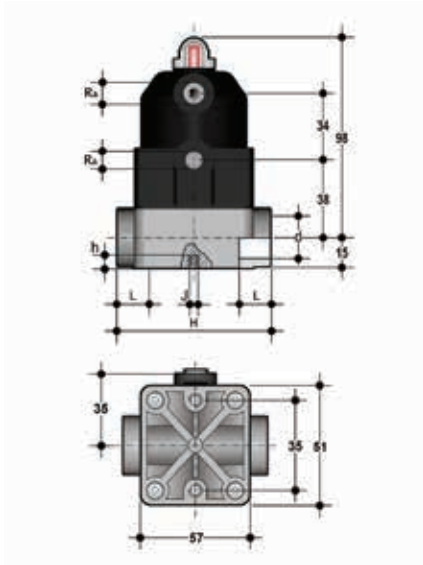
R	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>1</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
1/2"	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUFVNO012E	CMUFVNO012F	CMUFVNO012P

\*FKM union O-ring



# DIMENSIONS

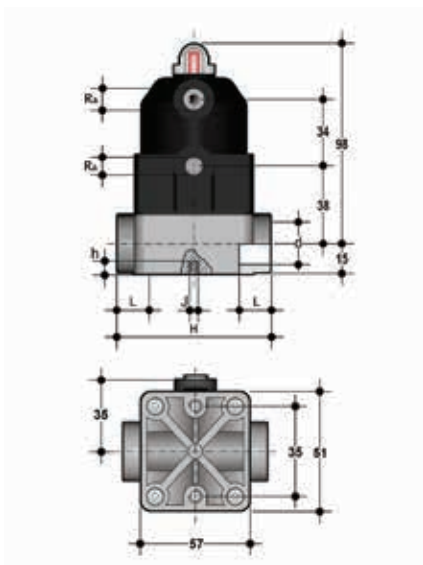
## CM/CP DN 12÷15 PVC-U



### CMIV/CP NO

Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Normally Open function

d	DN	PN	R <sub>o</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	340	CMIVNO016E	CMIVNO016F	CMIVNO016P
20	15	6	G 1/4"	16	75	8	M5	340	CMIVNO020E	CMIVNO020F	CMIVNO020P



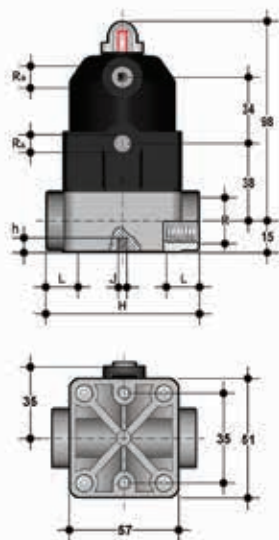
### CMIV/CP DA

Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Double-Acting function

d	DN	PN	R <sub>o</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	340	CMIVDA016E	CMIVDA016F	CMIVDA016P
20	15	6	G 1/4"	16	75	8	M5	340	CMIVDA020E	CMIVDA020F	CMIVDA020P

# DIMENSIONS

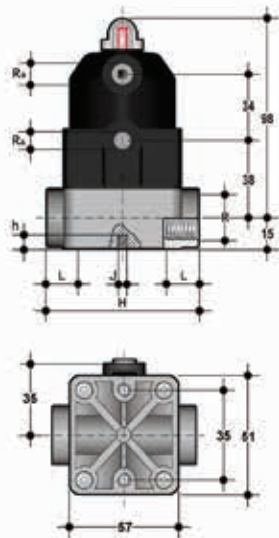
## CM/CP DN 12÷15 PVC-U



### CMFV/CP NC

Compact diaphragm valve with female ends, pneumatically actuated gas cylinder thread, Normally Closed function

R	DN	PN	R <sub>1</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	11.5	75	8	M5	340	CMFVNC038E	CMFVNC038F	CMFVNC038P
1/2"	15	6	G 1/4"	15	75	8	M5	340	CMFVNC012E	CMFVNC012F	CMFVNC012P



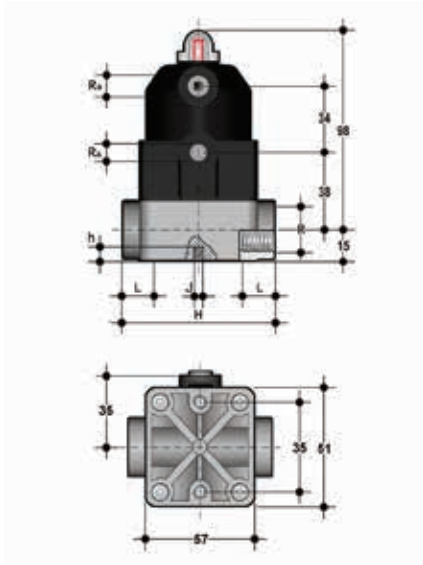
### CMFV/CP NO

Compact diaphragm valve with female ends, pneumatically actuated gas cylinder thread, Normally Open function

R	DN	PN	R <sub>1</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	11.5	75	8	M5	340	CMFVNO038E	CMFVNO038F	CMFVNO038P
1/2"	15	6	G 1/4"	15	75	8	M5	340	CMFVNO012E	CMFVNO012F	CMFVNO012P

