



Industrial Type Thermoplastic
Diaphragm Valves

Type
CM/DK/DKM/VM





Type CM/DK/DKM/VM

Industrial Type Thermoplastic Diaphragm Valves

Butterfly valves are widely used in industrial process control as they take up less space in the pipelines, enable excellent sealing in both directions, cost less than other valve types, have low torque and are easy to assemble actuators.

Butterfly valves are safely used in Water Treatment, Chemical Process, Oil & Gas Industry, Power Generation, Swimming Pool, HVAC, Pulp & Paper, Steel Industry, Beverage & Food, Transportation, Bulk Handling, Irrigation, Mining, Marine, Plating Industry and Textile.



Industrial Type Thermoplastic Diaphragm Valves

Type CM/DK/DKM/VM

Handwheel that stays at the same height during rotation. It is also fitted with a graduated optical indicator protected by a transparent PVC cap with seal O-Ring.

CDSA (Circular Diaphragm Sealing Angle) system that, thanks to the uniform distribution of shutter pressure on the diaphragm seal, offers the following advantages:

- operating torque reduction,
- reduced mechanical stress on all valve components (actuator, body and diaphragm),
- low risk of the accumulation of deposits, contamination or damage to the diaphragm due to crystallisation.

Internal components in metal, totally isolated from the fluid and external environment.

Bonnet fastening screws in STAINLESS steel protected by PE plugs. Absence of metal parts exposed to the external environment to prevent any risk of corrosion.

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.

Control options:
Manual Control,
Pneumatic Actuated (On/off and Proportional Controlled)

New flanged bodies: the new bodies, characterised by a monolithic flanged structure, are available in PVC-U, PVC-C, PP-H and PVDF. This design, free from body and flange joints, greatly reduces mechanical stress and increases system performance.

DIN, ANSI, JIS norms

UV resistant powder added,



Construction; Diaphragm valve with maximized flow rate and DIALOCK® lockable handwheel

3/8" ~ 8" (DN12 ~ DN200) sizes,

100% tightness testing before shipment,

Valve Material:

Body:

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

Bonnet and handwheel:

PP-GR

Position indicator cap:

PVC

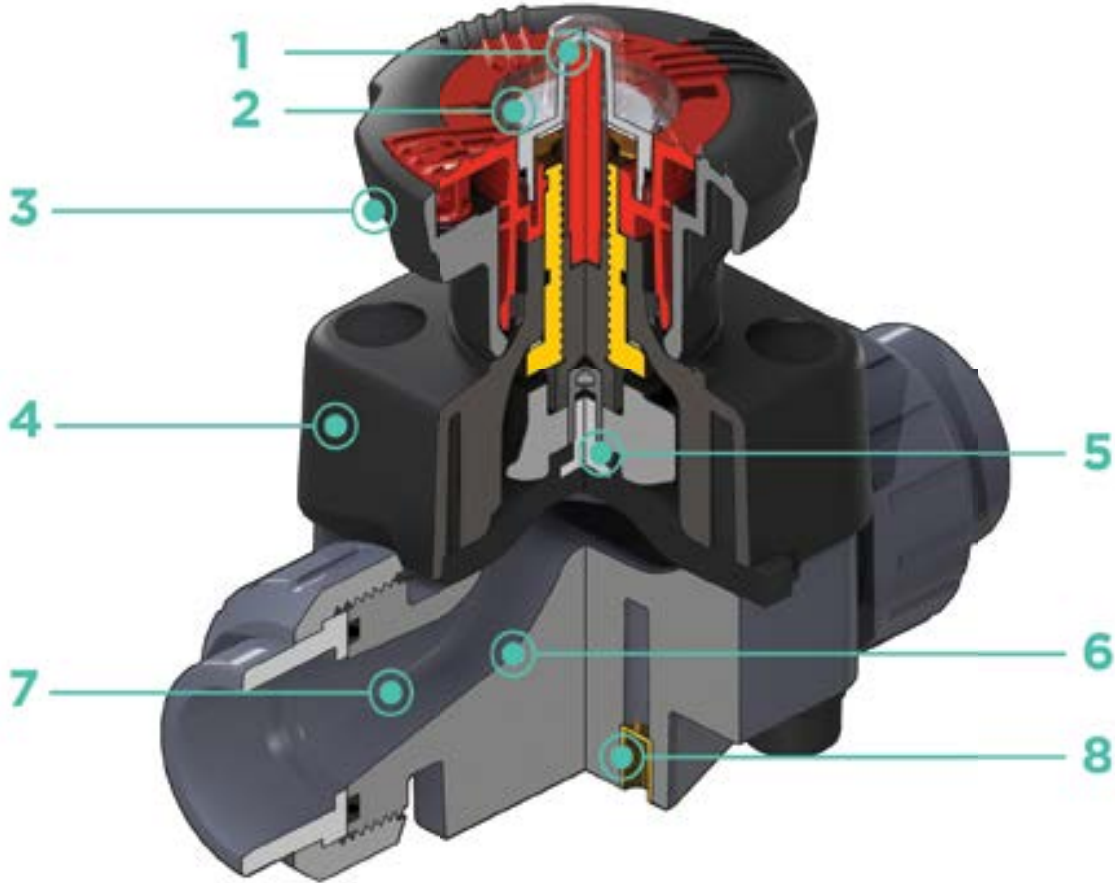
Drinking water standards,

Nominal Pressure; PN 10 (with water at 20°C)

