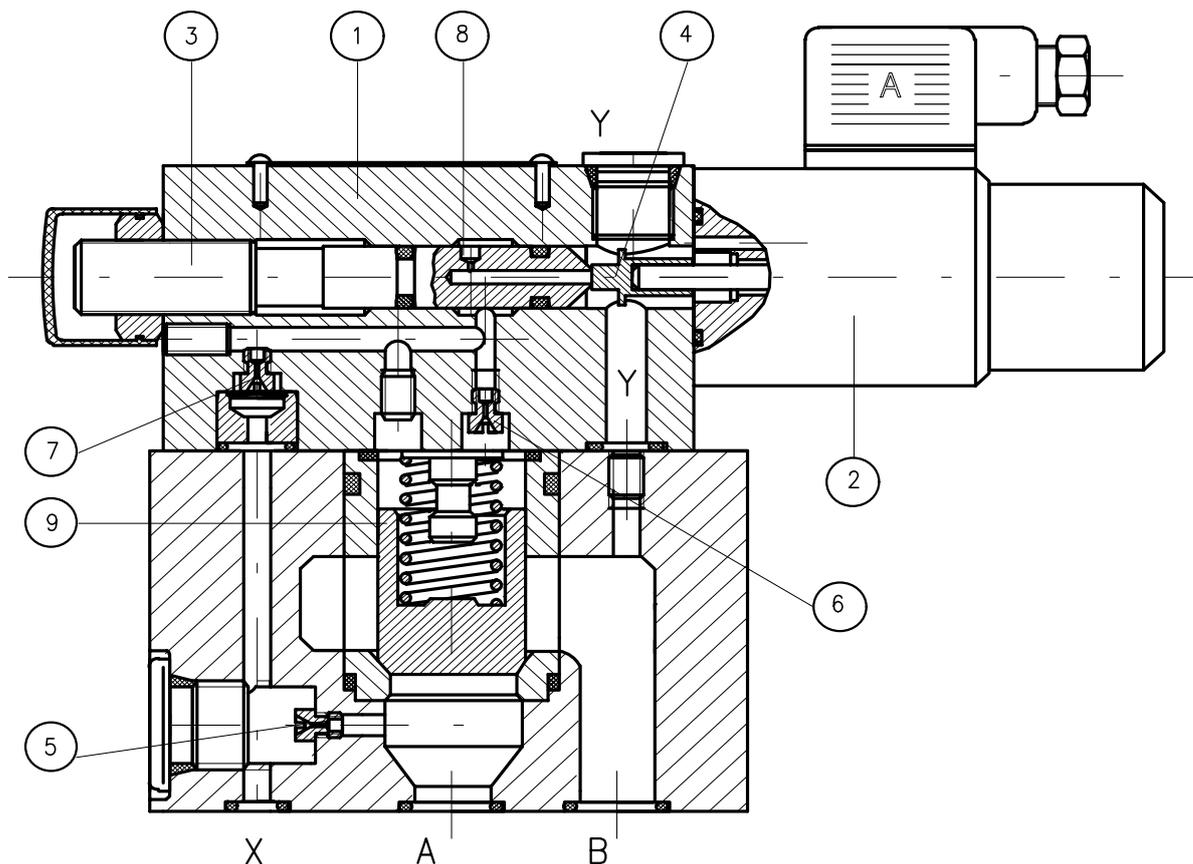


APPLICATION

Pressure relief valves with proportional solenoid type WZPPE serve to control pressure in hydraulic system. The pressure setting in hydraulic system is related to the solenoid current. Electronic regulator type 20 RE 10 or another electronic device is used to supply the valve WZPPE.



DESCRIPTION OF OPERATION



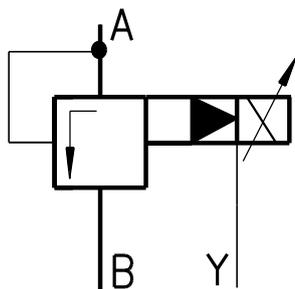
Pressure relief valves with proportional solenoid type WZPPE serve to control pressure in hydraulic system. The pressure setting in hydraulic system is related to the solenoid current. Electronic regulator type 20 RE 10 or another electronic device is used to supply the valve WZPPE. The pressure relief valves WZPPE consist basically of the pilot unit housing 1 type WZEP, proportional solenoid 2 and adjusting jet 3, and blind 4 connected with proportional solenoid care. Pressure at

port A acts through the system of jets 5, 6, 7, 8 on the bottom and top sides of the valve poppet 9 and blind 4 connected with the proportional solenoid care. Push force of the blind 4 to the jet 3 is proportional to the strength of current flowing through the solenoid 2. If pressure applied at the blind 4 is higher than the setting, the blind is with drawn and pressure at the top of the poppet drops. Thus the poppet 9 lifts and line A to B opens.

