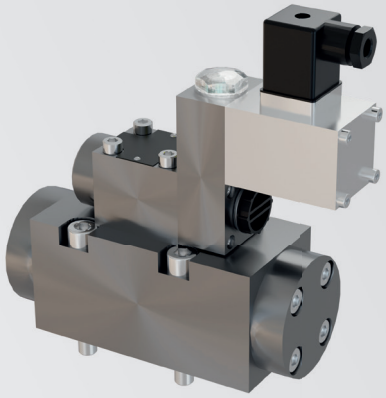
3/2-way valve B1
X, Y internally actuated



DN3 - DN25, PN320, PN500

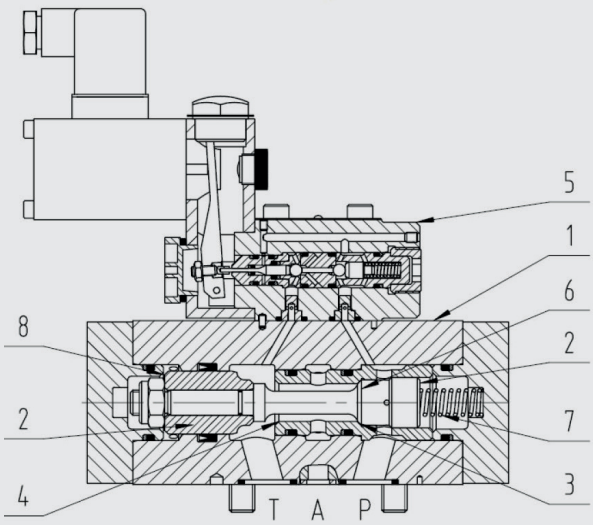
Features:

- Hydraulically actuated directional seat valve controlling liquid media.
- Passively controllable 3/2-way valve with 1-stage control logic
- The basic valve position is maintained by the hydraulic pressure (P)
- The valve is designed in two function variants , A-T NO and P-T NO
- The nominal value DN16 provides the switching function starting with a hydraulic pressure of 3bar
- The hydraulic control pressure (X, Y) is picked off internally along the lines (P, T)
- Valve piston and valve seat are coupled and close hydraulically „leak-free“
- The valve is actuated hydraulically via a 3/2-way pilot valve
- Valve fastening structural plate form with a Hauhinco connection diagram

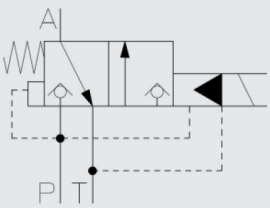
Function of 3/2-way valve A→T NO

The valve piston (2) guided within the valve body (1) is pressed into the valve seat (3) by the hydraulic power and the spring force (7) generated by the operating pressure (P) on the control surface (6). Thus, the line (P) is shut off and the lines (A, T) are connected. By switching the pilot valve (5), the control surface (8) is pressurised and the valve piston (2) is moved into the actuated position. Thus, the valve piston (2) is pressed into the valve seat (4), the lines (P, A) are connected and the line (T) shut off. Within the switching phase, the valve is provided with a positive overlap.

