

# Directly actuated seat valves 2/2- and 3/2-way

**DN10  
PN700  
40 l/min**

**Features:**

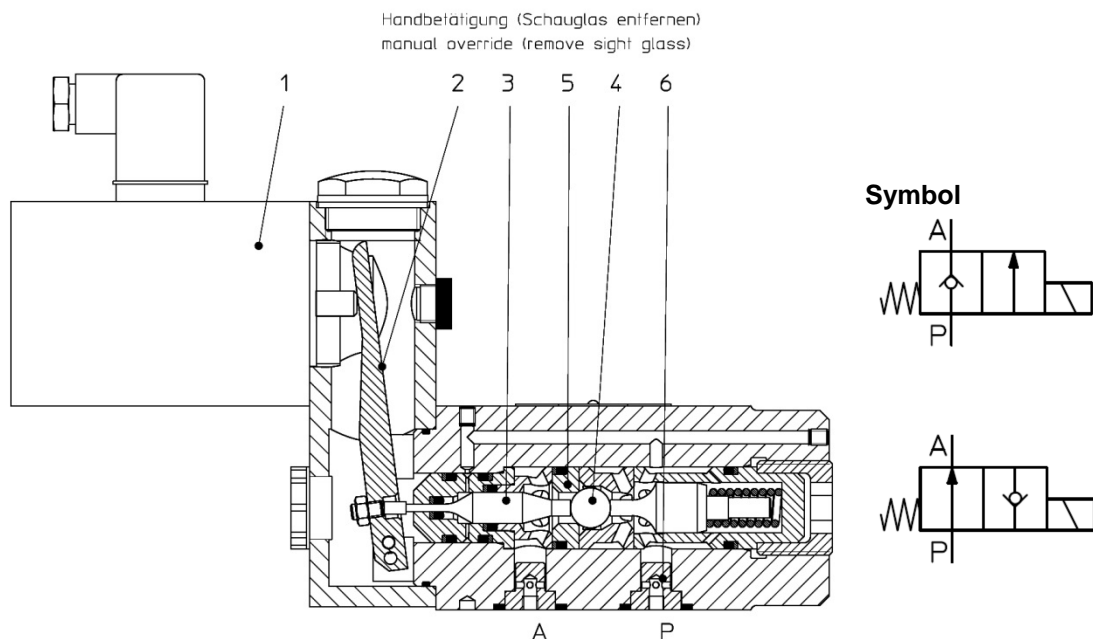
- Directly actuated directional seat valve controlling pressurised media.
- The valve seat seals hermetically preventing internal leaks.
- All parts are made of corrosion-resistant materials, and they are easily replaceable.
- Valve design in a structural plate form
- FKM (Viton) seals
- On request, the valve can be equipped with other actuations than the electromagnet, e.g. hydraulic or pneumatic cylinder actuation, manual pushbutton operation
- In addition, the individual actuations can be supplemented with a maintained-contact function

**Function of 2/2-way valve:**

The force (1), generated by the actuation, acts through the lever (2), the tappet (3) on the ball (4) and presses it out of the valve seat (5). This is used to connect lines P and A, see Example. The covers (6) support the flange seals from the inside and limit the volume flow to the admissible value.

Depending on the arrangement of the valve seat (5) and ball (4) the valve will have the basic position normally closed (NC) or normally open (NO).

**Example 2/2-way valve:**



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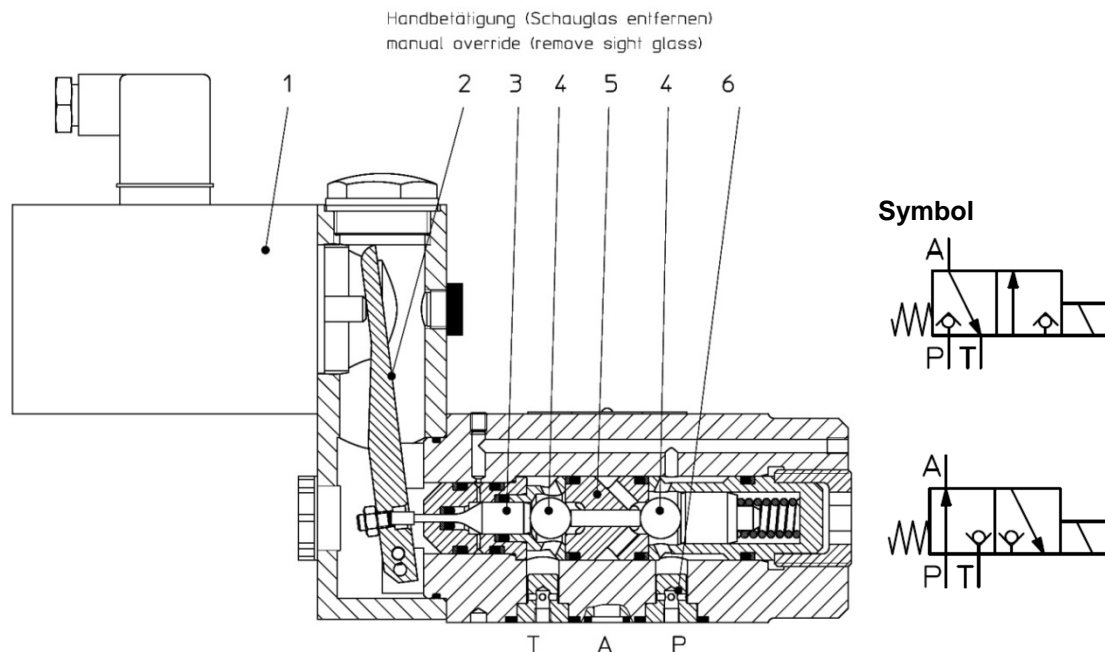
### Function of 3/2-way valve:

