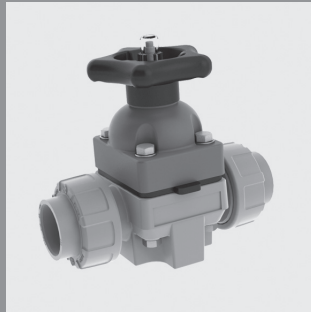


Diaphragm Valve MV 310 - manual -



page 2 - 11

Diaphragm Valve MV 310 - pneumatic -



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Diaphragm Valve MV 310 manual

good control characteristics, visual position indicator



Advantage

- as standard with visual position indicator

Application

- chemical plants
- industrial plants
- water treatment
- electroplating plants

Intended Use

- for shut-off and control purposes in technical processing plants

Flow Media

- Neutral and aggressive fluid or gaseous media, also with abrasive constituents, provided that the valve components coming into contact with the media are resistant at the operating temperature in accordance with the ASV-resistance guide.
- For nitric acid or sulfuric acid please specify the precise operating conditions of the application.

Testing

- Requirements and tests/inspections according to DIN 3441, 3442, 8063 and 16962. DIN EN 12266, leakage rate A tested.

Nominal Pressure (H₂O, 20°C)

- PN 10

Fluid Temperature

- see pressure-/temperature diagram

Operating Pressure

- see pressure-/temperature diagram

Size

- DN 15 - DN 100

Valve Body

- PVC-U
- PP
- PVDF

Diaphragm

- EPDM
- FPM on request
- PTFE (EPDM diaphragm with PTFE coating on the surfaces coming into contact with the medium)

Bonnet

- PP, glass fibre reinforced

Spindle

- DN 15 - DN 50: made of thermoplastic (PA)
- DN 65 - DN 100: made of steel (C1)

Spindle Nut

- made of thermoplastic (PA)

Handwheel

- made of thermoplastic (PA)

Sealing

- -
- FPM
- EPDM

Actuation

- manually by means of an ergonomically shaped non-rising handwheel

Connection

- DN 15 - DN 50: union DIN 8063
- GFR flange DIN EN 1092, PN 10/16, with DIN face-to-face dimension
- PP/steel flange DIN EN 1092, PN 10/16, with DIN face-to-face dimension
- union socket end for solvent welding DIN ISO (PVC-U)
- union socket end for fusion welding DIN ISO (PP)
- union socket end for fusion welding DIN ISO (PVDF)
- union end acc. to BS, ANSI or JIS on request
- spigot end for solvent welding DIN ISO (PVC-U)
- fusion spigot end DIN ISO (PP)
- fusion spigot end DIN ISO (PVDF)

Mounting Position

- as required

Fastening

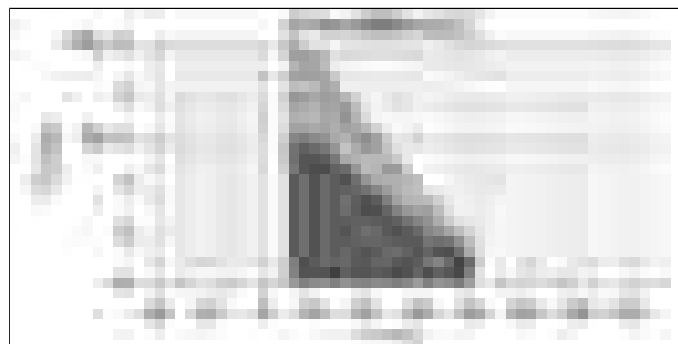
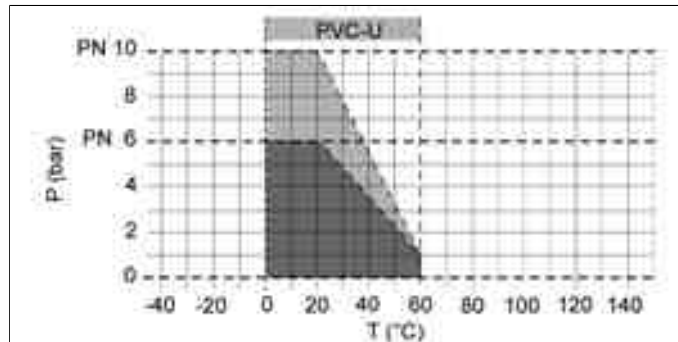
- via threaded inserts (metal inserts) in the valve body

Colour

- body: PVC-U, grey, RAL 7011
- body: PP, grey, RAL 7032
- body: PVDF, opaque, yellowish-white
- bonnet: orange, RAL 2004
- GFR Flanges: black, RAL 9011
- PP/Steel Flanges: black, RAL 9011

Diaphragm Valve MV 310 manual

Pressure/temperature diagram



P = operating pressure

T = temperature

The pressure/temperature limits are applicable for the stated nominal pressures and a computed operating life factor of 25 years. These are standard values for harmless media (DIN 2403), to which the valve material is resistant.

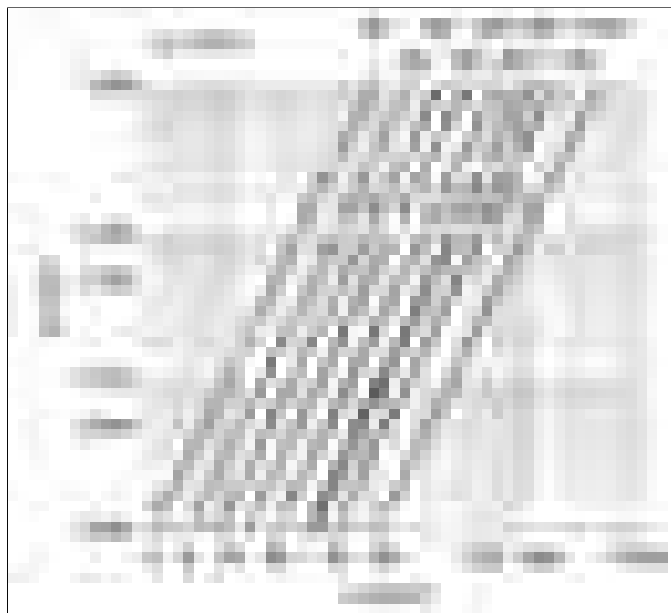
For other media please refer to the ASV resistance guide.

The durability of wear parts depends on the operating conditions of the application.

For temperatures below 0°C (PP < +10°C) please specify the precise operating conditions of the application.

The rated pressure depends on the valve size and material. For the corresponding rated pressure value of the valve, please refer to the »Order table«.

Pressure loss curve (standard values for H₂O, 20°C)



ΔP = pressure loss

Q = flow

pressure loss and k_v value

The diagram shows the pressure loss ΔP in relation to the flow Q .

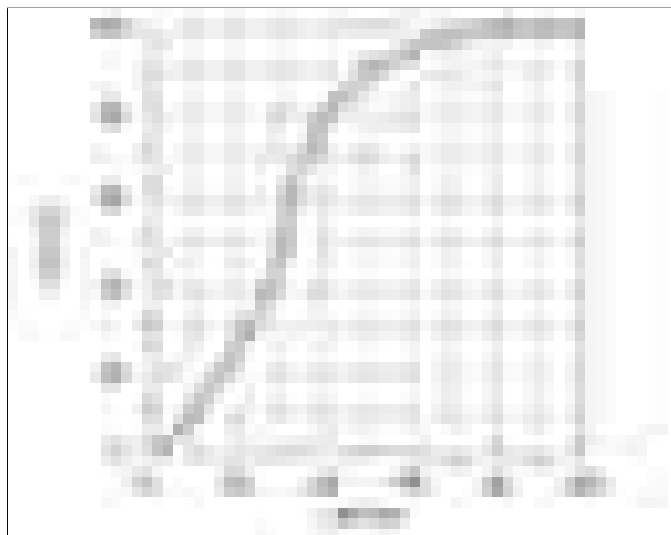
Conversion aid:

$$c_v = k_v \times 0.07; f_v = k_v \times 0.0585$$

Units:

k_v [l/min]; c_v [gal/min] US; f_v [gal/min] GB

Flow characteristic



VO = valve opening

$FR = K_v \text{ value}$

Diaphragm Valve MV 310 manual

Maintenance note

Screw tightening torque (Nm)

d (mm)		20	25	32	40	50	63
Md (Nm)	EPDM	6	6	10	10	18	18
Md (Nm)	PTFE	8	8	12	12	20	20

d (mm)		75	90	110
Md (Nm)	EPDM	18	18	20
Md (Nm)	PTFE	20	20	22

Check the tightening torque of the body screws at certain intervals in case of setting of the diaphragms and/or temperature fluctuations.

Operating note

Safe operation of the valve can only be ensured if it is properly installed, operated, serviced or repaired by qualified personnel according to its intended use while observing the accident prevention regulations, safety regulations, relevant standards, directives/technical regulations or codes of practice such as e.g. DIN, DIN EN, DIN ISO and DVS*. *DVS = German Welding Society

The intended use includes adhering to specified limit values for pressure and temperature, as well as checking the resistance. This requires all components coming into contact with the medium to be "resistant" in accordance with the ASV resistance guide.

Please take into account that the material PTFE is classified as resistant against many media, however, PTFE is not diffusion tight when used as a film, e.g. for the ASV membranes. Please contact us for limit cases (nitric acid or sulfuric acid).

