



**ELECTRICAL CONTROL**

Construction Solenoid, wet pin push type, pressure tight  
 Standard-nominal voltage  $U_N = 12$  VDC  
 $U_N = 24$  VDC  
 $U_N = 110$  VAC\*  
 $U_N = 115$  VAC\*  
 $U_N = 230$  VAC\*  
 AC = 50 bis 60 Hz  
 \* Rectifier integrated in the plug, other nominal voltages and nominal performances on request

Voltage tolerance  $\pm 10\%$  of nominal voltage  
 Protection class IP 65 to EN 60 529  
 Relative duty factor 100% DF (see data sheet 1.1-430)  
 Switching cycles 15'000/h  
 Operating life  $10^7$  (number of switching cycles, theoretically)  
 Connection/Power supply Over device plug connection to ISO 4400 / DIN 43 650, (2P+E), other connections on request.  
 Solenoid version: SIN35V (data sheet 1.1-105)

**MECHANICAL CONTROL**

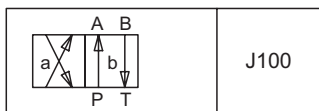
Angle  $\alpha_b = 5,7^\circ$  / side  
 Force  $F_b = 15-20$  N

**CONTROL PNEUMATIC** operated with control head

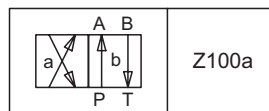
Min. pilot pressure  $p_{st}^{min} = 2,5$  bar with  $p_T = 20$  bar  
 $p_{st}^{min} = 5$  bar with  $p_T = 160$  bar  
 Control volume  $V_{st} = 2,5$  cm<sup>3</sup>

**TYPE LIST / DESIGNATION OF SYMBOLS**

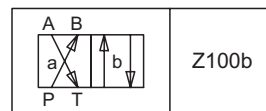
4/2-way valve with 2 solenoids



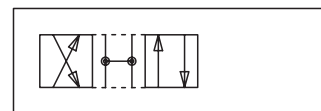
4/2-way valve with spring reset operation A-side



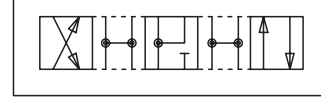
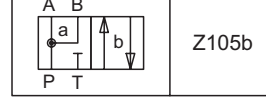
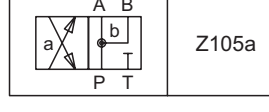
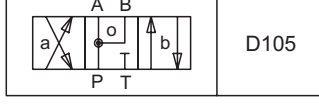
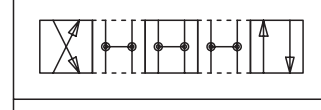
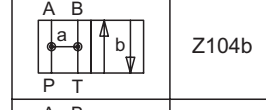
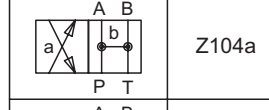
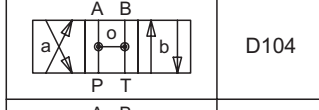
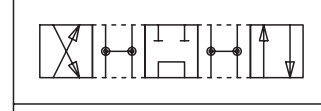
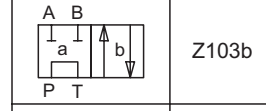
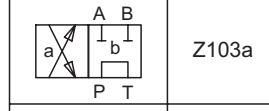
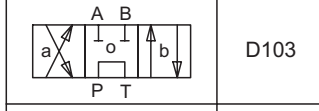
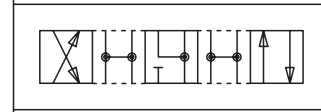
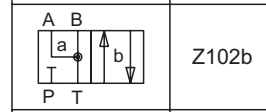
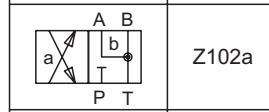
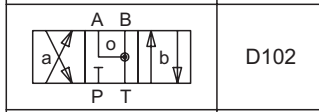
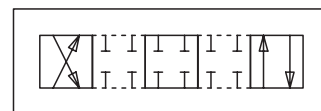
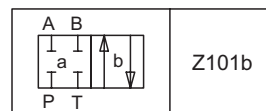
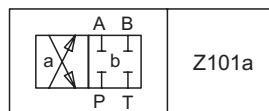
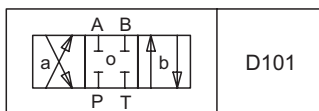
operation B-side



