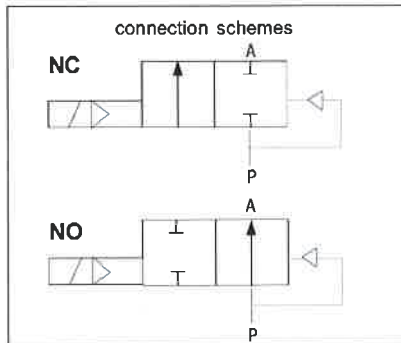


2/2 Way Thermoplastic Solenoid Valve Type 160



Function:

- pilot operated
- normally closed (NC)
- normally open (NO)

Function

In inoperative position the medium pressure is built up by a servo bore on the upper side of the diaphragm (2), the valve is closed.

On switching on first only the pilot valve opens, i.e. the plunger and the connected pilot diaphragm (5) are lifted and a relief well becomes free. This causes a pressure drop above the diaphragm (2) and the valve opens because of the medium pressure. In the pilot valve a liquid filling (standard: silicone oil) supports the closing effect of the spring (11). The pilot diaphragm (5) separates the medium from the plunger (10) or from the atmosphere. After releasing the union nut (8) - in depressurized system! - the pilot valve can be removed without problems for cleaning the servo bores.

The coil is fastened with an acorn nut (15) being 360° adjustable against the valve body.

The solenoid valve type 160 has a very resistant thermoplastic construction even against external mechanical effects.

Design

Seat valve with diaphragm, plunger sealed.

Diameter

DN 15 - 50

Pressure range

0.3 - max. 6 bar (see chart)

Note

For perfect function a differential pressure of min. 0.3 bar is necessary.

Type of fluids

Neutral, aggressive, technical clean or gaseous liquids provided that the selected materials are resistant at operating temperature. Refer to the ASV resistance guide.

Viscosity

up to appr. 38 mm²/s (cSt)

Material housing

- uPVC
- PP
- PTFE

Sealings

- EPDM
- FPM

Media temperature

Depends on the operating conditions (system pressure, load etc.). Taking creep strength into account, the following approximate temperatures apply:

- uPVC: up to +60 °C
- PP: up to +80 °C
- PTFE: up to +80 °C
- EPDM: up to +80 °C
- FPM: up to +80 °C

Values < 0 °C (PP < +10 °C) on request with exact data of operation.

Ambient temperature

max. +50 °C

Connections acc. DIN/ISO

- uPVC: socket for solvent welding
- PP: socket for fusion welding
- PTFE: socket with female thread

Electrical part

Plug socket

acc. DIN 43650

Voltage

- 230 V 50 Hz
- 24 V DC
- special voltages on request

Voltage tolerance

+/- 10 % acc. VDE 0580

Consumption

- 230 V 50 Hz: 6.5 VA
- 24 V DC: 5 Watt

Operating factor

100 % ED

Switching times

- Opening: 30 - 150 ms
- Closing: 50 ms - 1 sec.

Protection

- IP 65 with plug socket mounted
- EEXM II T4 execution on request

Note

For EEx-execution the admissible operating or system pressure is reduced by about 20%.

Installation

Coil preferable in upright position - in direction of arrow, always in direction of flow.

Хушразахи

АМОХАК
ФООСОЛБИ

201 7275

00 10027663

Operating pressure

See material pressure/temperature diagram.

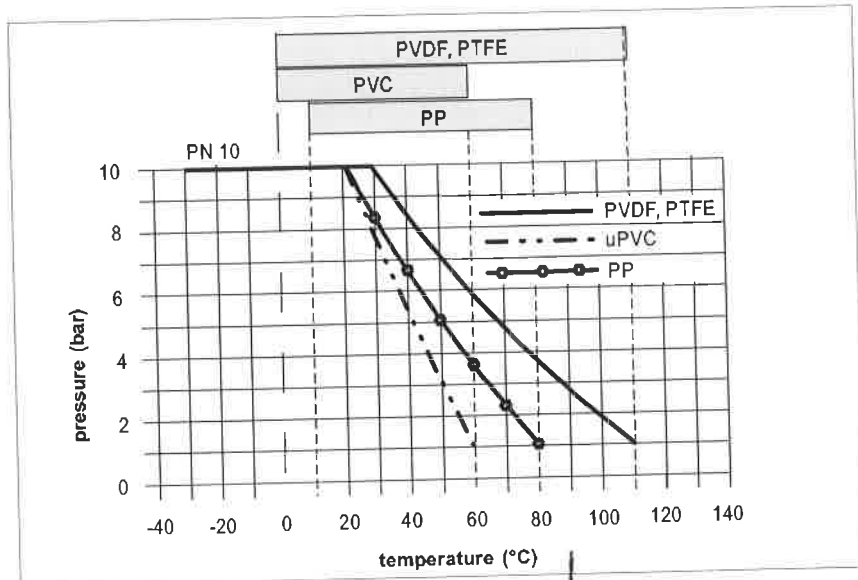
The pressure/temperature limits are applicable for a computed operating life factor of 25 years at PN 10.

The values are a guide for harmless fluids (DIN 2403) the material of the valve is resistant against.

For other media see the ASV resistance guide.