Diaphragm Valve MV 310 manual, [d20 - d63]



body PVC-U

size pressure range	d(mm)		20	25	32	40	50	63
	DN(mm)		15	20	25	32	40	50
	DN(inch)		1/2	3/4	1	1 1/4	1 1/2	2
	PN(bar)		10	10	10	10	10	10
Connection	diaphragm	sealing	ident No.					
PVC-U socket end DIN ISO	EPDM	EPDM	114793	114794	113396	113397	113398	114798
	PTFE	FPM	114799	114800	114801	114802	114803	114804
	weight		0.50 kg	0.50 kg	1.10 kg	1.20 kg	2.10 kg	2.50 kg
PVC-U spigot end DIN ISO	EPDM	-	62275	62276	62277	62278	62279	62280
	PTFE	-	65992	65993	65994	65995	65996	65997
	weight		0.38 kg	0.40 kg	0.83 kg	0.90 kg	1.80 kg	1.90 kg
GFR flange DIN EN 1092	EPDM	-	65021	65022	65023	65024	65025	65026
	PTFE	-	69896	69897	69898	69899	69900	69901
	weight		0.84 kg	0.96 kg	1.61 kg	2.28 kg	3.64 kg	4.60 kg

body PP

size pressure range	d(mm)		20	25	32	40	50	63
	DN(mm)		15	20	25	32	40	50
	DN(inch)		1/2	3/4	1	1 1/4	1 1/2	2
	PN(bar)		10	10	10	10	10	10
Connection	diaphragm	sealing	ident No.					
PP socket end DIN ISO	EPDM	EPDM	114805	114806	113399	113400	114809	114810
	PTFE	FPM	114811	114812	114813	114814	114815	114816
	weight		0.44 kg	2.39 kg	0.93 kg	1.06 kg	1.88 kg	2.12 kg
PP spigot end DIN ISO	EPDM	-	62281	62282	62283	62284	62285	62286
	PTFE	-	67000	67001	67002	67003	67004	67005
	weight		0.38 kg	0.40 kg	0.82 kg	2.36 kg	1.68 kg	1.74 kg
GFR flange DIN EN 1092	EPDM	-	65039	65040	65041	65042	65043	65044
	PTFE	-	69902	69903	69904	69905	69906	69907
	weight		0.52 kg	0.62 kg	1.08 kg	1.41 kg	2.22 kg	2.50 kg

Diaphragm Valve MV 310 manual, [d20 - d63]



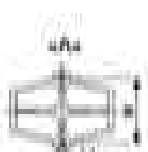
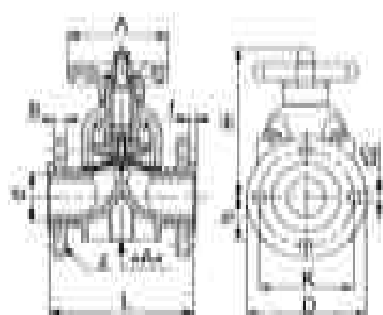
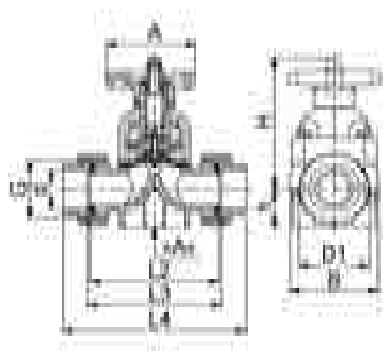
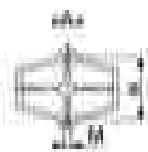
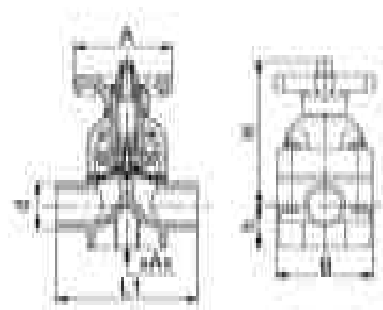
body PVDF

size pressure range	d(mm)			20	25	32	40	50	63
	DN(mm)			15	20	25	32	40	50
	DN(inch)			1/2	3/4	1	1 1/4	1 1/2	2
	PN(bar)			10	10	10	10	10	10
Connection	diaphragm	sealing	ident No.						
PVDF socket end DIN ISO	PTFE	FPM		114823	114824	114825	114826	114827	114828
	weight			0.50 kg	0.55 kg	1.07 kg	1.26 kg	2.44 kg	2.80 kg
PVDF spigot end DIN ISO	PTFE	-		67006	67007	67008	67009	67010	67011
	weight			0.44 kg	0.47 kg	0.97 kg	1.10 kg	2.20 kg	2.30 kg
PP / steel flange DIN EN 1092	PTFE	-		67726	67727	67728	67729	67730	67731
	weight			0.87 kg	1.11 kg	1.75 kg	1.80 kg	3.64 kg	3.98 kg

Diaphragm Valve MV 310 manual, [d20 - d63]

dimensions

d(mm)	20	25	32	40	50	63
DN(mm)	15	20	25	32	40	50
DN(inch)	1/2	3/4	1	1 1/4	1 1/2	2
dimensions(mm)						
	A	90	90	100	100	130
PP/PVC-U	b	12	14	15	17	18
PVDF	b	13	14.5	15.5	17.5	19
	B	72	72	92	92	119
	d2	14	14	14	18	18
	D	95	105	115	140	150
PP	D1	46	56	66	79	87
PVC-U	D1	41	50	58	72	79
PVDF	D1	47	57	64	78	89
	f	6	7	7	8	9
	h	26	26	26	40	40
	H	98	102	131	135	169
	K	65	75	85	100	110
	L	130	150	160	180	200
	L1	124	144	154	174	194
	L2	90	108	116	134	154
	L3	96	114	122	140	160
PP	L4	125	146	158	181	207
PVC-U	L4	128	152	166	192	222
PVDF	L4	128	150	162	184	210
	M	M6	M6	M6	M8	M8
PP/PVDF	t	16	19	21	23	26
PVC-U	t	16	19	22	26	31
	w	26	26	26	45	45
	z	4	4	4	4	4



Diaphragm Valve MV 310 manual, [d75 - d110]



body PVC-U

<i>size</i>	d(mm)			75	90	110
	DN(mm)			65	80	100
	DN(inch)			2 1/2	3	4
	PN(bar)			10	10	10
<i>pressure range</i>						
<i>Connection</i>	<i>diaphragm</i>	<i>sealing</i>	<i>ident No.</i>			
PVC-U spigot end DIN ISO	EPDM	-		45176	45177	45178
	PTFE	-		45194	45195	45196
	<i>weight</i>			6.10 kg	6.50 kg	9.50 kg
GFR flange DIN EN 1092	EPDM	-		46422	46423	46424
	PTFE	-		46428	46429	46430
	<i>weight</i>			8.60 kg	9.40 kg	12.70 kg

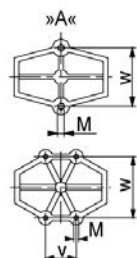
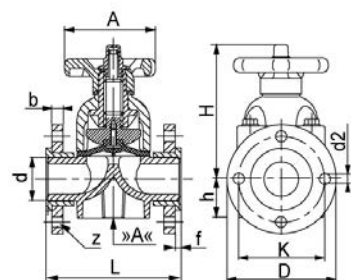
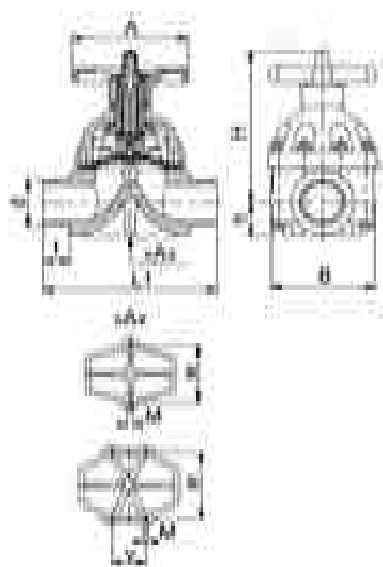
body PP

<i>size</i>	d(mm)			75	90	110
	DN(mm)			65	80	100
	DN(inch)			2 1/2	3	4
	PN(bar)			10	10	10
<i>pressure range</i>						
<i>Connection</i>	<i>diaphragm</i>	<i>sealing</i>	<i>ident No.</i>			
PP spigot end DIN ISO	EPDM	-		45212	45213	45214
	PTFE	-		45230	45231	45232
	<i>weight</i>			5.20 kg	5.60 kg	8.20 kg
GFR flange DIN EN 1092	EPDM	-		46434	46435	46436
	PTFE	-		46440	46441	46442
	<i>weight</i>			7.70 kg	8.60 kg	11.40 kg

body PVDF

<i>size</i>	d(mm)			75	90	110
	DN(mm)			65	80	100
	DN(inch)			2 1/2	3	4
	PN(bar)			10	10	10
<i>pressure range</i>						
<i>Connection</i>	<i>diaphragm</i>	<i>sealing</i>	<i>ident No.</i>			
PVDF spigot end DIN ISO	PTFE	-		45266	45267	45268
	<i>weight</i>			7.70 kg	8.60 kg	11.40 kg
PP / steel flange DIN EN 1092	PTFE	-		46449	46453	46454
	<i>weight</i>			9.40 kg	10.20 kg	13.90 kg

Diaphragm Valve MV 310 manual, [d75 - d110]

