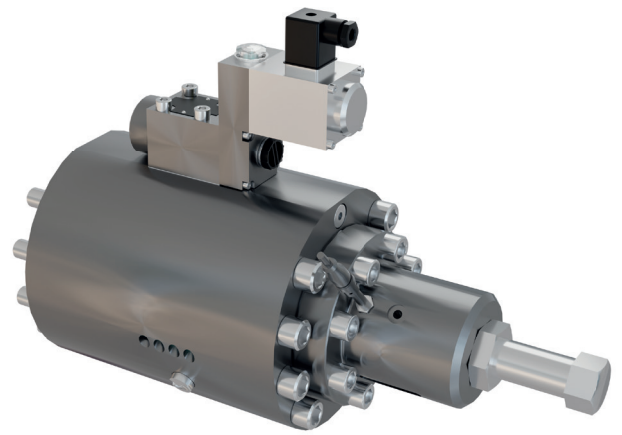


2/2-way valve C3 X, Y actuated

DN12 - DN125 PN 320

Features

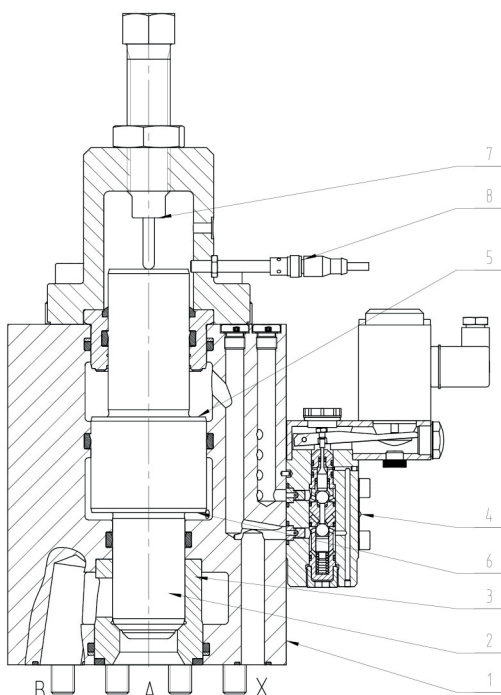
- Hydraulically actuated directional seat valve controlling liquid media.
- Actively controllable 2/2-way valve with a 3-stage control logic provides safe opening and closing
- The valve is actuated via a 3/2-way pilot valve
- Valve piston and seat are coupled and close hydraulically „leak-free“.
- Valve pistons are sealed via seals within the body, thus no inner leakages develop
- Valve fastening structural plate form with a Hauhinco connection diagram
- The valve cross-section can be set via the stroke limitation and be locked mechanically
- Optically and with an optional proximity switch, the valve position can be monitored
- Optionally, a locking device can be selected for the stroke limitation



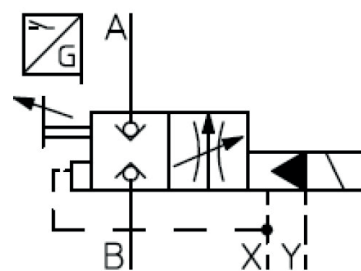
Function

The valve piston (2) guided within the valve body (1) is pressed into the valve seat (3) by the hydraulic power generated by the control pressure (X) on the closing area (5), provided the opening area (6) is depressurised by the pilot valve (4). Thus, the lines (A, B) are separated. By switching the pilot valve (4), also the opening area (6) of the valve piston (2) is pressurised and lifts off the valve seat (3), the valve piston (2) moves into the opened position up to the mechanical end position and to the stroke limitation (7). Thus, the lines (A, B) are connected. The valve can be opened and closed actively by means of control pressure (X, Y), independent of the pressure along the work lines (A, B). The area ratios „opening area/closing area“ and „closing area/cable area (A, B)“, ensure a safe opening and closing of the valve. Depending on the design of the pilot valve (4), the basic valve position normally closed (NC) or normally open (NO) is provided. The position of the valve piston (2) can be monitored by the proximity switch (8).

Example 2/2-way valve C3 - X,Y - actuated



Symbol



Control surfaces, hydraulic forces
 A channel: Area A1, open valve passively
 B channel: Area A2, open valve passively
 Control surface (6): A3, open valve actively
 Control surface (5): A4, close valve actively