Key Design Features



CM Series (DN12 ~ DN15)



1
Handwheel in PA-GR, completely sealed, high mechanical strength with ergonomic grip for optimum manageability

2
Integrated adjustable torque limiter designed to prevent excessive compression of the diaphragm and always guarantee a minimum fluid flow

3
Optical position indicator supplied as standard

4
Bonnet in PA-GR with STAINLESS steel nuts fully protected by plastic plugs to eliminate zones where impurities may accumulate. Internal circular and symmetrical diaphragm sealing area

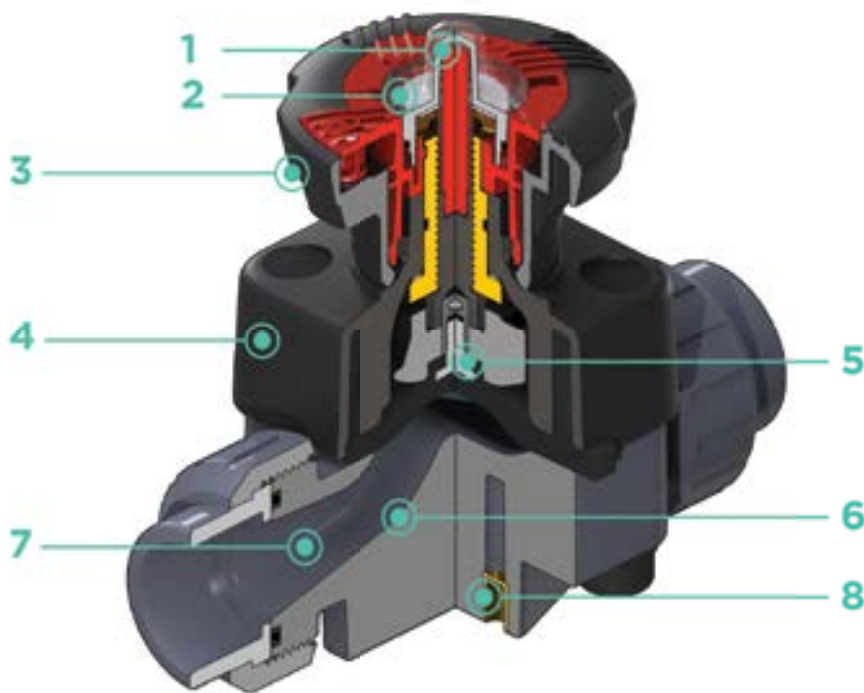
5
STAINLESS steel bolts, can also be inserted from above

6
Threaded metal inserts for anchoring the valve

Key Design Features



DK Series (DN15 ~ DN65)



1
High visibility graduated optical position indicator protected by a transparent cap with seal O-Ring

2
Customisation plate. The customisation lets you identify the valve on the system according to specific needs

3
DIALOCK® SYSTEM: innovative handwheel with a patented immediate and ergonomic locking device that allows it to be adjusted and locked in over 300 positions

4
Handwheel and bonnet in high mechanical strength and chemically resistant PP-GR, providing full protection by isolating all internal metal parts from contact with external agents

5
Floating pin connection between the control screw and diaphragm to prevent concentrated loads, improve the seal and extend its lifetime

6
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.

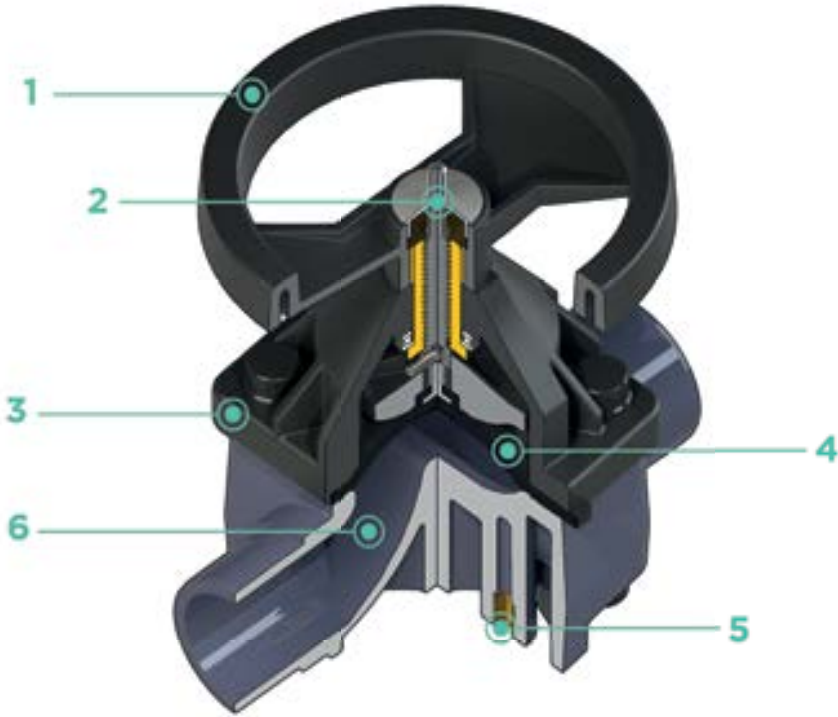
7
Adjustment linearity: the internal profiles of the valve also greatly improve its characteristic curve, resulting in extremely sensitive and precise adjustment along the entire stroke of the shutter

