

# Diaphragm Valve Type MV 308



## Advantages

- externally controlled 2/2-way valve for neutral, aggressive or gaseous liquids
- compact design with high flow efficiency
- all control functions possible by adding or removing the respective springs
- standard with lift limit and visual position indicator
- insensitive to highly contaminated fluids

## Application

- chemical plants
- water treatment

## Utilisation

- as shut-off valves as well as for controlling in process plants

## Type of fluids

- neutral, aggressive liquids or gaseous media even with abrasive particles provided that the components getting in contact with the medium are resistant at operating temperature according to the ASV resistance guide.

## Examinations

- requirements and examinations acc. to DIN 3441, 3442, 8063 and 16 963. DIN EN 12266, leak rate A examined.

## Nominal pressure (H<sub>2</sub>O, 20°C)

- PN 6

## Media temperature

- see pressure/temperature diagram

## Operating pressure

- see pressure/temperature diagram

## Size

- DN 12 and DN 15

## Body

- PVC-U
- PP
- PVDF

## Diaphragm

- EPDM
- FPM
- PTFE-vulcanised EPDM-diaphragm on fluid side

## Flow (k<sub>v</sub>-value)

- DN 12            3,0 m<sup>3</sup>/h
- DN 15            3,7 m<sup>3</sup>/h

## Control function

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

## Control pressure

- max. 7 bar (see page 2)

## Connection DN 12

- threaded socket G 3/8"
- socket ends for solvent or fusion welding acc. to DIN 8063 or DIN 16 962

## Connection DN 15

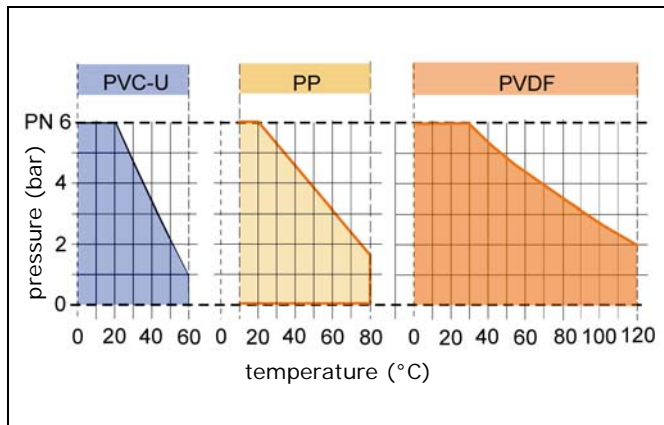
- unions acc. DIN 8063 with union socket ends for solvent or fusion welding acc. to DIN 8063 or DIN 16 962
- dimensions acc. to BS, ANSI and JIS on request

## Colour

- body            PVC-U            grey, RAL 7011
- PP                grey, RAL 7032
- PVDF            opaque, yellowish-white
- bonnet                                    orange, RAL 2004

## Diaphragm Valve MV 308

### Pressure/temperature diagram

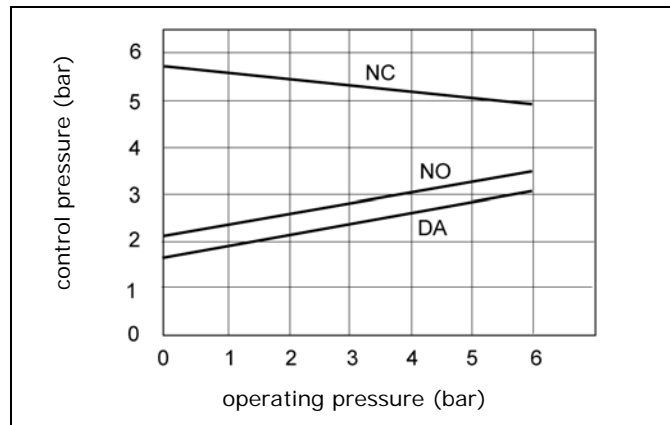


The pressure/temperature limits are applicable for the stated nominal pressures and a computed operating life factor of 25 years.

The values are a guide for harmless media (DIN 2403), to which the material of the valve is resistant.

For other media see the ASV resistance guide.

### Control curve



Durability of valve 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.

