

DIAPHRAGM VALVE

MV 308

Nominal size DN 12–15

Nominal size 3/8"–1/2"

Pressure PN 6 bar



Features

- pneumatic diaphragm valve DN 12–15
- for switching functions in tight installation spaces
- small piston drive for medium pressure up to 6 bar (PTFE diaphragms)
- visual position indicator NC, NO, DA
- NAMUR-compliant air connections
- resistant to contaminated medium
- reduced installation length

Additional options on request

- free of surface disturbing substances

Accessories

- limit switch unit
- pilot solenoid valve

Attention

Maximum control pressure 6 bar

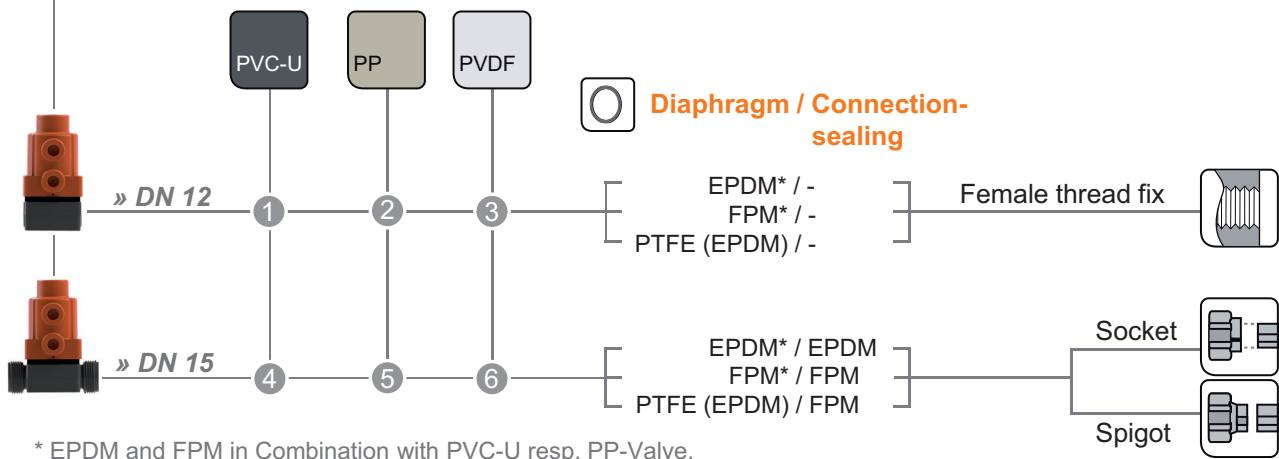
www.asv-stuebbe.com/produkte/armaturen

Pictogram Diaphragm valve MV 308

- ... **Pneumatic Connection:** G 1/4"
- ... **Limit Switch Box:** Micro Switch NO
Proximity Switch NAMUR NC
Proximity Switch PNP NO
- ... **Pilot Valves:** DA - **VS2** - 24V | 230V
NC/NO - **VS6014** - 24V | 230V
- ... NC | NO | DA



pneumatic



- available
- not available

Basic Nominal Sizes:

DN 8	DN 12	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300	DN 350	DN 400
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Connection Material (process connection)

- ① PVC-U female thread Rp fix
- ② PP female thread Rp fix
- ③ PVDF female thread Rp fix
- ④ PVC-U socket **DIN, ANSI, BS, JIS**
female thread Rp
1.4571 female thread Rp
male thread R
PE100 spigot **DIN** (95mm)

- ⑤ PP socket **DIN**
female thread Rp
PP spigot (IR)
- ⑥ PVDF socket **DIN**
PVDF spigot (IR)

Diaphragm valve MV 308

Use

- Chemical plant manufacture
- Industrial plants
- Water treatment
- Environmental technology

Application

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

Flow medium

- neutral and aggressive fluid or gaseous medium types, also with abrasive constituents, provided that the valve components coming into contact with the medium are resistant at the operating temperature in accordance with the ASV Stübbe resistance guide.