8
. Valve anchoring bracket integrated in the body, with threaded metal inserts allowing simple panel or wall mounting using the PMDK mounting plate (supplied as an accessory)

Key Design Features



VM Series (DN80 ~ DN100)



1

Handwheel in (PA-GR) with high mechanical strength and ergonomic grip for optimum manageability

2

Metal optical position indicator supplied as standard

3

Full protection bonnet in PPGR. Internal circular and symmetrical diaphragm sealing area

4

Diaphragm available in EPDM, FPM, PTFE (NBR on request) and easy to replace

5

Threaded metal inserts for anchoring the valve

6

New valve body internal design: substantially higher flow coefficient resulting in lower pressure drops. Optimised adjustment curve for effective and precise flow rate regulation

Application Area



CHEMICAL PROSESS



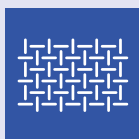
WATER TREATMENT



MARINE



MINING



TEXTILE



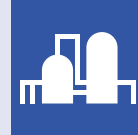
PULP & PAPER



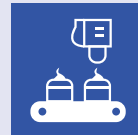
STEEL INDUSTRY



TRANSPORTATION



OIL & GAS INDUSTRY



BEVERAGE & FOOD



HVAC



PLATING INDUSTRY



BULK HANDLING



IRRIGATION



POWER GENERATION



SWIMMING POOL

Product Standards



U-PVC: Coupling System Solvent Welding

EN ISO 1452, EN ISO 15493, BS 4346-1, DIN 8063, NF T54-028, ASTM D 2467. Can be coupled to pipes according to EN ISO 1452, EN ISO 15493, DIN 8062, NF T54-016, ASTM D 1785 ISO 228-1, DIN 2999, ASTM D 2464 ISO 7005-1, EN ISO 1452, EN ISO 15493, EN 558-1, DIN 2501, ANSI B16.5 Cl.150, JIS B2220

Thread; Flanging System

EN ISO 16138, EN ISO 1452, EN ISO 15493

Reference System Construction Criteria Test Methods And Requirements Installation criteria

ISO 9393
DVS 2204, DVS 2221, UNI 11242

B) C-PVC Coupling Solvent Welding

EN ISO 15493, ASTM F 439.
Can be coupled to pipes according to EN ISO 15493, ASTM F 441 ISO 228-1, DIN 2999 ISO 7005-1, EN ISO 15493, EN 558-1, DIN 2501, ANSI B16.5 Cl.150

Thread; Flanging System Reference Construction Criteria Test Methods And Requirements Installation Criteria

EN ISO 16138, EN ISO 1452, EN ISO 15493

ISO 9393
DVS 2204, DVS 2221, UNI 11242

C) PP-H: Coupling Welding Thread Flanging System Reference Construction Criteria Test Methods And Requirements Installation criteria

EN ISO 15494. Can be coupled to pipes according to EN ISO 15494 ISO 228-1, DIN 2999 ISO 7005-1, EN 1092-1, EN ISO 15494, EN 558-1, DIN 2501, ANSI B16.5 cl.150

EN ISO 16138, EN ISO 15494

ISO 9393
DVS 2202-1, DVS 2207-11, DVS 2208-1, UNI 11318

D) PVDF: Coupling Welding Flanging System Reference Construction Criteria Test Methods And Requirements Installation criteria

EN ISO 10931. Can be coupled to pipes according to EN ISO 10931 ISO 7005-1, EN ISO 10931, EN 558-1, DIN 2501, ANSI B16.5 Cl.150

EN ISO 16138, EN ISO 10931

ISO 9393
DVS 2201-1, DVS 2207-15, DVS 2208-1

Nominal Pressure Certification CE ISO

10 Bar (EPDM/VITON), 6 Bar (PTFE)

Acc. To Directive 97/23/EC (Module-H)
ISO 9001:2015

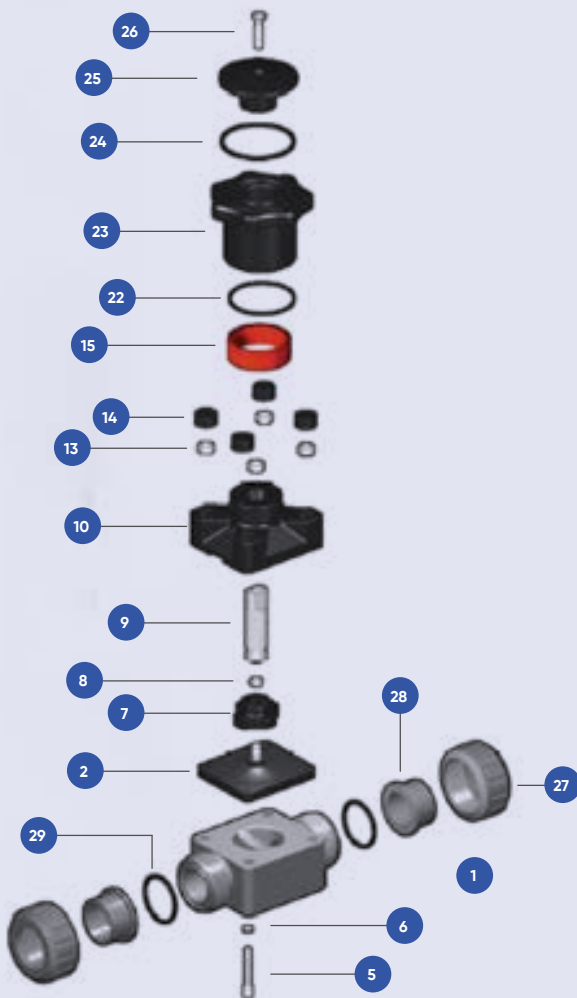


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Material Specifications



CM Series (DN12 ~ DN15)

