

2/2-way-Group mounting ND 3.0 and 4.5 with sealed core tube



For neutral gaseous and liquid fluids
Directly solenoid actuated
Seat valves
Internal threads, see characteristic data
Operating pressure 0 to 7 bar (see table)



Publication 7502706.06.09.95
Catalogue index
A 3
83 680 / 83 690 series

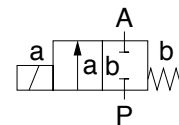
Description (standard valve)

Flow direction: determined
Fluid temperature: 0° C to max. +90° C
Ambient temperature: 0° C to max. +50° C
Sum of fluid- and ambient temperature: max. +130 °C
Mounting position: optional, solenoid preferably vertical on top
Material Body: Brass
Seat seal: NBR
Internal parts: PTFE



Merkmale

- Compact solenoid with integrated core tube
- Sealed core tube with PTFE-bellows
- Insensitive against furring and magnetization of foreign particle
- Compact construction
- Group mounting up to 8 valves in-line
- Small pipe expenditure
- Extensive accessories



Switching function:
Normally closed

Characteristic data

| ND | Connection | | Operating pressure with gaseous and liquid fluids up to 80 mm ² /s (cSt) [bar] | | k _v -value ¹⁾ (Base m ³ /h) | Weight [kg] | Dimension table no | Cat no | | | |
|-----|------------|-------|---|------|---|----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|
| | P | A | min. | max. | | | | Valve | Solenoid DC | Valve | Solenoid AC |
| 3.0 | G 3/8 | G 1/4 | 0 | 7 | 0.28 | 0.45 | 01 | 83 681 00. 8050 | 83 681 00. 8051 | 83 681 00. 8051 | 83 681 00. 8051 |
| 4.5 | G 3/8 | G 1/4 | 0 | 6 | 0.42 | 0.45 | 01 | 83 681 60. 8050 | 83 681 60. 8051 | 83 681 60. 8051 | 83 681 60. 8051 |
| 3.0 | G 3/8 | G 3/8 | 0 | 7 | 0.28 | 0.45 | 01 | 83 691 00. 8050 | 83 691 00. 8051 | 83 691 00. 8051 | 83 691 00. 8051 |
| 4.5 | G 3/8 | G 3/8 | 0 | 6 | 0.42 | 0.45 | 01 | 83 691 60. 8050 | 83 691 60. 8051 | 83 691 60. 8051 | 83 691 60. 8051 |

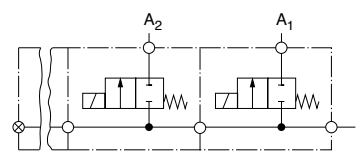
¹⁾ C_v-value (US) = k_v-value x 1.2

State voltage [V] and frequency [Hz]

Group mounting valves (valves are complete assembled)

| Valve quantity | Dimension table no | Cat.-No. XX XXX XX.XXXX |
|----------------|--------------------|----------------------------|
| 2 | 03 | 83 6X2 00.805X |
| 3 | 04 | 83 6X3 00.805X |
| 4 | 05 | 83 6X4 00.805X |
| 5 | 06 | 83 6X5 00.805X |
| 6 | 07 | 83 6X6 00.805X |
| 7 | 08 | 83 6X7 00.805X |
| 8 | 09 | 83 6X8 00.805X |

Attention: In the separate valve "Characteristic data" a blanking plug and a hexagon nut is required for connection. Details as per page 2.



Symbol-Group mounting valves

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Solenoids

| Standard voltages | DC | AC | |
|-------------------|-------|-------|-------|
| | | 50 Hz | 60 Hz |
| | 24 V | 24 V | – |
| | – | 110 V | 120 V |
| | 205 V | 230 V | 220 V |

Design acc. to VDE 0580
 Voltage range $\pm 10\%$
 100 % duty cycle
 Protection class acc. to EN 60529 IP 65 (previous DIN 40050)
 Socket acc. to DIN 43 650
 AC solenoid with rectifier

For technical details see catalog register “solenoids”