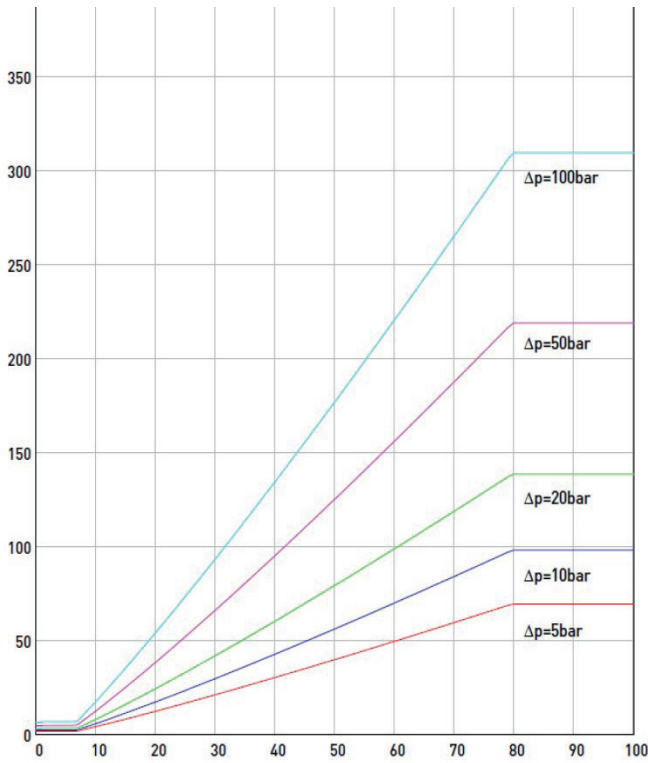
Technical data

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

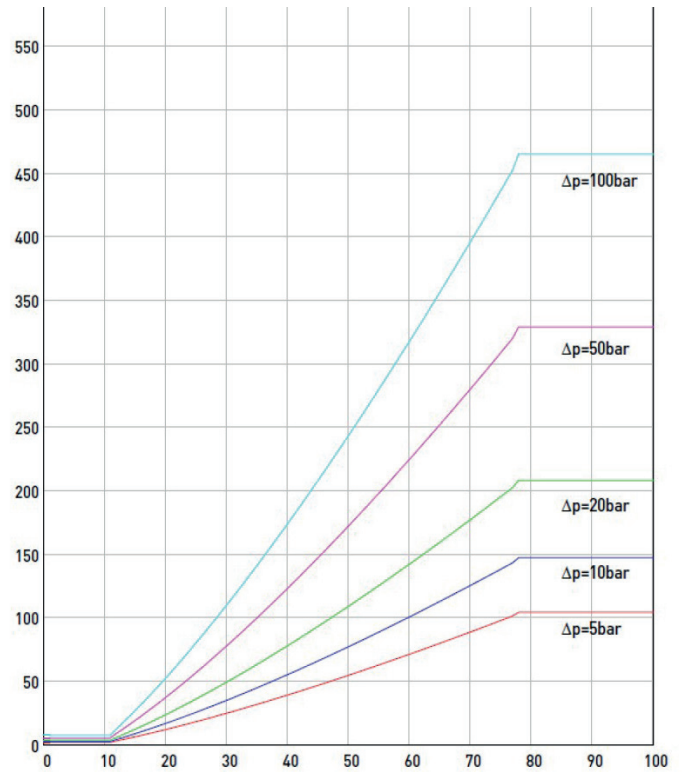
General	
Weight	see Order information
Installation position	any
Ambient temperature	-10 to 50°C (hydraulic fluids, heed standard requirements)
Material Valve parts	Stainless steel, bronze
Material Seals	NBR, PTFE, PUR
Hydraulic	
Hydraulic pressure connector A, B	$\geq 20 \text{ bar} \leq 320 \text{ bar}$
Hydraulic pressure connector X	$\geq 50 \text{ bar} \geq \text{hydraulic pressure at the connector A, B} \leq 320 \text{ bar}$
Hydraulic pressure connector Y	$\leq 10 \text{ bar}$
Direction of flow	any, preferred direction of flow B→A
Area sum	$A3 > A4, A4 > A1 + A2$
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 - Temperature range	5 to 50°C
- Medium - Quality	Cleanliness class -/19/16 nach ISO 4406
- Viscosity	0,6 bis 100 mm ² /s
Use of other pressure fluids on request.	
Electric	
Magnet	
- Voltage	24 VDC, other voltages on request
- Power consumption	see Order information
- Operating time	100% ED
- Degree of protection acc. to EN60529	IP65
- max. switching rate	1Hz
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

2/2-way valve C3 X, Y actuated, PN 320

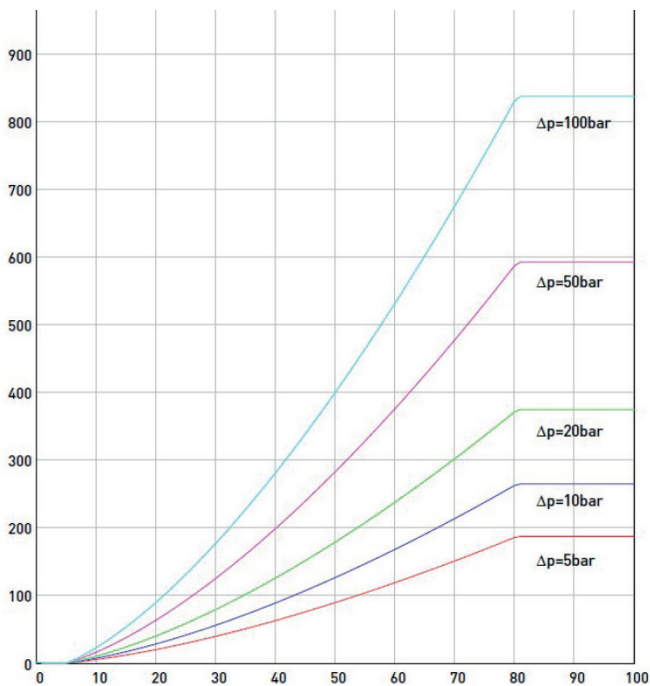
$\Delta p - q_v$ characteristic curves DN12



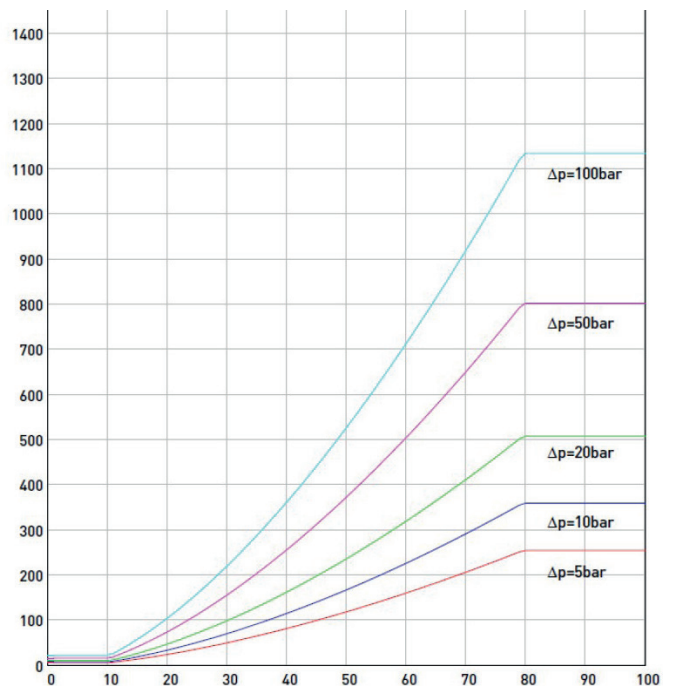
$\Delta p - q_v$ characteristic curves DN16



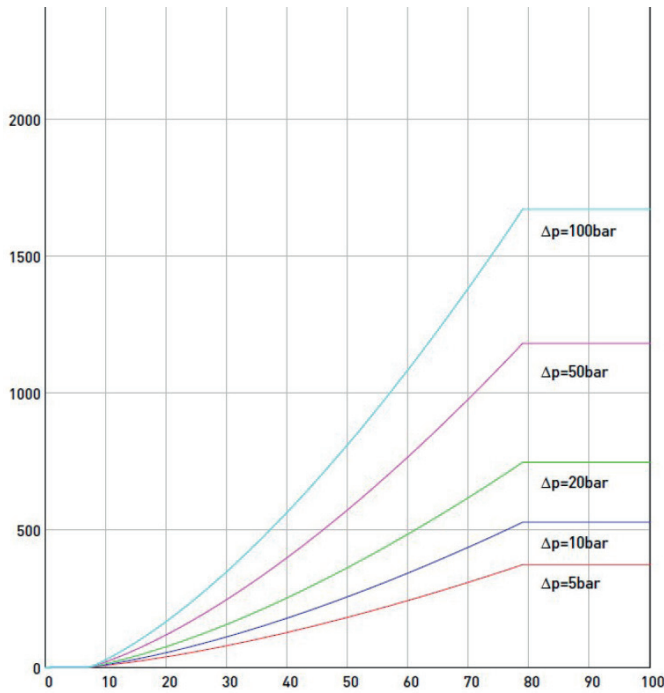
$\Delta p - q_v$ characteristic curves DN20