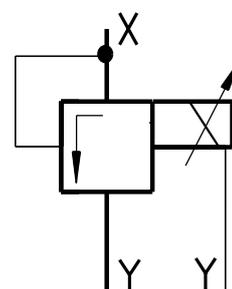
TECHNICAL DATA

Working medium	Mineral oil
Operating pressure P, A, B	up to 31,5
Port Y	direct drain to tank
Max flow	200 dm ³ /min (for size 10)
	400 dm ³ /min (for size 20)
	600 dm ³ /min (for size 30)
Required filtration	16 µm
Recommended filtration	10 µm
Nominal viscosity	37 mm ² temp. 328 K
Viscosity range	2,8 to 380 mm ² /s
Working temperature (in tank)	313 to 328 K
Fluid temperature range	253 to 343K
Hysteresi	2,5% max pressure
Repetition accuracy	2 %
Working position	optional
Control current	0 to 0,8 A
Resistance of cold solenoid coil (293 K)	19,5Ω
Resistance of max hot solenoid coil	28,8Ω
Electronic regulator	20 RE 10-data card WK 495 771

GRAPHICAL SYMBOL



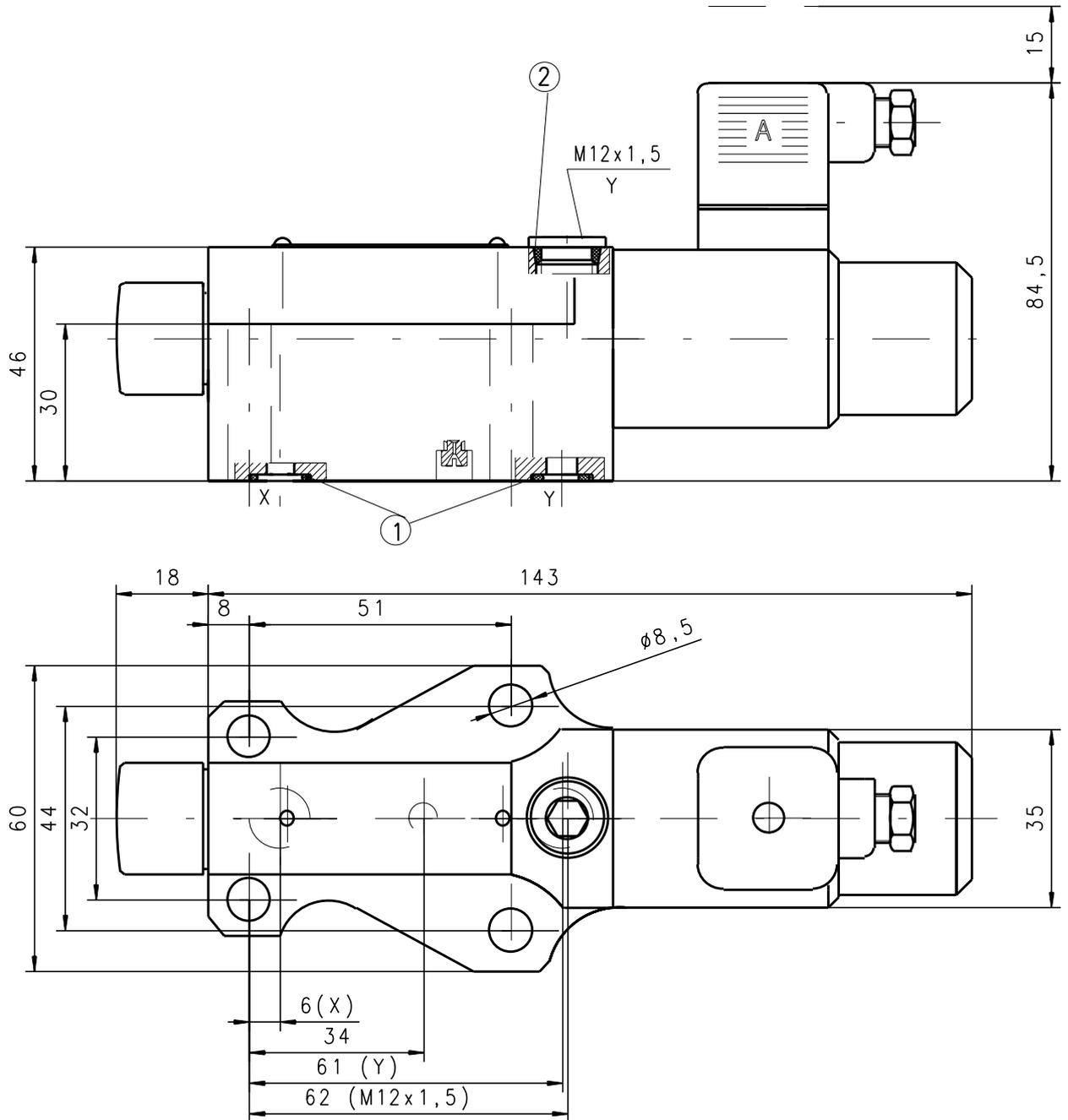
Scheme WZPPE i WZPSE



Scheme WZEP

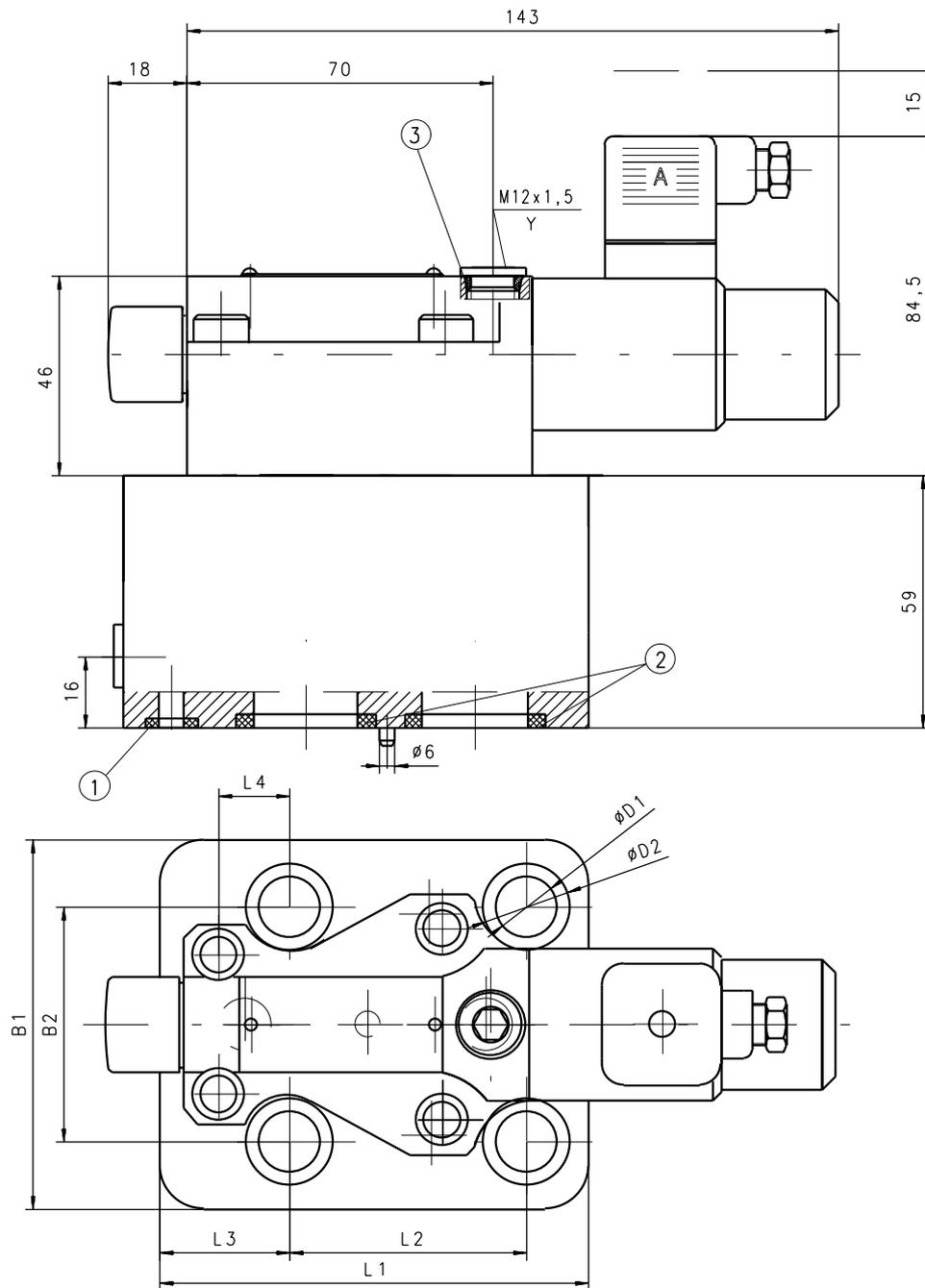
OVERALL AND CONNECTION DIMENSIONS

Pilot for valves with proportional solenoid type WZEP.

