

2/2-way valve C1 X,Y - actuated

PN 320
DN16 – 125

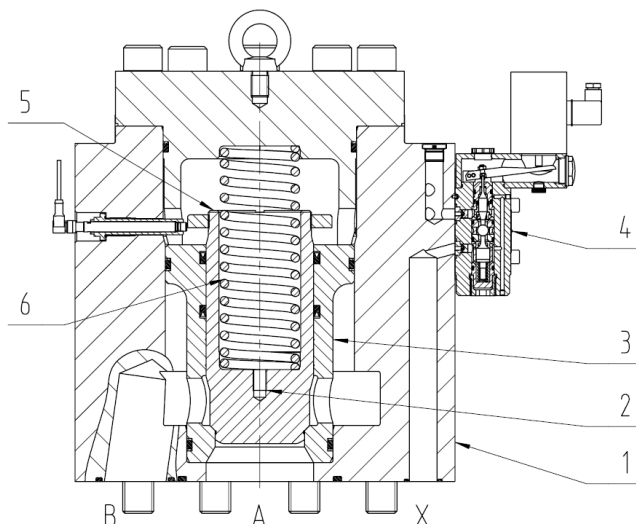
Features

- Hydraulically actuated directional seat valve controlling liquid media
- Passively controllable 2/2-way valve with 1-stage control logic
- Function variants possible via the interconnection of the X- and Y-line
- Valve seat sleeve equipped with a low-friction seal, thus, the valve pistons move easily and without inner leakages
- Valve piston and seat are coupled and close hydraulically "leak-free".
- The valve is actuated via a 3/2-way pilot valve
- Valve fastening structural plate form with a Hauhinco connection diagram
- In closed position, the switching position is monitored by a proximity switch

Function of 2/2-way valve

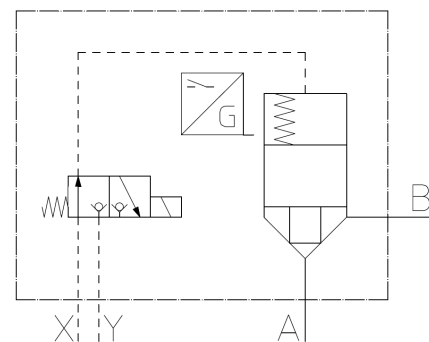
The valve piston (2) guided within the valve body (1) is pressed into the valve seat (3) by the hydraulic power and the spring force (6) generated by the control pressure (X) on the control surface (5). Thus, the lines (A, B) are separated. By switching the pilot valve (4), the control surface (5) is depressurised and the hydraulic power along the lines (A, B) can be used to lift the valve piston (2) off the valve seat (3), i.e. as soon as the hydraulic pressure is applied to the lines (A, B), the valve piston (2) moves into the opened position up to the mechanical end position. Thus, the lines (A, B) are connected. Depending on the design of the pilot valve (4), the basic valve position normally closed (NC) or normally open (NO) is provided. The valve functions depend on the interconnection of the X- and Y-lines, e.g. the closing of the valve depends on the load pressure, i.e. a weight load can be maintained by the load pressure applied.

Example 2/2-way valve C1 - X, Y - actuated:



Control surfaces, hydraulic forces

A channel: Area A1, open valve passively
B channel: Area A2, open valve passively
Control surface (5): A3, close valve actively



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Technical data

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

general

Weight	see Valve data
Installation position	any
Ambient temperature	-10 to 50°C
Material	hydraulic fluids, heed standard requirements)
- Valve parts	Stainless steel, bronze
- Seals	NBR, PTFE, PUR

hydraulic

hydraulic pressure connector A, B	≥ 20 bar ≤ 320 bar
hydraulic pressure connector X	≥ 20 bar ≥ hydraulic pressure at the connector A, B ≤ 320 bar
hydraulic pressure connector Y	≤ 10 bar
Direction of flow	any
Area sum	A1+A2 = A3
Pressure fluid	Water, HFA
- Medium - Quality	see Hauhinco media requirement, water, HFA
- Medium - Temperature range	5 – 40°C
- min filter fineness connector A, B	Filter fineness 100µm
- min filter fineness connector X	Filter fineness 25µm
Pressure fluid	Mineral oil HLP according to DIN51624-2
- Medium - Quality	Cleanliness class -/19/16 according to ISO 4406
- Medium - Temperature range	5 – 50°C
- Viscosity	0.6 to 100 mm ² /s