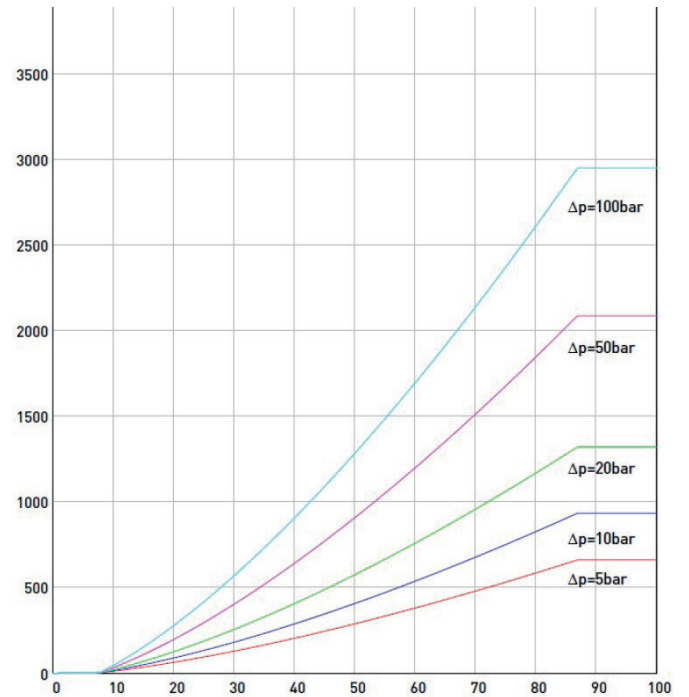
$\Delta p - q_v$ characteristic curves DN25



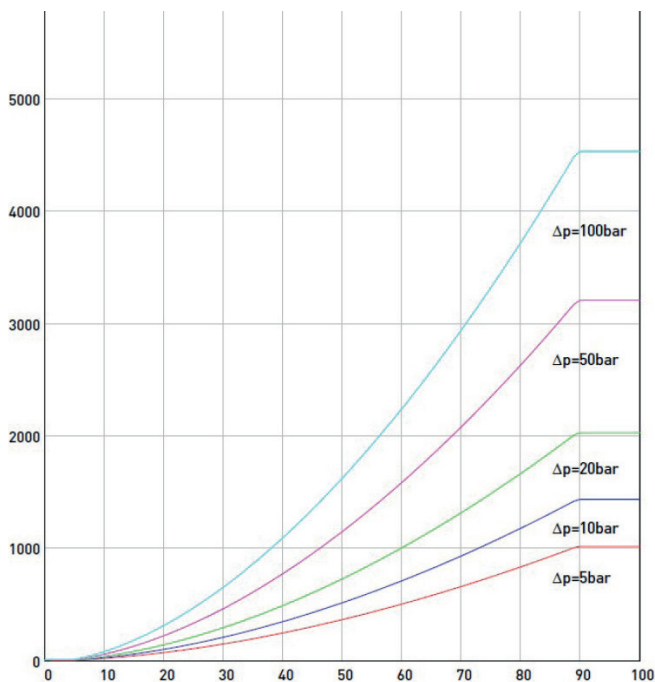
$\Delta p - q_v$ characteristic curves DN32



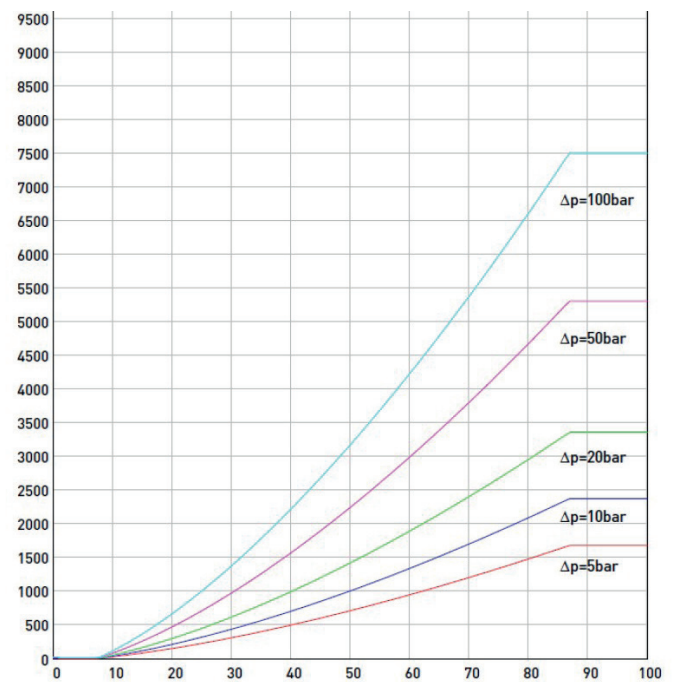
$\Delta p - q_v$ characteristic curves DN40