# DIMENSIONS

## CM/CP DN 12÷15 PVC-U



### CMFV/CP DA

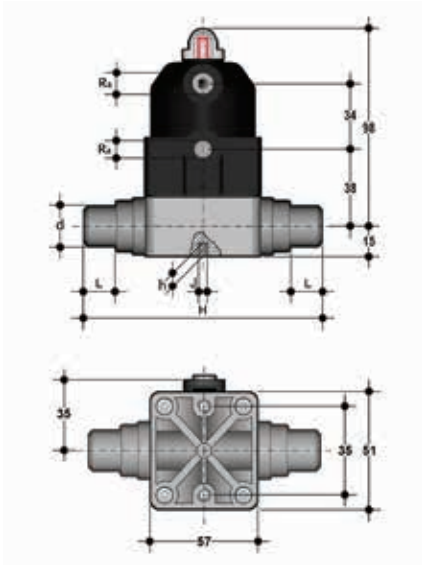
Compact diaphragm valve with female ends, pneumatically actuated gas cylinder thread, Double-Acting function

R	DN	PN	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	11.5	75	8	M5	340	CMFVDA038E	CMFVDA038F	CMFVDA038P
1/2"	15	6	G 1/4"	15	75	8	M5	340	CMFVDA012E	CMFVDA012F	CMFVDA012P



# DIMENSIONS

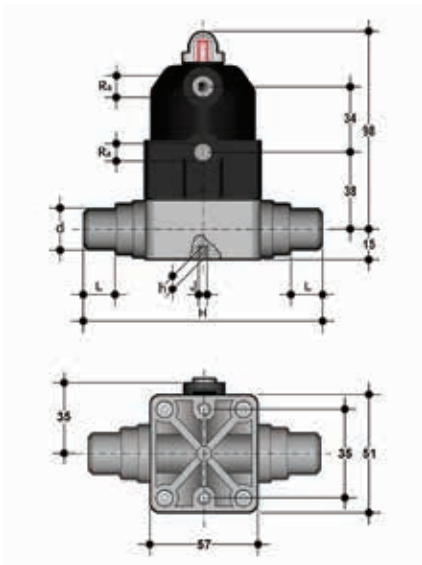
## CM/CP DN 12÷15 PVC-C



### CMDC/CP NC

Compact diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Normally Closed function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	340	CMDNCN020E	CMDNCN020F	CMDNCN020P



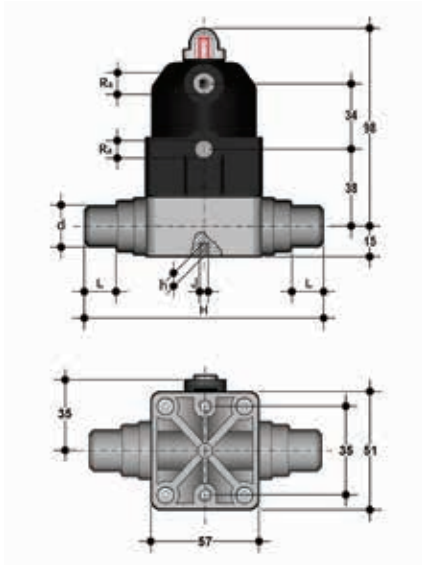
### CMDC/CP NO

Compact diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Normally Open function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	340	CMDCNO020E	CMDCNO020F	CMDCNO020P

# DIMENSIONS

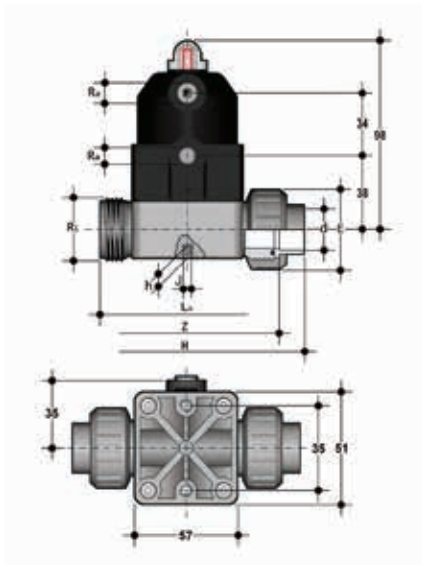
## CM/CP DN 12÷15 PVC-C



### CMDC/CP DA

Compact diaphragm valve with male ends for solvent welding, pneumatically actuated metric series, Double-Acting function

d	DN	PN	B <sub>1</sub>	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	340	CMDCCA020E	CMDCCA020F	CMDCCA020P



### CMUIC/CP NC

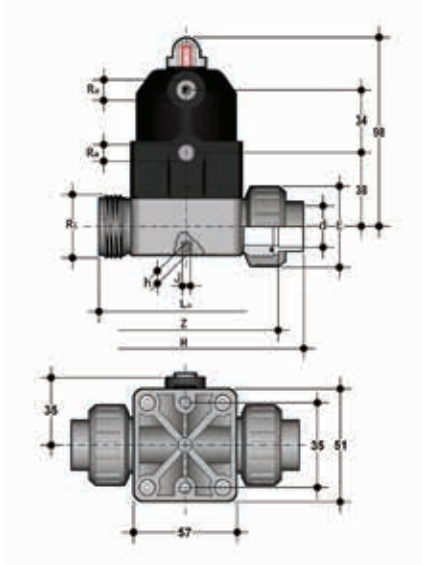
Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Normally Closed function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUICNC020E	CMUICNC020F	CMUICNC020P