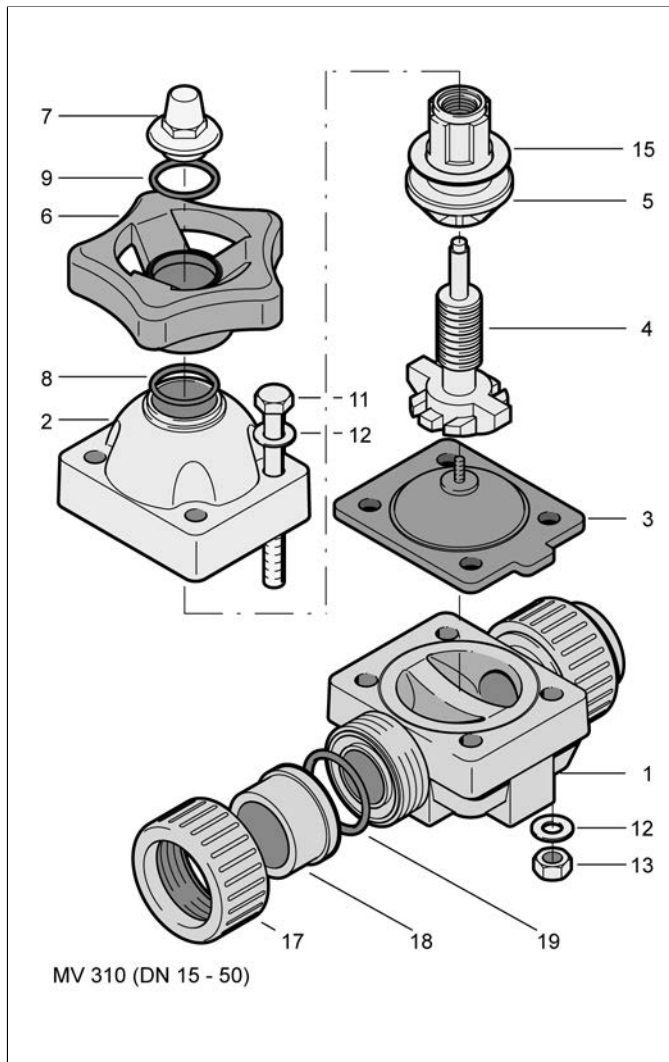


dimensions

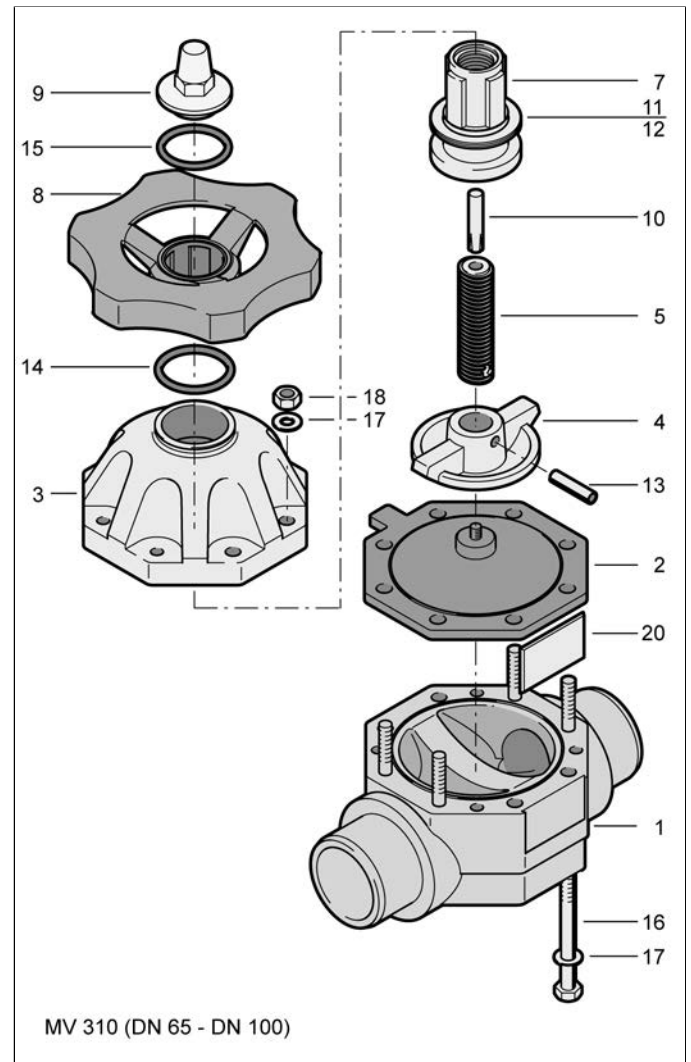
d(mm)		75	90	110
DN(mm)		65	80	100
DN(inch)		2 1/2	3	4
dimensions(mm)				
	A	190	190	240
PP/PVC-U	b	18	20	20
PVDF	b	19	21	22
	B	177	177	217
	d2	18	18	18
	D	185	200	220
	f	10	11	12
	h	54	54	64
	H	245	245	285
	K	145	160	180
	L	290	310	350
	L1	284	300	340
	M	M12	M12	M10
PP/PVDF	t	33.5	38	45
PVC-U	t	44	52	61
	v	-	-	60
	w	100	100	120
	z	4	8	8

Diaphragm Valve MV 310 manual

Item Overview



position	quantity	designation
1	1	valve body
2	1	bonnet
3	1	diaphragm
4	1	spindle
5	1	spindle nut
6	1	handwheel
7	1	indicator cap
8	1	O-ring
9	1	O-ring
11	4	hexagon bolt
12	8	disc
13	4	hexagon nut
15	1	bearing ring
17	1	union nut
18	1	union end
19	1	O-ring



position	quantity	designation
1	1	valve body
2	1	diaphragm
3	1	bonnet
4	1	pressure piece
5	1	spindle
7	1	spindle nut
8	1	handwheel
9	1	indicator cap
10	1	indicator pin
11	1	axial bearing
12	2	axial bearing disc
13	1	spring dowel sleeve
14	1	O-ring
15	1	O-ring
16	4	hexagon bolt
17	8/12	disc
18	4/8	hexagon nut
20	1	name plate

Diaphragm Valve MV 310 manual

Diaphragm Valve MV 310, pneumatic

with pneumatically directly controlled actuator



Advantage

- good control characteristics
- DN 15 - DN 50 equipped as standard with visual position indicator
- DN 15 - DN 50: optionally available with lift limit and manual emergency control
- DN 65 - DN 100 optionally available with visual position indicator, lift limit and manual emergency control

Application

- chemical plants
- industrial plants
- water treatment
- electroplating plants

Intended Use

- for shut-off and control purposes in technical processing plants

Flow Media

- Neutral and aggressive fluid or gaseous media, also with abrasive constituents, provided that the valve components coming into contact with the media are resistant at the operating temperature in accordance with the ASV-resistance guide.
- For nitric acid or sulfuric acid please specify the precise operating conditions of the application.

Testing

- Requirements and tests/inspections according to DIN EN ISO 16135 and ISO 9393. DIN EN 12266, leakage rate A tested.

Nominal Pressure (H₂O, 20°C)

- PN 6 - PN 10

Fluid Temperature

- see pressure-/temperature diagram

Operating Pressure

- DN 15 - DN 50: max. 10 bar bei 20°C
- DN 65 - DN 100: max. 6 bar at 20°C
- Observe the pressure-/temperature diagram!

Size

- DN 15 - DN 100

Valve Body

- PVC-U
- PP
- PVDF

Diaphragm

- EPDM
- FPM on request
- PTFE (EPDM diaphragm with PTFE coating on the surfaces coming into contact with the medium)

Bonnet

- DN 15 - DN 50: PP, glass fibre reinforced
- DN 65 - DN 100: aluminium, painted

Sealing

- -
- FPM
- EPDM

Actuation

- with pneumatic lift actuator

Control Function

- NC (normally closed)
- NO (normally open)
- DA (double acting)

Control Pressure

- max. 6 bar (see control curve diagram)

Mounting Position

- as required

Connection

- DN 15 - DN 50: union DIN 8063
- GFR flange DIN EN 1092, PN 10/16, with DIN face-to-face dimension
- PP/steel flange DIN EN 1092, PN 10/16, with DIN face-to-face dimension
- union socket end for solvent welding DIN ISO (PVC-U)
- union socket end for fusion welding DIN ISO (PP)
- union socket end for fusion welding DIN ISO (PVDF)
- spigot end for solvent welding DIN ISO (PVC-U)
- fusion spigot end DIN ISO (PP)
- fusion spigot end DIN ISO (PVDF)

Fastening

- via threaded inserts (metal inserts) in the valve body

Accessories

- limit switch unit
- pilot solenoid valve
- positioner
- AS Interface

Lift Limit

- DN 15 - DN 50 (not suitable for the standard version): It can only be used for the special version with the metal screw in the top section of the actuator. The lift is limited by turning the adjustment screw (3.30) clockwise.
- DN 65 - DN 100 special version: Order the actuator upper part in the metal version for the NC valve. Please request separate instructions.

Maintenance Note

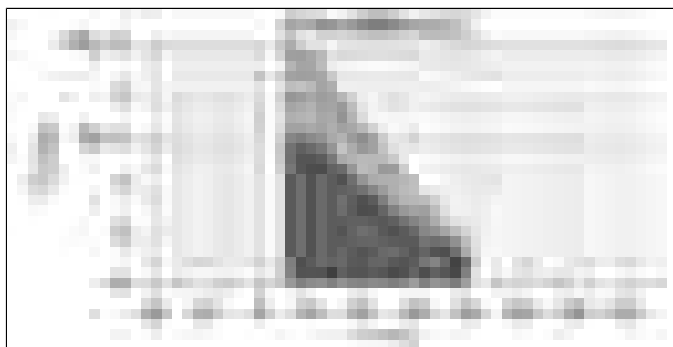
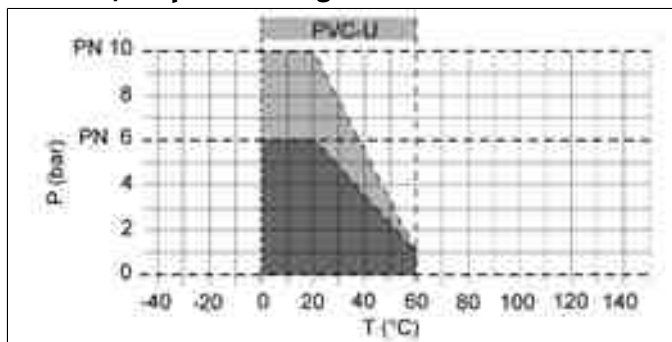
- Check the tightening torque of the body screws at certain intervals in case of setting of the diaphragms and/or temperature fluctuations.
- Refer to the table for the tightening torque

Colour

- body: PVC-U, grey, RAL 7011
- body: PP, grey, RAL 7032
- body: PVDF, opaque, yellowish-white
- bonnet: orange, RAL 2004
- bonnet: d75 - d100; red
- GFR Flanges: black, RAL 9011
- PP/Steel Flanges: black, RAL 9011

Diaphragm Valve MV 310, pneumatic

Pressure/temperature diagram



P = operating pressure

T = temperature

The pressure/temperature limits are applicable for the stated nominal pressures and a computed operating life factor of 25 years. These are standard values for harmless media (DIN 2403), to which the valve material is resistant.