Use of other pressure fluids on request.

electric

Magnet

Voltage	24 VDC, other voltages on request
Power consumption	see Valve data
Operating time	100% OT
Degree of protection acc. to EN60529	IP65
max. switching rate	1 Hz

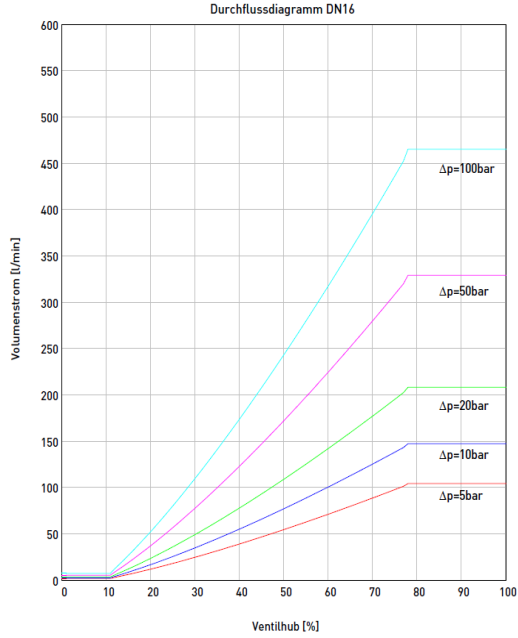
Inductive proximity switch

Output	NO contact, PNP
Voltage	10 – 30 VDC
Current	0.150 A
Switching distance	2.0 mm
Electrical connection	Three wire, plug connection M12x1

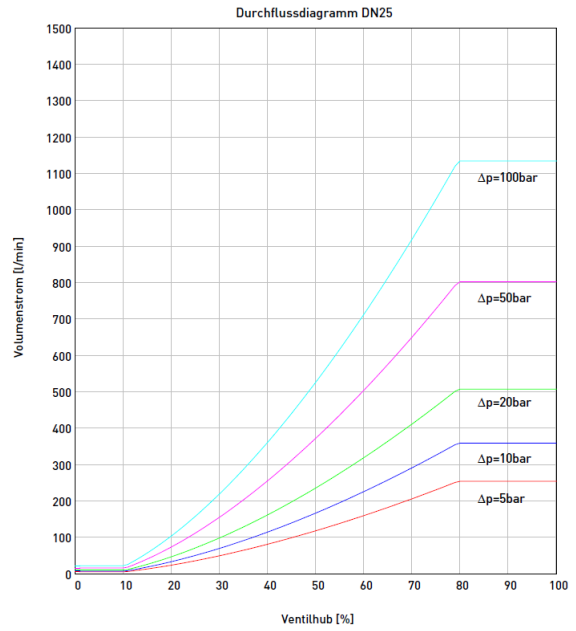
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Valve characteristics

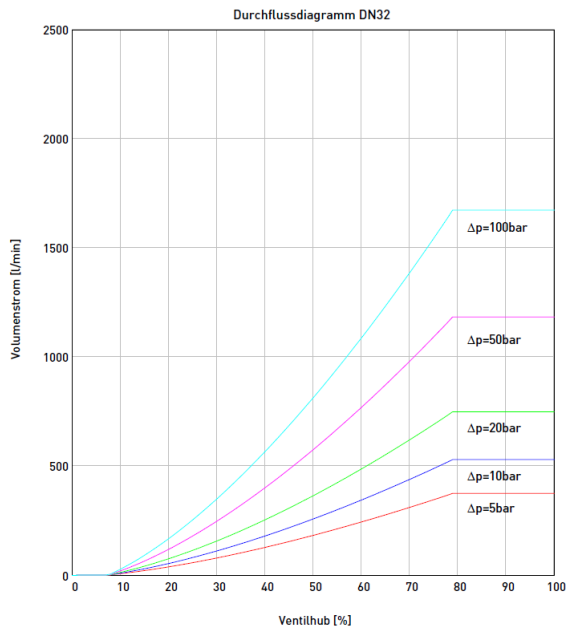
$\Delta p - q_v$ characteristic curves DN 16



