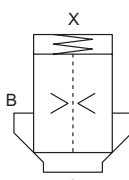
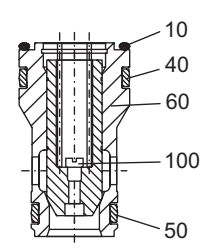
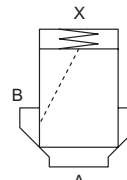
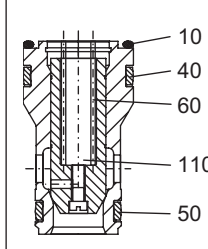


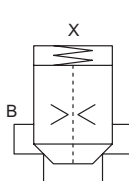
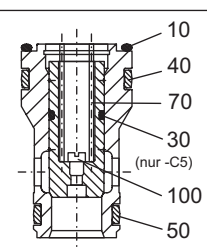
**2 position, 2 way cartridge valve**

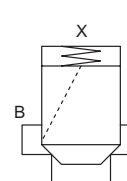
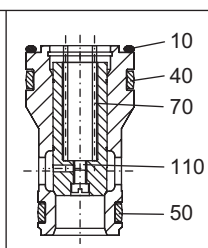
- $Q_{max} = 200$  l/min
- $p_{max} = 350$  bar

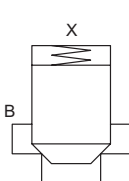
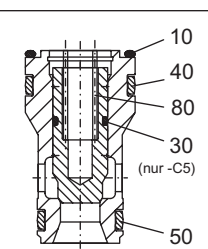
**NG 16**  
 ISO 7368

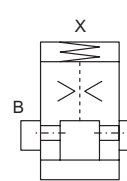
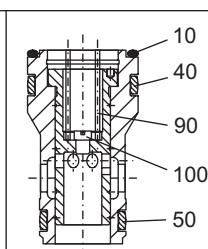

<b>Type:</b> CS16-10/.. <b>General application:</b> Pressure relief valve	<b>Symbol:</b>  Opening ratio: 1:1	 <p>Opening pressures          A → B          0.5; 2.0; 5.0 bar</p>
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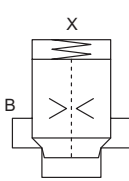
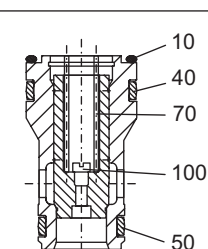
<b>Type:</b> CS16-10/..-C7 <b>General application:</b> Non return valve	<b>Symbol:</b>  Opening ratio: 1:1	 <p>Opening pressure:          A → B          0.5; 2.0; 5.0 bar</p>
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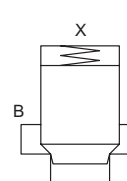
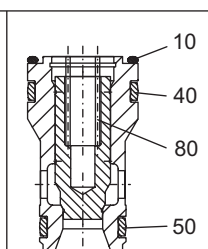
<b>Type:</b> CS16-12/.. <b>General application:</b> Spool valve  <b>Type:</b> CS16-12/..-C5 <b>General application:</b> Poppet valve	<b>Symbol:</b>  Opening ratio: 1:1,2	 <p>Opening pressure:          A → B          0.5; 2.0; 5.0 bar</p>
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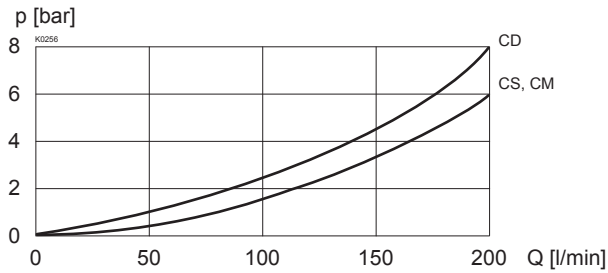
<b>Type:</b> CS16-12/..-C7 <b>General application:</b> Non return valve	<b>Symbol:</b>  Opening ratio: 1:1,2	 <p>Opening pressure:          A → B          0.5; 2.0; 5.0 bar</p>
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<b>Type:</b> CS16-20/.. <b>General application:</b> Spool valve  <b>Type:</b> CS16-20/..-C5 <b>General application:</b> Poppet valve	<b>Symbol:</b>  Opening ratio: 1:2	 <p>Opening pressure:          A → B          0.5; 2.0; 5.0 bar</p>
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<b>Type:</b> CM16-10/.. <b>General application:</b> Pressure reducing valve	<b>Symbol:</b>  Opening ratio: 1:1	 <p>Closing pressure:          B → A          3.0 bar</p>
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<b>Type:</b> CD16-12/.. <b>General application:</b> Flow valve	<b>Symbol:</b>  Opening ratio: 1:1,2	 <p>Opening pressure:          A → B          0.5; 2.0; 5.0 bar</p>
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<b>Type:</b> CD16-20/..- <b>General application:</b> Flow valve	<b>Symbol:</b>  Opening ratio: 1:2	 <p>Opening pressure:          A → B          0.5; 2.0; 5.0 bar</p>
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**CHARACTERISTICS** Oil viscosity  $\nu = 30 \text{ mm}^2/\text{s}$ 
 $\Delta p = f(Q)$  Pressure loss / flow characteristics