Examples 3/2-way valvel A→T NO



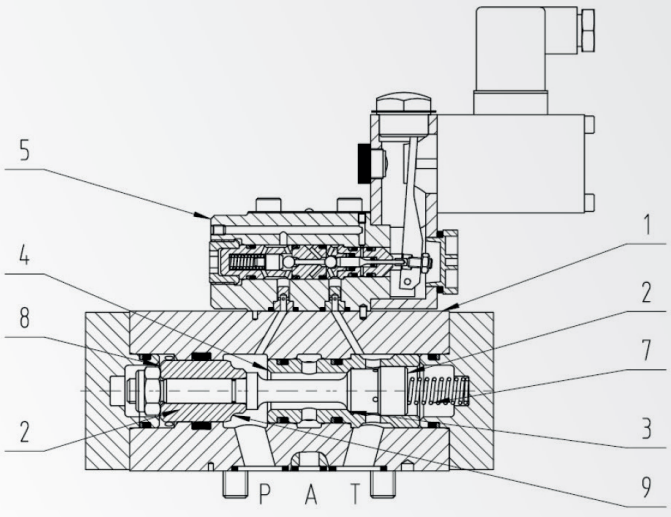
Symbol



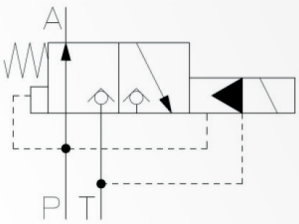
Function of 3/2-way valve P→A NO

The valve piston (2) guided within the valve body (1) is pressed into the valve seat (3) by the hydraulic power and the spring force (7) generated by the operating pressure (P) on the control surface (9). Thus, the line (T) is shut off and the lines (P, A) are connected. By switching the pilot valve (5), the piston valve area (8) is pressurised and the valve piston (2) is moved into the actuated position. Thus, the valve piston (2) is pressed into the valve seat (4), the lines (A, T) are connected and the line (P) is shut off. Within the switching phase, the valve is provided with a positive overlap.

Examples 3/2-way valve P→A NO



Symbol



Technical data

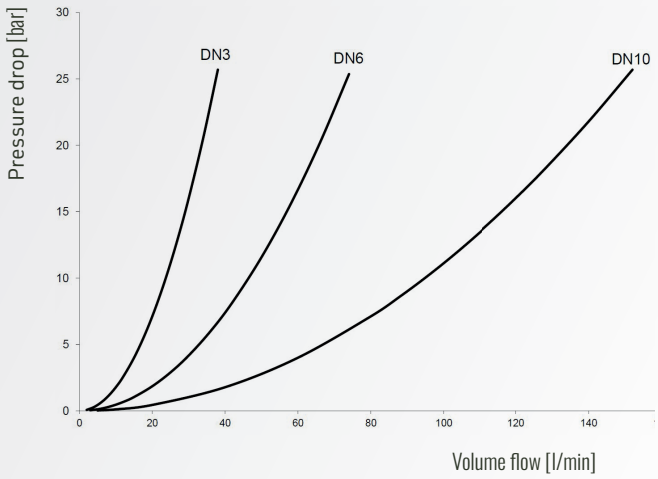
measured with HFA medium 97/3%, at 20°C

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, except for the electromagnet NBR, PTFE

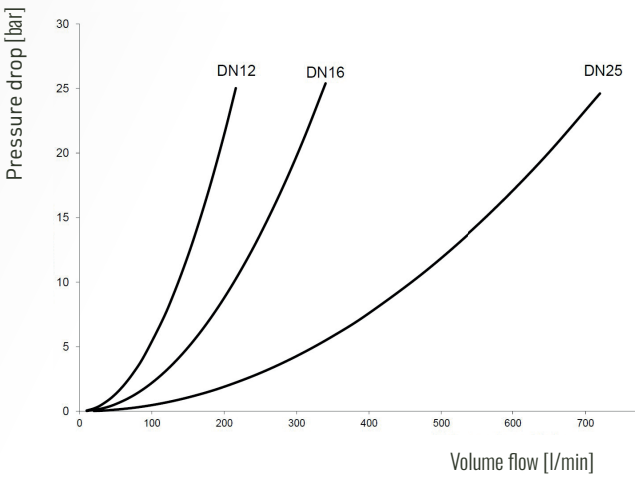
Hydraulic	
Hydraulic pressure connector P, X	≤ 320 bar, bzw. ≤ 500bar, see Order information
Hydraulic pressure connector A	≤ P ≤ 320bar bzw. ≤ 500bar, see Order information
Hydraulic pressure connector T, Y	≤ 10 bar
Direction of flow	P→A, A→T
Pressure fluid - Medium - Quality - Medium - Temperature range - min filter fineness connector P, A, T	Water, HFA see Hauhinco media requirement, water, HFA 5 - 40°C Filter fineness 25µm
Pressure fluid - Medium - Temperature range - Medium - Quality - Viscosity	Mineral oil HLP according to DIN51624-2 5 to 50°C Cleanliness class -/19/16 according to ISO 4406 0,6 bis 100 mm^2/s
Use of other pressure fluids on request.	