$\Delta p - q_v$ characteristic curves DN50

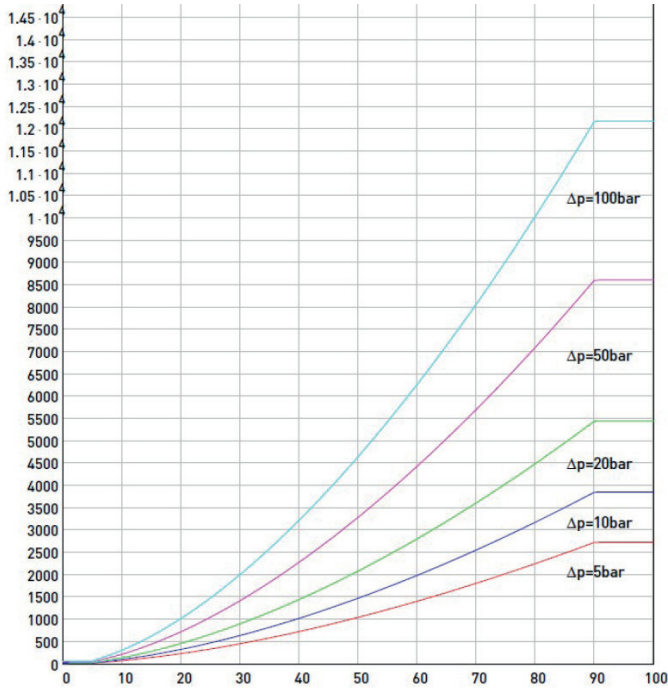


$\Delta p - q_v$ characteristic curves DN65

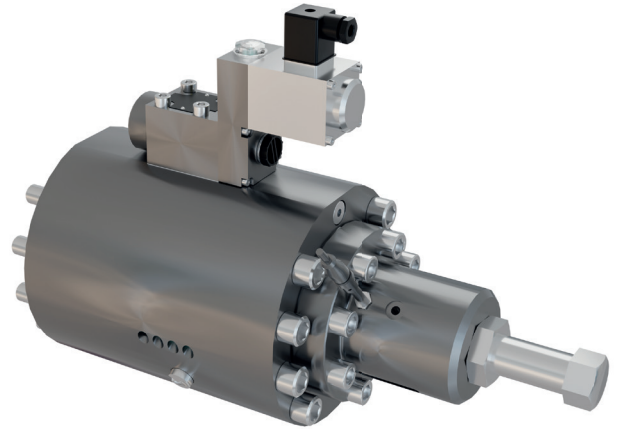


2/2-way valve C3 X, Y actuated, PN 320

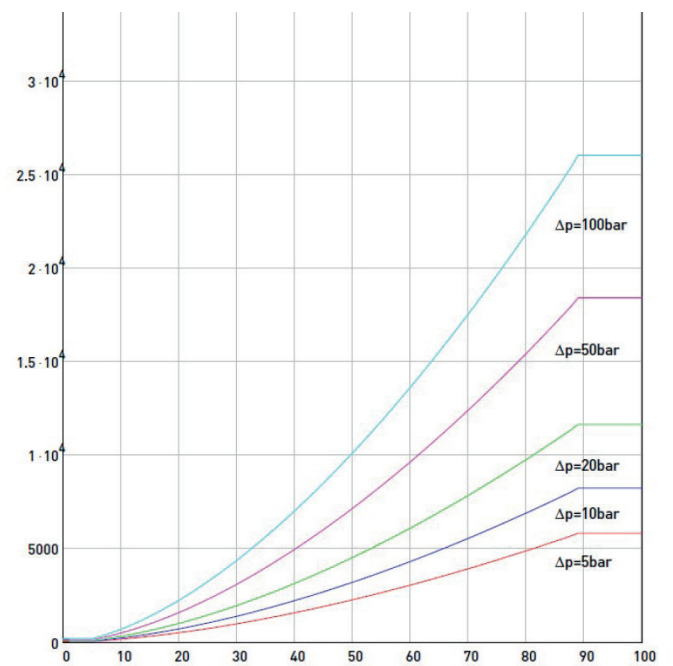
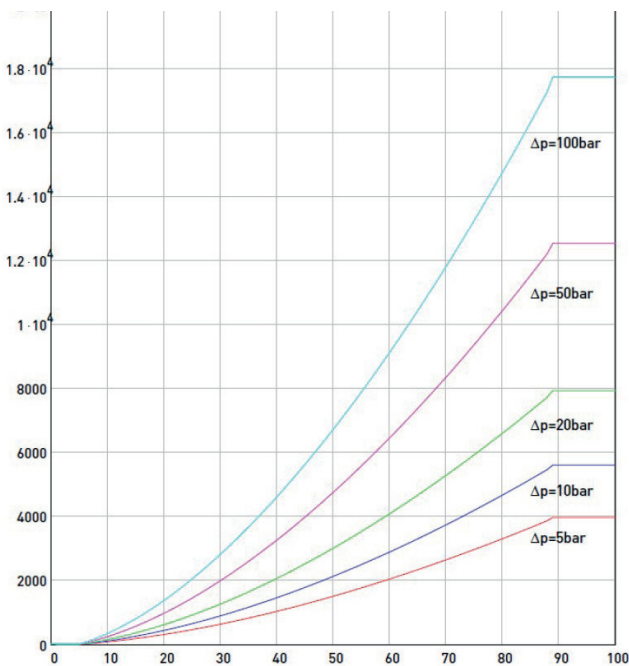
$\Delta p - q_v$ characteristic curves DN80



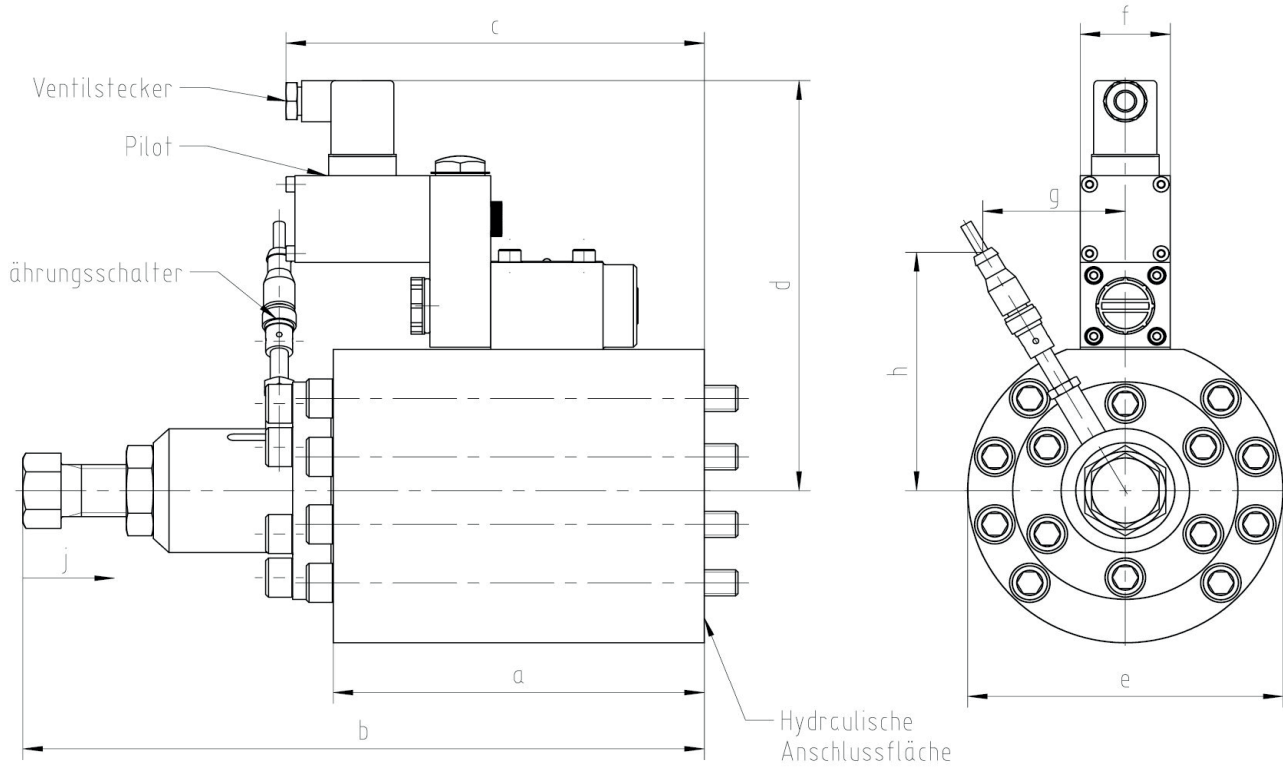
$\Delta p - q_v$ characteristic curves DN100