Flow direction

- Always in the direction of the arrow

ASV Stübbe resistance guide

- www.asv-stuebbe.de/pdf_resistance/300051.pdf

Testing

- Requirements and testing according to DIN EN ISO 16138 and ISO 9393.
- Leakage rate A tested according to DIN EN 12266

Nominal pressure (H₂O, 20 °C)

- PN 6 bar

Medium temperature

- See graphics „Pressure/temperature diagram“

Operating pressure

- See graphics „Pressure/temperature diagram“

Material with medium contact

Housing:

- PVC-U, PP, PVDF

Diaphragm:

- EPDM, FPM, PTFE (EPDM diaphragm, PTFE coating on the medium side)

Sealing element:

- FPM, EPDM

Material without medium contact

Bonnet:

- PP glass fiber reinforced

Screws:

- stainless steel (1.4301)

Size

- DN 12–15

Actuation

- with pneumatic lift actuator

Device connection

- see pictograph „Diaphragm valve MV308“

Control function

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

Control pressure

- max. 7 bar
- see graphics „Control curve“

Flow Q (Kv value)

- DN 12 = 3.0 m³/h
- DN 15 = 3.7 m³/h

Mounting position

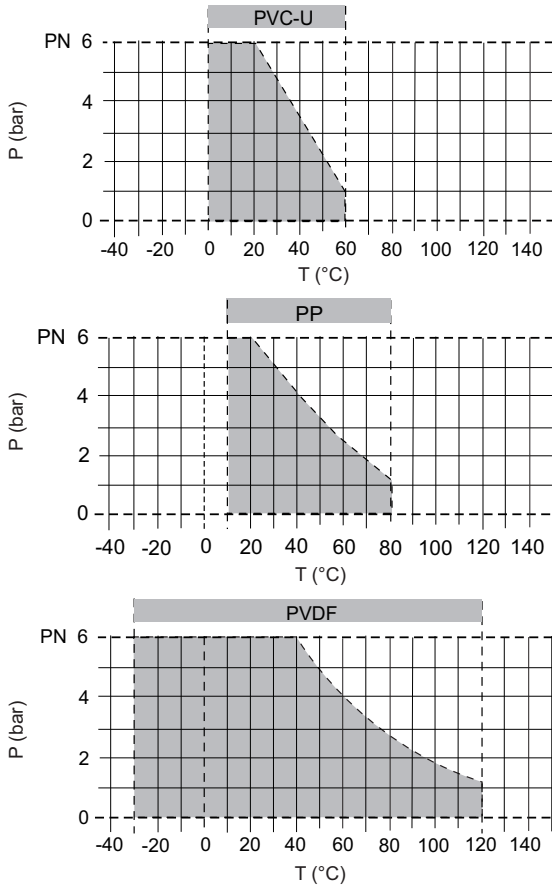
- as required

Color

- Housing: PVC-U, gray, RAL 7011
- Housing: PP, gray, RAL 7032
- Housing: PVDF, opaque, yellowish-white
- Bonnet: orange, RAL 2004

Diaphragm valve MV 308

Pressure/temperature diagram



Description	
P	Operating pressure
T	Temperature

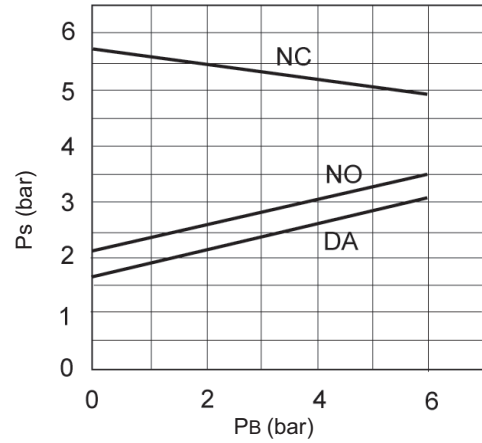
The pressure/temperature limits of the materials are valid for the stated nominal pressures and a service life of 25 years.

These values are guide values for flow medium types which do not negatively impact the physical and chemical characteristics of the valve material. It may be necessary to take diminution factors into consideration.

The operating life of the wear parts depends on the conditions of use.

Please note that, while PTFE has almost universal chemical resistance, the service life of PTFE-coated diaphragms may be reduced by concentrated medium types with a permeation tendency (e.g.: hydrofluoric acid, nitric acid, hydrochloric acid).

