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).

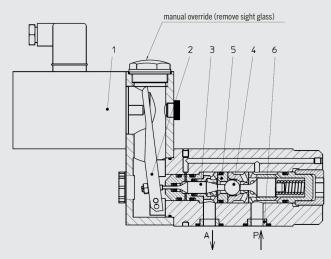
Function of 3/2-way valve

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.

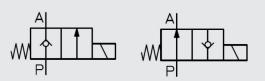
Depending on the design of the valve insert a valve with the basic position $_{,A}\rightarrow T$ NO" (lines A and T are connected) or $_{,P}\rightarrow A$ NO" (lines P and A are connected) is provided.

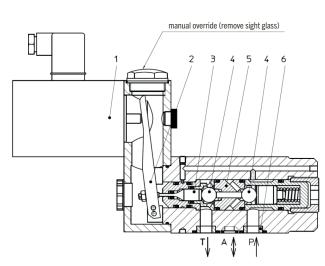
Example 3/2-way valve



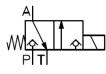
Symbol

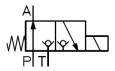
Example 2/2-way valve





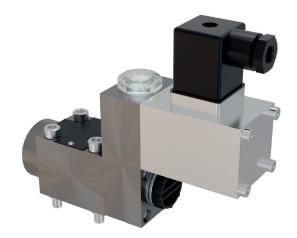
Symbol





Directly actuated seat valves DN10 | PN320 | 401/min

2/2- and 3/2-ways



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

General	
Weight	see Order information
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. operating pressure of connector T	50bar
max./min. control pressure of connector Z	see Order information
max. volume flow $P \rightarrow A$	40 l/min
max. volume flow $A \rightarrow T$	40 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 mm ² /s
Line of allow we accure fluids on very set	

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 to 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 M10
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 DN10 | PN320 | 401/min

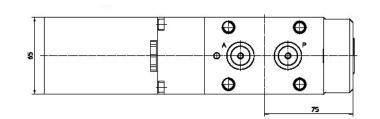
Designation	Basic position	Voltage	Article number
2/2-way valve DN10 PN320, solenoid actuation weight: 8,1kg	NC	24 VDC	6235557
	NC	110 VAC	6241964
	NC	230 VAC	6243649
2/2-way valve DN10 PN320, solenoid actuation weight: 8,1kg	NO	24 VDC	6235565
	NO	110 VAC	6241956
	NO	230 VAC	6243657
Designation	Basic position	approx. manual force	Article number
Designation 2/2-way valve DN10 PN320, pushbutton control with a	Basic position	approx. manual force 100N	Article number 6568475
2/2-way valve DN10 PN320, pushbutton control with a	NO	100N	6568475
2/2-way valve DN10 PN320, pushbutton control with a catch, weight: 4,0kg	NO NC	100N 100N	6568475 6568483

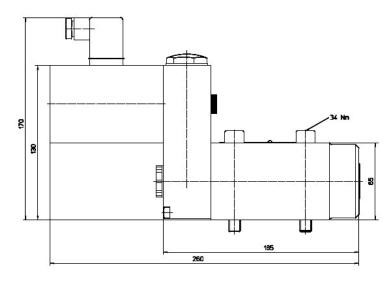
3/2-way valve DN10 | PN320 | 401/min

Designation	Basic position	Voltage	Article number
3/2-way valve DN10 PN320, solenoid actuation weight: 8,1kg	A→T NO	24 VDC	6235530
	A→T NO	110 VAC	6241980
	A→T NO	230 VAC	6243622
3/2-way valve DN10 PN320, solenoid actuation weight: 8,1kg	P→A NO	24 VDC	6235549
	P→A NO	110 VAC	6241972
	P→A NO	230 VAC	6243630
3/2-way valve DN10 PN320, solenoid actuation with a catch, weight: 11,0kg	A→T NO	24 VDC	6576060
	P→A NO	24 VDC	6576079
Designation	Basic position		Article number
3/2 -way valve DN10 PN320, roller actuation weight: 7,1kg	A→T NO		6237703
weight: 7,1kg	P→A NO		6237681
weight: 7,1kg Designation	P→A NO Basic position	adm. control pressure "Z"	6237681 Article number
		adm. control pressure "Z" 3-320bar	
Designation	Basic position		Article number
Designation 3/2-way valve DN10 PN320, cylinder actuation	Basic position A→T NO	3-320bar	Article number 6237053
Designation 3/2-way valve DN10 PN320, cylinder actuation pneumatic, hydraulic, weight: 8,1kg	Basic position A→T NO P→A NO	3-320bar 3-320bar	Article number 6237053 6237045