\*FKM union O-ring

# DIMENSIONS

## CM/CP DN 12÷15 PVC-C

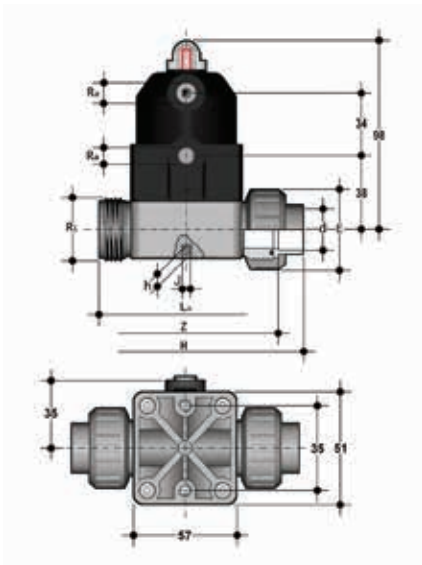


### CMUIC/CP NO

Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Normally Open function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUICNO020E	CMUICNO020F	CMUICNO020P

\*FKM union O-ring



### CMUIC/CP DA

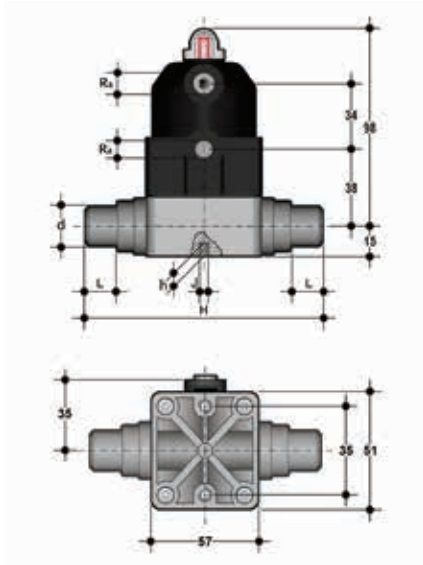
Compact diaphragm valve with female union ends for solvent welding, pneumatically actuated metric series, Double-Acting function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	340	CMUICDA020E	CMUICDA020F	CMUICDA020P

\*FKM union O-ring

# DIMENSIONS

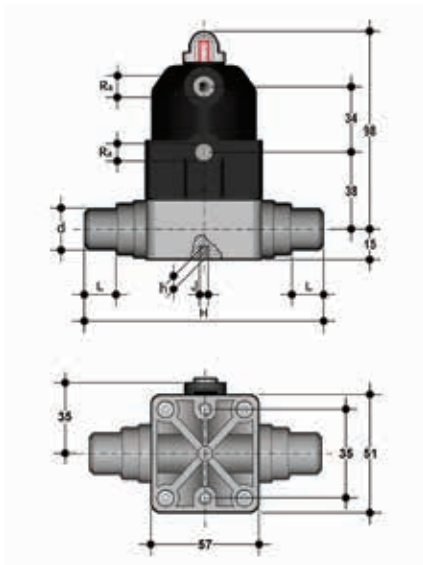
## CM/CP DN 12÷15 PP-H



### CMDM/CP NC

Compact diaphragm valve with male ends for pneumatically actuated socket welding, Normally Closed function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	300	CMDMNC020E	CMDMNC020F	CMDMNC020P



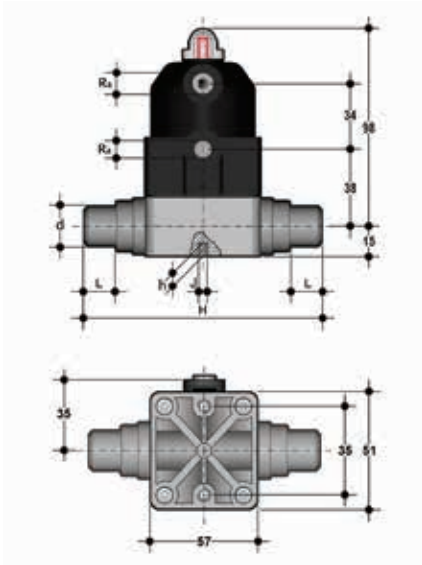
### CMDM/CP NO

Compact diaphragm valve with male ends for pneumatically actuated socket welding, Normally Open function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	300	CMDMNO020E	CMDMNO020F	CMDMNO020P

# DIMENSIONS

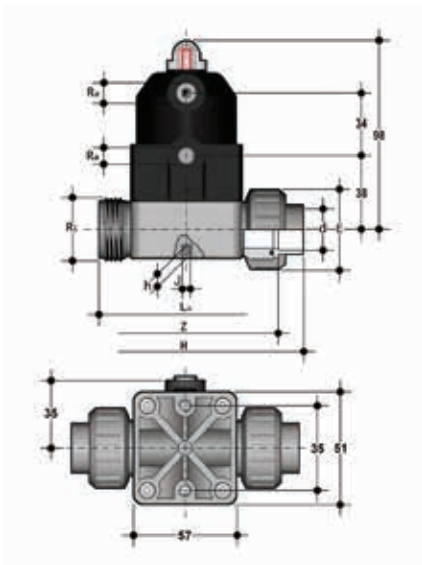
## CM/CP DN 12÷15 PP-H



### CMDM/CP DA

Compact diaphragm valve with male ends for pneumatically actuated socket welding, Double-Acting function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	300	CMDMDA020E	CMDMDA020F	CMDMDA020P



### CMUIM/CP NC

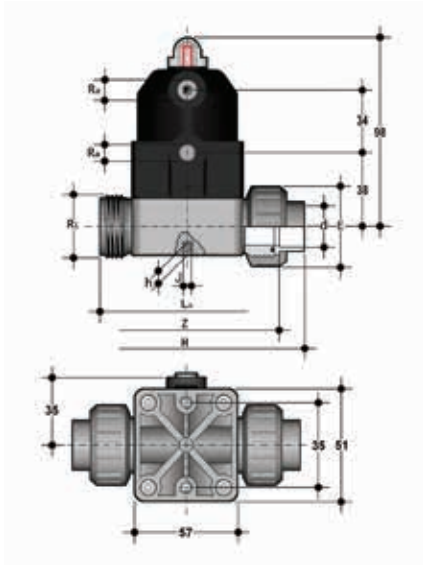
Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Closed function

d	DN	PN	E	R <sub>1</sub>	R <sub>0</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	47.5	1"	G 1/4"	90	98	130	8	M5	300	CMUIMNC020E	CMUIMNC020F	CMUIMNC020P