Durability of wear and tear parts is depending on the operating conditions of the application.

Values < 0 °C (PP < +10 °C) on request with exact data of operation.



Ident No.:

voltage				230 V AC		24 V DC	
DN (mm)	connection d (mm)	pressure (bar)	k _v -value (l/min)	uPVC		uPVC	
15	20	0.3 - 6.0	40	EPDM 69244	FPM 69246	EPDM 69245	FPM 69247
20	25	0.3 - 6.0	45	69248	69250	69249	69251
25	32	0.3 - 6.0	145	69252	69254	69253	69255
32	40	0.3 - 6.0	250	69256	69258	69257	69260
40	50	0.3 - 6.0	350	69261	69263	69262	69264
50	63	0.3 - 6.0	505	69265	69267	69266	69268

DN (mm)	connection d (mm)	pressure (bar)	k _v -value (l/min)	PP		PP	
				EPDM	FPM	EPDM	FPM
15	20	0.3 - 6.0	40	45369	48067	45143	45155
20	25	0.3 - 6.0	45	46379	113334	45144	45156
25	32	0.3 - 6.0	145	45370	46390	45145	45157
32	40	0.3 - 6.0	250	43291	48068	45146	45158
40	50	0.3 - 6.0	350	42323	48069	45147	45159
50	63	0.3 - 6.0	505	48066	43257	45148	45160

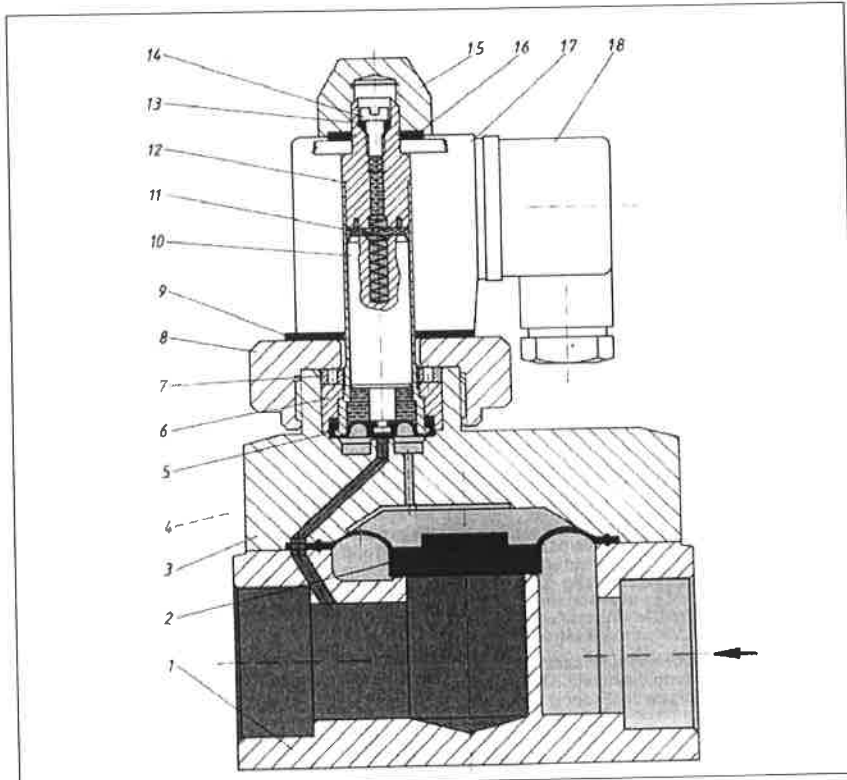
DN (mm)	connection G (inch)	pressure (bar)	k _v -value (l/min)	PTFE		PTFE	
				EPDM	FPM	EPDM	FPM
15	1/2	0.3 - 6.0	40	69269	69111	69270	69271
20	3/4	0.3 - 6.0	45	69272	69274	69273	69275
25	1	0.3 - 6.0	145	69276	69278	69277	69279
32	1 1/4	0.3 - 6.0	250	69280	69282	69281	69283
40	1 1/2	0.3 - 6.0	350	69284	69286	69285	69287
50	2	0.3 - 6.0	505	69288	69290	69289	69291

Dimensions:

DN (mm)	d ¹⁾ (mm)	G ²⁾ (inch)	T	A	B	C	E	F	H	L	M
15	20	1/2	14,5	129	62	74	16	40	49	6	M5
20	25	3/4	16,0	143	94	98	23	60	63	10	M6
25	32	1	16,0	143	94	98	23	60	63	10	M6
32	40	1 1/4	20,0	171	124	124	31	80	91	12	M8
40	50	1 1/2	20,0	171	124	124	31	80	91	12	M8
50	63	2	20,5	189	140	140	39	90	109	12	M8

¹⁾tube outside diameter

²⁾PTFE execution

Sectional drawing

Parts list

1	valve body
2	diaphragm
3	cover
4	screws
5	pilot diaphragm
6	pressure ring
7	thread ring
8	union nut
9	sealing disc
10	plunger
11	spring
12	plunger guide tube
13	O-ring
14	oil screw
15	acorn nut
16	flat sealing
17	coil
18	plug socket

Dimensional drawing