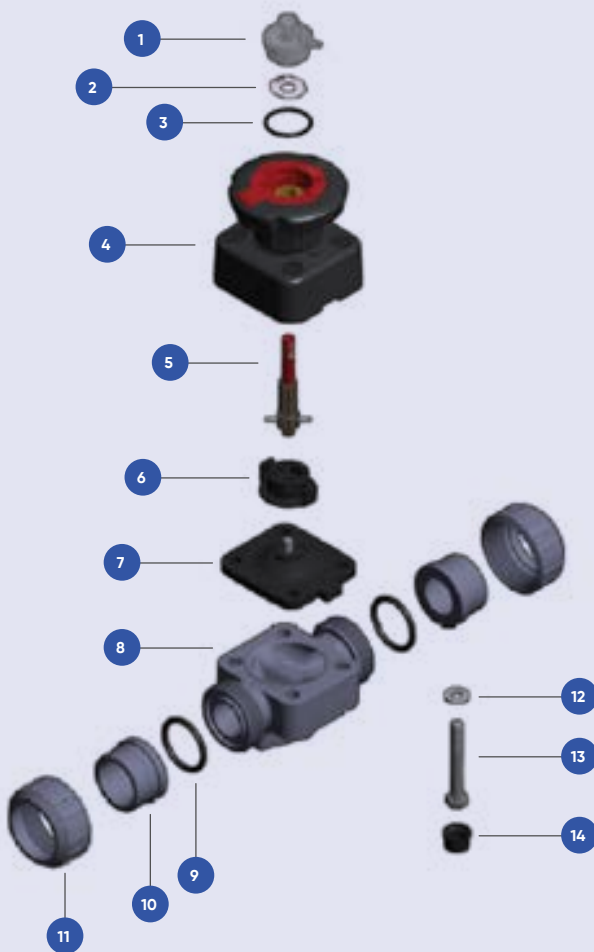


No	Part Name	Material
1	Body	(PVC-U - 1)
2	Diaphragm seal	EPDM, FPM, PTFE - 1)
5	Fastening screw	(STAINLESS steel - 4)
6	Washer	(STAINLESS steel - 4)
7	Shutter	(PA-GR - 1)
8	Nut	STAINLESS steel - 1)
9	Stem	(STAINLESS steel - 1)
10	Bonnet	(PA-GR - 1)
13	Nut	(STAINLESS steel - 4)
14	Protection plug	(POM - 4)
15	Optical position indicator	(PVDF - 1)
22	O-Ring	(NBR - 1)
23	Handwheel	(PA-GR - 1)
24	O-Ring	(NBR - 1)
25	Bonnet	(PA-GR - 1)
26	Fastening screw	(STAINLESS steel - 1)

Material Specifications



DK Series (DN15 ~ DN65)



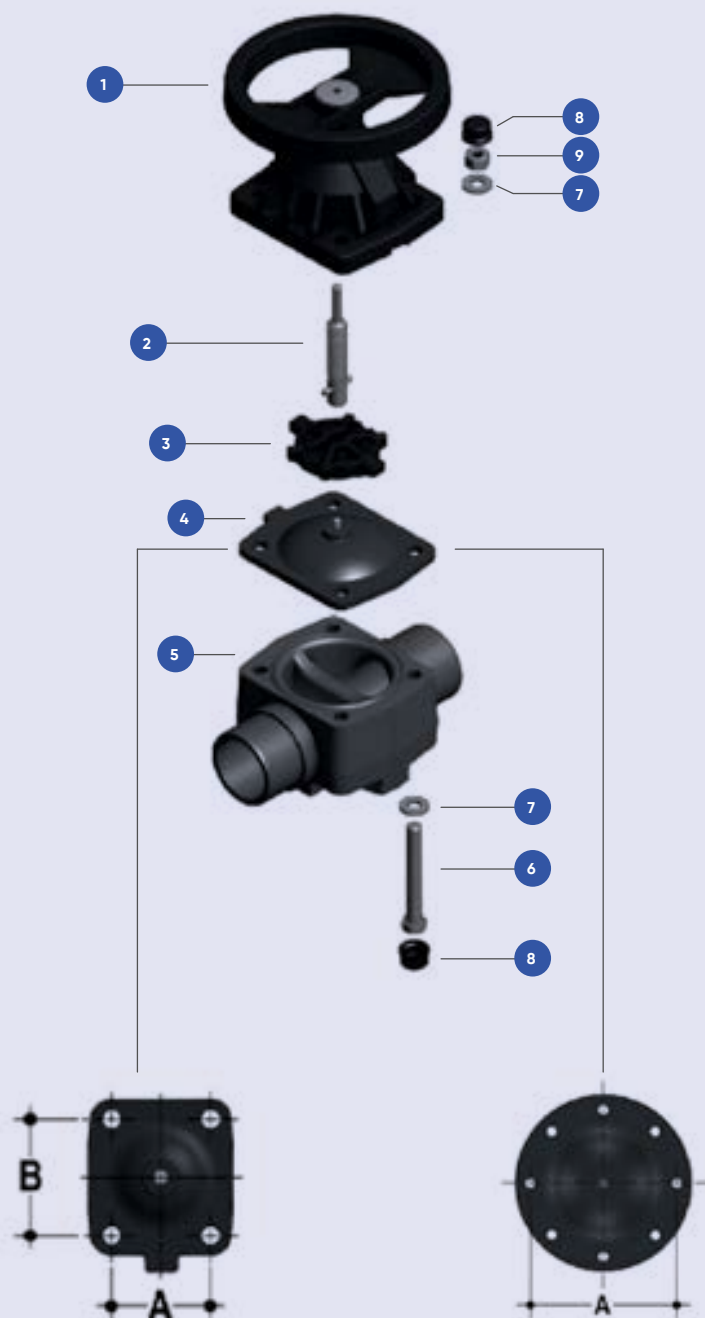
No	Part Name	Material
1	Transparent protection cap	(PVC - 1)*
2	Customisation plate	(PVC-U - 1)
3	O-Ring	(EPDM - 1)
4	Operating mechanism	(PP-GR / PVDF - 1)
5	Threaded stem - Indicator	(STAINLESS steel - 1)
6	Compressor	(PA-GR IXEF® - 1)
7	Diaphragm seal	(EPDM, FPM, PTFE - 1)*
8	Valve body	(PVC-U - 1)*
9	Socket seal O-ring	(EPDM-FPM - 2)*
10	End connector	(PVC-U - 2)*
11	Union nut	(PVC-U - 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)**