The force (1), generated by the actuation, acts through the lever (2), the tappet (3) on the ball(s) (4) and presses it out of the right valve seat (5) and into the left valve seat (5). This is used to connect lines P and A and shut off line T, see Example. The covers (6) support the flange seals from the inside and limit the volume flow to the admissible value.

The 3/2-way valve is provided with a "negative overlap". During the changeover process, connections P, A and T are briefly connected with each other. The changeover occurs so fast that the hydraulic effects are negligible. By design, a 3/2-way valve always requires the connection of a T-connector; only then a proper switching function can be ensured.

Depending on the design of the valve insert a valve with the basic position "A→T NO" (lines A and T are connected) or "P→A NO" (lines P and A are connected) is provided.

### Example 3/2-way valve:



## Directly actuated seat valves DN10 | PN700

### Technical data

measured with HFA medium 97/3%, at 20°C

#### general

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Weight	see Order information
Installation position	any
Ambient temperature	-10 to 50°C (hydraulic fluids, heed standard requirements)
Material	
- Valve parts	Stainless steel, bronze except electromagnet
- Seals	FKM, PTFE

#### hydraulic

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max. operating pressure of connector <b>P</b>	700 bar
max. operating pressure of connector <b>A</b>	700 bar
max. operating pressure of connector <b>T</b>	50 bar
max./min. control pressure of connector <b>Z</b>	see Order information
max. volume flow <b>P→A</b>	40 l/min
max. volume flow <b>A→T</b>	40 l/min
specified direction of flow	P→A, A→T
Pressure fluid <b>water, HFA</b>	
- Medium - Temperature range	5 to 50°C
- Medium - Quality	see Hauhinco requirements on water and HFA media
- Cleanliness class, filter fineness	Class 20/18/15, filter fineness 25µm
- Viscosity	0.6 to 100 mm <sup>2</sup> /s
Pressure fluid <b>mineral oil HLP</b>	
- Medium - Temperature range	-10 to 50°C
- Medium - Quality	acc. to DIN 51524
- Cleanliness class, filter fineness	Class 20/18/15, filter fineness 25µm
- Viscosity	0.6 to 100 mm <sup>2</sup> /s

Use of other pressure fluids on request.

The covers (6) are designed with a viscosity of approx. 1.0 mm<sup>2</sup>/s; if a medium with a substantially different viscosity is used, the covers must be selected such that the maximum admissible volume flow is not exceeded.

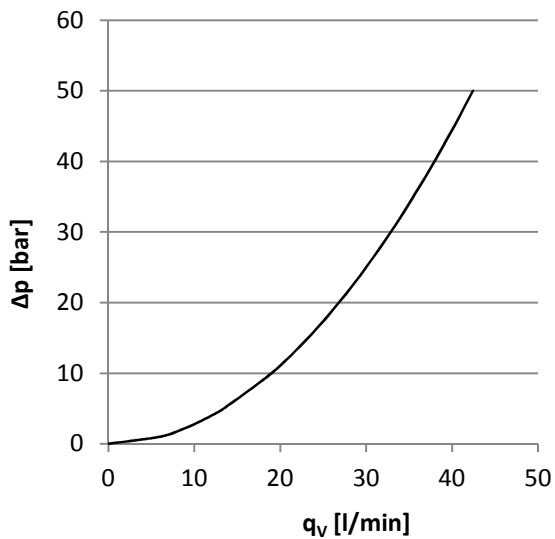
#### electric

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Voltage	24 VDC, 110 VAC (96 VDC), 230 VAC (205 VDC)
AC grid, admissible tolerance	± 10%
AC grid, admissible frequency	50 to 60 Hz
Power consumption	55 W
Operating time	100% OT
Degree of protection acc. to EN60529	IP65
max. switching rate	1 Hz