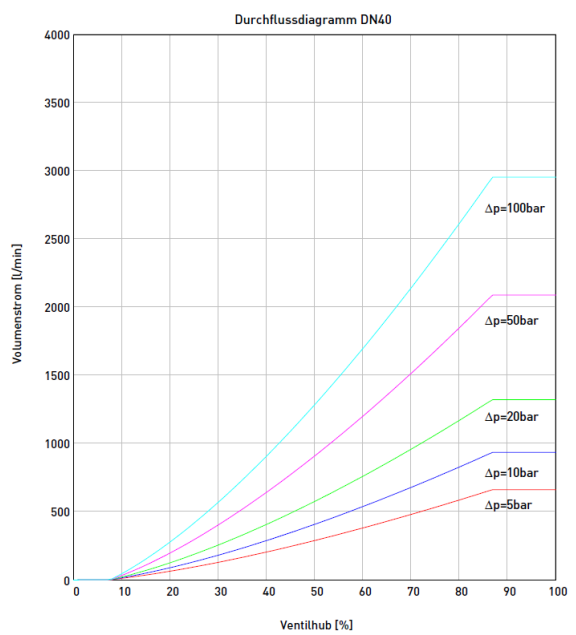
$\Delta p - q_v$ characteristic curves DN 25



$\Delta p - q_v$ characteristic curves DN 32



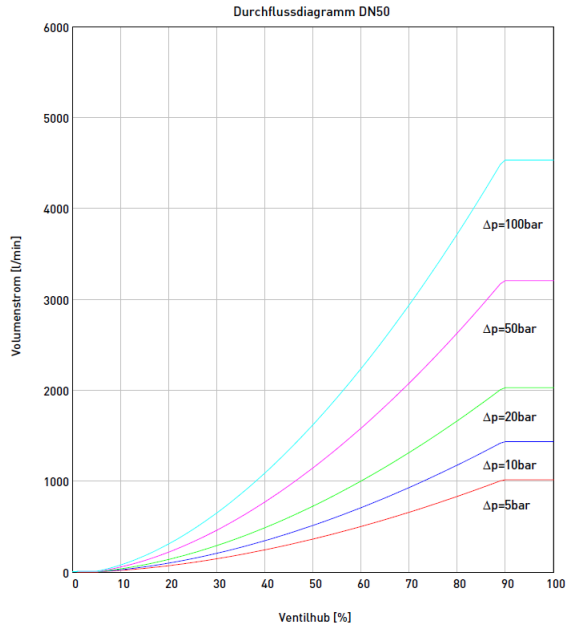
$\Delta p - q_v$ characteristic curves DN 40



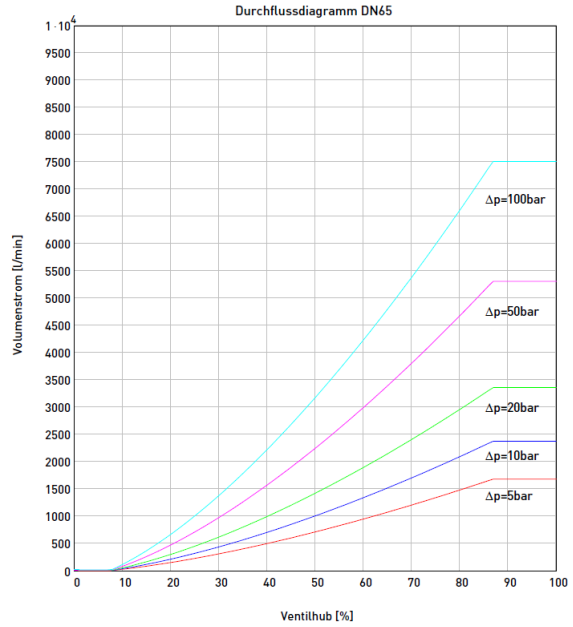
2/2-way valve C1, DN16 – 125 | PN320 – X,Y