Control curve



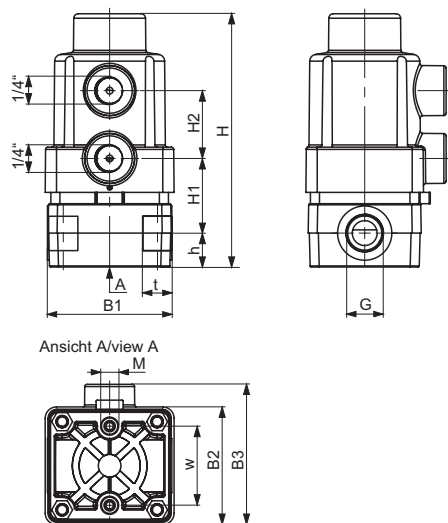
Description	
P _B	Operating pressure
P _S	Control pressure

Diaphragm material	max. number of actuations
EPDM	200.000
FPM	200.000
PTFE (EPDM)	200.000

These recommendations are based on extensive laboratory tests and long-term experience in the industry. They apply to use at a temperature of 20 °C, with water and at nominal pressure. We recommend shorter inspection intervals for different operating conditions, in particular for higher temperatures, the use of chemicals or medium types containing solid particles and / or abrasive medium types.

Diaphragm valve MV 308

DN 12

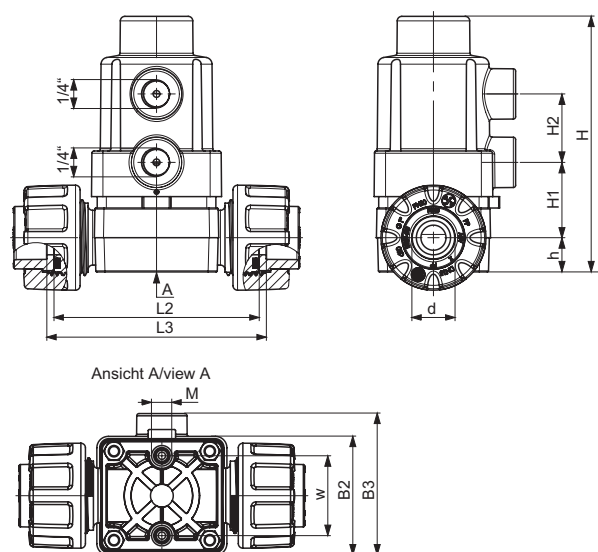


Dimensions

d (mm)	16	20
DN (mm)	12	15
DN (inch)	3/8	1/2
B1	57	-
B2	52	52
B3	61	61
G*	3/8	-
h	15	15
H	112	112
H1	33	33
H2	30	30
L2	-	90
L3	-	96
M	M5	M5
t	14	-
w	35	35

all dimensions in mm / * dimensions in inch

DN 15



Additional options Diaphragm valve MV 308

Limit switch

Limit switch



Nominal size DN 10–50

Attention

- for diaphragm valves MV 308, MV 309 and MV 310

Features

- high-quality materials
- reliable and low-maintenance

Application

- Limit switches for signaling »Open/Closed«

Diaphragm valve	Nominal size
MV 308	DN 12–15
MV 309	DN 15–32
MV 310	DN 15–50

Housing

- PVC-U

Bonnet

- PVC-U-transparent

Sealing element

- EPDM

Screws

- stainless steel (1.4301)

Electrical connection

- Cable connection PG 16

Protection class

- IP 65

Options

Limit switches:

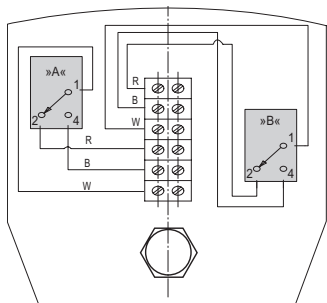
- Micro switch VCSP
- Inductive proximity switch NJ2-V3-N (NAMUR)
- Inductive proximity switch NBB2-V3-E2 (PNP)

Additional options Diaphragm valve MV 308

Limit switch

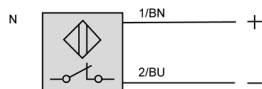
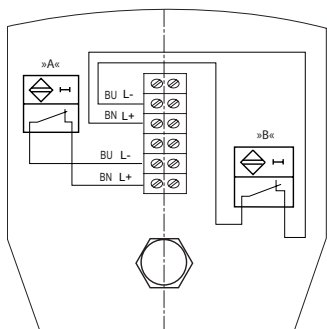
Technical data