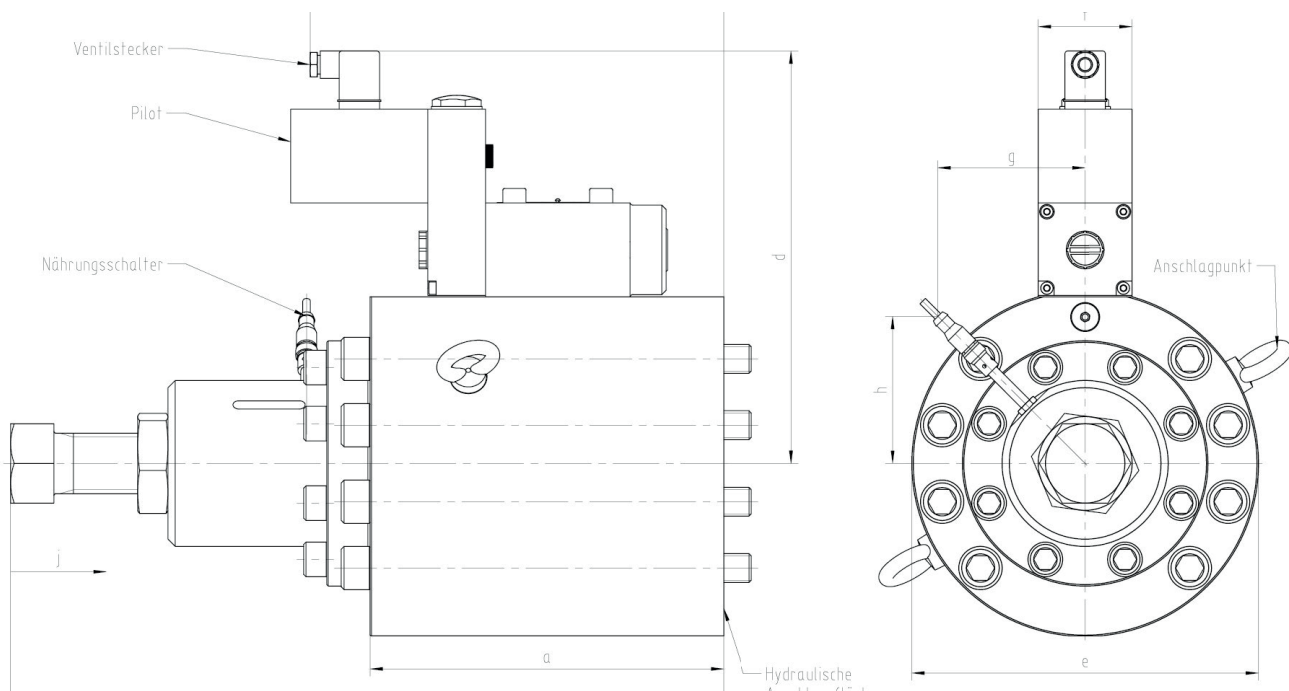
$\Delta p - q_v$ characteristic curves DN125



