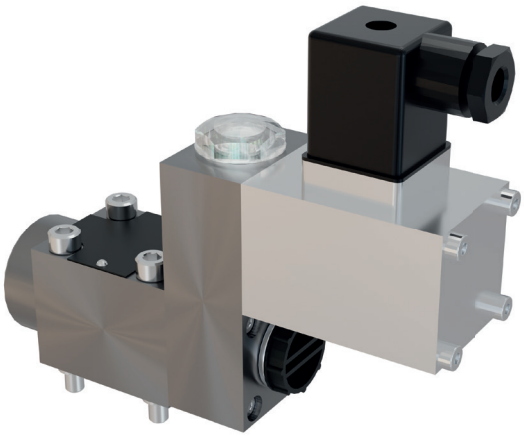
Directly actuated seat valves

2/2- and 3/2-way



Features

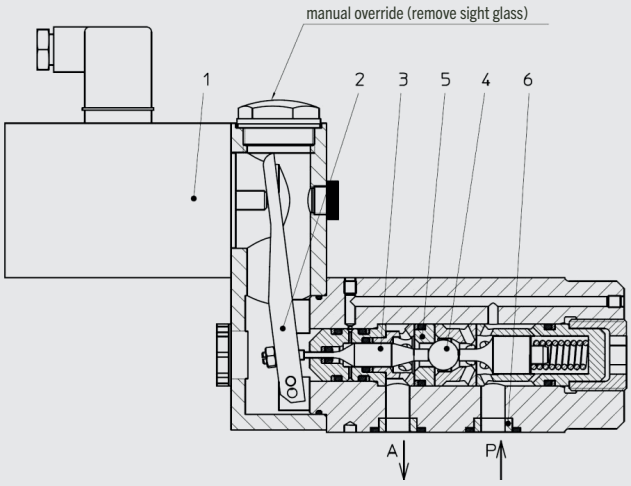
- Directly actuated directional seat valve controlling pressurised media.
- The valve seat seals hermetically preventing internal leaks.
- All parts are made of corrosion-resistant materials, and they are easily replaceable.
- Valve design in a structural plate form
- On request, the valve can be equipped 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

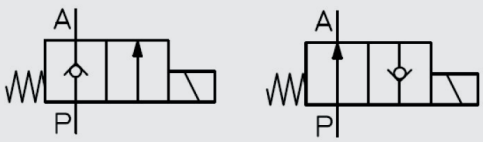
The force (1), generated by the actuation, acts through the lever (2), the tappet (3) on the ball (4) and presses it out of the valve seat (5). This is used to connect lines P and A, see Example. The ring (6) supports the flange seal from the inside. The volume flow is limited by the entire flow resistance.

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).

Example 2/2-way valve



Symbol



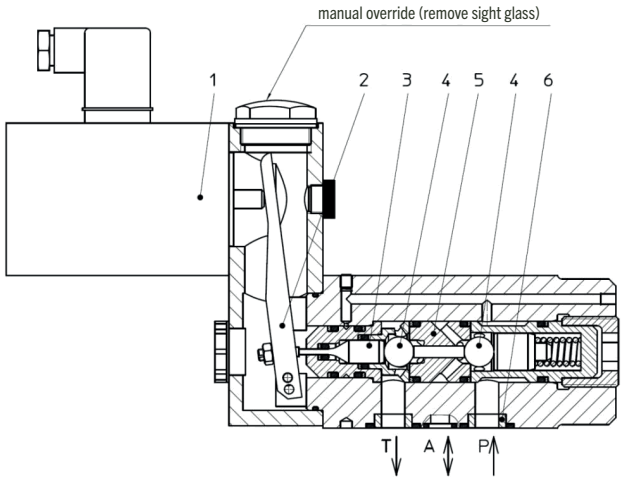
Function of 3/2-way valve

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.

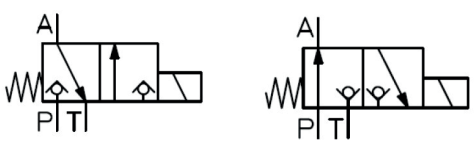
The 3/2-way valve is provided with a „negative overlap“. During the changeover process, connections P, A and T are briefly connected with each other. The changeover occurs so fast that the hydraulic effects are negligible. By design, a 3/2-way valve always requires the connection of a T-connector; only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

Depending on the design of the valve insert a valve with the basic position „A→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