\*FKM union O-ring

# DIMENSIONS

## CM/CP DN 12÷15 PP-H

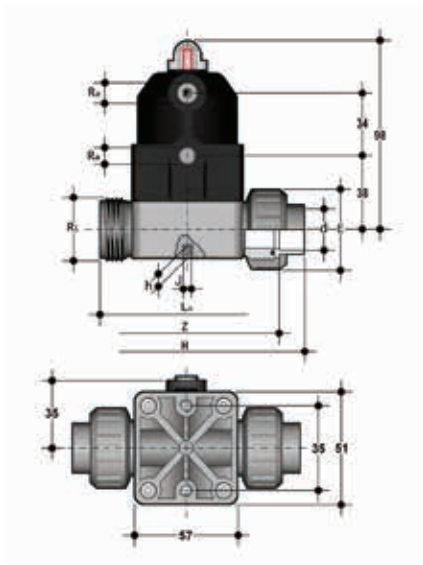


### CMUIM/CP NO

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Open function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	47.5	1"	G 1/4"	90	98	130	8	M5	300	CMUIMNO020E	CMUIMNO020F	CMUIMNO020P

\*FKM union O-ring



### CMUIM/CP DA

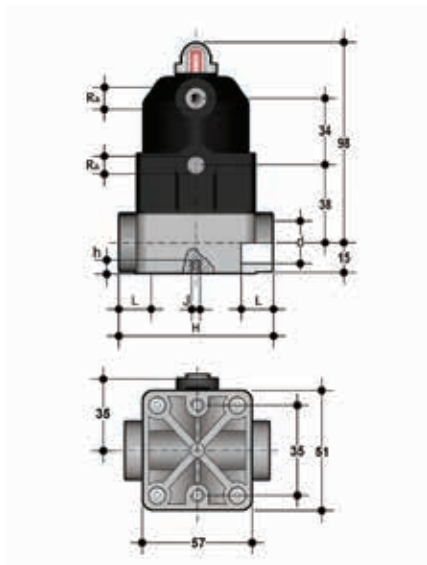
Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Double-Acting function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	47.5	1"	G 1/4"	90	98	130	8	M5	300	CMUIMDA020E	CMUIMDA020F	CMUIMDA020P

\*FKM union O-ring

# DIMENSIONS

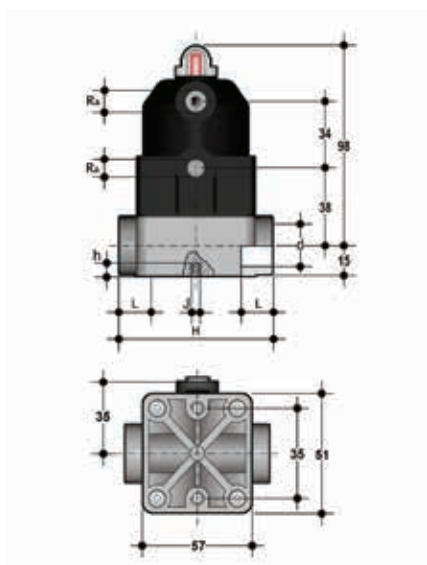
## CM/CP DN 12÷15 PP-H



### CMIM/CP NC

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Closed function

d	DN	PN	R <sub>o</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	300	CMIMNC016E	CMIMNC016F	CMIMNC016P
20	15	6	G 1/4"	16	75	8	M5	300	CMIMNC020E	CMIMNC020F	CMIMNC020P



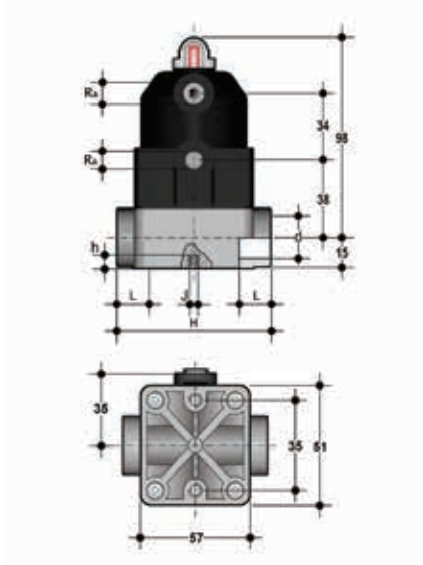
### CMIM/CP NO

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Open function

d	DN	PN	R <sub>o</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	300	CMIMNO016E	CMIMNO016F	CMIMNO016P
20	15	6	G 1/4"	16	75	8	M5	300	CMIMNO020E	CMIMNO020F	CMIMNO020P