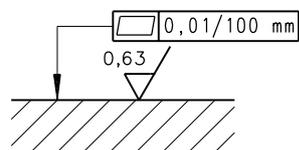


1- "O-ring" 9,2 x 1,8 for X i Y
 2- "O-ring" 9,3 x 2,4 for Y
 Weight - 1,2 kg

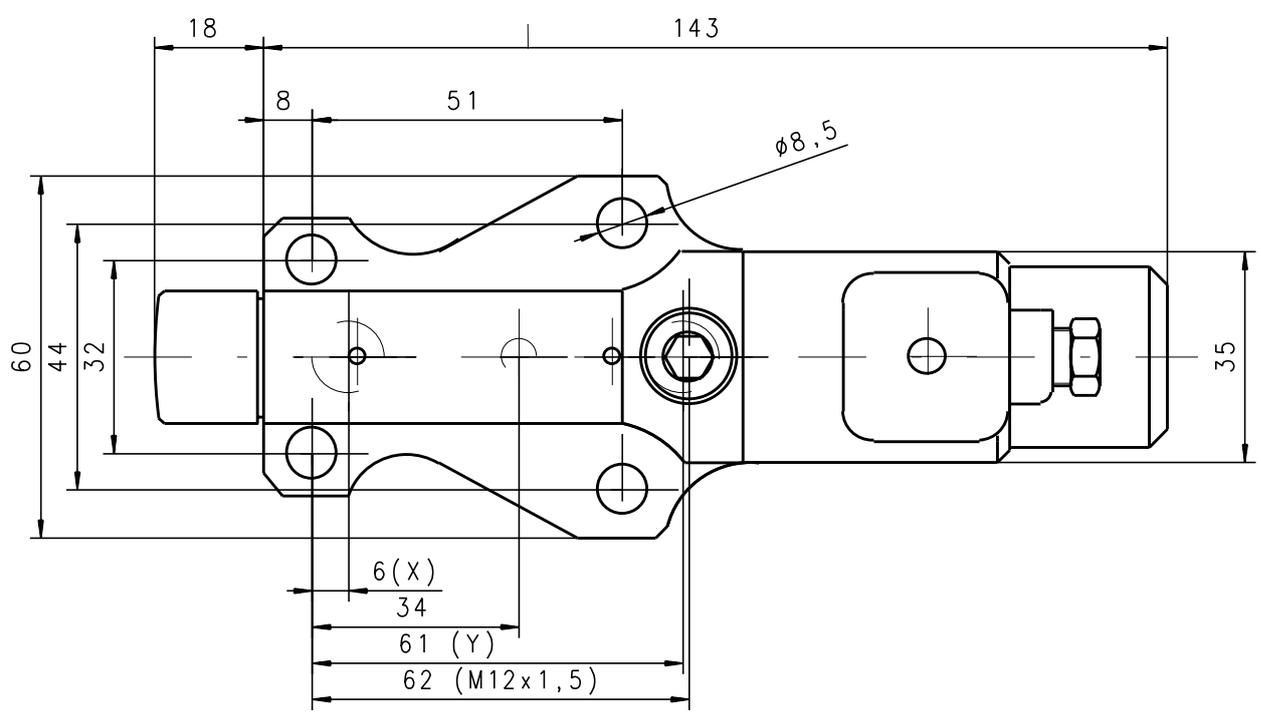
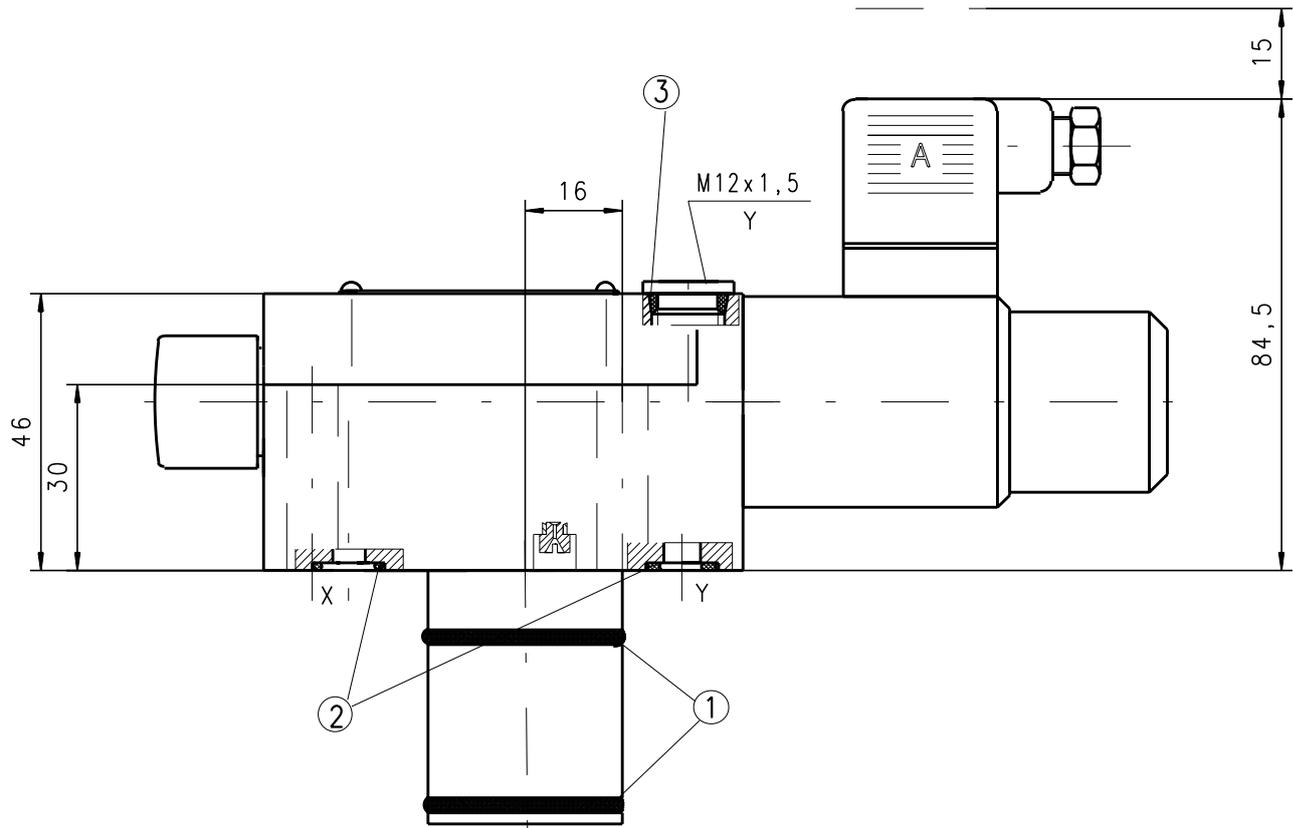
Pressure relief valve type WZPPE