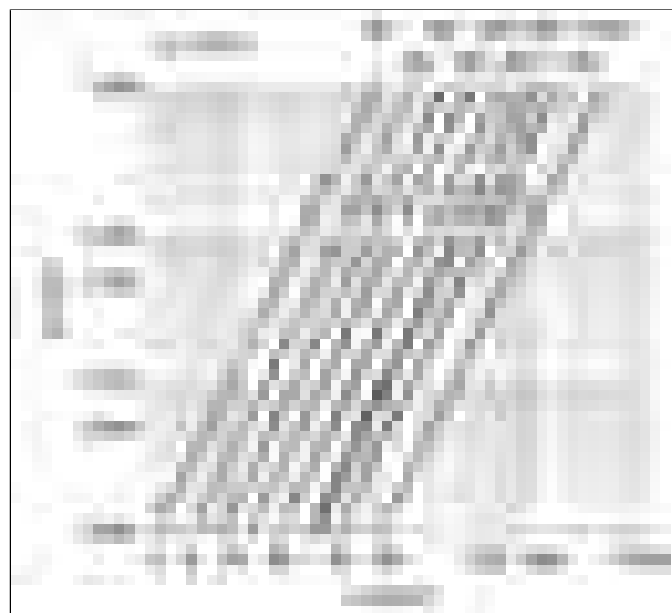
For other media please refer to the ASV resistance guide.

The durability of wear parts depends on the operating conditions of the application.

For temperatures below 0°C ($PP < +10^\circ\text{C}$) please specify the precise operating conditions of the application.

The rated pressure depends on the valve size and material. For the corresponding rated pressure value of the valve, please refer to the »Order table«.

Pressure loss curve (standard values for H₂O, 20°C)



ΔP = pressure loss

Q = flow

pressure loss and k_v value

The diagram shows the pressure loss ΔP in relation to the flow Q .

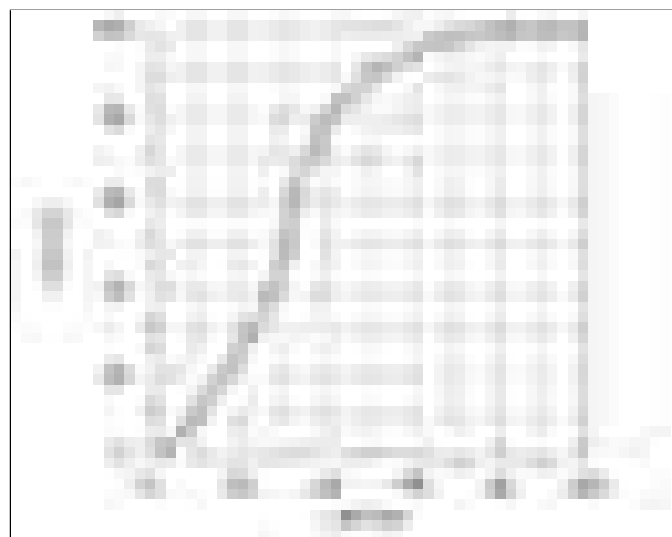
Conversion aid:

$$c_v = k_v \times 0.07; f_v = k_v \times 0.0585$$

Units:

k_v [l/min]; c_v [gal/min] US; f_v [gal/min] GB

Flow characteristic

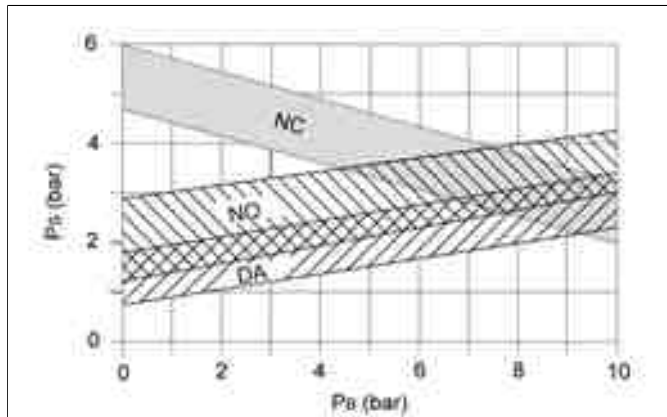


VO = valve opening

$FR = K_v \text{ value}$

Diaphragm Valve MV 310, pneumatic

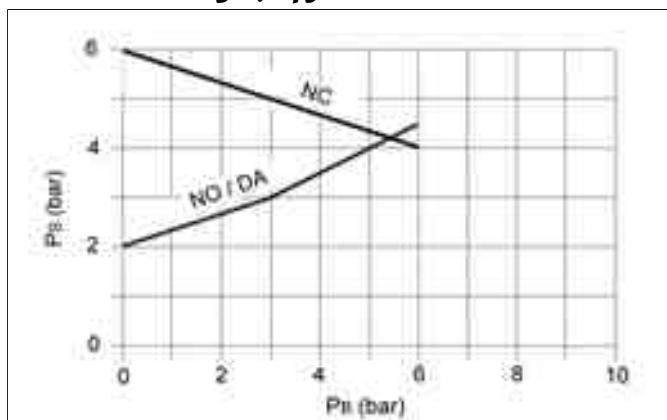
Control curve MV 310, d20 - d63



p_B = operating pressure

p_S = control pressure

Control curve MV 310, d 75 - d 110



p_B = operating pressure

p_S = control pressure

Control volume (standard liters)

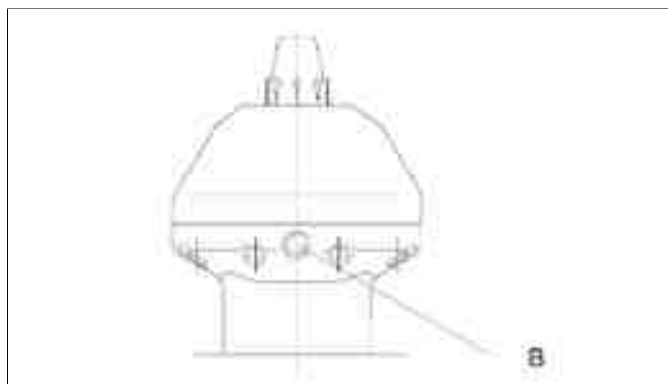
d (mm)	20	25	32	40	50	63
NC	0.10	0.10	0.19	0.19	0.36	0.36
NO	0.08	0.08	0.19	0.19	0.42	0.42
DA	0.10	0.10	0.19	0.19	0.42	0.42

d (mm)	75	90	110
NC	2.1	2.1	2.1
NO	2.2	2.2	2.2
DA	2.2	2.2	2.2

d (mm)	20	25	32	40	50	63
Md (Nm) EPDM	6	6	10	10	18	18
Md (Nm) PTFE	8	8	12	12	20	20

d (mm)	75	90	110
Md (Nm) EPDM	40	40	30
Md (Nm) PTFE	50	50	40

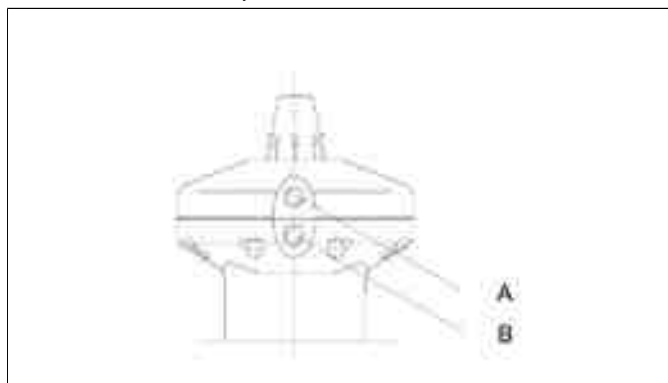
Control function NC



NC: control pressure to connection »B«, valve open

Connection »B« = 1/4"

Control function NO, DA



NO: control pressure to connection »A«, valve is closed

DA: control pressure to connection »B« valve is open

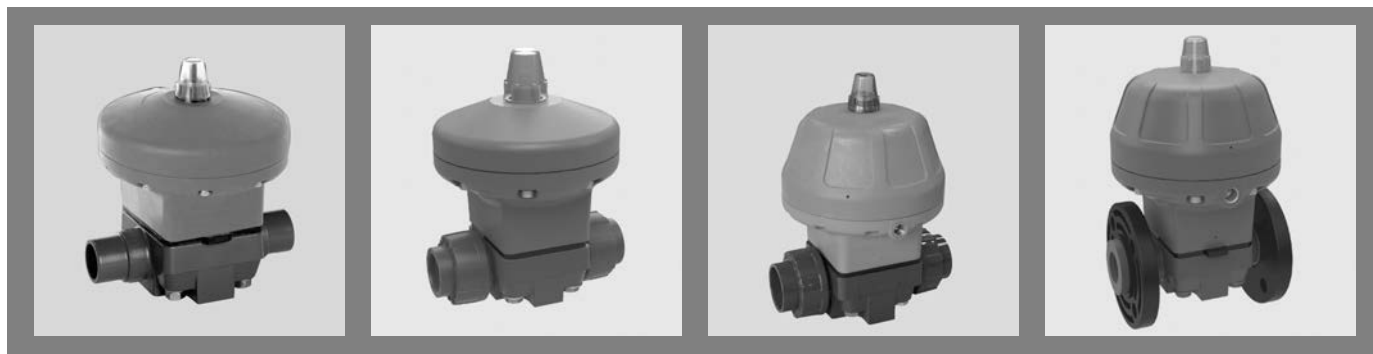
DA: control pressure to connection »A« valve is closed

Connection »A«, »B« = 1/4"

Operating note

Safe operation of the valve can only be ensured if it is properly installed, operated, serviced or repaired by qualified personnel according to its intended use while observing the accident prevention regulations, safety regulations, relevant standards, directives/technical regulations or codes of practice such as e.g. DIN, DIN EN, DIN ISO and DVS*. *DVS = German Welding Society. The intended use includes adhering to specified limit values for pressure and temperature, as well as checking the resistance. This requires all components coming into contact with the medium to be "resistant" in accordance with the ASV resistance guide. Please take into account that the material PTFE is classified as resistant against many media, however, PTFE is not diffusion tight when used as a film, e.g. for the ASV membranes. Please contact us for limit cases (nitric acid or sulfuric acid).