Further versions

at extra charge

- XX XXX **03.XXXX** Seat seal FPM, preferably for fuel and oil, fluid temperature max. $+110\text{ }^{\circ}\text{C}$
- XX XXX **14.XXXX** Seat seal EPDM, for hot water, fluid temperature max. $+110\text{ }^{\circ}\text{C}$

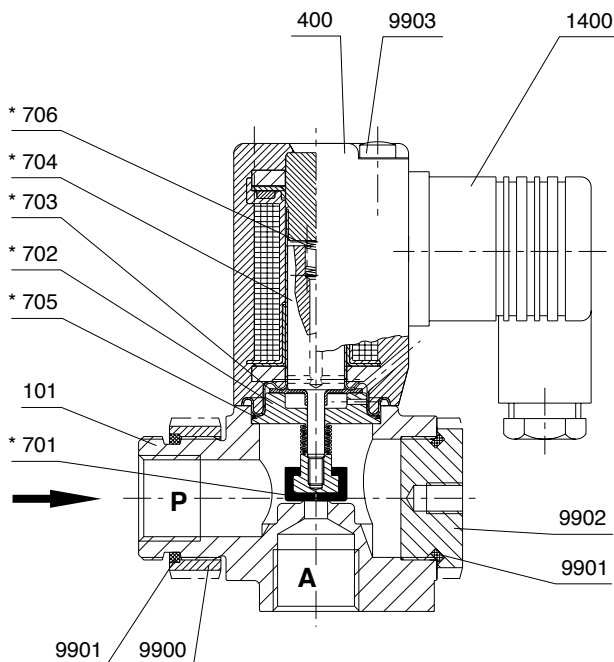
Power consumption ¹⁾

| Solenoid | DC | AC | |
|----------|------|--------|---------|
| | | Inrush | Holding |
| 8050 | 12 W | – | – |
| 8051 | – | 13 VA | 13 VA |

¹⁾ According to VDE 0580 at coil temperature $+20\text{ }^{\circ}\text{C}$.
 In operating the solenoid coil decrease the power consumption appr. 30%.

- XX XXX **18.XXXX** Degreased version, Seat seal FPM
- On request Further versions

Sectional drawing



- 101 Valve body
- 400 Body cover
- * 701 Gasket
- * 702 Bellows
- * 703 Diaphragm
- * 704 Core
- * 705 O-ring
- * 706 Pressure spring
- 1400 Socket
- 9900 Hexagon nut
- 9901 O-ring
- 9902 Stopper
- 9903 Oval head cap screw

* These individual parts form a complete wearing unit.

When ordering spare parts please state cat no and series no.

Attention!

When ordering an **individual valve**, the items 9900 up to 9902 are **not** included.

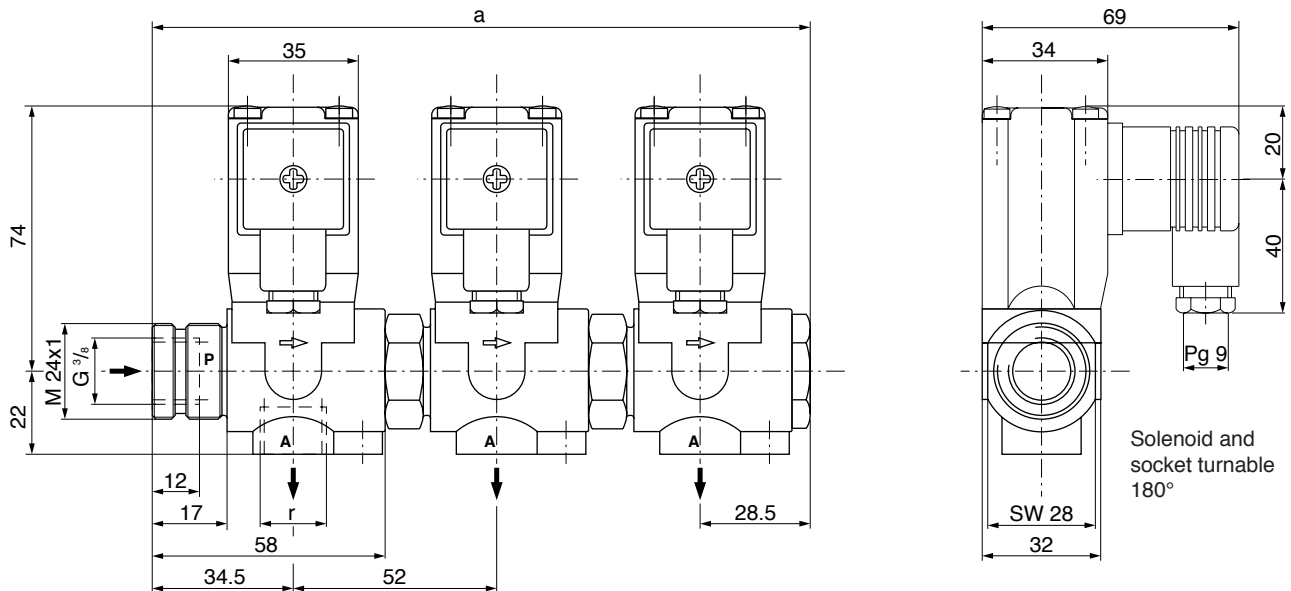
These parts must be ordered separately.