Material Specifications



VM Series (DN80 ~ DN100)

No	Part Name	Material
1	Bonnet	(PP-GR - 1); Handwheel (PA-GR - 1)
2	Indicator - stem	(STAINLESS steel - 1)
3	Shutter	(PBT - 1)
4	Diaphragm	(EPDM, FPM, PTFE - 1)
5	Body	(PVC-U - 1)
6	Hexagonal screw	(Zinc plated steel - 4)
7	Washer	(Zinc plated steel - 4)
8	Protection plug	(PE - 4)
9	Nut	(Zinc plated steel - 4)





***We've
been
around...***

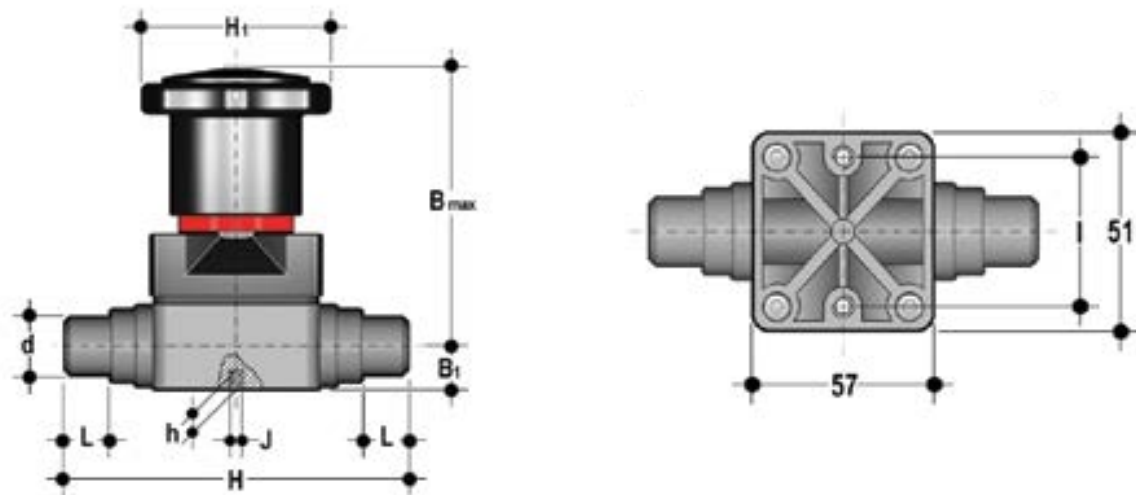
Dimensions



A) Manual Diaphragm Valves

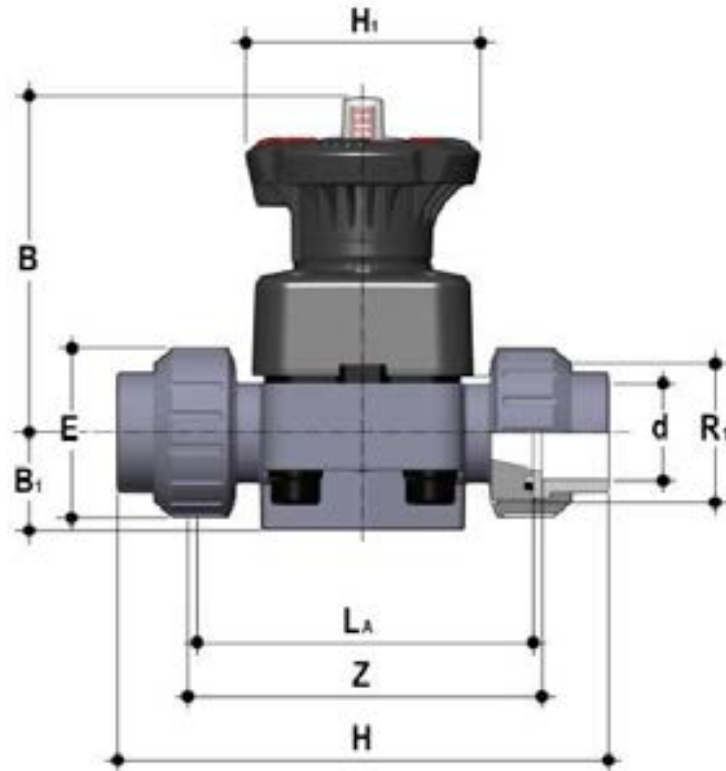
a) CMUIV Series Compact Diaphragm Valves (DN12~DN15)