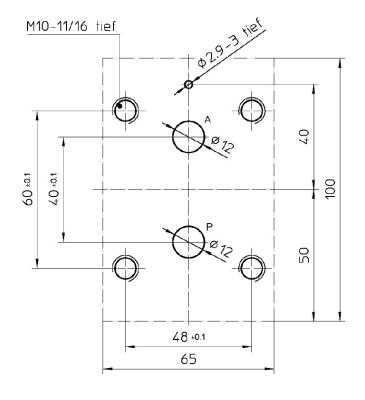
2/2-way valve DN10 | PN320 | 401/min, solenoid actuation

Dimensions



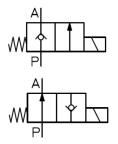


Connection diagram

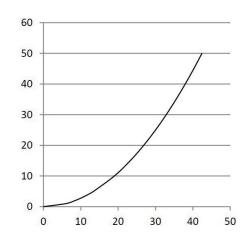


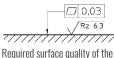


Symbol



 $\Delta p - qV$ characteristic curve

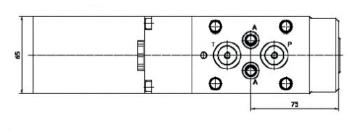


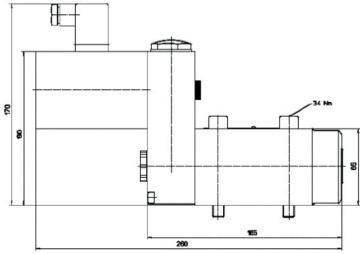


Required surface quality of the counterpart

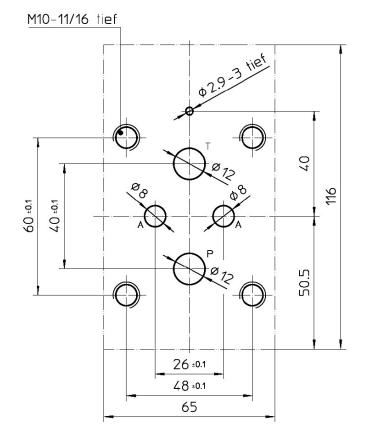
3/2-way valve DN10 | PN320 | 401/min, solenoid actuation