Circuit diagram – Micro switch VCSP



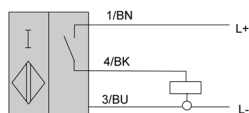
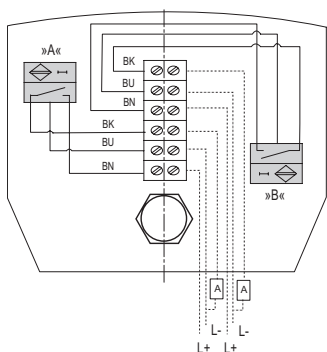
Switch type	VCSP
Type	–
Operating voltage	125–250 V AC
Maximum current	10 A (250 V AC); 3 A (24 V DC)
Type of protection	IP 44
Temperature	-20–60 °C

Circuit diagram – Inductive proximity switch NJ2-V3-N (2-wire, NAMUR)



Switch type	NJ2-V3-N
Type	024.86
Switching function	NAMUR
Nominal voltage	8.2 V
Current consumption	1–3 mA
Switching frequency	0–1000 Hz
Protection class	IP 65
Temperature	-20–60 °C
ATEX marking, switch	II 1G Ex ia IIC T6...T1 Ga

Circuit diagram – Inductive proximity switch NBB2-V3-E2 (3-wire, PNP)



Switch type	NBB2-V3-E2
Type	024.87
Switching function	PNP
Operating voltage	24 V DC (10–30V)
Output current max.	100 mA
Switching frequency	0–1000 Hz
Idle current	< 15 mA
Display	yellow LED
Protection class	IP 65
Temperature	-20–60 °C

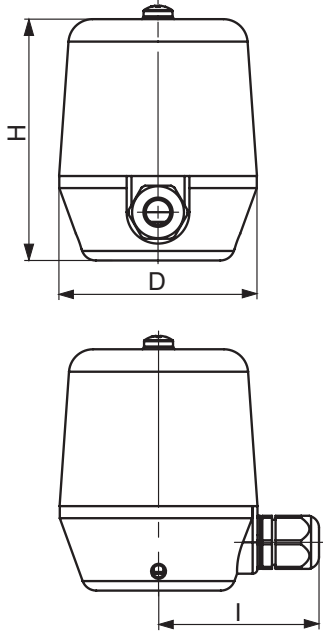
Description

A	Connection »OPEN«
B	Connection »CLOSED«

Additional options Diaphragm valve MV 308

Limit switch

Limit switch



Type	VCSP	NJ2-V3-N	NBB2-V3-E2
D	82.0	82.0	82.0
H	100.0	100.0	100.0
l	64.0	64.0	64.0

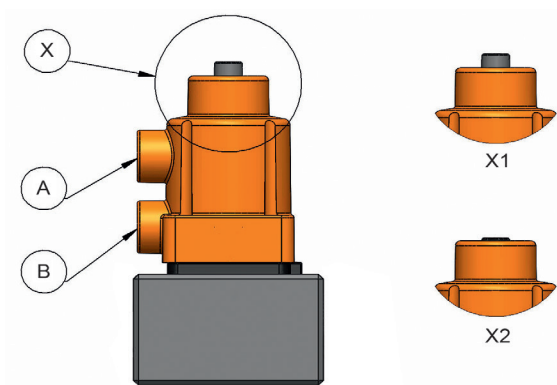
all dimensions in mm / * dimensions in inch

Diaphragm valve MV 308

Technical data

Actuator type	MV308-NC-	MV308-NO-	MV308-DA-
Function	NC	NO	DA
Control volume, (opening) (liters)	0.01	-	0.01
Control volume, (closing) (liters)	-	0.01	0.01

Control pressure connection



Function	Control pressure open	
	Connection A	Connection B
Normally closed (NC)		»OPEN«
Normally open (NO)	»CLOSED«	
Double-acting (DA)	»CLOSED«	»OPEN«

Control

- 3/2-way solenoid valves for NC/NO actuators
- 5/2-way solenoid valves for DA actuators