# DIMENSIONS

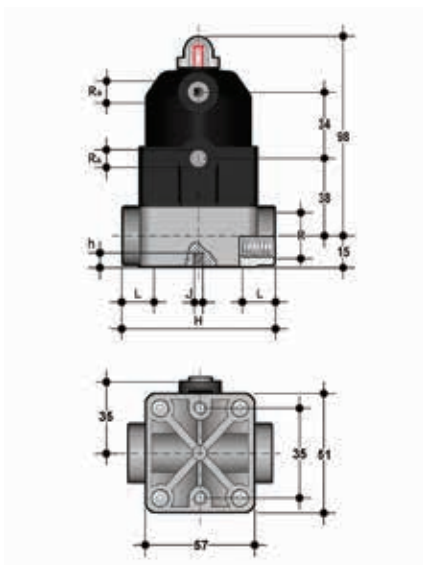
## CM/CP DN 12÷15 PP-H



### CMIM/CP DA

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Double-Acting function

d	DN	PN	R <sub>1</sub>	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"		14	75	8	M5	300	CMIMDA016E	CMIMDA016F	CMIMDA016P
20	15	6	G 1/4"		16	75	8	M5	300	CMIMDA020E	CMIMDA020F	CMIMDA020P



### CMFM/CP NC

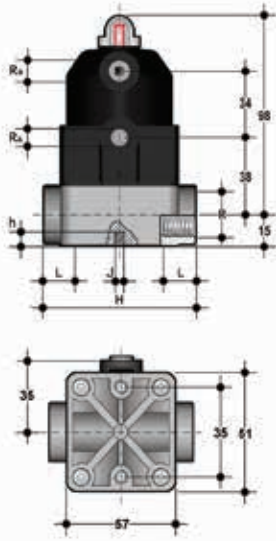
Compact diaphragm valve with BSP pneumatically actuated threaded female ends. Normally Closed function

R	DN	PN	R <sub>1</sub>	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"		12	75	8	M5	300	CMFMNC038E	CMFMNC038F	CMFMNC038P
1/2"	15	6	G 1/4"		15	75	8	M5	300	CMFMNC012E	CMFMNC012F	CMFMNC012P



# DIMENSIONS

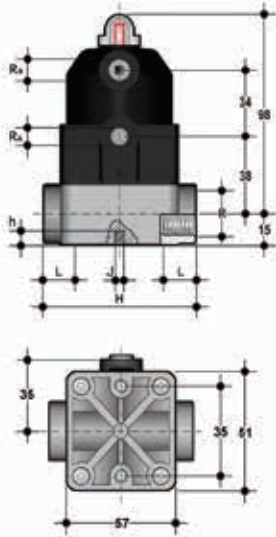
## CM/CP DN 12÷15 PP-H



### CMFM/CP NO

Compact diaphragm valve with BSP pneumatically actuated threaded female ends. Normally Open function

R	DN	PN	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	12	75	8	M5	300	CMFMNO038E	CMFMNO038F	CMFMNO038P
1/2"	15	6	G 1/4"	15	75	8	M5	300	CMFMNO012E	CMFMNO012F	CMFMNO012P



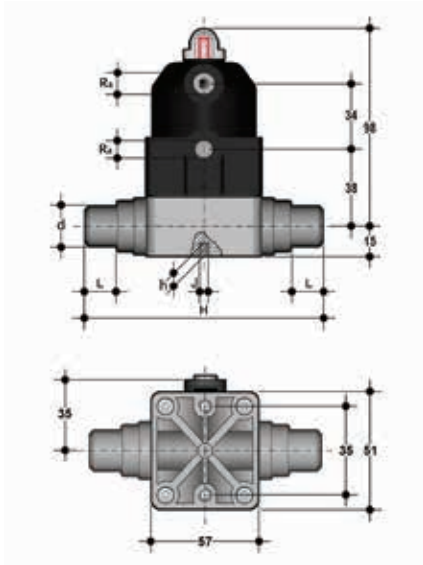
### CMFM/CP DA

Compact diaphragm valve with BSP pneumatically actuated threaded female ends. Double-Acting function

R	DN	PN	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	12	75	8	M5	300	CMFMDA038E	CMFMDA038F	CMFMDA038P
1/2"	15	6	G 1/4"	15	75	8	M5	300	CMFMDA012E	CMFMDA012F	CMFMDA012P

# DIMENSIONS

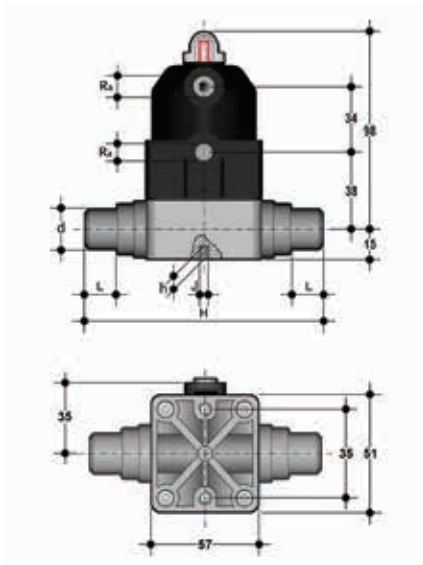
## CM/CP DN 12÷15 PVDF



### CMDF/CP NC

Compact diaphragm valve with male ends for pneumatically actuated socket welding, Normally Closed function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	360	CMDFNC020E	CMDFNC020F	CMDFNC020P



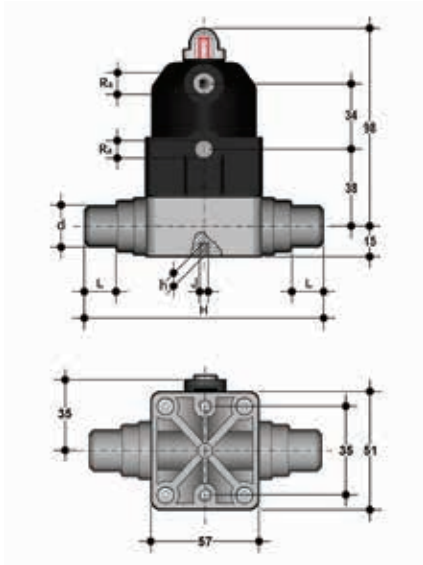
### CMDF/CP NO

Compact diaphragm valve with male ends for pneumatically actuated socket welding, Normally Open function

d	DN	PN	B <sub>1</sub>	R <sub>0</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	360	CMDFNO020E	CMDFNO020F	CMDFNO020P