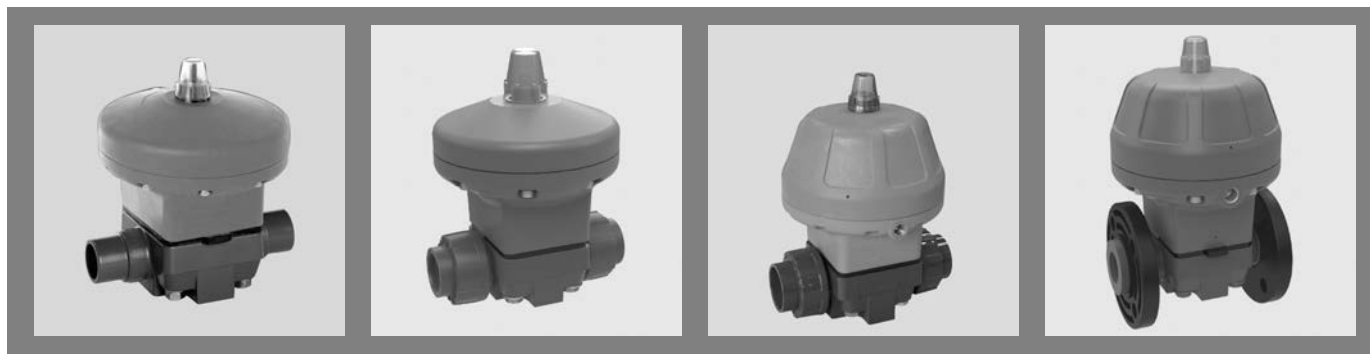
Diaphragm Valve MV 310, pneumatic, [d20 - d63]



Actuator variant NC			body PVC-U						
size	d(mm)		20	25	32	40	50	63	
pressure range	DN(mm)		15	20	25	32	40	50	
	DN(inch)		1/2	3/4	1	1 1/4	1 1/2	2	
	PN(bar)		10	10	10	10	10	10	
Connection	diaphragm	sealing	ident No.						
PVC-U	EPDM	EPDM		122818	122819	122820	122821	122822	122823
socket end DIN ISO	PTFE	FPM		122825	122826	122827	122828	122829	122830
	weight			1.57 kg	1.58 kg	3.13 kg	3.22 kg	6.45 kg	6.85 kg
PVC-U	EPDM	-		67324	67325	67326	67327	67328	67329
spigot end DIN ISO	PTFE	-		67340	67341	67342	67343	67344	67345
	weight			1.45 kg	1.48 kg	2.86 kg	2.92 kg	6.15 kg	6.25 kg
GFR	EPDM	-		122860	122861	122862	122863	122864	122865
flange DIN EN 1092	PTFE	-		122870	122871	122872	122873	122874	122875
	weight			1.72 kg	2.50 kg	3.36 kg	5.79 kg	7.10 kg	7.54 kg

Actuator variant NO			body PVC-U						
size	d(mm)		20	25	32	40	50	63	
pressure range	DN(mm)		15	20	25	32	40	50	
	DN(inch)		1/2	3/4	1	1 1/4	1 1/2	2	
	PN(bar)		10	10	10	10	10	10	
Connection	diaphragm	sealing	ident No.						
PVC-U	EPDM	EPDM		122832	122833	122834	122835	122836	122837
socket end DIN ISO	PTFE	FPM		122839	122840	122841	122842	122843	122844
	weight			1.57 kg	1.58 kg	3.13 kg	3.22 kg	6.45 kg	6.85 kg
PVC-U	EPDM	-		67552	67553	67554	67555	67556	67557
spigot end DIN ISO	PTFE	-		67564	67565	67566	67567	67568	67569
	weight			1.45 kg	1.48 kg	2.86 kg	2.92 kg	6.15 kg	6.25 kg
GFR	EPDM	-		122880	122881	122882	122883	122884	122885
flange DIN EN 1092	PTFE	-		122890	122891	122892	122893	122894	122895
	weight			1.72 kg	2.50 kg	3.36 kg	5.79 kg	7.10 kg	7.54 kg

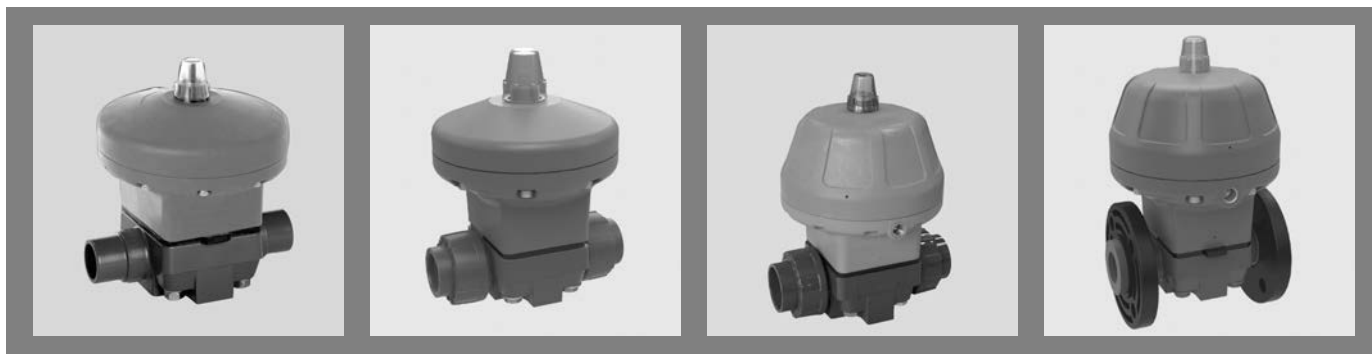
Diaphragm Valve MV 310, pneumatic, [d20 - d63]



Actuator variant DA		body PVC-U							
size pressure range	d(mm)		20	25	32	40	50	63	
	DN(mm)		15	20	25	32	40	50	
	DN(inch)		1/2	3/4	1	1 1/4	1 1/2	2	
	PN(bar)		10	10	10	10	10	10	
Connection	diaphragm	sealing	ident No.						
PVC-U socket end DIN ISO	EPDM	EPDM	122846	122847	122848	122849	122850	122851	
	PTFE	FPM	122853	122854	122855	122856	122857	122858	
	weight		1.27 kg	1.28 kg	2.83 kg	2.92 kg	6.15 kg	6.55 kg	
PVC-U spigot end DIN ISO	EPDM	-	64405	64406	64407	64408	64409	64410	
	PTFE	-	64417	64418	64419	64420	64421	64422	
	weight		1.15 kg	1.18 kg	2.56 kg	2.62 kg	5.85 kg	5.95 kg	
GFR flange DIN EN 1092	EPDM	-	122900	122901	122902	122903	122904	122905	
	PTFE	-	122910	122911	122912	122913	122914	122915	
	weight		1.42 kg	2.20 kg	3.06 kg	5.49 kg	6.80 kg	7.24 kg	

Actuator variant NC		body PP							
size pressure range	d(mm)		20	25	32	40	50	63	
	DN(mm)		15	20	25	32	40	50	
	DN(inch)		1/2	3/4	1	1 1/4	1 1/2	2	
	PN(bar)		10	10	10	10	10	10	
Connection	diaphragm	sealing	ident No.						
PP socket end DIN ISO	EPDM	EPDM	122954	122955	122956	122957	122958	122959	
	PTFE	FPM	122961	122962	122963	122964	122965	122966	
	weight		1.43 kg	1.45 kg	2.81 kg	2.87 kg	6.03 kg	6.15 kg	
PP spigot end DIN ISO	EPDM	-	67346	67347	67348	67349	67350	67351	
	PTFE	-	67358	67359	67360	67361	67362	67363	
	weight		1.42 kg	1.43 kg	2.78 kg	2.82 kg	5.96 kg	6.03 kg	
GFR flange DIN EN 1092	EPDM	-	122989	122990	122991	122992	122993	122994	
	PTFE	-	122999	123000	123001	123002	123003	123004	
	weight		1.65 kg	1.76 kg	3.24 kg	3.56 kg	6.87 kg	7.15 kg	