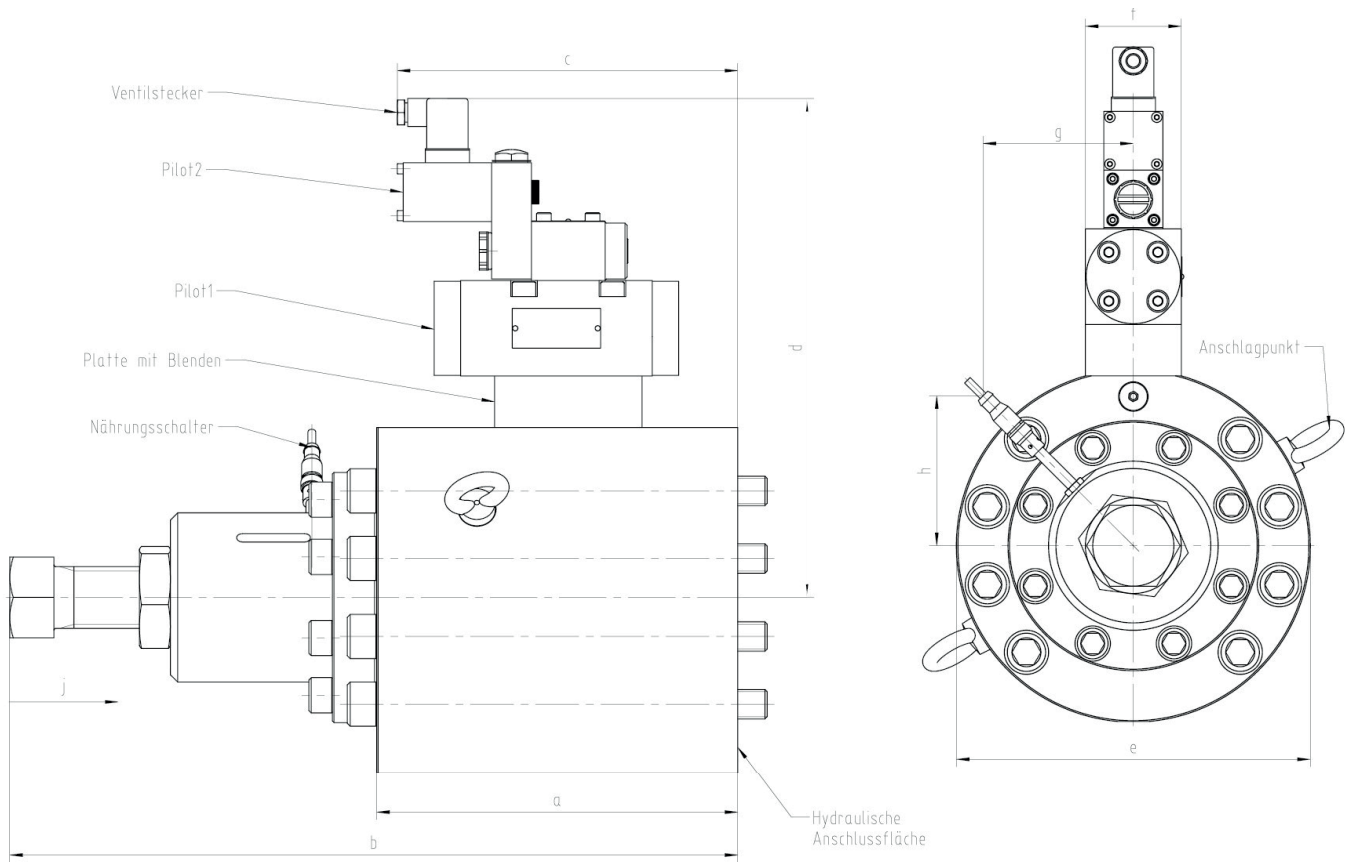
Single-stage pilot control, 2/2-way valve C3, X, Y actuated, PN 320, DN12 - DN32



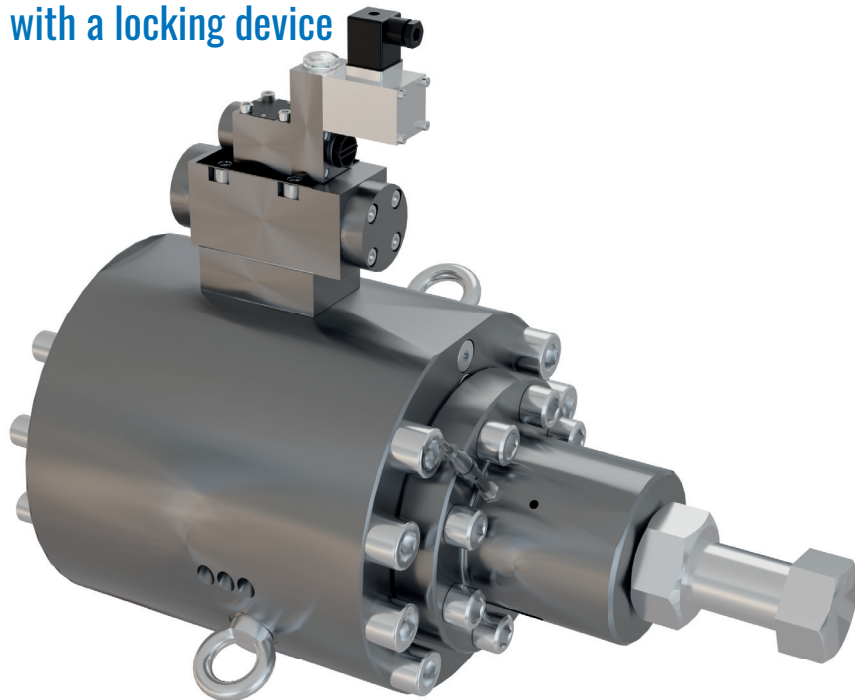
Single-stage pilot control, 2/2-way valve C3, X, Y actuated, PN 320, DN40 - DN80



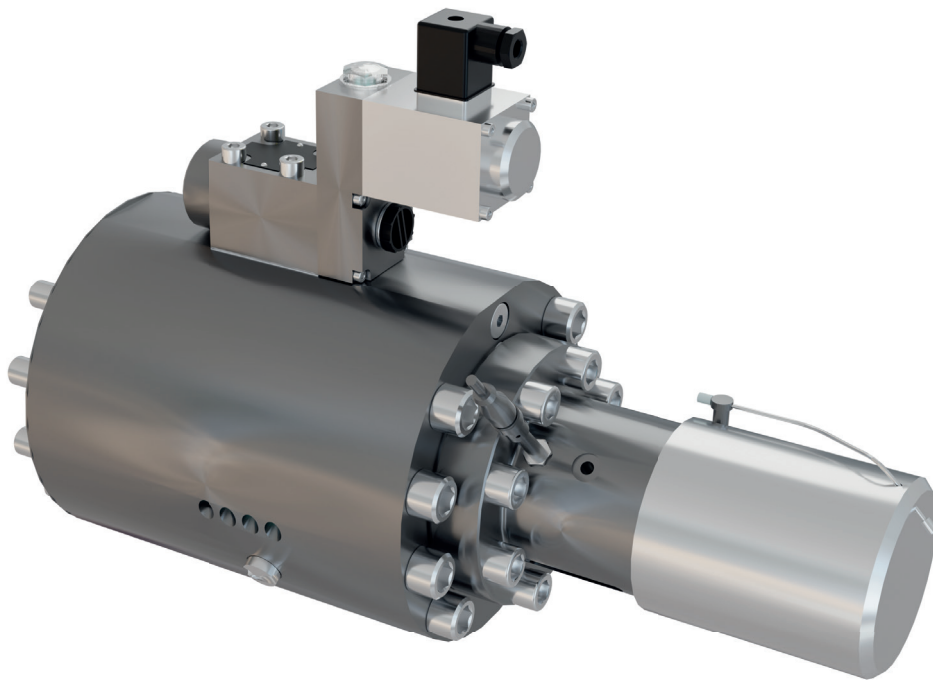
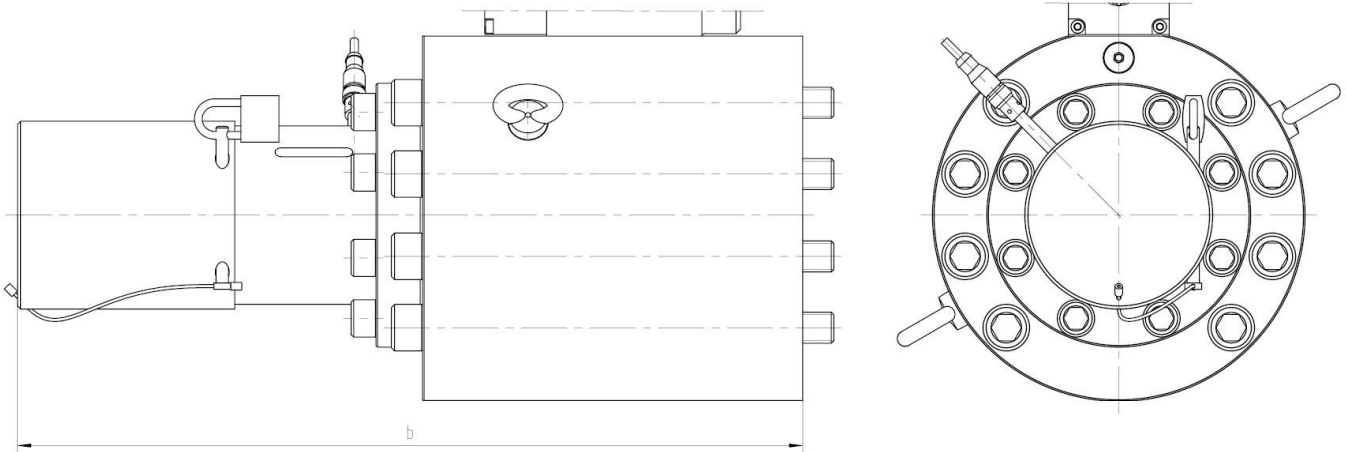
Two-stage pilot control, 2/2-way valve C3, X, Y actuated, PN 320, PN 320, DN65 - DN125