# DIMENSIONS

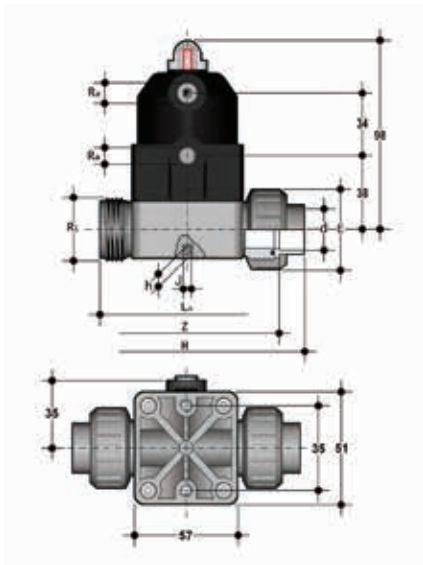
## CM/CP DN 12÷15 PVDF



### CMDF/CP DA

Compact diaphragm valve with male ends for pneumatically actuated socket welding, Double-Acting function

d	DN	PN	B <sub>1</sub>	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
20	15	6	12.5	G 1/4"	17	124	8	M5	360	CMDFDA020E	CMDFDA020F	CMDFDA020P



### CMUIF/CP NC

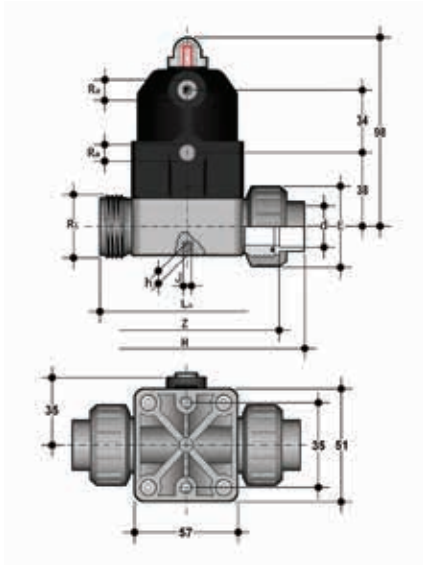
Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Closed function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	9.75	129.5	8	M5	360	CMUIFNC020E	CMUIFNC020F	CMUIFNC020P

\*FKM union O-ring

# DIMENSIONS

## CM/CP DN 12÷15 PVDF

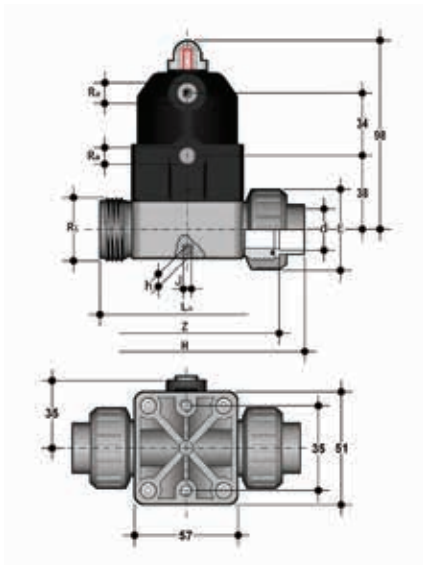


### CMUIF/CP NO

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Open function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	360	CMUIFNO020E	CMUIFNO020F	CMUIFNO020P

\*FKM union O-ring



### CMUIF/CP DA

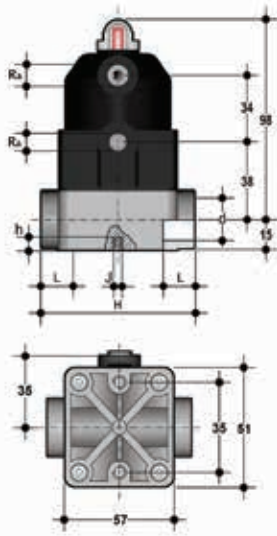
Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Double-Acting function

d	DN	PN	E	R <sub>1</sub>	R <sub>2</sub>	L <sub>A</sub>	Z	H	h	J	g	EPDM Code	FKM Code	PTFE* Code
20	15	6	41	1"	G 1/4"	90	97.5	129.5	8	M5	360	CMUIFDA020E	CMUIFDA020F	CMUIFDA020P

\*FKM union O-ring

# DIMENSIONS

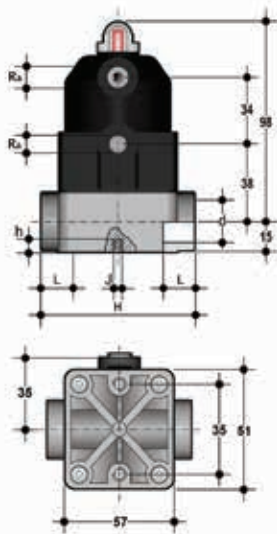
## CM/CP DN 12÷15 PVDF



### CMIF/CP NC

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Closed function

d	DN	PN	R <sub>o</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	360	CMIFNC016E	CMIFNC016F	CMIFNC016P
20	15	6	G 1/4"	16	75	8	M5	360	CMIFNC020E	CMIFNC020F	CMIFNC020P