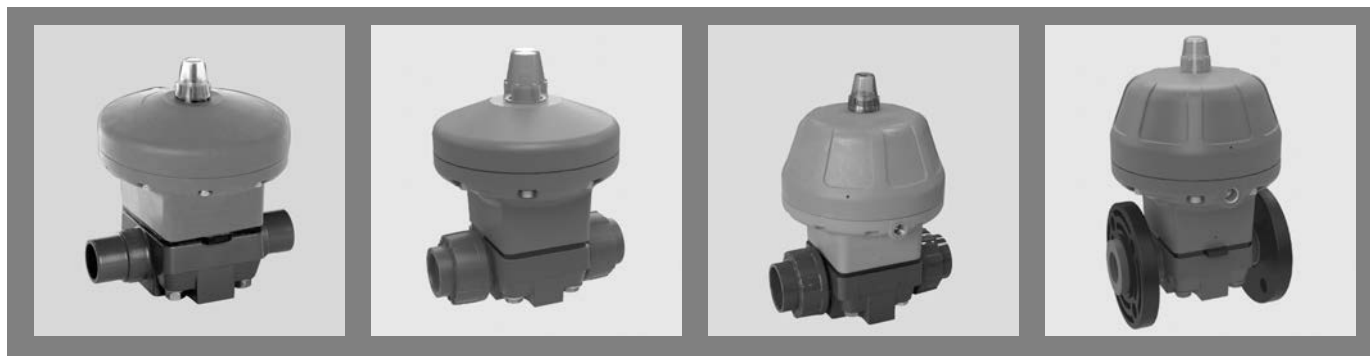
Diaphragm Valve MV 310, pneumatic, [d20 - d63]



Actuator variant NO			body PP						
size pressure range	d(mm)		20	25	32	40	50	63	
	DN(mm)		15	20	25	32	40	50	
	DN(inch)		1/2	3/4	1	1 1/4	1 1/2	2	
	PN(bar)		10	10	10	10	10	10	
Connection	diaphragm	sealing	ident No.						
PP socket end DIN ISO	EPDM	EPDM		123291	123292	123293	123294	123295	123296
	PTFE	FPM		122968	122969	122970	122971	122972	122973
	weight			1.43 kg	1.45 kg	2.81 kg	2.87 kg	6.03 kg	6.15 kg
PP spigot end DIN ISO	EPDM	-		67570	67571	67572	67573	67574	67575
	PTFE	-		67582	67583	67584	67585	67586	67587
	weight			1.42 kg	1.43 kg	2.78 kg	2.82 kg	5.96 kg	6.03 kg
GFR flange DIN EN 1092	EPDM	-		123009	123010	123011	123012	123013	123014
	PTFE	-		123237	123238	123239	123240	123241	123242
	weight			1.65 kg	1.76 kg	3.24 kg	3.56 kg	6.87 kg	7.15 kg

Actuator variant DA			body PP						
size pressure range	d(mm)		20	25	32	40	50	63	
	DN(mm)		15	20	25	32	40	50	
	DN(inch)		1/2	3/4	1	1 1/4	1 1/2	2	
	PN(bar)		10	10	10	10	10	10	
Connection	diaphragm	sealing	ident No.						
PP socket end DIN ISO	EPDM	EPDM		122975	122976	122977	122978	122979	122980
	PTFE	FPM		122982	122983	122984	122985	122986	122987
	weight			1.13 kg	1.15 kg	2.51 kg	2.57 kg	5.73 kg	5.85 kg
PP spigot end DIN ISO	EPDM	-		64423	64424	64425	64426	64427	64428
	PTFE	-		64435	64436	64437	64438	64439	64440
	weight			1.12 kg	1.13 kg	2.48 kg	2.52 kg	5.66 kg	5.73 kg
GFR flange DIN EN 1092	EPDM	-		123019	123020	123021	123022	123023	123024
	PTFE	-		123029	123030	123031	123032	123033	123034
	weight			1.35 kg	1.46 kg	2.94 kg	3.26 kg	6.57 kg	6.85 kg

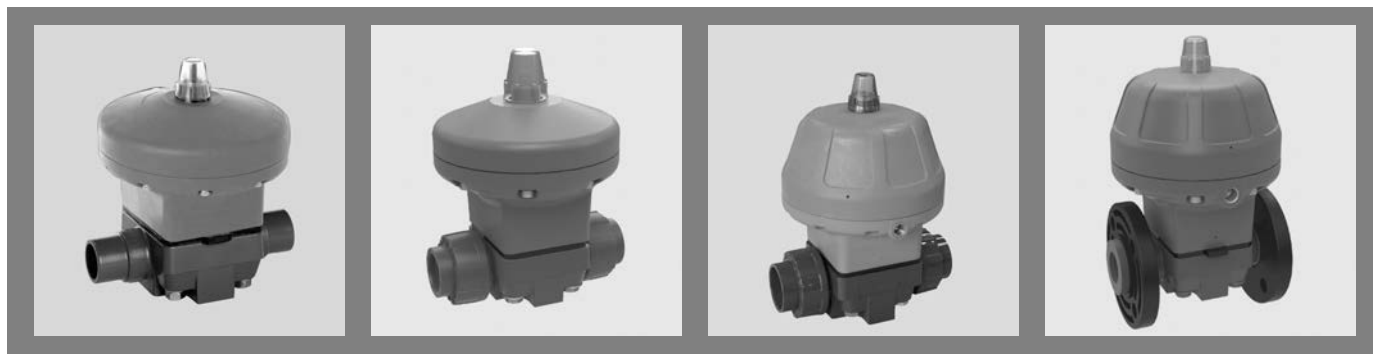
Diaphragm Valve MV 310, pneumatic, [d20 - d63]



Actuator variant NC			body PVDF						
size pressure range	d(mm)		20	25	32	40	50	63	
	DN(mm)		15	20	25	32	40	50	
	DN(inch)		1/2	3/4	1	1 1/4	1 1/2	2	
	PN(bar)		10	10	10	10	10	10	
Connection	diaphragm	sealing	ident No.						
PVDF socket end DIN ISO	PTFE	FPM		123090	123091	123092	123093	123094	123095
	weight			1.60 kg	1.61 kg	3.19 kg	3.32 kg	6.60 kg	7.05 kg
PVDF spigot end DIN ISO	PTFE	-		67364	67365	67366	67367	67368	67369
	weight			1.48 kg	1.51 kg	2.92 kg	3.02 kg	6.30 kg	6.45 kg
PP / steel flange DIN EN 1092	PTFE	-		123135	123136	123137	123138	123139	123140
	weight			1.91 kg	2.15 kg	3.70 kg	3.72 kg	7.74 kg	7.40 kg

Actuator variant NO			body PVDF						
size pressure range	d(mm)		20	25	32	40	50	63	
	DN(mm)		15	20	25	32	40	50	
	DN(inch)		1/2	3/4	1	1 1/4	1 1/2	2	
	PN(bar)		10	10	10	10	10	10	
Connection	diaphragm	sealing	ident No.						
PVDF socket end DIN ISO	PTFE	FPM		123104	123105	123106	123107	123108	123109
	weight			1.60 kg	1.61 kg	3.19 kg	3.32 kg	6.60 kg	7.05 kg
PVDF spigot end DIN ISO	PTFE	-		67588	67589	67590	67591	67592	67593
	weight			1.48 kg	1.51 kg	2.92 kg	3.02 kg	6.30 kg	6.45 kg
PP / steel flange DIN EN 1092	PTFE	-		123227	123228	123229	123230	123231	123232
	weight			1.91 kg	2.15 kg	3.70 kg	3.72 kg	7.74 kg	7.40 kg

Diaphragm Valve MV 310, pneumatic, [d20 - d63]

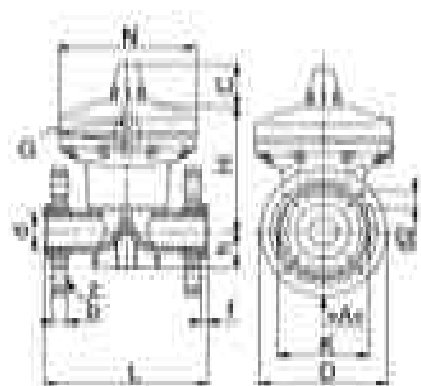
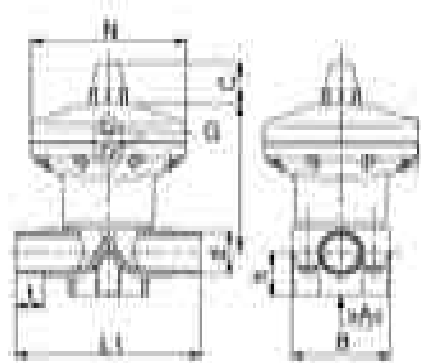
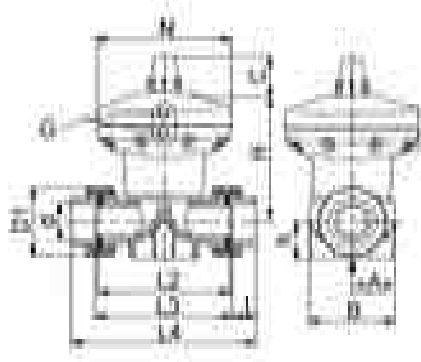


Actuator variant DA		body PVDF							
size pressure range	d(mm)		20	25	32	40	50	63	
	DN(mm)		15	20	25	32	40	50	
	DN(inch)		1/2	3/4	1	1 1/4	1 1/2	2	
	PN(bar)		10	10	10	10	10	10	
Connection	diaphragm	sealing	ident No.						
PVDF socket end DIN ISO	PTFE	FPM	123118	123119	123120	123121	123122	123123	
	weight		1.30 kg	1.31 kg	2.89 kg	3.02 kg	6.30 kg	6.75 kg	
PVDF spigot end DIN ISO	PTFE	-	64441	64442	64443	64444	64445	64446	
	weight		1.18 kg	1.21 kg	2.62 kg	2.72 kg	6.00 kg	6.15 kg	
PP / steel flange DIN EN 1092	PTFE	-	123165	123166	123167	123168	123169	123170	
	weight		1.61 kg	1.85 kg	3.40 kg	3.42 kg	7.44 kg	7.10 kg	