Electric	
Magnet - Voltage - Operating time - Degree of protection acc. to EN60529 - max. switching rate	24 VDC see Order information 100% OT IP65 0,5 Hz

Δp –q_V characteristic curves DN3 - DN10



Δp –q_V characteristic curves DN12 - DN25



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

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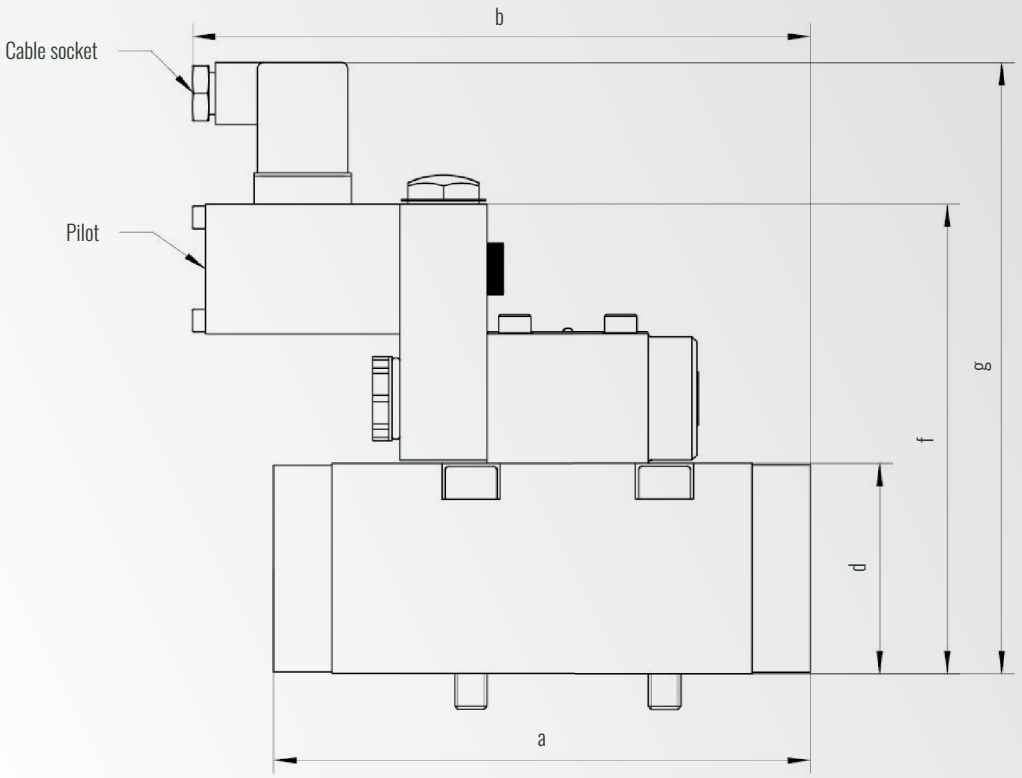
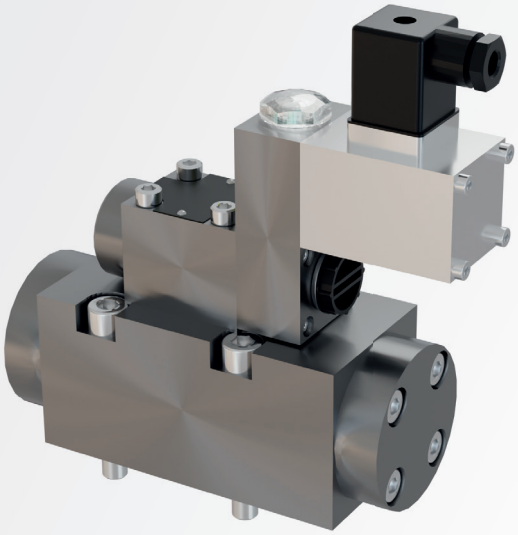
3/2-way valve B1, X, Y, internally, PN 320 PN500, DN3 - DN25