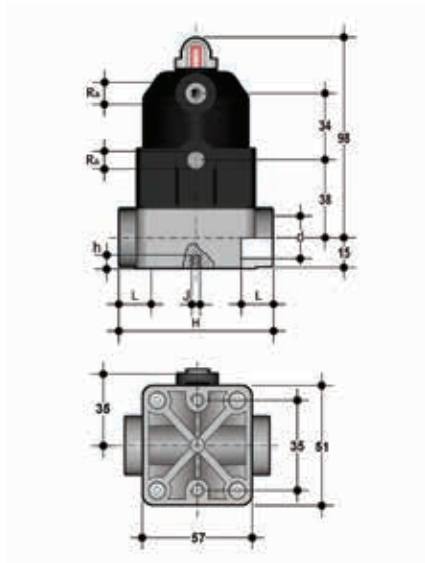
### CMIF/CP NO

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Normally Open function

d	DN	PN	R <sub>o</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	360	CMIFNO016E	CMIFNO016F	CMIFNO016P
20	15	6	G 1/4"	16	75	8	M5	360	CMIFNO020E	CMIFNO020F	CMIFNO020P

# DIMENSIONS

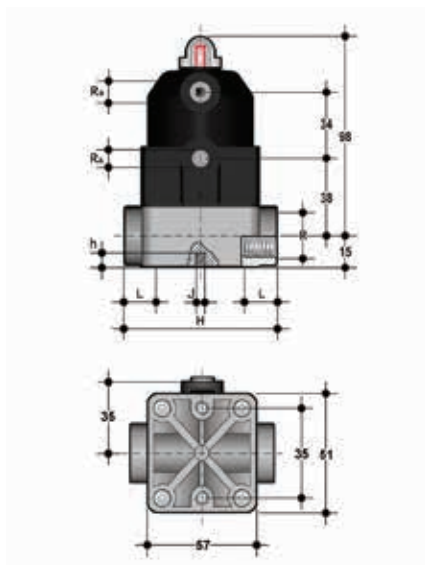
## CM/CP DN 12÷15 PVDF



### CMIF/CP DA

Compact diaphragm valve with female union ends for pneumatically actuated socket welding, Double-Acting function

d	DN	PN	R <sub>1</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
16	12	6	G 1/4"	14	75	8	M5	360	CMIFDA016E	CMIFDA016F	CMIFDA016P
20	15	6	G 1/4"	16	75	8	M5	360	CMIFDA020E	CMIFDA020F	CMIFDA020P



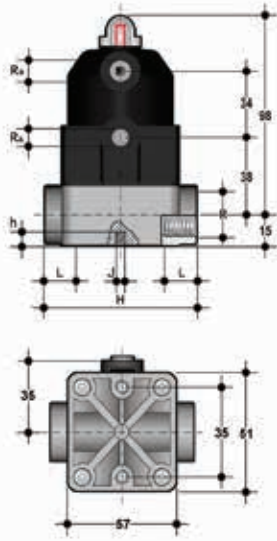
### CMFF/CP NC

Compact diaphragm valve with BSP pneumatically actuated threaded female ends. Normally Closed function

R	DN	PN	R <sub>1</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	11.5	75	8	M5	360	CMFFNC038E	CMFFNC038F	CMFFNC038P
1/2"	15	6	G 1/4"	15	75	8	M5	360	CMFFNC012E	CMFFNC012F	CMFFNC012P

# DIMENSIONS

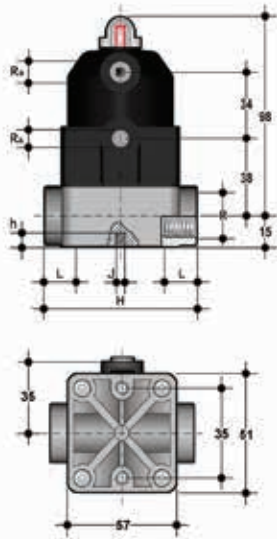
## CM/CP DN 12÷15 PVDF



### CMFF/CP NO

Compact diaphragm valve with BSP pneumatically actuated threaded female ends. Normally Open function

R	DN	PN	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	11.5	75	8	M5	360	CMFFNO038E	CMFFNO038F	CMFFNO038P
1/2"	15	6	G 1/4"	15	75	8	M5	360	CMFFNO012E	CMFFNO012F	CMFFNO012P