Nominal size	"O-ring"			B1	B2	D1	D2	L1	L2	L3	L4	Weight
	1	2	3									
WZPPE 10	8,3 x 2,4	17,1 x 2,6	9,3 x 2,4	78	54	20	14	90	54	23,5	14	3,9 kg
WZPPE 20	8,3 x 2,4	28,2 x 3,5	9,3 x 2,4	100	70	26	18	117	67	34	11,3	5,1 kg
WZPPE 30	8,3 x 2,4	34,5 x 3,5	9,3 x 2,4	115	82,5	29	20	148	89	41,5	8,6	8,1 kg



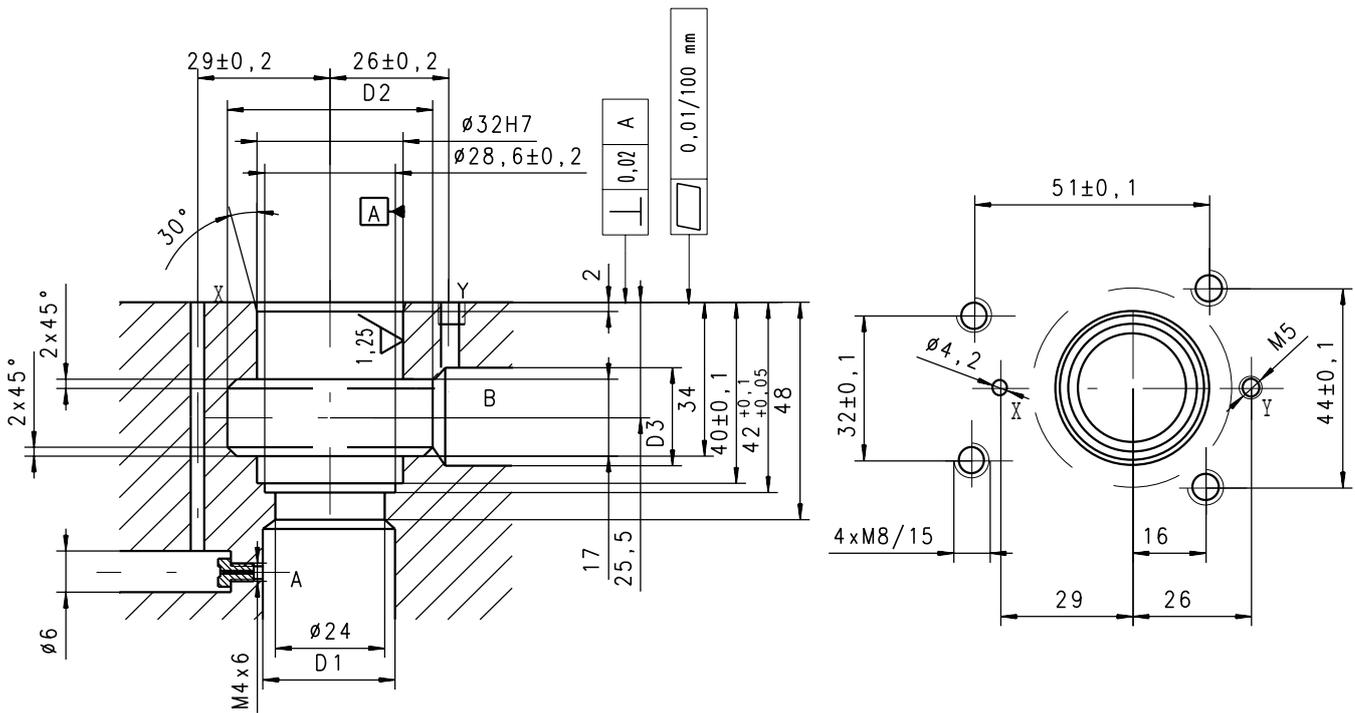
Admissible surface roughness and flatness deviation for a subplate face.



- 1 - "O-ring" 27,3 x 2,4 - 2 pcs
- 2 - "O-ring" 9,2 x 1,8 - 2 pcs
- 3 - "O-ring" 9,3 x 2,4 - 1 pcs

Weight - 1,3 kg

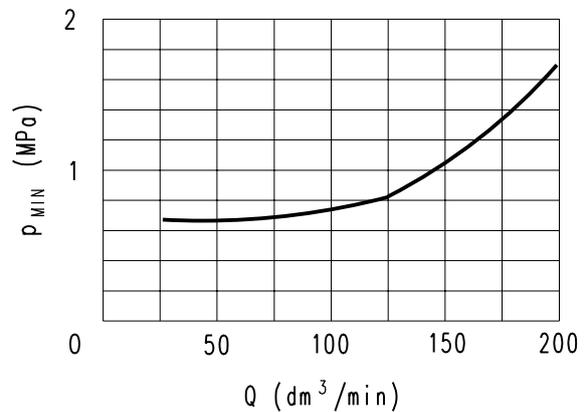
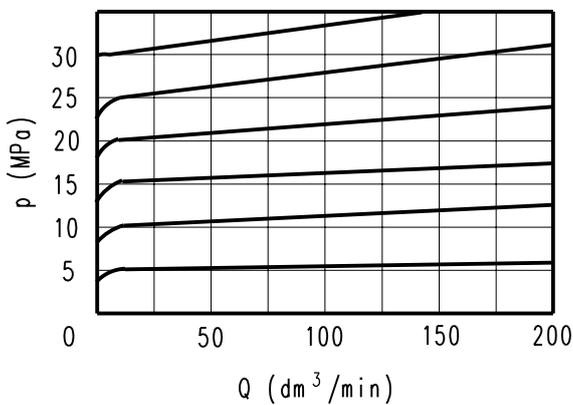
Valve cavity for cartridge mounting.