Compact diaphragm valve with female union ends for solvent welding, metric series



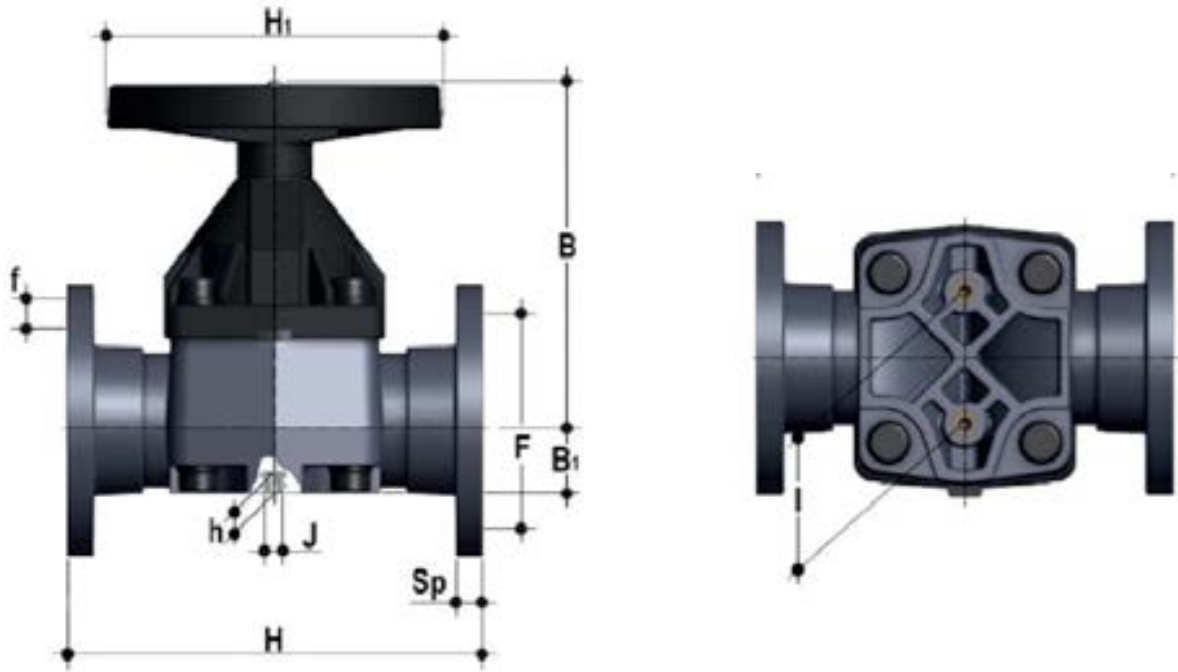
Size			Face To Face	Pressure Class	Dimensions									Weight	Codes		
d mm	DN mm	R Inch	H	PN	Bmax	E	h	H ₁	I	J	L _A	R ₁	Z	KG	EPDM Code	FPM Code	PTFE Code
20	DN15	½"	129,5	6	86	41	8	58,5	35	M5	90	1"	97,5	0,285	CMUIV020E	CMUIV020F	CMUIV020P

b) DKUIV Series DIALOCK® diaphragm (DN15~DN65)
DIALOCK® diaphragm valve with female union ends for solvent welding, metric series



Size			Face To Face	Pressure Class	Dimensions							Weight	Codes		
d mm	DN mm	R Inch	H	PN	B	B ₁	E	H ₁	L _A	R ₁	Z	KG	EPDM Code	FPM Code	PTFE Code
20	DN15	½"	124	10	102	25	41	80	90	1"	100	0,49	DKUIV020E	DKUIV020F	DKUIV020P
25	DN20	¾"	144	10	105	30	50	80	108	1¼"	116	0,512	DKUIV025E	DKUIV025F	DKUIV025P
32	DN25	1"	154	10	114	33	58	80	116	1½"	124	0,712	DKUIV032E	DKUIV032F	DKUIV032P
40	DN32	1¼"	174	10	119	30	72	80	134	2"	140	0,756	DKUIV040E	DKUIV040F	DKUIV040P
50	DN40	1½"	194	10	149	35	79	120	154	2¼"	160	1,6	DKUIV050E	DKUIV050F	DKUIV050P
63	DN50	2"	224	10	172	46	98	120	184	2¾"	190	2,314	DKUIV063E	DKUIV063F	DKUIV063P

c) VMOV Series Diaphragm Valves (DN80~DN100)
 Diaphragm valve with flanged monolithic body,
 drilled PN10/16. Face to face according to EN 558-1