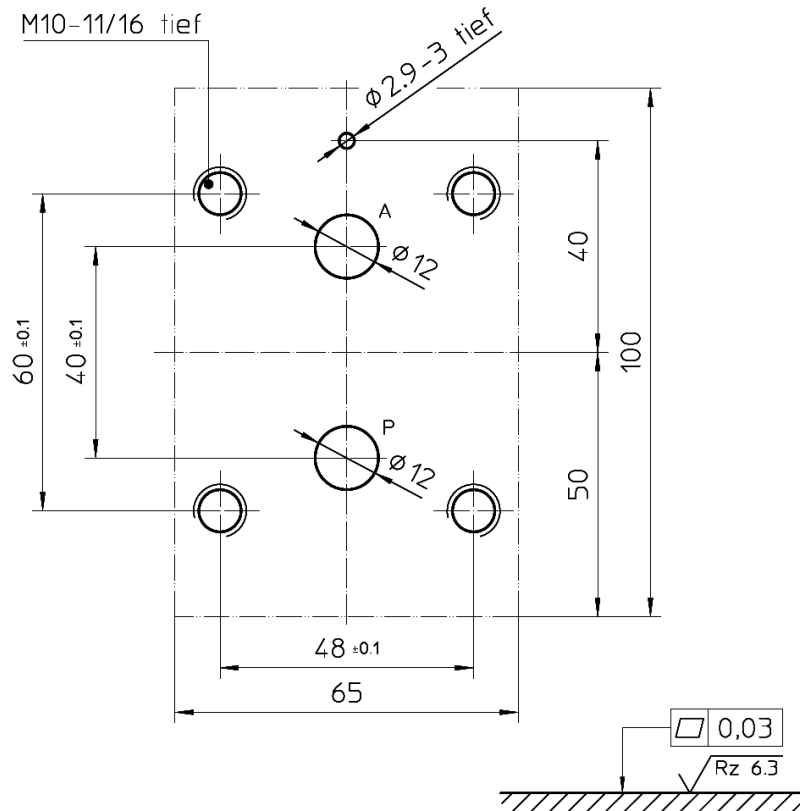
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$\Delta p - q_v$  characteristic curve



## Connection diagram 2/2-way DN10

Drawing number 6559808



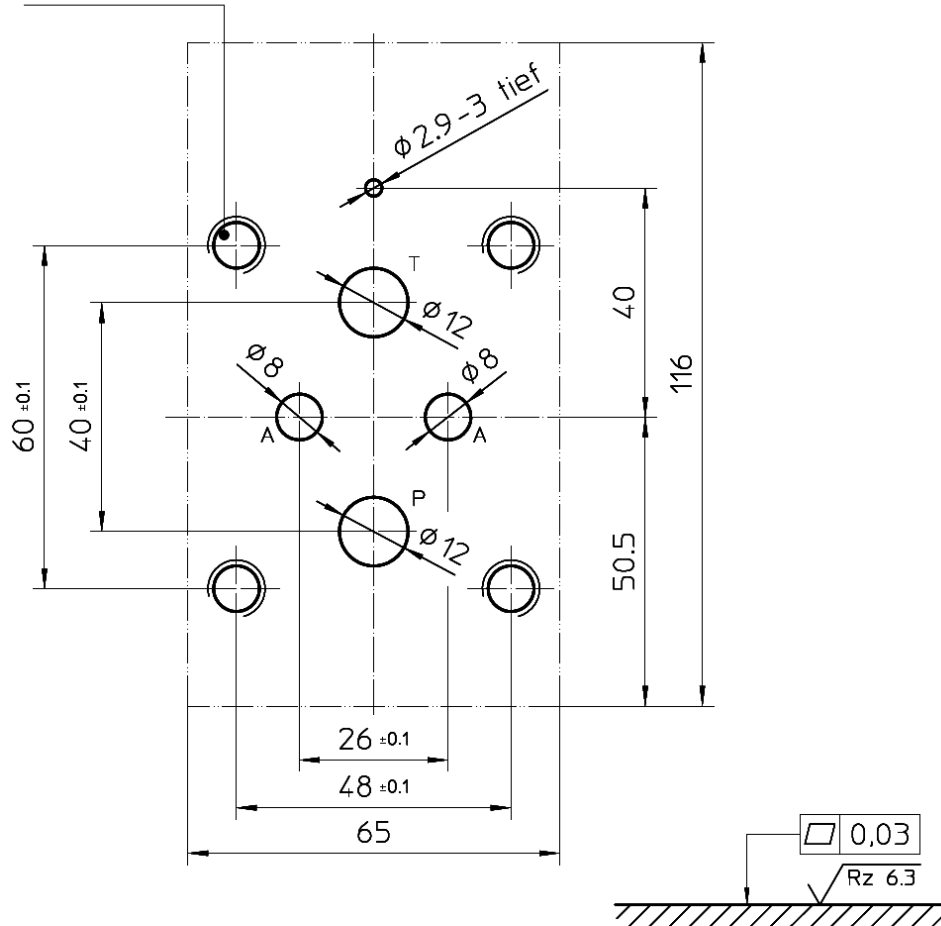
Erforderliche Oberflächengüte  
des Gegenstückes