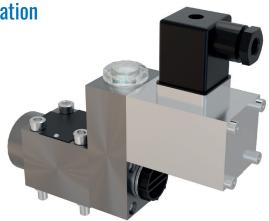
Dimensions



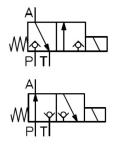


Connection diagram

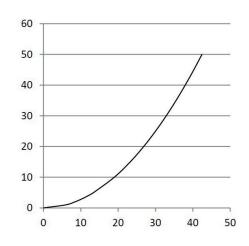


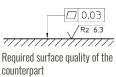


Symbol

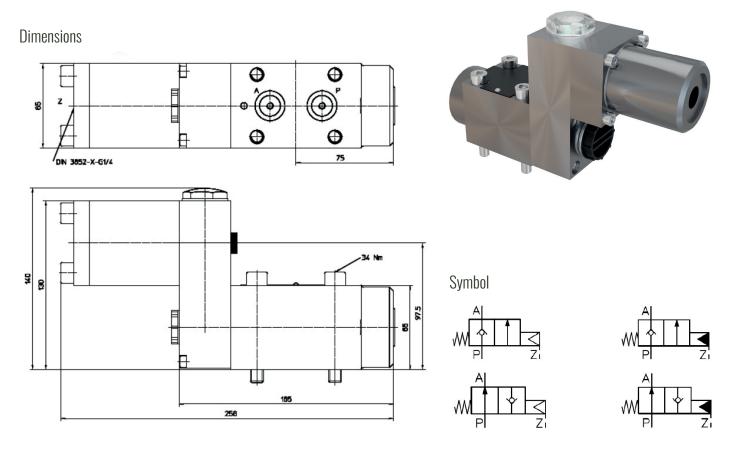


 $\Delta p - qV$ characteristic curve



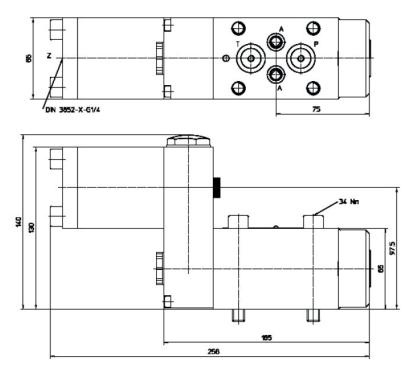


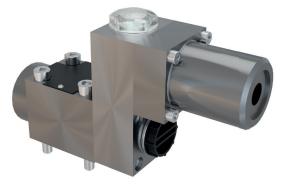
2/2-way valve DN10 | PN320 | 401/min, cylinder actuation



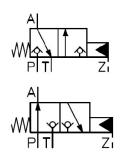
3/2-way valve DN10 | PN320 | 401/min, cylinder actuation

Dimensions



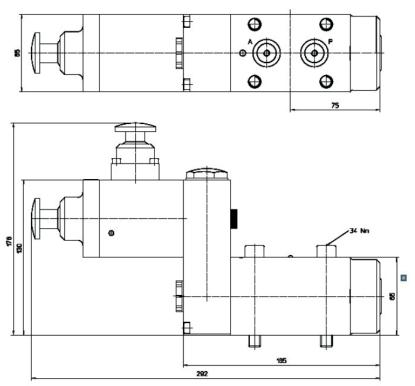




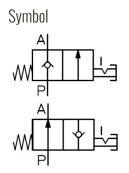


2/2-way valve DN10 | PN320 | 401/min, pushbutton control with a catch

Dimensions

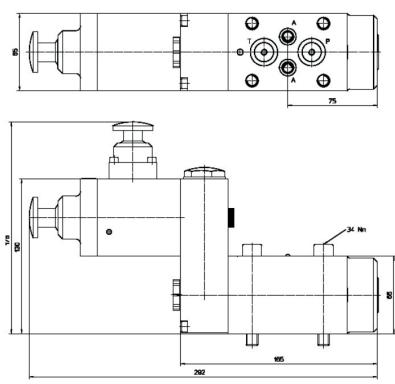




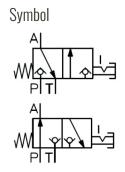


3/2-way valve DN10 | PN320 | 401/min, pushbutton control with a catch

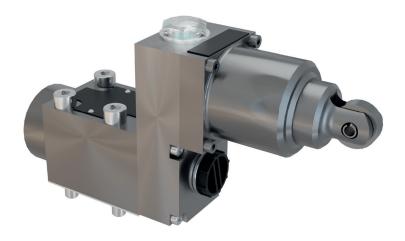
Dimensions



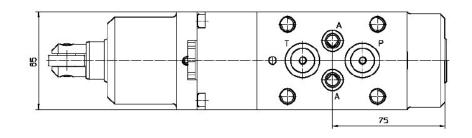




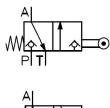
3/2-way valve DN10 | PN320 | 401/min, roller actuation

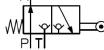


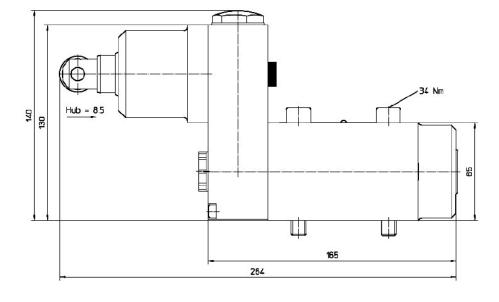
Dimensions



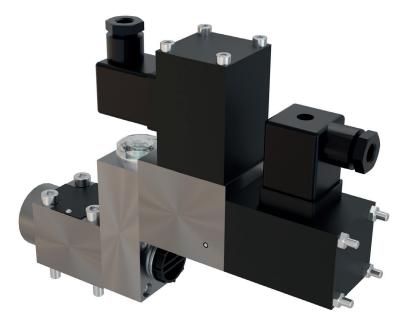




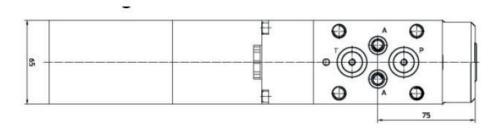




3/2-way valve DN10 | PN320 | 401/min, solenoid actuation with a catch



Dimensions



Symbol