### Ident number PVC-U

body PVC-U diaphragm			normally closed NC			normally open NO			double acting DA		
			EPDM	FPM	EPDM/PTFE	EPDM	FPM	EPDM/PTFE	EPDM	FPM	EPDM/PTFE
<b>connection G 3/8"-socket</b>											
d (mm)	DN (mm)	DN (inch)									
16	12	3/8	120186	120187	120188	120195	120196	120197	120204	120205	120206
<b>connection union socket ends for solvent welding</b>											
d (mm)	DN (mm)	DN (inch)									
16	12	3/8	120213	120214	120215	120222	120223	120224	120231	120232	120233
20	15	1/2	120240	120241	120242	120249	120250	120251	120258	120259	120260

### Ident number PP

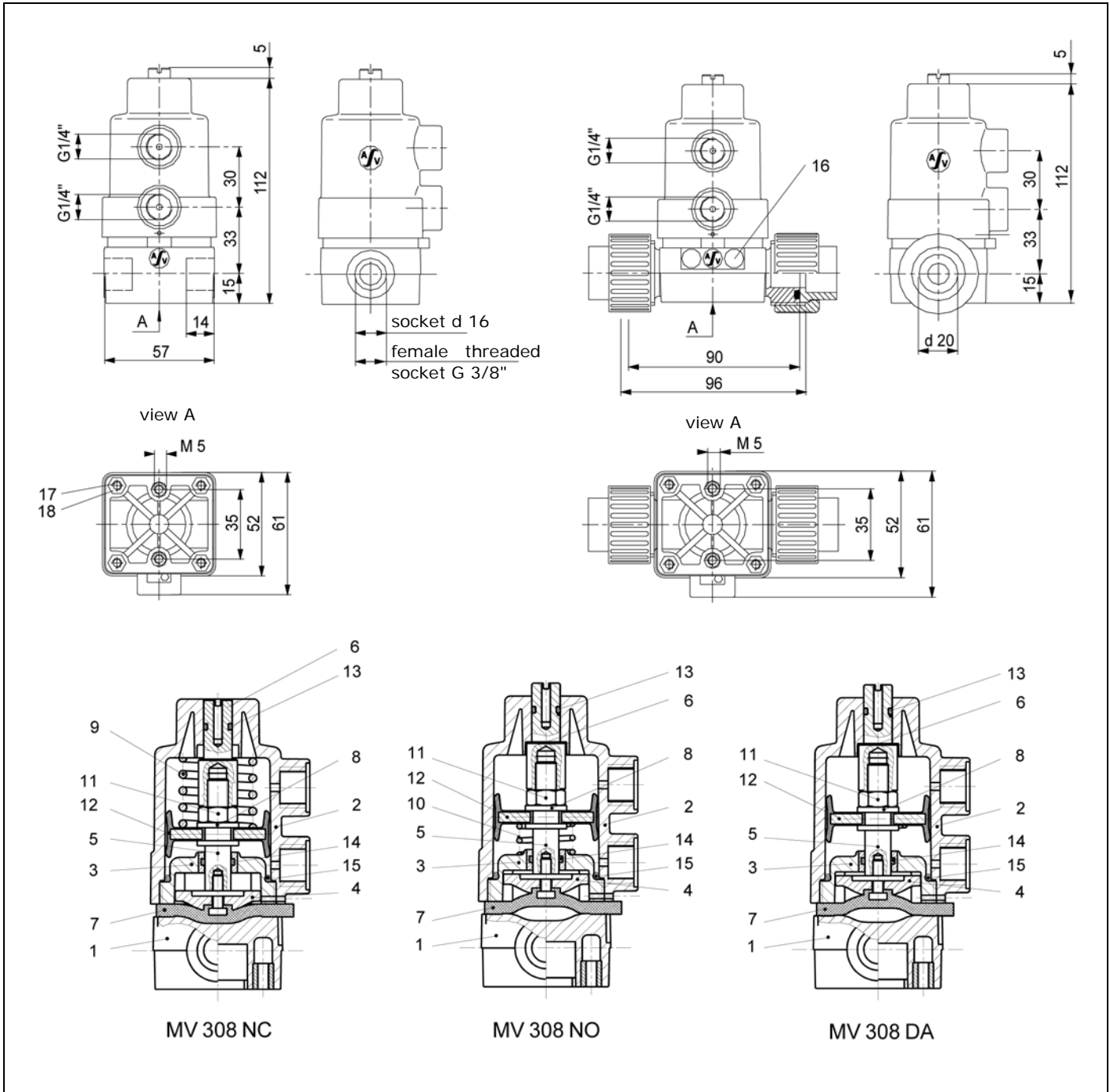
body PP diaphragm			normally closed NC			normally open NO			double acting DA		
			EPDM	FPM	EPDM/PTFE	EPDM	FPM	EPDM/PTFE	EPDM	FPM	EPDM/PTFE
<b>connection G 3/8"-socket</b>											
d (mm)	DN (mm)	DN (Zoll)									
16	12	3/8	120189	120190	120191	120198	120199	120200	120207	120208	120209
<b>connection union socket ends for fusion welding</b>											
d (mm)	DN (mm)	DN (inch)									
16	12	3/8	120216	120217	120218	120225	120226	120227	120234	120235	120236
20	15	1/2	120243	120244	120245	120252	120253	120254	120261	120262	120263