Valve DN16 – DN125 with a locking device



Notes



Order information 2/2-way valve C3, X, Y actuated

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

Single-stage pilot control

Nominal size	Weight [kg]	max. Pressure [bar]	Basic position	Dimensions [mm]									Article number valve C3
				a	b	c	d	e	f	g	h	j	
DN12	7,0	320	NC	110	196	186	158	85	40	59	102	9,5	6251773
DN12	7,0	320	NO	110	196	186	158	85	40	59	102	9,5	6251773
DN16	9,5	320	NC	120	212	176	167	100	40	60	103	15	6251781
DN16	9,5	320	NO	120	212	176	167	100	40	60	103	15	6251781
DN20	14,5	320	NC	140	247	185	179	120	40	61	106	17	6251935
DN20	14,5	320	NO	140	247	185	179	120	40	61	106	17	6251935
DN25	17,5	320	NC	147	270	186	184	130	40	63	108	19	6251838
DN25	17,5	320	NO	147	270	186	184	130	40	63	108	19	6251838
DN32	22,0	320	NC	165	303	186	189	140	40	64	110	22	6251943
DN32	22,0	320	NO	165	303	186	189	140	40	64	110	22	6251943
DN40	39,0	320	NC	182	344	214	222	176	50	93	93	24	6145159
DN40	39,0	320	NO	182	344	214	222	176	50	93	93	24	6145159
DN50	60,0	320	NC	235	446	240	235	196	50	97	97	31,5	6042341
DN50	60,0	320	NO	235	446	240	235	196	50	97	97	31,5	6042341
DN65	98,0	320	NC	245	494	287	286	240	65	102	102	37	6145019
DN65	98,0	320	NO	245	494	287	286	240	65	102	102	37	6145019
DN80	168,0	320	NC	295	585	308	310	294	65	109	109	40	6042260
DN80	168,0	320	NO	295	585	308	310	294	65	109	109	40	6042260

Order example

Item	Designation	Article number	Item	Designation	Article number
1	2/2-way valve DN50- PN320-X,Y actuated- 24VDC-NC single stage pilot control	6042341	1	Inductive proximity switch, NO contact, Output – PNP, Voltage 10 – 30 VDC	5127726
1	Pilot valve DN6	6235549			

Pilot valve

Position monitoring

	Nominal size	Basic position	Actuation	Current	Article number Pilot valve	Designation	Article number monitoring
	DN3	A→T NO		1,0 A	6545599		
	DN3	P→A NO		1,0 A	6545602		
	DN3	A→T NO		1,0 A	6545602		
	DN3	P→A NO		1,0 A	6545599		
	DN3	A→T NO		1,0 A	6545599		
	DN3	P→A NO		1,0 A	6545602		
	DN3	A→T NO		1,0 A	6545599		
	DN3	P→A NO	Electromagnet, voltage 24V DC, Cable socket magnet DIN43650 – form A: max. 100VA, LED display + Z-diode, IP65	1,0 A	6545602	Inductive proximity switch, NO contact, Output – PNP, Voltage 10 – 30 VDC	5127726
	DN3	A→T NO		1,0 A	6545599		
	DN3	P→A NO		1,0 A	6545602		
	DN6	A→T NO		1,5 A	6546749		
	DN6	P→A NO		1,5 A	6546773		
	DN6	A→T NO		1,5 A	6235549		
	DN6	P→A NO		1,5 A	6546773		
	DN10	A→T NO		2,5 A	6235530		
	DN10	P→A NO		2,5 A	6235549		
	DN10	A→T NO		2,5 A	6235530		
	DN10	P→A NO		2,5 A	6235549		

Order information 2/2-way valve C3, X, Y actuated

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

Two-stage pilot control

Nominal size	Weight [kg]	max. Pressure [bar]	Basic position	Dimensions [mm]										Article number valve C3
				a	b	c	d	e	f	g	h	j		
DN65	99,0	320	NC	245	494	231	321	240	65	102	102	37	6145019	
DN65	99,0	320	NO	245	494	231	321	240	65	102	102	37	6145019	
DN80	170,0	320	NC	295	585	252	364	297	65	109	109	40	6042260	
DN80	170,0	320	NO	295	585	252	364	297	65	109	109	40	6042260	
DN100	300,0	320	NC	342	705	277	408	370	90	82	142	55	6042430	
DN100	300,0	320	NO	342	705	277	408	370	90	82	142	55	6042430	
DN125	575,0	320	NC	393	793	312	478	466	90	90	155	60	6600013	
DN125	575,0	320	NC	393	793	312	478	466	90	90	155	60	6600013	