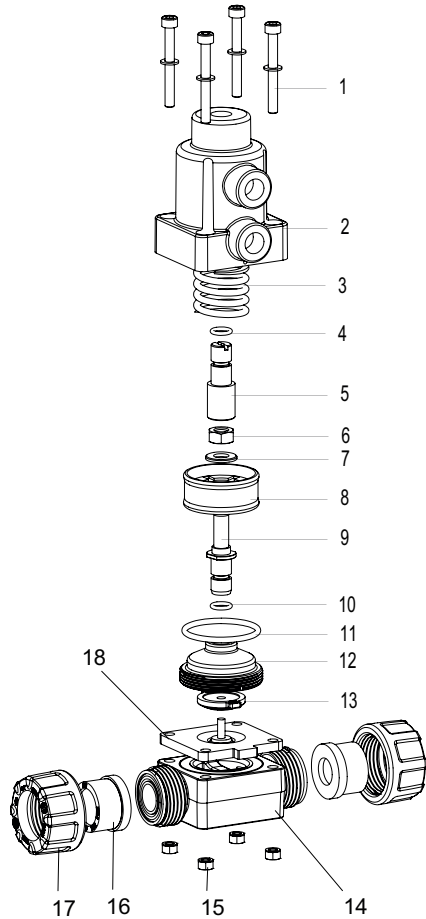
Visual position indicator

- X1 valve is open
- X2 valve is closed

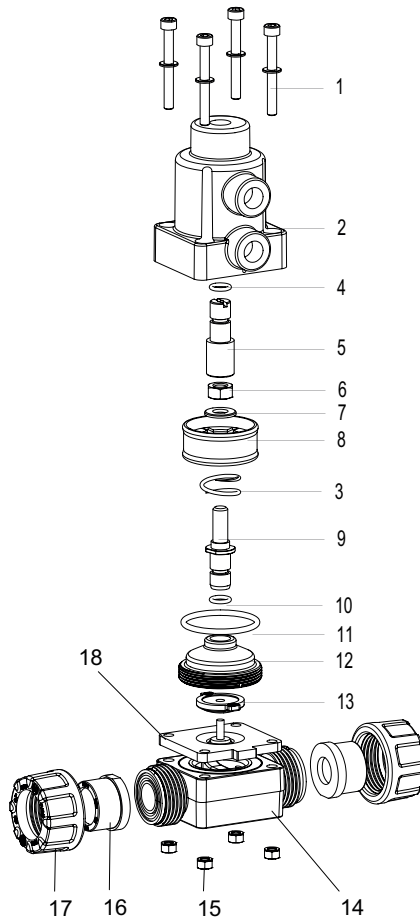
Diaphragm valve MV 308

Components

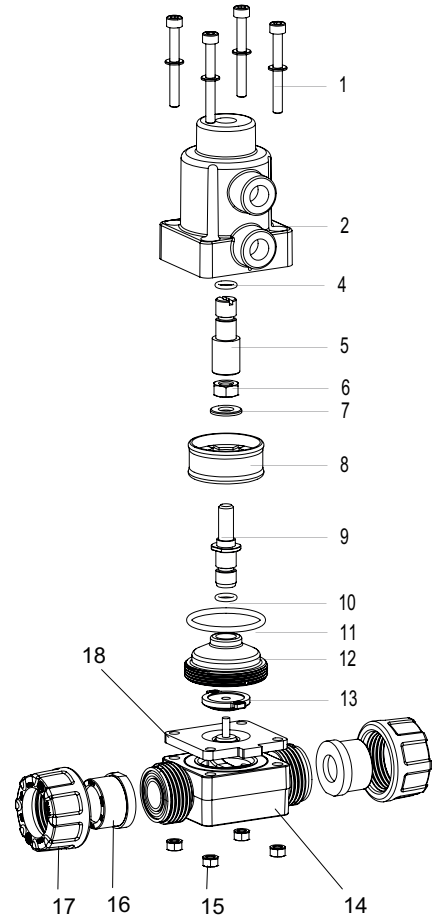
Valve function NC



Valve function NO



Valve function DA



Item	Quantity	Designation
1	4	Housing screw
2	1	Bonnet
3	1	Pressure spring
4	1	O-ring
5	1	Indicator pin
6	1	Hexagon nut
7	1	O-ring diaphragm
8	1	Piston disk
9	1	Spindle
10	1	O-ring
11	1	O-ring
12	1	Union threaded neck
13	1	Pressure piece
14	1	valve body
15	4	Hexagon nut
16	1	Union end
17	4	Union nut
18	1	Diaphragm