Valve characteristics

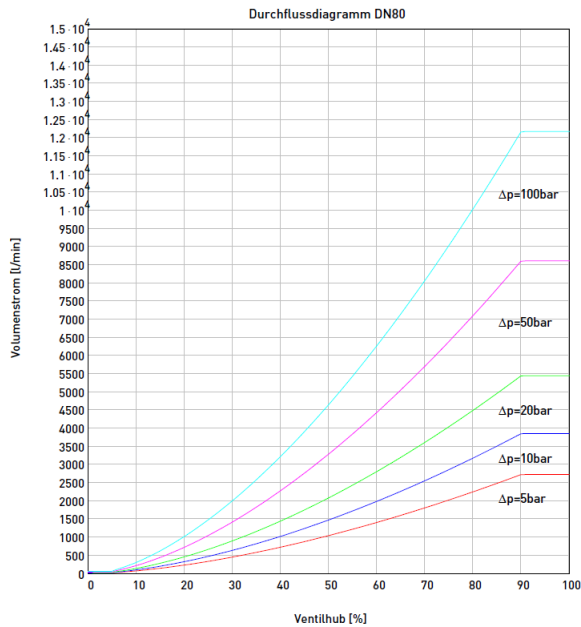
$\Delta p - q_v$ characteristic curves DN 50



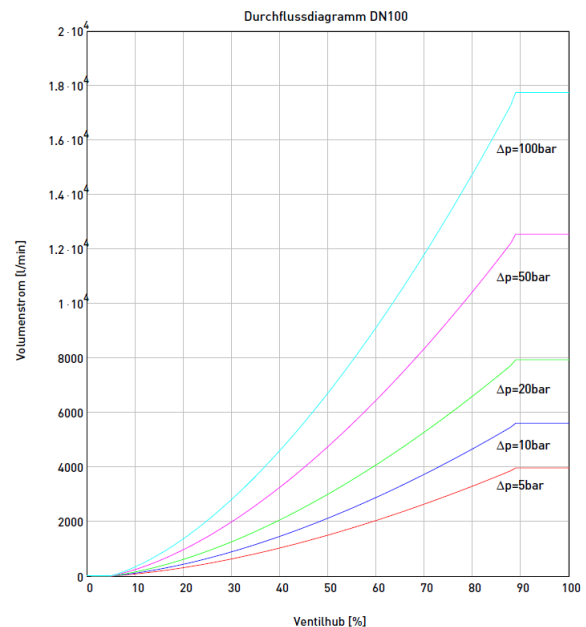
$\Delta p - q_v$ characteristic curves DN 65



$\Delta p - q_v$ characteristic curves DN 80



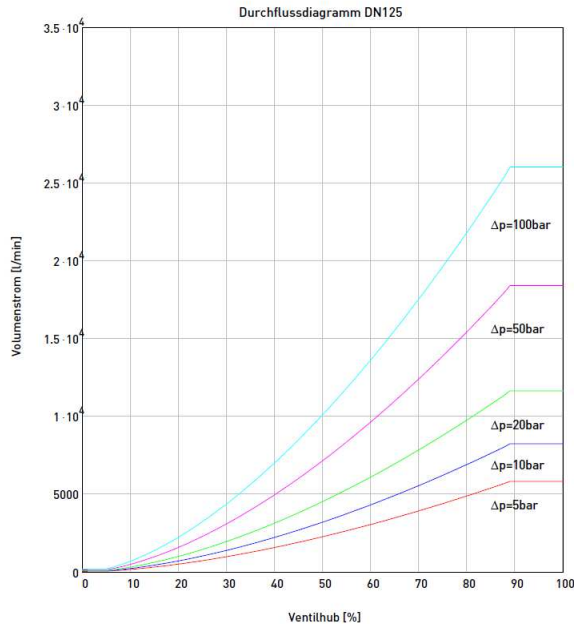
$\Delta p - q_v$ characteristic curves DN 100