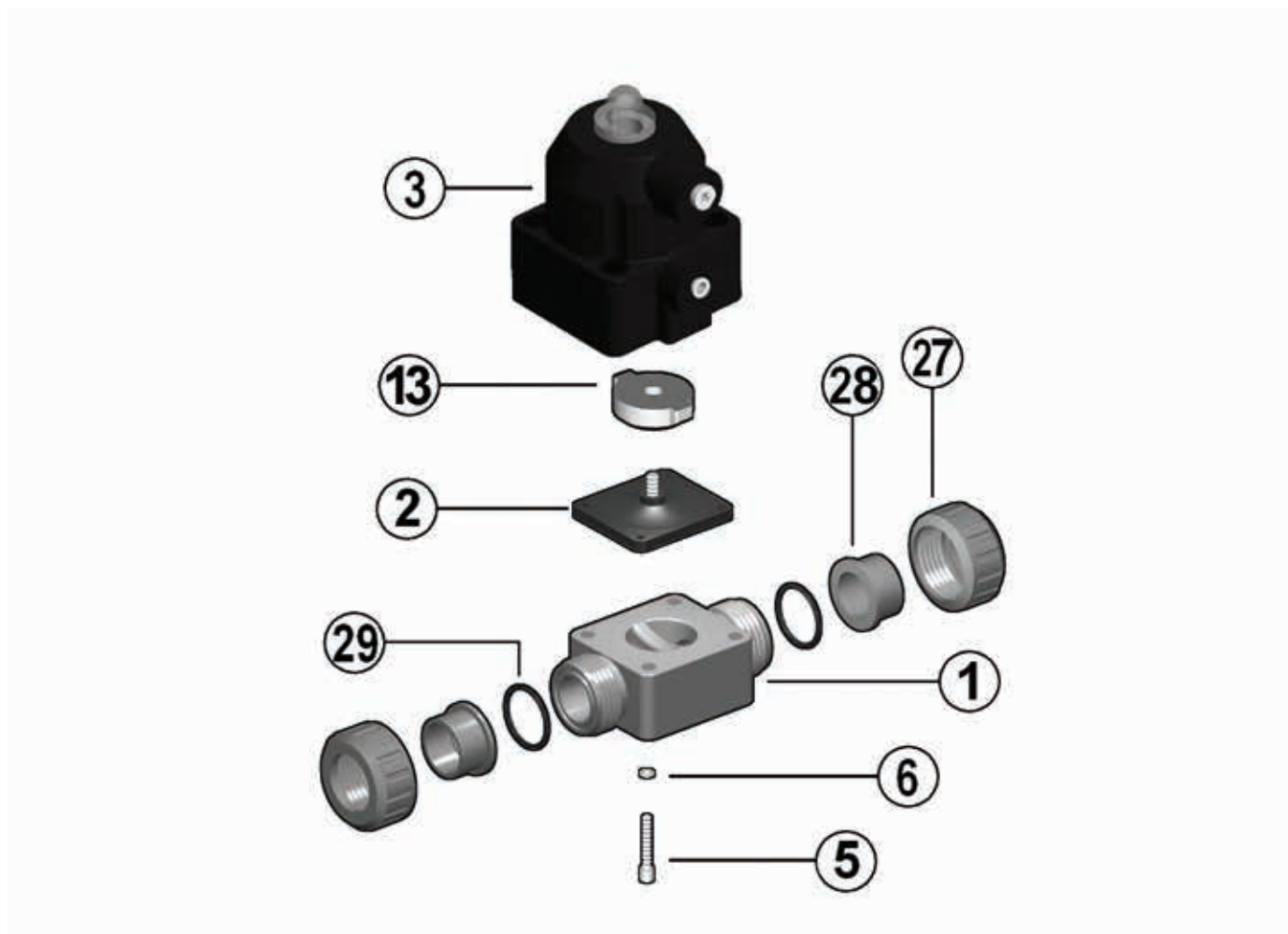
### CMFF/CP DA

Compact diaphragm valve with BSP pneumatically actuated threaded female ends. Double-Acting function

R	DN	PN	R <sub>2</sub>	L	H	h	J	g	EPDM Code	FKM Code	PTFE Code
3/8"	12	6	G 1/4"	11.5	75	8	M5	360	CMFFDA038E	CMFFDA038F	CMFFDA038P
1/2"	15	6	G 1/4"	15	75	8	M5	360	CMFFDA012E	CMFFDA012F	CMFFDA012P

# COMPONENTS

## EXPLODED VIEW



**1** Body (PVC-U/PVC-C/PP-H/PVDF - 1)\*

**2** Diaphragm (EPDM - FKM - PTFE - 1)\*

**3** Actuator (PP-GR - 1)\*

**5** Screw (STAINLESS steel - 4)\*

**6** Washer (STAINLESS steel - 4)\*

**13** Shutter (PA-MXD6- 1)\*

**27** Union nut (PVC-U, PVC-C,PP-H, PVDF - 2)\*

**28** End connector (PVC-U, PVC-C,PP-H, PVDF - 2)

**29** Socket seal O-Ring (EPDM-FKM - 2)\*

\* Spare parts

The material the component is made of and the quantity supplied are shown in 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) Unscrew the union nuts (27) and extract the valve.
- 5) Unscrew the screws (5) with their washers (6). This operation will be made easier if the actuator is pressurised (NC).
- 6) Separate the valve body (1) from the actuator (3).
- 7) Unscrew the diaphragm (2) and remove the compressor (13). This operation will be made easier if the actuator is not pressurised (NC).

## ASSEMBLY

- 1) Insert the compressor (13) on the actuator shaft (3).
- 2) Screw the diaphragm (2) onto the stem, aligning it correctly with its housing on the actuator.
- 3) Mount the actuator (3) on the valve body (1) and screw in the bolts (5) with the relative washers (6). This operation will be made easier if the actuator is pressurised (NC).
- 4) Tighten the bolts (5) evenly (diagonally) to the tightening torque suggested on the relative instruction sheet.
- 5) Position the valve between the end connectors (28) and tighten the union nuts (27), making sure that the socket seal O-rings (29) do not exit their seats.
- 6) 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.

# INSTALLATION

The valve can be installed in any position and in any direction.

Before proceeding with installation, please follow these instructions carefully: (instructions refer to versions with union ends).

- 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 (27) and insert them on the pipe segments.
- 3) Solvent weld or screw the end connectors (28) onto the pipe ends.
- 4) Position the valve body between the end connectors making sure the socket seal O-Rings (29) do not exit the seats.
- 5) Completely tighten the union nuts (27).
- 6) Connect the compressed air as indicated in "Compressed air connections" For valves with electric accessories, refer to the specific technical manual supplied with the accessory.

## WARNINGS

**Note:** before putting the valve into service, check that the bolts on the valve body (1) are tightened correctly at the torque indicated in the instruction sheet.