Position monitoring

Designation	Article number monitoring
Inductive proximity switch, Output – PNP, NO contact, Voltage 10 – 30 VDC	5127726

Pilot valve 1 Hydraulically actuated, X, Y internally

Pilot valve 2

Nominal size	Basic position	Article number Pilot valve	Article number plate	Article number cover	Nominal size	Basic position	Actuation	Article number valve
DN12	A→T NO	6266975	6569641	6569927	DN3	A→T NO		6545599
DN12	P→A NO	6266983	6569641	6569927	DN3	A→T NO	Electromagnet, voltage 24V DC, current 1.0A, Cable socket magnet DIN43650 – form A: max. 100VA, LED display + Z-diode, IP65	6545599
DN12	A→T NO	6266975	6569641	6569927	DN3	A→T NO		6545599
DN12	P→A NO	6266983	6569641	6569927	DN3	A→T NO		6545599
DN16	A→T NO	6161448	6569714	6532292	DN3	A→T NO		6545599
DN16	P→A NO	6161405	6569714	6532292	DN3	A→T NO		6545599
DN16	A→T NO	6161448	6569714	6532292	DN3	A→T NO		6545599
DN16	P→A NO	6161405	6569714	6532292	DN3	A→T NO		6545599

Item	Designation	Article number	Item	Designation	Article number
1	2/2-way valve DN50-PN320-X,Y actuated-24VDC-NC	6600013	2	Cover	6532292
1	Pilot valve 1, DN16	6161405	1	Pilot valve 2, DN3	6545599
1	Plate	6569714	1	Inductive proximity switch, Output – PNP, NO contact, Voltage 10 – 30 VDC	5127726

Order example

Order information 2/2-way valve C3, X, Y actuated

Included in the scope of supply

Mounting screws for the 2/2-way valve assembly

Mounting screws for the pilot valves 1 and 2

Cable socket for the magnet

Single-stage pilot control, valve with a locking device

Nominal size	Weight [kg]	max. Pressure [bar]	Basic position	Dimensions [mm]									Article number valve C3
				a	b	c	d	e	f	g	h	j	
DN16	10,0	320	NC	120	221	176	167	100	40	60	103	15	6269699
DN16	10,0	320	NO	120	221	176	167	100	40	60	103	15	6269699
DN25	18,0	320	NC	147	278	186	184	130	40	63	108	19	6600221
DN25	18,0	320	NO	147	278	186	184	130	40	63	108	19	6600221
DN32	23,0	320	NC	165	354	186	189	140	40	64	110	22	6269745
DN32	23,0	320	NO	165	354	186	189	140	40	64	110	22	6269745
DN40	40,0	320	NC	182	456	214	222	176	50	93	93	24	6274048
DN40	40,0	320	NO	182	456	214	222	176	50	93	93	24	6274048
DN50	58,0	320	NC	235	456	240	235	196	50	97	97	31,5	6078028
DN50	58,0	320	NO	235	456	240	235	196	50	97	97	31,5	6078028
DN65	103,0	320	NC	245	506	287	286	240	65	102	102	37	6165907
DN65	103,0	320	NO	245	506	287	286	240	65	102	102	37	6165907
DN80	171,0	320	NC	295	598	308	310	294	65	109	109	40	6164145
DN80	171,0	320	NO	295	598	308	310	294	65	109	109	40	6164145

Two-stage pilot control, valve with a locking device

Nominal size	Weight [kg]	max. Pressure [bar]	Basic position	Dimensions [mm]									Article number valve C3
				a	b	c	d	e	f	g	h	j	
DN65	104,0	320	NC	245	506	231	321	240	65	102	102	37	6165907
DN65	104,0	320	NO	245	506	231	321	240	65	102	102	37	6165907
DN80	172,0	320	NC	295	598	252	364	297	65	109	109	40	6164145
DN80	172,0	320	NO	295	598	252	364	297	65	109	109	40	6164145
DN100	315,0	320	NC	342	725	277	408	370	90	82	142	55	6164153
DN100	315,0	320	NO	342	725	277	408	370	90	82	142	55	6164153
DN125	578,0	320	NC	393	804	312	478	466	90	90	155	60	6600220
DN125	578,0	320	NC	393	804	312	478	466	90	90	155	60	6600220

Position monitoring

Designation	Article number monitoring
Inductive proximity switch, Output – PNP, NO contact, Voltage 10 – 30 VDC	5127726

Pilot valve

Nominal size	Basic position	Actuation	Current	Article number Pilotventil
DN3	A→T NO	Electromagnet, voltage 24V DC, current 1.0A, Cable socket magnet DIN43650 – form A: max. 100VA, LED display + Z-diode, IP65	1,0 A	6545599
DN3	A→T NO		1,0 A	6545602
DN3	P→A NO		1,0 A	6545599
DN3	A→T NO		1,0 A	6545602
DN3	A→T NO		1,0 A	6545599
DN3	P→A NO		1,0 A	6545602
DN6	A→T NO		1,5 A	6546749
DN6	P→A NO		1,5 A	6546773
DN6	A→T NO		1,5 A	6235549
DN6	A→T NO		1,5 A	6546773
DN10	P→A NO		2,5 A	6235530
DN10	P→A NO		2,5 A	6235549
DN10	A→T NO		2,5 A	6235530
DN10	P→A NO		2,5 A	6235549

Pilot valve 1 Hydraulically actuated, X, Y internally

Pilot valve 2

Nominal size	Basic position	Article number valve	Article number plate	Article number cover	Nominal size	Basic position	Actuation	Article number valve
DN12	A→T NO	6266975	6569641	6569927	DN3	A→T NO	Electromagnet, voltage 24V DC, current 1.0A, Cable socket magnet DIN43650 – form A: max. 100VA, LED display + Z-diode, IP65	6545599
DN12	P→A NC	6266983	6569641	6569927	DN3	A→T NO		6545599
DN12	A→T NO	6266975	6569641	6569927	DN3	A→T NO		6545599
DN12	P→A NC	6266983	6569641	6569927	DN3	A→T NO		6545599
DN16	A→T NO	6161448	6569714	6532292	DN3	A→T NO		6545599
DN16	P→A NC	6161405	6569714	6532292	DN3	A→T NO		6545599
DN16	A→T NO	6161448	6569714	6532292	DN3	A→T NO		6545599
DN16	P→A NC	6161405	6569714	6532292	DN3	A→T NO		6545599