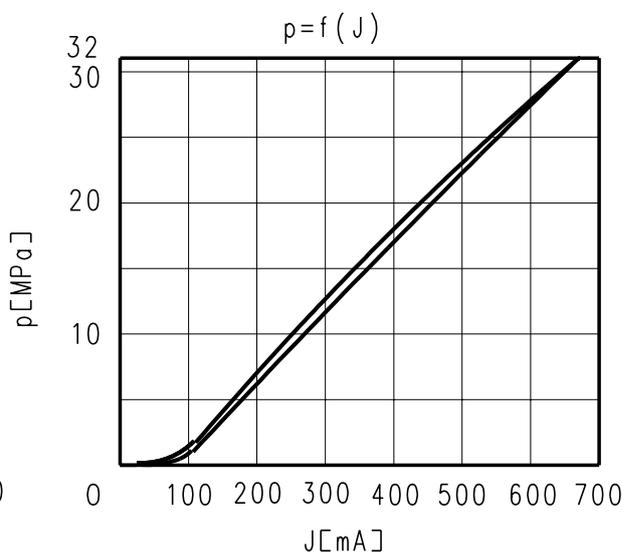
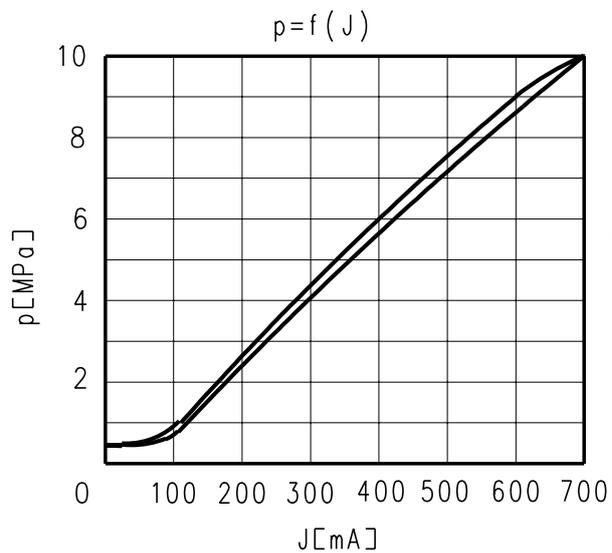
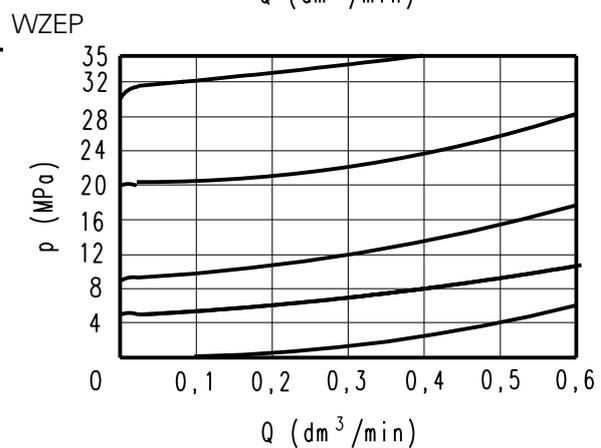
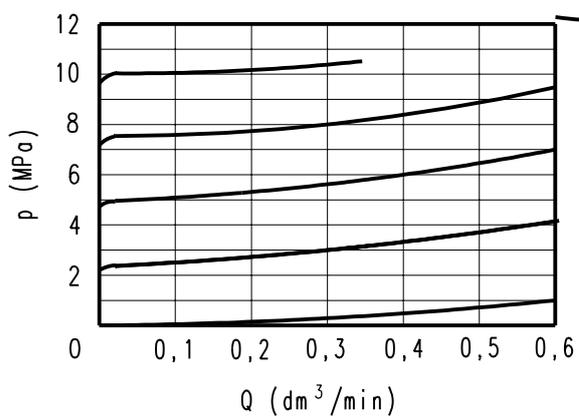