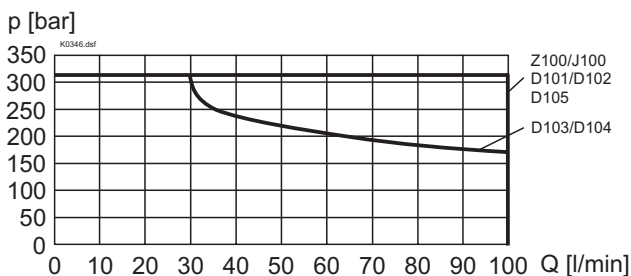
Transitional functions



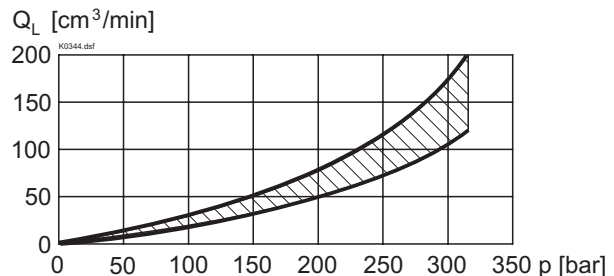
4/3-way valve spring centered

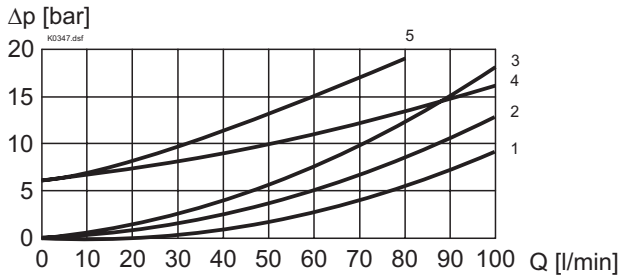

**CHARACTERISTICS** Oil viscosity  $\nu = 30$  mm<sup>2</sup>/s

$p = f(Q)$  Performance limits with standard voltage -10%  
 (Solenoid operated)



$Q_L = f(p)$  Leakage volume flow characteristics per control edge

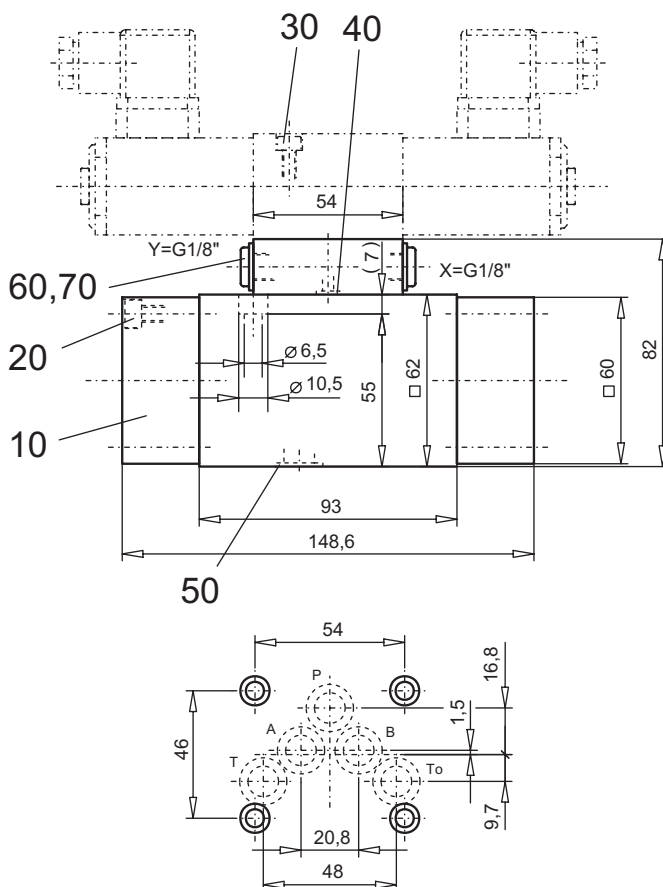


$\Delta p = f(Q)$  Pressure drop volume flow characteristics

**Pilot supply  $t_i$  and  $p_i$** 

Symbol	Pressure drop curve no.	Volume flow direction				
		P - A	P - B	P - T	A - T	B - T
Z100/J100		1	1	-	1	2
D101/Z101		1	1	-	1	2
D102/Z102		1	1	-	1	2
D103/Z103		4	4	5	1	2
D104/Z104		4	4	-	1	2
D105/Z105		1	1	-	1	2

**Pilot supply  $t_e$  and  $p_e$** 

Symbol	Pressure drop curve no.	Volume flow direction				
		P - A	P - B	P - T	A - T	B - T
Z100/J100		1	1	-	1	2
D101/Z101		1	1	-	1	2
D102/Z102		1	1	-	1	2
D103/Z103		1	1	3	1	2
D104/Z104		1	1	-	1	2
D105/Z105		1	1	-	1	2

**DIMENSIONS**

**PARTS LIST**

Position	Article	Description
10	059.2206	Cover
20	246.3131	Socket head cap screw M6x30 DIN 912
30	246.2140	Socket head cap screw M5x40 DIN 912 for pilot supply $t_i$
	249.2000	Socket head cap screw M5x60 for pilot supply $t_e$ , $p_i$ and $p_e$
40	160.2052	O-ring ID 5,28x1,78
50	160.2140	O-ring ID 14,00x1,78
60	238.1202	Plug screw DIN 908 G1/8"
70	049.2102	Bonded seal ID 10,7x17x1,5

**ACCESSORIES**

 Threaded connecting plates, Multi-flange subplates and Longitudinal stacking system see Reg. 2.9

Technical explanation see data sheet 1.0-100E

**Mounting instruction**

 To screw the main valve body ( $M_D = 9,5$  Nm, quality 8.8) to the base plate the pilot valve ( $M_D = 5,5$  Nm, quality 8.8) must be taken off.