Directly actuated seat valves

2/2- and 3/2-way

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
- 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 ring (6) supports the flange seal from the inside. The volume flow is limited by the entire flow resistance.

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).

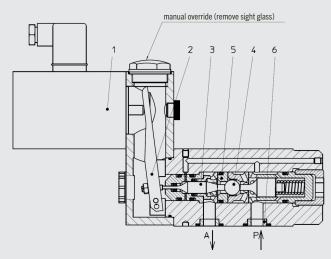
Function of 3/2-way valve

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 ring (6) supports the flange seal from the inside. The volume flow is limited by the entire flow resistance.

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.

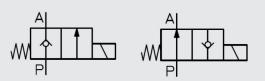
Depending on the design of the valve insert a valve with the basic position $_{,A}\rightarrow T$ NO" (lines A and T are connected) or $_{,P}\rightarrow A$ NO" (lines P and A are connected) is provided.

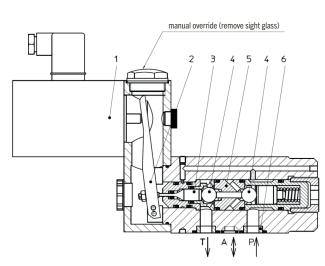
Example 3/2-way valve



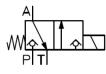
Symbol

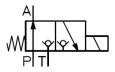
Example 2/2-way valve





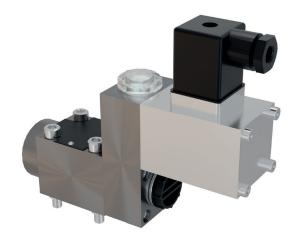
Symbol





Directly actuated seat valves DN6 | PN700 | 151/min

2/2- and 3/2-ways



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

General		
Weight	3,5 kg	
Installation position	any	
Ambient temperature	-10 to 50°C (hydraulic fluids, heed standard requirements)	
Material Valve parts Material Seals	Stainless steel, bronze except electromagnet FKM, PTFE	
Hydraulic		
max. operating pressure of connector P	700bar	
max. operating pressure of connector A	700bar	
max. operating pressure of connector T	50bar	
max./min. control pressure of connector Z	see Order information	
max. volume flow $P \rightarrow A$	15 l/min	
max. volume flow $A \rightarrow T$	15 l/min	
specified direction of flow	P→A, A→T	
Pressure fluid - Medium - Temperature range - Medium - Quality - Cleanliness class, filter fineness - Viscosity	water, HFA 5 to 50°C see Hauhinco requirements on water and HFA media class 20/18/15, filter fineness 25µm 0,6 bis 100 mm ² /s	
Pressure fluid - Medium - Temperature range - Medium - Quality - Cleanliness class, filter fineness - Viscosity	mineral oil, HLP -10 to 50°C acc. to DIN 51524 Class 20/18/15, filter fineness 25µm 0,6 bis 100 mm²/s	
Lise of other pressure fluids on request		

Use of other pressure fluids on request.

The covers (6) are designed with a viscosity of approx. 1.0 mm²/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	
Voltage	24 VDC, 110 VAC (96 VDC), 230 VAC (205 VDC)
AC grid, admissible tolerance	± 10%
AC grid, admissible frequency	50 bis 60 Hz
Power consumption	36 W
Operating time	100% ED
Degree of protection acc. to EN60529	IP65
max. switching rate	1 Hz

Order information

Included in the scope of supply	
Mounting screws of the valve	Cheese-head screw M8
Cable socket of the valve solenoid - Supply voltage 24 VDC - Supply voltage 110 VAC - Supply voltage 230 VAC	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