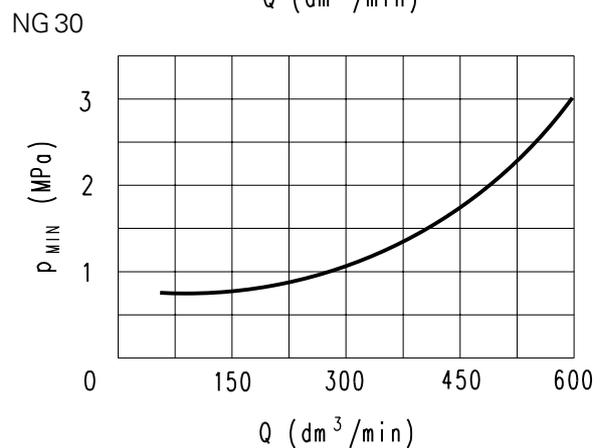
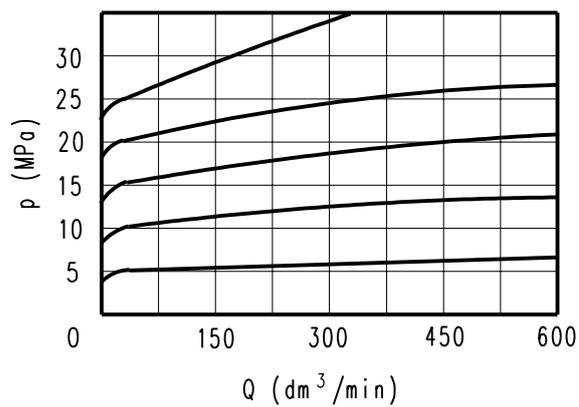
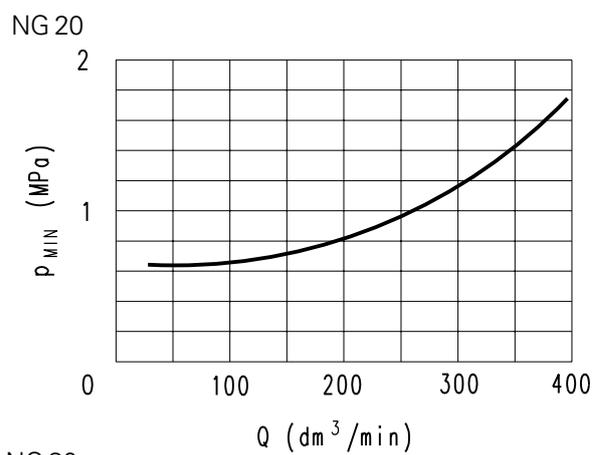
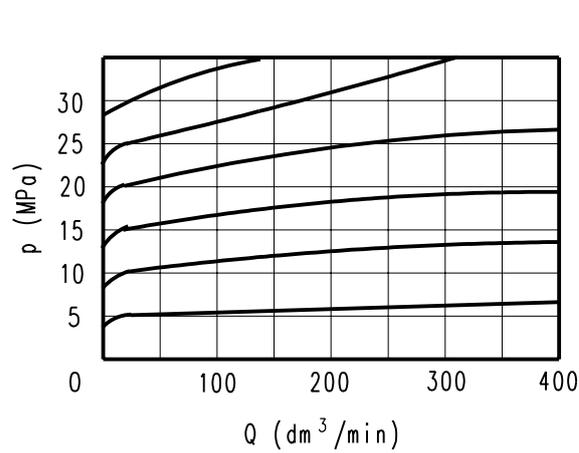