Diaphragm Valve MV 310, pneumatic, [d20 - d63]

dimensions

d(mm)		20	25	32	40	50	63
DN(mm)		15	20	25	32	40	50
DN(inch)		1/2	3/4	1	1 1/4	1 1/2	2
dimensions(mm)							
PP/PVC-U	b	12	14	15	17	17	18
PVDF	b	13	14.5	15.5	17.5	17.5	19
	B	72	72	92	92	119	119
DA/NO	C	41	41	41	41	41	41
NC	C	29	29	29	29	41	41
	d2	14	14	14	18	18	18
	D	95	105	115	140	150	165
PP	D1	46	56	66	79	87	107
PVC-U	D1	41	50	58	72	79	98
PVDF	D1	47	57	64	78	89	109
	f	6	7	7	8	8	9
	G	1/4	1/4	1/4	1/4	1/4	1/4
	h	26	26	26	40	40	40
DA/NO	H	113	113	139	139	155	155
NC	H	136	136	175	175	207	207
	K	65	75	85	100	110	125
	L	130	150	160	180	200	230
	L1	124	144	154	174	194	224
	L2	90	108	116	134	154	184
	L3	96	114	122	140	160	190
PP	L4	125	146	158	181	207	244
PVC-U	L4	128	152	166	192	222	266
PVDF	L4	128	150	162	184	210	248
	M	M6	M6	M6	M8	M8	M8
	N	122	122	152	152	192	192
PP/PVDF	t	16	19	21	23	26	30
PVC-U	t	16	19	22	26	31	38
	w	26	26	26	45	45	45
	z	4	4	4	4	4	4



Diaphragm Valve MV 310, pneumatic, [d75 - d110]



Actuator variant NC		body PVC-U			
size pressure range	d(mm)		75	90	110
	DN(mm)		65	80	100
	DN(inch)		2 1/2	3	4
	PN(bar)		6	6	6
Connection	diaphragm	sealing	ident No.		
PVC-U spigot end DIN ISO	EPDM	-	113623	43292	119768
	PTFE	-	143908	143909	143910
	weight		15.00 kg	15.50 kg	25.50 kg
GFR flange DIN EN 1092	EPDM	-	122866	122867	122868
	PTFE	-	143911	143912	143913
	weight		16.34 kg	17.12 kg	27.62 kg

Actuator variant NO		body PVC-U			
size pressure range	d(mm)		75	90	110
	DN(mm)		65	80	100
	DN(inch)		2 1/2	3	4
	PN(bar)		6	6	6
Connection	diaphragm	sealing	ident No.		
PVC-U spigot end DIN ISO	EPDM	-	119781	119782	45662
	PTFE	-	143914	143915	143916
	weight		16.00 kg	16.00 kg	25.00 kg
GFR flange DIN EN 1092	EPDM	-	122886	122887	122888
	PTFE	-	143917	143918	143919
	weight		17.34 kg	17.62 kg	27.12 kg

Diaphragm Valve MV 310, pneumatic, [d75 - d110]



Actuator variant DA		body PVC-U			
size pressure range	d(mm)		75	90	110
	DN(mm)		65	80	100
	DN(inch)		2 1/2	3	4
	PN(bar)		6	6	6
Connection	diaphragm	sealing	ident No.		
PVC-U spigot end DIN ISO	EPDM	-	119794	110692	117697
	PTFE	-	143920	143921	143922
	weight		16.00 kg	16.00 kg	25.00 kg
GFR flange DIN EN 1092	EPDM	-	122906	122907	122908
	PTFE	-	143923	143924	143925
	weight		17.34 kg	17.62 kg	27.12 kg

Actuator variant NC		body PP			
size pressure range	d(mm)		75	90	110
	DN(mm)		65	80	100
	DN(inch)		2 1/2	3	4
	PN(bar)		6	6	6
Connection	diaphragm	sealing	ident No.		
PP spigot end DIN ISO	EPDM	-	111961	119128	119727
	PTFE	-	143935	143936	143937
	weight		14.50 kg	15.00 kg	25.00 kg
GFR flange DIN EN 1092	EPDM	-	122995	122996	122997
	PTFE	-	143938	143939	143940
	weight		15.87 kg	16.63 kg	27.10 kg

Diaphragm Valve MV 310, pneumatic, [d75 - d110]



Actuator variant NO		body PP			
size pressure range	d(mm)		75	90	110
	DN(mm)		65	80	100
	DN(inch)		2 1/2	3	4
	PN(bar)		6	6	6
Connection	diaphragm	sealing	ident No.		
PP spigot end DIN ISO	EPDM	-	119127	111962	119785
	PTFE	-	143941	143942	143943
	weight		16.00 kg	16.00 kg	25.00 kg
GFR flange DIN EN 1092	EPDM	-	123015	123016	123017
	PTFE	-	143944	143945	143946
	weight		16.87 kg	17.13 kg	26.60 kg

Actuator variant DA		body PP			
size pressure range	d(mm)		75	90	110
	DN(mm)		65	80	100
	DN(inch)		2 1/2	3	4
	PN(bar)		6	6	6
Connection	diaphragm	sealing	ident No.		
PP spigot end DIN ISO	EPDM	-	119796	119797	119798
	PTFE	-	143947	143948	143949
	weight		16.00 kg	16.00 kg	25.00 kg
GFR flange DIN EN 1092	EPDM	-	123025	123026	123027
	PTFE	-	143950	143951	143952
	weight		16.87 kg	17.13 kg	26.60 kg

Actuator variant NC		body PVDF			
size pressure range	d(mm)		75	90	110
	DN(mm)		65	80	100
	DN(inch)		2 1/2	3	4
	PN(bar)		6	6	6
Connection	diaphragm	sealing	ident No.		
PVDF spigot end DIN ISO	PTFE	-	143953	143954	143955
	weight		15.50 kg	16.00 kg	26.00 kg
PP / steel flange DIN EN 1092	PTFE	-	143956	143957	143958
	weight		18.13 kg	19.23 kg	29.76 kg

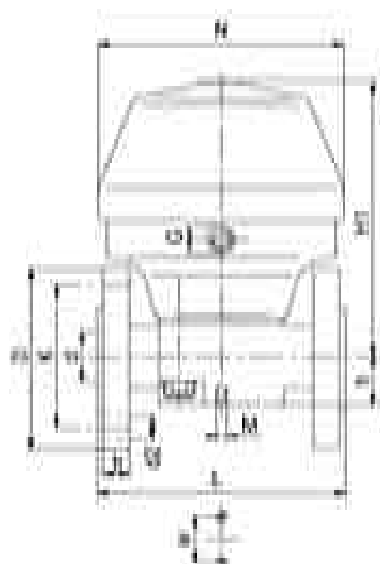
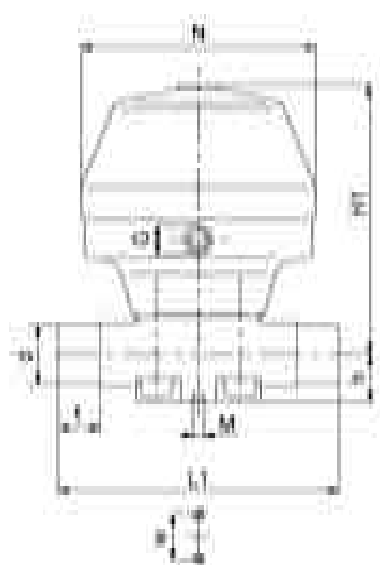
Diaphragm Valve MV 310, pneumatic, [d75 - d110]



Actuator variant NO		body PVDF			
size pressure range	d(mm)		75	90	110
	DN(mm)		65	80	100
	DN(inch)		2 1/2	3	4
	PN(bar)		6	6	6
Connection	diaphragm	sealing	ident No.		
PVDF spigot end DIN ISO	PTFE	-	143959	143960	143961
	weight		16.00 kg	16.00 kg	25.00 kg
PP / steel flange DIN EN 1092	PTFE	-	143962	143963	143964
	weight		19.13 kg	19.73 kg	29.26 kg

Actuator variant DA		body PVDF			
size pressure range	d(mm)		75	90	110
	DN(mm)		65	80	100
	DN(inch)		2 1/2	3	4
	PN(bar)		6	6	6
Connection	diaphragm	sealing	ident No.		
PVDF spigot end DIN ISO	PTFE	-	143965	143966	143967
	weight		16.00 kg	16.00 kg	25.00 kg
PP / steel flange DIN EN 1092	PTFE	-	143968	143969	143970
	weight		19.13 kg	19.73 kg	29.26 kg

Diaphragm Valve MV 310, pneumatic, [d75 - d110]