### Ident number PVDF

body PVDF diaphragm			normally closed NC			normally open NO			double acting DA		
			EPDM	FPM	EPDM/PTFE	EPDM	FPM	EPDM/PTFE	EPDM	FPM	EPDM/PTFE
<b>connection G 3/8"-socket</b>											
d (mm)	DN (mm)	DN (inch)									
16	12	3/8	120192	120193	120194	120201	120202	120203	120210	120211	120212
<b>connection union socket ends for fusion welding</b>											
d (mm)	DN (mm)	DN (inch)									
16	12	3/8	120219	120220	120221	120228	120229	120230	120237	120238	120239
20	15	1/2	120246	120247	120248	120255	120256	120257	120264	120265	120266

# Diaphragm Valve MV 308

## Dimension and spare parts list



item	designation
1	body
2	bonnet
3	insert
4	pressure piece
5	spindle
6	indicator pin
7	diaphragm
8	washer
9	pressure spring
10	pressure spring
11	nut

item	designation
12	piston
13	O-ring
14	O-ring
15	O-ring
16	identification plate
17	hexagonal socket screw
18	nut
19	insert
20	O-ring
21	union nut

## Diaphragm Valve MV 308

### Operating instructions:

#### ATTENTION



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 and technical regulations or data sheets such as e.g. DIN, DIN EN, DIN ISO and DVS\* for example. ✓

\*DVS = German Welding Society

The intended use includes adhering to the specified limit values for pressure and temperature as well as checking the chemical resistance with regard to the operating conditions.

For this purpose, ensure that all components coming into contact with the media are "**resistant**" in accordance with the ASV resistance guide.

The owner/user must inform the authorized qualified personnel instructed to perform the assembly, inspection and/or maintenance work of any potential danger emanating from the machine line/medium, and ensure that suitable safety measures are observed. This also includes the consideration of local regulations and laws of the territories of use.

The connection of electric or pneumatic actuators and/or accessories to the power/compressed air supply requires special knowledge. Ensure that this work is performed only by authorized qualified personnel according to the operating instruction of the manufacturer.

If no operating and maintenance manual is available to the authorized qualified personnel, please request a manual prior to installation, maintenance or repair.

Non-observance of the specified instructions and safety regulations may cause damage to health and/or damage to assets. ✓

### Adjustment of lift limit

- Turn indicator pin (6) with appropriate screw driver counter-clockwise.
- The maximal lift limit is appr. 2/3 of valve lift.

### 1. Disassembly

- The pipe section is to be shut off upstream and downstream and to be emptied properly.
- Any fluid rest is to be disposed properly (see above).
- Adhere to the workers protection rules - if required protection clothes must be worn.

### 2. Exchange of diaphragm

- Shut off compressed air towards diaphragm valve.
- Release compressed air connections of diaphragm valve and remove them.
- Release hexagonal socket screws (17) with appropriate tool and remove them.
- Pull off bonnet (2) from body (1).
- Turn out diaphragm (7) from spindle (5).
- Pull off pressure piece (4) from diaphragm, assembly see point 4.

### 3. Exchange of O-rings or piston

- Disassembly as described under point 2.
- Unscrew the insert (3) out of the bonnet (2) with an appropriate spanner.

#### ATTENTION



The insert is under tension of spring. ✓

- Unscrew indicator pin (6) from the spindle (5).
- Lever the O-ring (13) out of the O-ring groove with a blunt tool and replace it.
- Pull out the spindle (5) out of the insert with rotating movements.
- Release nut (11) and remove it together with washer (8) from the shaft.
- Pull off piston (12) from the spindle and replace it.
- Carefully remove O-ring (14) from the insert and replace it.
- Dismount O-ring (15) from insert and replace it.

### 4. Assembly

- In the reverse order to disassembly. Take care of correct installation of each component according to sectional drawing.
- Always use new sealing elements when refitting.
- Neutral gliding agents (e.g. soap and water) eases assembly.
- After each disassembly all connections are to be checked for leakages prior using.

#### NOTE

Elastomeres, especially the EPDM sealing elements, should not be touched or cleaned with synthetic oils, mineral oils, fats or cleaning agents. ✓

Danger of swelling. Only appropriate fats should be used, e.g. silicone greases.

Subject to technical modifications