For example: Standard NBR

9900 and 9901 = Part No. 1241202

9902 and 9901 = Part No. 1241110

Dimensional drawing

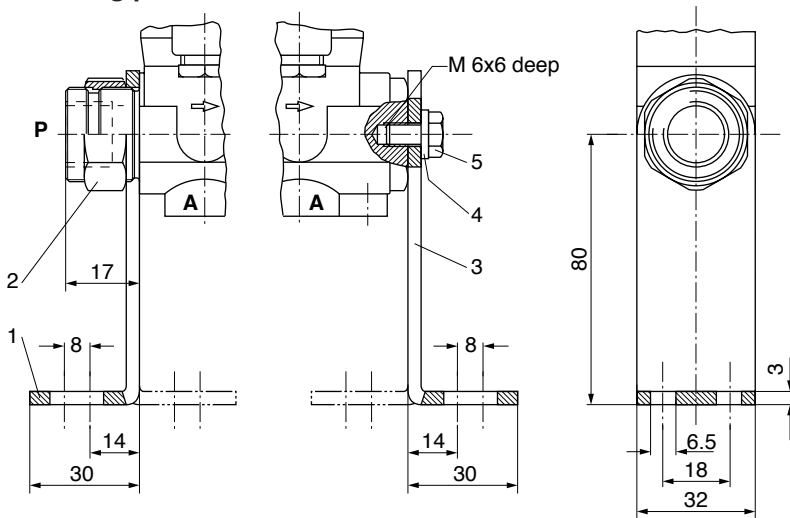


On request mounting drill M5 in the valve body:

| Dimension table No. | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 |
|---------------------|-----|-----|---|-----|-----|-----|-----|-----|-----|
| Valve quantity | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| a | — | — | 115 | 167 | 219 | 271 | 323 | 375 | 427 |
| r | G ¼ | G ⅜ | Series G ¼ or G ⅜ see characteristic data | | | | | | |

Accessories

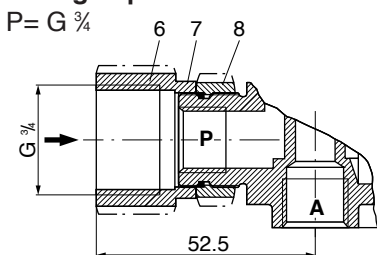
Mounting parts



Part-No. **1241203**
consisting of:

- 1 Bracket
- 2 Hexagon nut
- 3 Bracket
- 4 Washer
- 5 Hexagon screw

Enlarged pressure connection



If assembly **without** bracket:
Part-No. **1241438**
consisting of:

- 6 Adapter
- 7 O-ring
- 8 Hexagon nut

If assembly **with** bracket:
Part-No. **1241104**
consisting of:

- 6 Adapter
- 7 O-ring