2/2-way valve DN6 | PN700 | 151/min, solenoid actuation

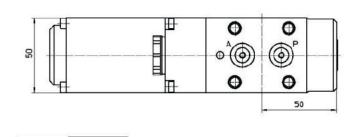
Designation	Basic position	Voltage	Article number
	NC	24 VDC	6546811
2/2-way valve DN6 PN700	NC	110 VAC	6546838
	NC	230 VAC	6546846
2/2-way valve DN6 PN700	NO	24 VDC	6546854
	NO	110 VAC	6546862
	NO	230 VAC	6546870

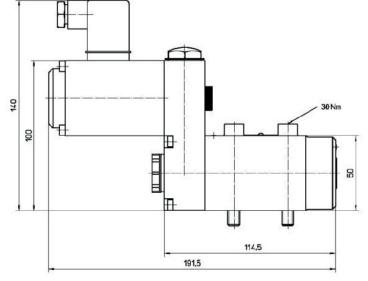
3/2-way valve DN6 | PN700 | 151/min, solenoid actuation

Designation	Basic position	Voltage	Article number
	A→T NO	24 VDC	6546889
3/2-way valve DN6 PN700	A→T NO 110 VAC A→T NO 230 VAC	6546897	
	A→T NO	230 VAC	6546900
3/2-way valve DN6 PN700	P→A NO	24 VDC	6546919
	P→A NO	110 VAC	6546927
	P→A NO	230 VAC	6546935

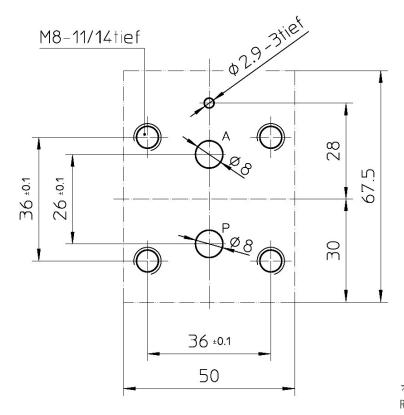
2/2-way valve DN6 | PN700 | 151/min, solenoid actuation

Dimensions



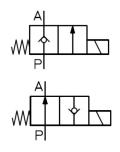


Connection diagram

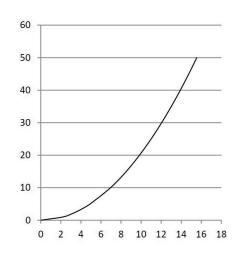


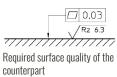


Symbol



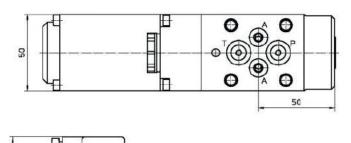
 $\Delta p - qV$ characteristic curve

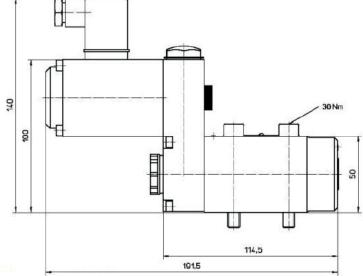




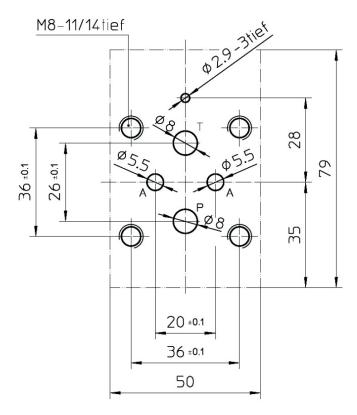
3/2-way valve DN6 | PN700 | 151/min, solenoid actuation

Dimensions



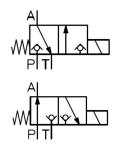


Connection diagram

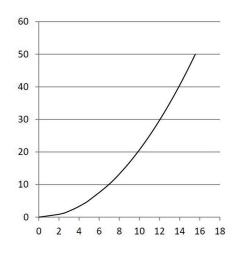


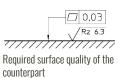


Symbol



 $\Delta p - qV$ characteristic curve





Technical changes reserved. All data and figures are considered non-binding.

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