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Valve characteristics

$\Delta p - qV$ characteristic curves DN 125



Deutsch	Englisch
Durchflussdiagramm	Flow rate diagram
Volumenstrom	Volume flow
Ventilhub	Valve lift

Valve data

Single-stage pilot control

Nominal value		DN16		DN25		DN32		DN40	
Weight		8 kg		17 kg		19 kg		35 kg	
2/2-way valve	hydraulic	NC	NO	NC	NO	NC	NO	NC	NO
	Art. No.	6269133		6266746		6263291		6263356	
	a	90	90	114	114	145	145	173	173
	b	112	112	143	143	175	175	207	207
	c	161	161	171	171	186	186	232	232
	d	167	167	184	184	189	189	222	222
	e	100	100	130	130	140	140	176	176
	f	40	40	40	40	40	40	50	50
g	109	109	115	115	118	118	123	123	
Connection diagram	Art. No.	6561403		6560318		6563821		6563902	
Pilot valve	DN	3		3		3		6	
	hydraulic	P→A NO	A→T NO	P→A NO	A→T NO	P→A NO	A→T NO	P→A NO	A→T NO
	Art. No.	6545602	6545599	6545602	6545599	6545602	6545599	6546773	6546749
	Actuation	Electromagnet, voltage 24V DC							
		1.0 A		1.0 A		1.0 A		1.5 A	
		Cable socket magnet DIN43650 – form A: max. 100VA, LED display + Z-diode, IP65							
Position monitoring	Art. No.	Inductive proximity switch							
	electric	NO contact, Output – PNP							
		Voltage 10 – 30 VDC							

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Single-stage pilot control

Nominal value		DN50		DN65		DN80		DN100	
Weight		43 kg		82 kg		146 kg		275 kg	
2/2-way valve	hydraulic	NC	NO	NC	NO	NC	NO	NC	NO
	Art. No.	6154867		6269168		6158501		6163742	
	a	180	180	244	244	295	295	342	342
	b	222	222	289	289	356	356	433	433
	c	242	242	238	238	311	311	307	307
	d	232	232	258	258	311	311	352	352
	e	196	196	240	240	294	294	370	370
	f	50	50	50	50	65	65	65	65
g	131	131	156	156	167	167	223	223	
Connection diagram	Art. No.	6561543		6570585		6565832		6570593	
Pilot valve	DN	6		6		10		10	
	hydraulic	P→A NO	A→T NO	P→A NO	A→T NO	P→A NO	A→T NO	P→A NO	A→T NO
	Art. No.	6546773	6546749	6546773	6546749	6235549	6235530	6235549	6235530
	Actuation	Electromagnet, voltage 24V DC							
		1.5 A		1.5 A		2.3 A		2.3 A	
		Cable socket magnet DIN43650 – form A: max. 100VA, LED display + Z-diode, IP65							
Position monitoring	Art. No.	Inductive proximity switch							
	electric	NO contact, Output – PNP							
		Voltage 10 – 30 VDC							

Single-stage pilot control

Nominal value		DN125		kg		kg		kg	
Weight		504 kg		kg		kg		kg	
2/2-way valve	hydraulic	NC	NO	NC	NO	NC	NO	NC	NO
	Art. No.	6169112							
	a	393	393						
	b	507	507						
	c	463	463						
	d	398	398						
	e	466	466						
	f	65	65						
g	241	241							
Connection diagram	Art. No.	6570690							
Pilot valve	DN	10							
	hydraulic	P→A NO	A→T NO	P→A NO	A→T NO	P→A NO	A→T NO	P→A NO	A→T NO
	Art. No.	6235549	6235530						
	Actuation	Electromagnet, voltage 24V DC							
		2.3 A							
		Cable socket magnet DIN43650 – form A: max. 100VA, LED display + Z-diode, IP65							
Position monitoring	Art. No.	Inductive proximity switch							
	electric	NO contact, Output – PNP							
		Voltage 10 – 30 VDC							