## Directly actuated seat valves DN10 | PN700

### Connection diagram 3/2-way DN10

Drawing number 6559816

M10-11/16 tief



Erforderliche Oberflächengüte  
des Gegenstückes

Deutsch	Englisch
tief	depth
Erforderliche Oberflächengüte des Gegenstückes	Required surface quality of the counterpart

#### Included in the scope of supply

Mounting screws of the valve

Cable socket of the valve solenoid

- Supply voltage 24 VDC
- Supply voltage 110 VAC
- Supply voltage 230 VAC

Cheese-head screw M10

according to DIN 43650 – type of design A

max. 100 VA, LED display + Z-diode, IP65

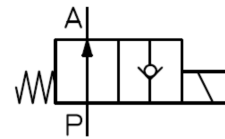
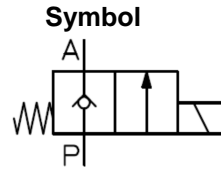
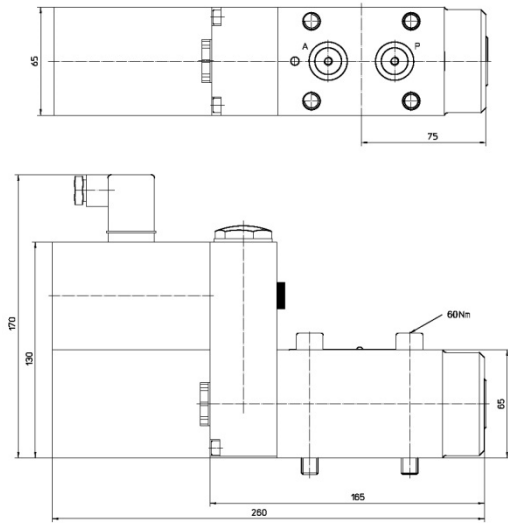
max. 1.5 A, bridge rectifier, LED display, IP65

max. 1.5 A, bridge rectifier, LED display, IP65

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### 2/2-way valve DN10 solenoid actuation

Dimensions:

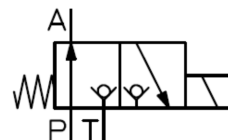
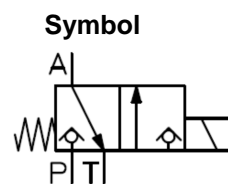
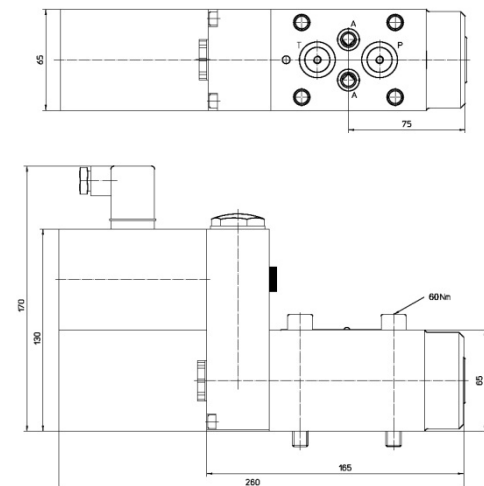


Weight: 8.1 kg

Designation	Voltage	Article number
2/2-way valve DN10 PN700 NC	24 V DC	6553486
	110 V AC	6547281
	230 V AC	6547303
2/2-way valve DN10 PN700 NO	24 V DC	6553494
	110 V AC	6547311
	230 V AC	6547338

### 3/2-way valve DN10 solenoid actuation

Dimensions:



Weight: 8.1 kg

Designation	Voltage	Article number
3/2-way valve DN10 PN700 A→T NO	24 V DC	6254543
	110 V AC	6547346
	230 V AC	6547354
3/2-way valve DN10 PN700 P→A NO	24 V DC	6254551
	110 V AC	6547362
	230 V AC	6547370