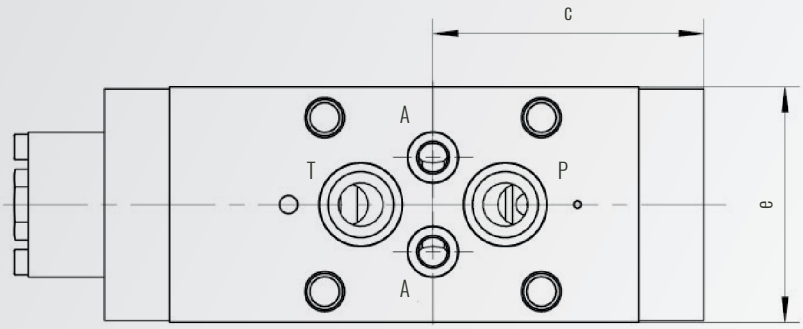


Order information 3/2-way valve B1, X, Y internally

Included in the scope of supply	
Mounting screws of the valve	Cheese-head screw
Cable socket of the valve solenoid - Supply voltage 24 VDC	according to DIN 43650 – type of design A max. 100 VA

Nominal size	Weight [kg]	max. Pressure [bar]	Basic position	min. pressure difference [bar]	Dimensions [mm]							Article number valve B1
					a	b	c	d	e	f	g	
DN3	3,0	320	A→T NO	30	114	169	53	40	40	120	164	6264832
DN3	30	320	P→A NO	30	114	177	61	40	40	120	164	6264824
DN6	5,0	320	A→T NO	30	118	189	53	40	50	140	181	6264808
DN6	5,0	320	P→A NO	30	118	201	65	40	50	140	181	6264816
DN10	7,0	500	A→T NO	30	166	191	75	65	65	154	189	6271820
DN10	7,0	500	P→A NO	30	166	207	91	65	65	145	189	6600028
DN12	7,0	320	A→T NO	10	166	191	75	65	65	145	189	6266975
DN12	7,0	320	P→A NO	30	166	207	91	65	65	145	189	6266983
DN16	13,0	320	A→T NO	10	205	206	90	90	90	170	214	6161448
DN16	14,0	320	P→A NO	30	205	231	115	90	90	170	214	6161405
DN25	33,0	320	A→T NO	30	294	266	132	125	125	205	249	6153208





Pilot valve

	Nominal size	Basic position	Actuation	Current	Article number valve
	DN3	A→T NO		1,0 A	6545599
	DN3	A→T NO		1,0 A	6545599
	DN6	A→T NO		1,5 A	6546749
	DN6	A→T NO	Electromagnet, voltage 24V DC, Cable socket magnet DIN43650 – form A: max. 100VA, LED display + Z-diode, IP65	1,5 A	6546749
	DN3	A→T NO		1,0 A	6545769
	DN3	A→T NO		1,0 A	6545769
	DN3	A→T NO		1,0 A	6545599
	DN3	A→T NO		1,0 A	6545599
	DN3	A→T NO		1,0 A	6556515
	DN3	A→T NO		1,0 A	6556515
	DN3	A→T NO		1,0 A	6557910

Item	Designation	Article number
1	3/2-way valve DN10-PN500 B1, X, Y, internally-24VDC-P-A NO	6600028
1	Pilot valve DN3	6545769

Order example

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