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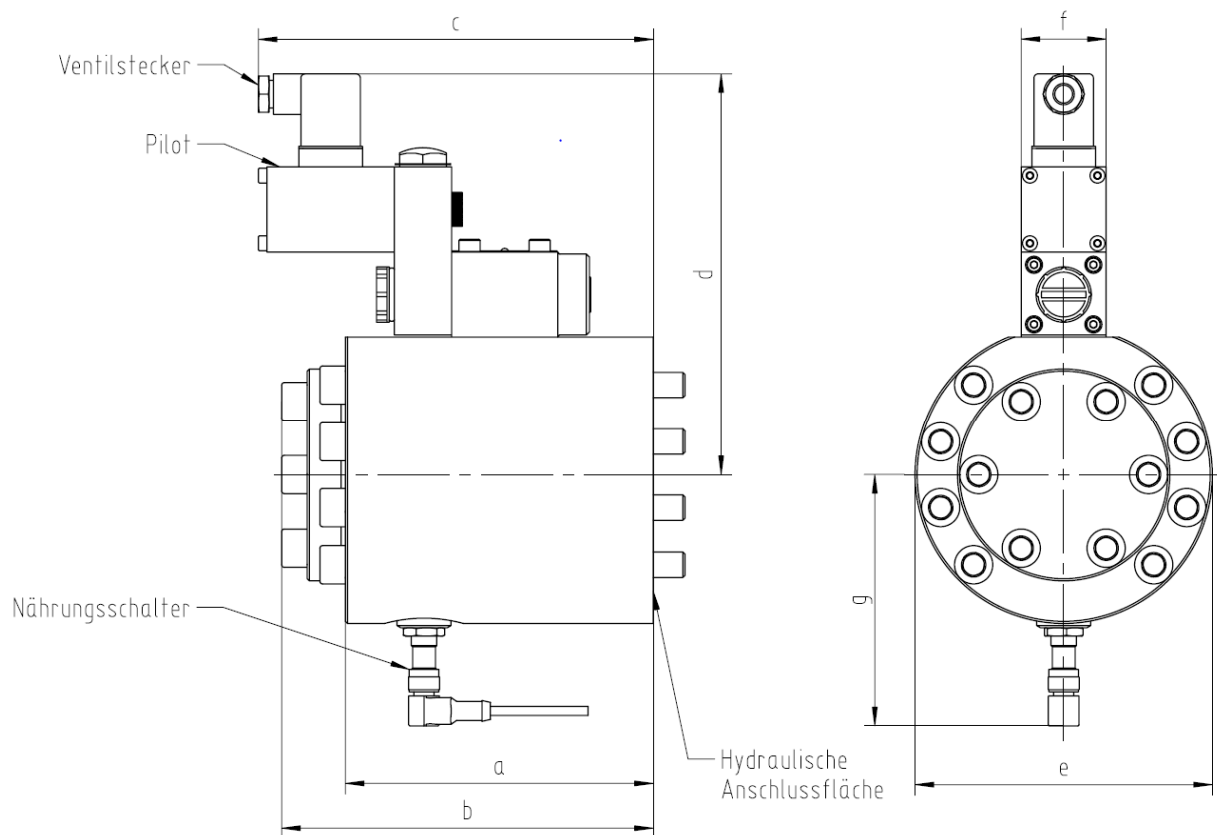
Included in the scope of supply

- Mounting screws for the 2/2-way valve assembly
- Mounting screws for the pilot valve
- Cable socket for the magnet

Ordering example 1: 2/2-way valve DN25-PN320-X,Y actuated-24VDC-NC
 Single-stage pilot control
 1 item, 2/2-way valve - assembly, Art. No. 6266746
 1 item, pilot valve, Art. No. 6546773

Dimension sheet

Single-stage pilot control, valve DN16 - DN32



Deutsch	Englisch
Ventilstecker	Valve connector
Pilot	Pilot
Näherungsschalter	Proximity switch
Hydraulische Anschlussfläche	Hydraulic terminal surface

2/2-way valve C1, DN16 – 125 | PN320 – X,Y Dimension sheet

Single-stage pilot control, valve DN40 – DN125