 Opening pressures  $B \rightarrow A = f$  (Area ratio opening pressure  $A \rightarrow B$ )

Area ratio	Opening pressure [bar]	
	A $\rightarrow$ B	B $\rightarrow$ A
1:1,2	0.5	2.5
1:1,2	2.0	10.0
1:1,2	5.0	25.0
1:2	0.5	0.5
1:2	2.0	2.0
1:2	5.0	5.0

**GENERAL SPECIFICATIONS**

Design	2 way cartridge valve
Installation	any
Installation dimension	to ISO 7368 / DIN 24342
	refer to data sheet: t 2.13-1021
Ambient temp.	-20...+50 °C
Weight spool	m = 0,050 kg
Weight total	m = 0,180 kg

**HYDRAULIC SPECIFICATIONS**

Fluid	Mineral oil, other fluid on request
Contamination	ISO 4406:1999, class 18/16/13
Efficiency	Required filtration grade ( $\beta_{6...10} \geq 75$ ) (refer to data sheet Nr. 1.0-50/2)
Viscosity range	12 mm <sup>2</sup> /s...320 mm <sup>2</sup> /s
Fluid temperature	-20...+70 °C
Working pressure	$p_{\text{max}} = 350 \text{ bar}$ (connections A, B, X)
Max. volume flow	$Q_{\text{max}} = 200 \text{ l/min}$
Pilot oil volume	$Q_{\text{st}} = 1.0 \text{ cm}^3$

**TYPE CODE**

Slip-in cartridge		C	<input type="checkbox"/>	16	-	<input type="checkbox"/>	/	<input type="checkbox"/>	/	<input type="checkbox"/>	-	<input type="checkbox"/>	#	<input type="checkbox"/>
Poppet spool		S												
Poppet spool with damping		D												
Spool		M												
Size 16														
Area ratio	1:1	10												
	1:1,2	12												
	1:2	20 *												
Opening pressure A $\rightarrow$ B	0 bar (no spring)	0												
	0.5 bar	05												
	2.0 bar	20												
	3.0 bar	30												
	5.0 bar	50												
Orifice in poppet spool	plugged	0												
	0.4 mm	0.4												
	0.6 mm	0.6												
	usw.													
Omit if ordered without orifice or plug														
* Omitted as no provision for orifice made														
Special features														
Check function X connected to B port		C7												
additional seal on poppet spool		C5												
Design-Index (subject to change)														

**PARTS LIST**

Position	Article	Description
10	160.2266	O-Ring ID 26,64x2,62
30	160.2120	O-Ring ID 12,42x1,78
40	049.0320	Cover-Seal PU 83 rd 32/27,5x5,1
50	049.0251	Cover-Seal PU 83 rd 25/20,5x5,2
60	53.2604	Spring 1,25x9,8x38,6
	53.4100	Spring 1,6x9,8x40,8
	53.5101	Spring 2x10x39,8
70	53.2603	Spring 1,1x9,7x37,5
	53.3602	Spring 1,5x9,8x39,2
	53.4601	Spring 1,8x9,8x39,3

Position	Article	Description
80	53.2104	Spring 1x10x28,6
	53.2602	Spring 1,1x9,7x33,7
	53.3601	Spring 1,5x9,8x32
90	53.5201	Spring 1,9x10,8x29
100	246.1003	Cyl. screw M4x4 VSM 213302
	117.1001	Orifice bing M4 / 0,4
	117.1003	Orifice bing M4 / 0,6
	117.1005	Orifice bing M4 / 0,8
	117.1007	Orifice bing M4 / 1,0
110	246.1003	Cyl. screw M4x4 VSM 213302