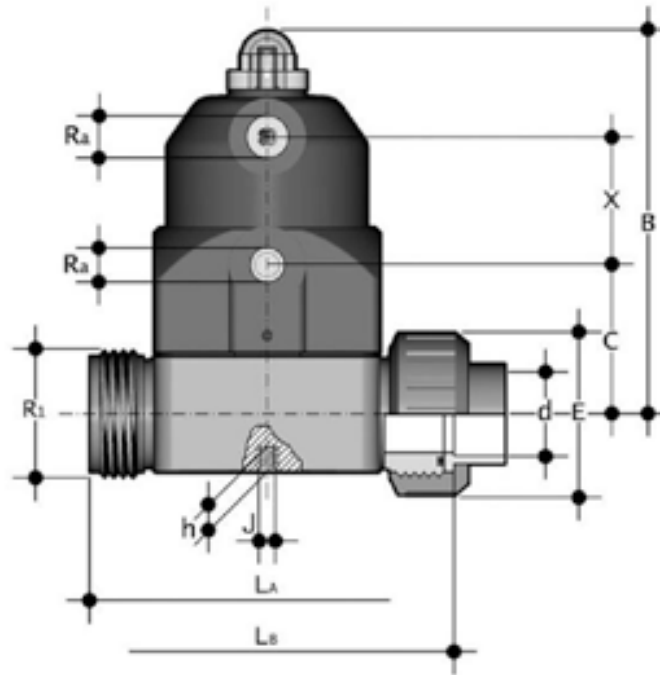


Size			Face To Face	Pressure Class	Dimensions									Weight	Codes		
d mm	DN mm	R Inch			H	PN	B	B ₁	F	f	H ₁	I	J		S _p	U	KG
90	DN80	3"	310	10*	225	55	160	18	200	100	M12	21,5	8	8,5	VMOV090E	VMOV090F	VMOV090P
110	DN100	4"	350	10*	295	69	180	18	250	120	M12	22,5	8	12,4	VMOV110E	VMOV110F	VMOV110P

*PTFE PN6

** For smaller dimensions please contact us.
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B) Pneumatic Diaphragm Valves
 a) CMUIV Series Compact Pneumatic Diaphragm Valves (DN12~DN15)
 Compact Diaphragm Valve Pneumatically Actuated with female union ends for solvent welding, metric series



Size			Pressure Class	Dimensions										Weight	Codes		
d mm	DN mm	R Inch	PN	B	C	E	R ₁	X	R _A	L _A	L _B	h	J	KG	EPDM Code	FPM Code	PTFE Code
20	DN15	½"	6	98	38	41	1"	34	¼"	90	96	8	M5	0,34	CMUIVNC020E1 CMUIVNO020E2 CMUIVDA020E3	CMUIVNC020F1 CMUIVNO020F2 CMUIVDA020F3	CMUIVNC020P1 CMUIVNO020P2 CMUIVDA020P3

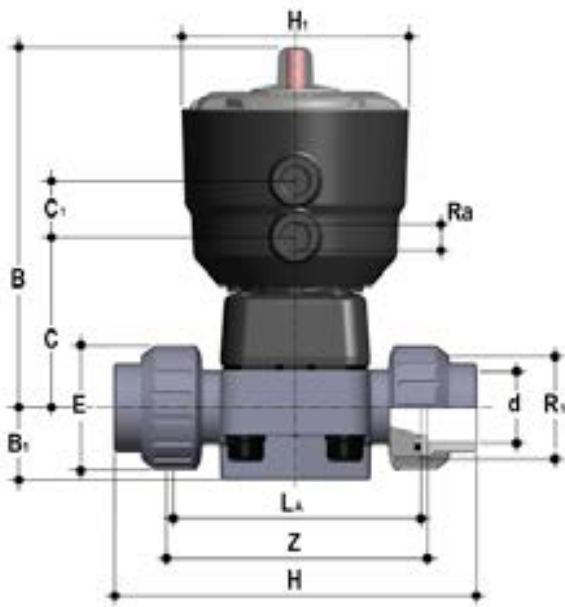
¹ Normally Close Function

² Normally Open Function

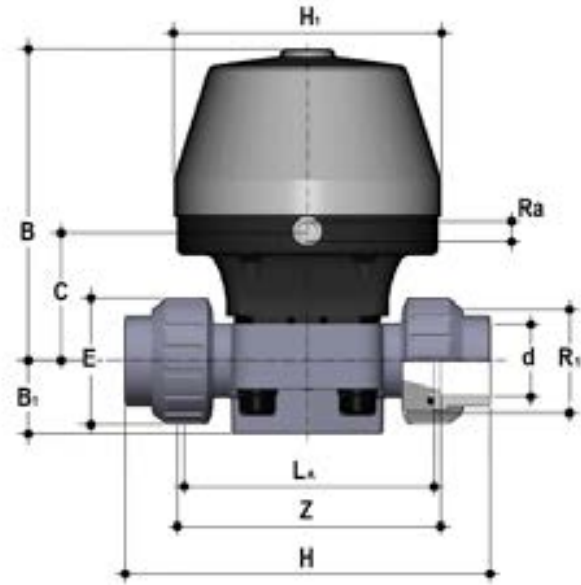
³ Double Acting Function

* For smaller dimensions please contact us.

b) DKUIV Series Pneumatic Diaphragm Valves (DN15~DN65)
Pneumatically actuated diaphragm valve with female union ends, metric series.