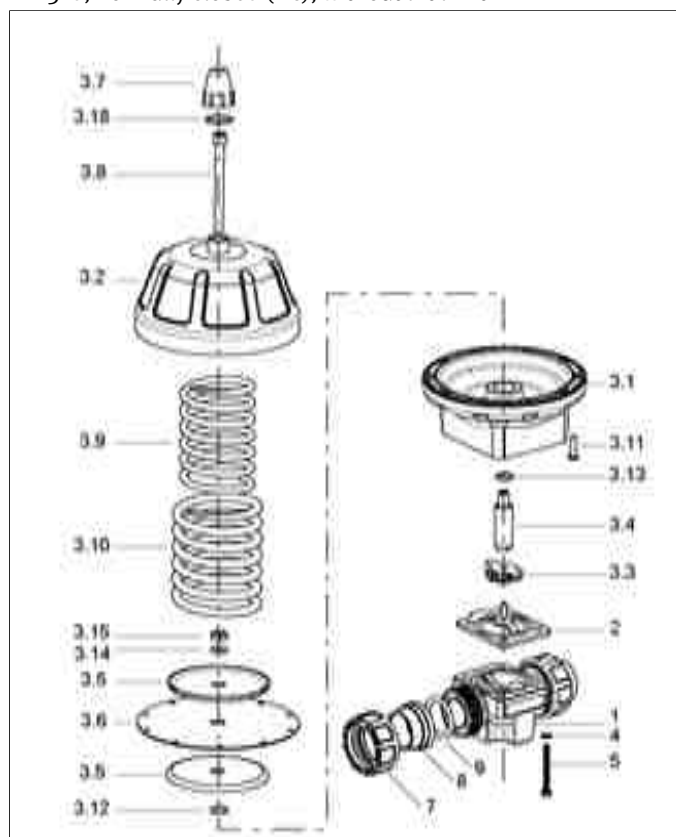
dimensions

d(mm)		75	90	110
DN(mm)		65	80	100
DN(inch)		2 1/2	3	4
dimensions(mm)				
PP/PVC-U	b	18	20	20
PVDF	b	19	21	22
	d2	18	18	18
	D	185	200	220
	G	1/4	1/4	1/4
	h	55	55	64
DA/NO	H	305	305	330
NC	H	325	325	355
	K	145	160	180
	L	290	310	350
	L1	284	300	340
	M	M12	M12	M12
	N	258	258	258
PP/PVDF	t	33.5	38	41.5
PVC-U	t	44	52	61
	w	100	100	120
	z	4	8	8

Diaphragm Valve MV 310, pneumatic

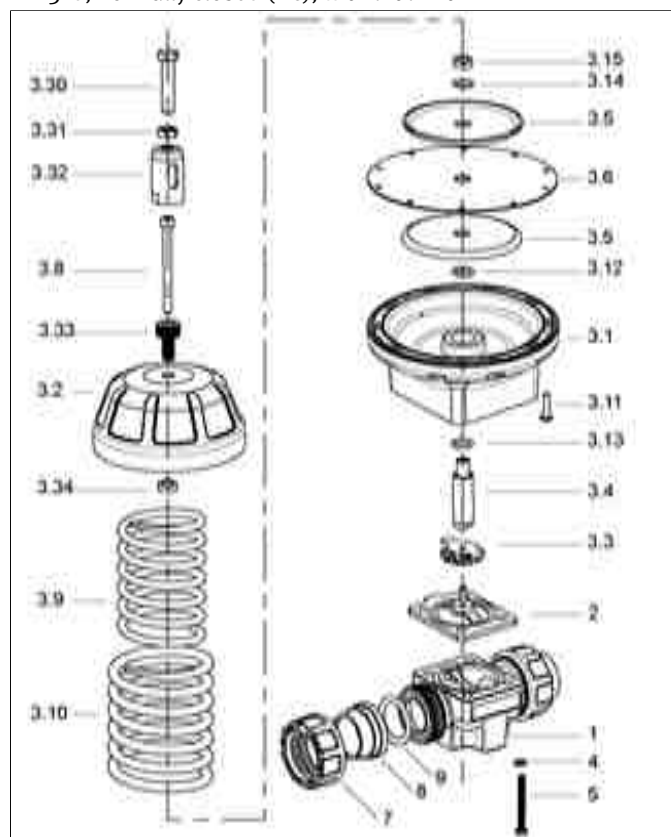
Item Overview

MV 310, normally closed (NC), without lift limit



position	quantity	designation
1	1	housing/body
2	1	diaphragm
3.1	1	actuator bottom part
3.2	1	actuator upper part
3.3	1	pressure piece
3.4	1	actuator rod
3.5	2	diaphragm disc
3.6	1	diaphragm
3.7	1	indicator cap
3.8	1	adjustment screw
3.9	1	pressure spring
3.10	1	pressure spring
3.11	8/12	socket head cap screw
3.14	1	circlip
3.15	1	hexagon nut
3.18	1	O-ring
4	4	washer
5	4	hexagon bolt
7	2	union nut
8	2	union end
9	2	O-ring

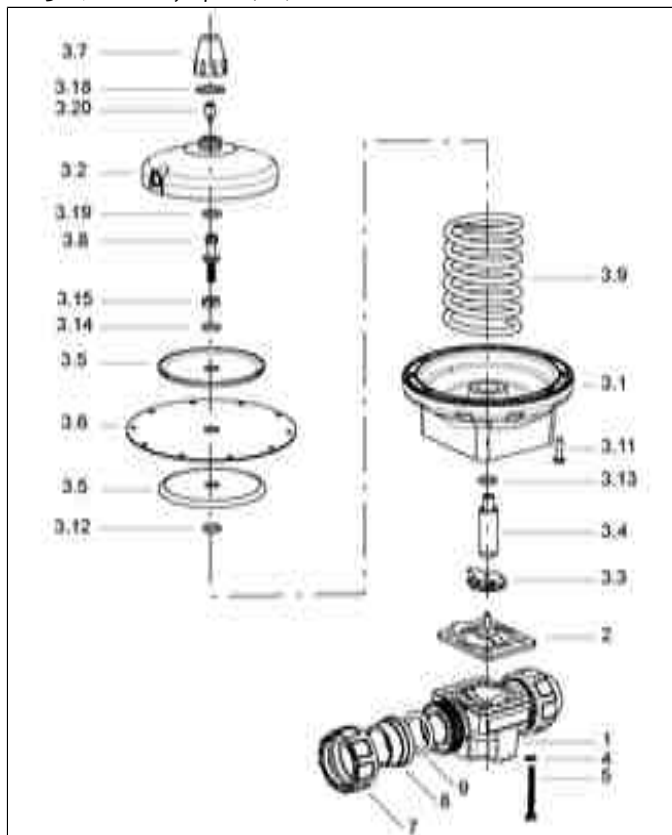
MV 310, normally closed (NC), with lift limit



position	quantity	designation
1	1	housing/body
2	1	diaphragm
3.1	1	actuator bottom part
3.2	1	actuator upper part
3.3	1	pressure piece
3.5	1	diaphragm disc
3.6	1	diaphragm
3.7	1	indicator cap
3.8	1	adjustment screw
3.9	1	pressure spring
3.10	1	pressure spring
3.11	8/12	socket head cap screw
3.12	1	circlip
3.13	1	washer
3.14	1	circlip
3.15	1	hexagon nut
3.30	1	hexagon bolt
3.31	1	hexagon nut
3.32	1	cone
3.33	1	screw
3.34	1	hexagon nut
4	4	washer
5	4	hexagon bolt
7	2	union nut
8	2	union end
9	2	O-ring

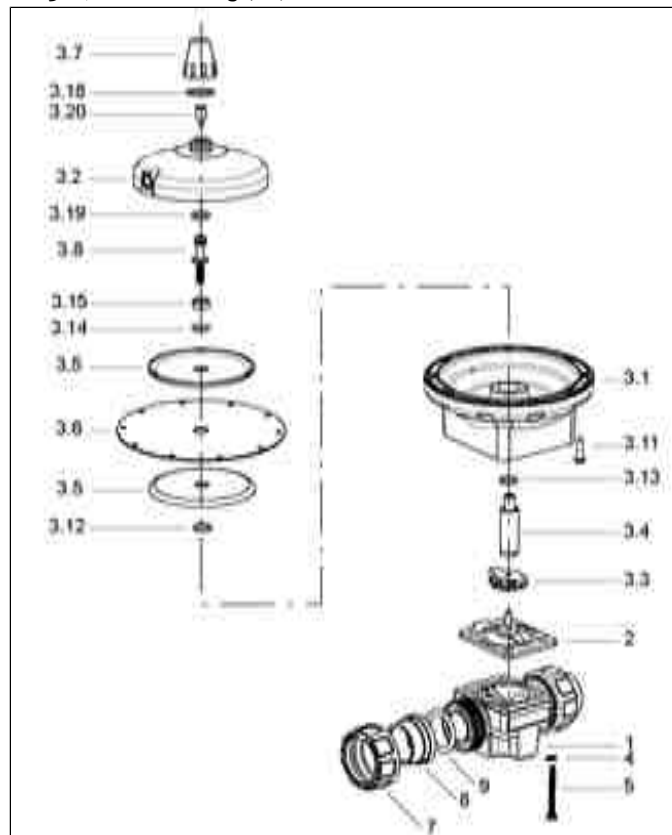
Diaphragm Valve MV 310, pneumatic

MV 310, normally open (NO)



position	quantity	designation
1	1	valve body
2	1	diaphragm
3.1	1	actuator bottom part
3.2	1	actuator upper part
3.3	1	pressure piece
3.4	1	actuator rod
3.5	2	diaphragm disc
3.6	1	diaphragm
3.7	1	indicator cap
3.8	1	adjustment screw
3.9	1	pressure spring
3.12	8/10	socket head cap screw
3.13	8/10	washer
3.14	1	circlip
3.15	1	hexagon nut
3.16	1	O-ring
3.17	1	O-ring
3.18	1	O-ring
3.19	1	O-ring
3.20	1	indicator pin
3.21	1	Plug
4	4	washer
5	4	hexagon bolt
7	2	union nut
8	2	union end
9	2	O-ring

MV 310, double acting (DA)



position	quantity	designation
1	1	valve body
2	1	diaphragm
3.1	1	actuator bottom part
3.2	1	actuator upper part
3.3	1	pressure piece
3.4	1	actuator rod
3.5	2	diaphragm disc
3.6	1	diaphragm
3.7	1	indicator cap
3.8	1	adjustment screw
3.12	8/10	socket head cap screw
3.13	8/10	washer
3.14	1	circlip
3.15	1	hexagon nut
3.16	1	O-ring
3.17	1	O-ring
3.18	1	O-ring
3.19	1	O-ring
3.20	1	indicator pin
4	4	washer
5	4	hexagon bolt
7	2	union nut
8	2	union end
9	2	O-ring

Diaphragm Valve MV 310, pneumatic