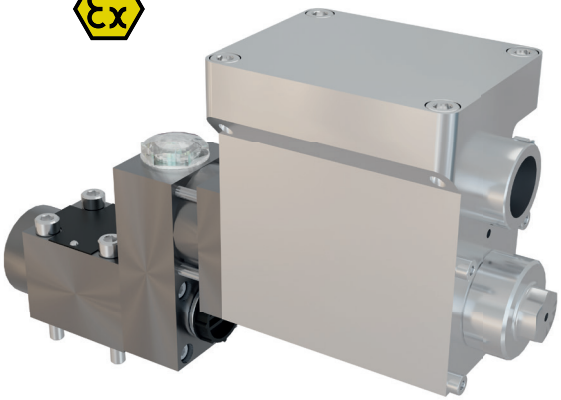


Symbol



Directly actuated seat valves DN3 | PN320 | 10l/min

2/2-ways, Approval: IBExU09ATEX1046 X



Technical data

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

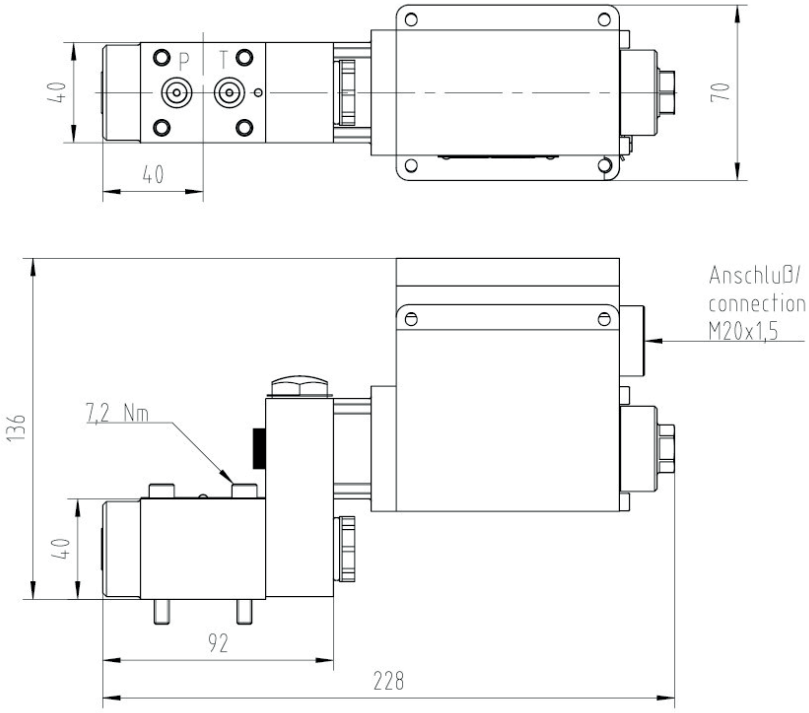
General	
Weight	4,5 kg
Installation position	any
Ambient temperature	-10 to 50°C (hydraulic fluids, heed standard requirements)
Material Valve parts Material Seals	Stainless steel, bronze except electromagnet NBR, PTFE
Hydraulic	
max. operating pressure of connector P	320bar
max. operating pressure of connector A	320bar
max. volume flow P→A	10 l/min
specified direction of flow	P→A
Pressure fluid - Medium - Temperature range - Medium - Quality - Cleanliness class, filter fineness - Viscosity	water, HFA 5 bis 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 bis 50°C acc. to DIN 51524 Class 20/18/15, filter fineness 25µm 0,6 bis 100 mm^2/s
Use of other pressure fluids on request.	
The covers (6) are designed with a viscosity of approx. 1.0 mm^2/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
Current	0,37 A
Power consumption	8,8 W
Operating time	100% ED
Degree of protection acc. to EN60529	IP68
Protection against ignition according to EN 50020	II 2G Ex d IIB T5
max. switching rate	1 Hz

Order information

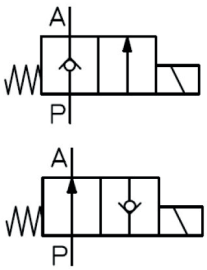
Included in the scope of supply	
Mounting screws of the valve	Cheese-head screw M6
Connection thread of the valve solenoid	M20x1,5

Designation	Basic position	Voltage	Article number
2/2-way valve DN3 PN320	NC	24 VDC	6548601
2/2-way valve DN3 PN320	NO	24 VDC	6548644

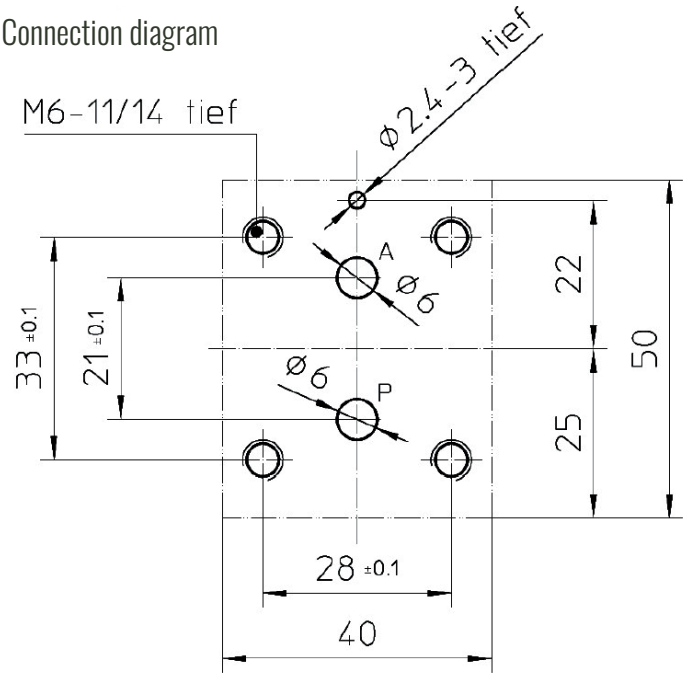
Dimensions



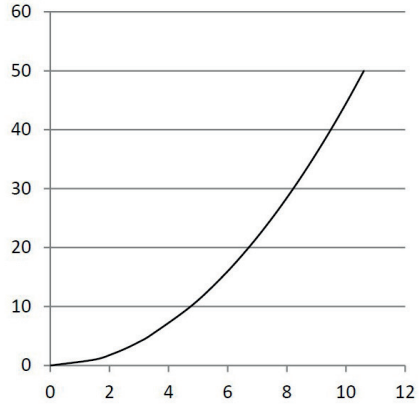
Symbol

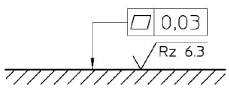


Connection diagram



Δp – qV characteristic curve





Required surface quality of the counterpart

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