(DN15~DN32)



(DN40~DN65)

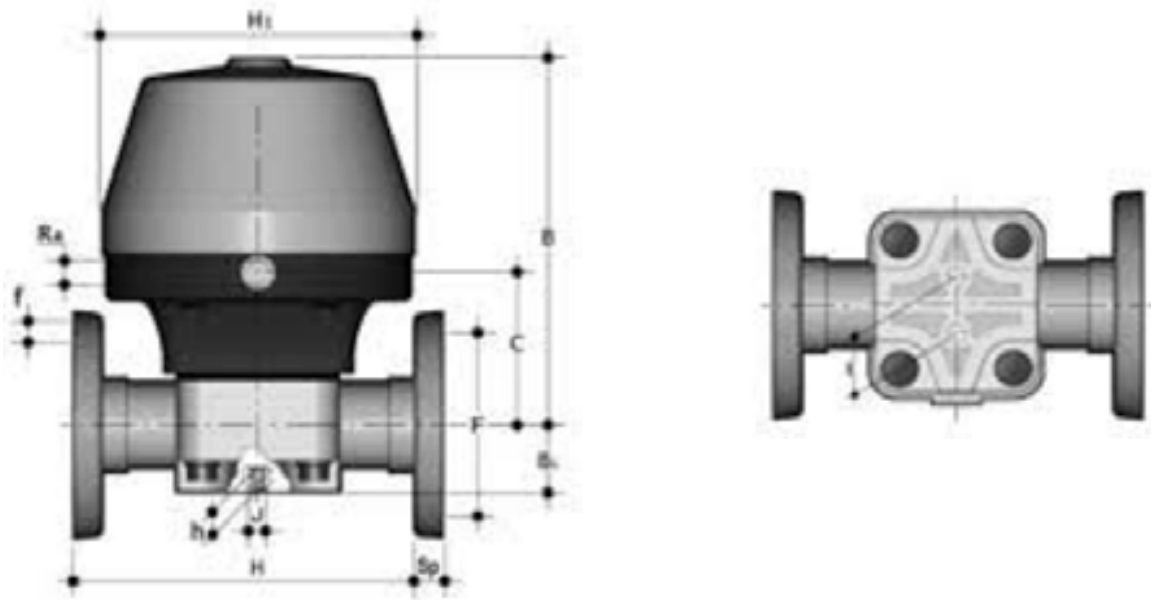
Size			Face To Face	Pressure Class	Dimensions										W	Codes		
d mm	DN mm	R Inch	H	PN	B	B ₁	C	C ₁	E	H ₁	L _A	R ₁	R	Z	KG	EPDM Code	FPM Code	PTFE Code
20	DN15	½"	129	10	148	25	66	24	41	97	90	1"	¼"	100	0,735	DKUIVNC020E1 DKUIVNO020E2	DKUIVNC020F1 DKUIVNO020F2	DKUIVNC020P1 DKUIVNO020P2
25	DN20	¾"	154	10	151	30	69	24	50	97	108	1" ¼"	¼"	116	0,797	DKUIVNC025E1 DKUIVNO025E2	DKUIVNC025F1 DKUIVNO025F2	DKUIVNC025P1 DKUIVNO025P2
32	DN25	1"	168	10	159	33	78	24	58	97	116	1" ½"	¼"	124	1,025	DKUIVNC032E1 DKUIVNO032E2	DKUIVNC032F1 DKUIVNO032F2	DKUIVNC032P1 DKUIVNO032P2
40	DN32	1 ¼"	192	10	163	30	82	24	72	97	134	2"	¼"	140	1,151	DKUIVNC040E1 DKUIVNO040E2	DKUIVNC040F1 DKUIVNO040F2	DKUIVNC040P1 DKUIVNO040P2
50	DN40	1 ½"	222	10	202	35	96	-	79	155	154	2" ¼"	¼"	160	4,112	DKMUIVNC050E1 DKMUIVNO050E2	DKMUIVNC050F1 DKMUIVNO050F2	DKMUIVNC050P1 DKMUIVNO050P2
63	DN50	2"	266	10	254	46	113	-	98	210	184	2" ¾"	¼"	190	8,12	DKMUIVNC063E1 DKMUIVNO063E2	DKMUIVNC063F1 DKMUIVNO063F2	DKMUIVNC063P1 DKMUIVNO063P2

¹ Normally Close Function

² Normally Open / Double Acting Function

* For bigger dimensions please contact us.
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c) VMOV Series Pneumatic Diaphragm Valves (DN80~DN100)
 Diaphragm valve with flanged monolithic body,
 drilled PN10/16. Face to face according to EN 558-1



Size			Face To Face	Pressure Class	Dimensions													W	Codes		
d mm	DN mm	R Inch	H	PN	B	B ₁	C	h	H ₁	R _a	I	J	F	Øf	U	Sp	KG	EPDM Code	FPM Code	PTFE Code	
90	DN80	3"	310	6	325	55	187	23	258	¼"	100	M12	160	18	8	21,5	17	VMOVNC090E1 VMOVNO090E2	VMOVNC090F1 VMOVNO090F2	VMOVNC090P1 VMOVNO090P2	
110	DN100	4"	350	6	355	69	268	23	258	¼"	120	M12	180	18	8	22,5	27,9	VMOVNC110E1 VMOVNO110E2	VMOVNC110F1 VMOVNO110F2	VMOVNC110P1 VMOVNO110P2	

¹ Normally Close Function

² Normally Open / Double Acting Function

* For smaller dimensions please contact us.



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