	D1	D2	D3	Weight (kg)	Bolts mounting the valve to subplate	Torque [Nm]
NG 10	10	40	10	1,6	4x M8 x 40-10.9 PN-87/M-82302 DIN 912	20
NG 20	20	45	20	1,6		
NG 30	30	45	30	1,6		

PERFORMANCE CURVES, measured at $v = 41 \text{ mm}^2/\text{s}$ and $T = 323 \text{ K}$

NG 10





HOW TO ORDER

Orders coded in the way showed below should be forwarded to the manufacturer.

										*
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Valve type	
For subplate mounting	= WZPPE
Cartridge type (Size 10 and 30 only)	= WZPSE
Pilot	= WZEP

Nominal size	
Size 10	= 10
Size 20	= 20
Size 30	= 30

Series number	
11	= 11
(11 - 19) - installation and connection dimensions remain unchanged	

Set pressure range	
up to 5 MPa	= 50
up to 10 MPa	= 100
up to 32 MPa	= 320

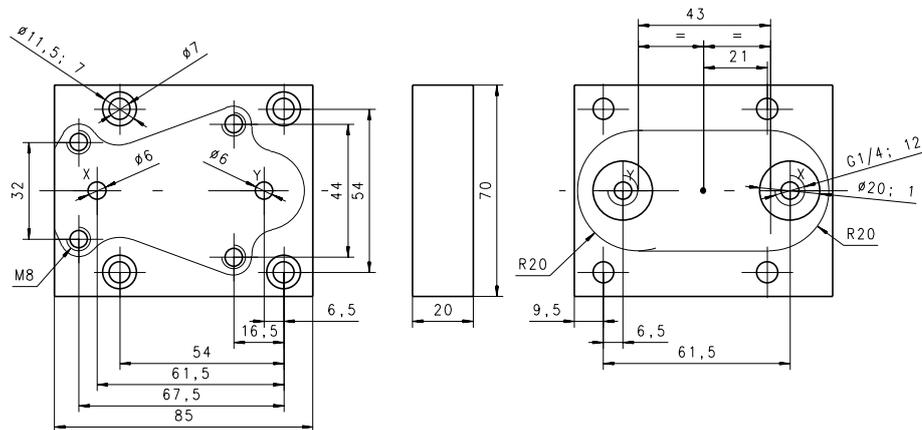
Piloting	
Internal pilot supply, external pilot drain Y (not available for WZEP)	=Y

Sealing	
Fluids on mineral oil base	= with no code
Fluids on phosphate-ester base	= V

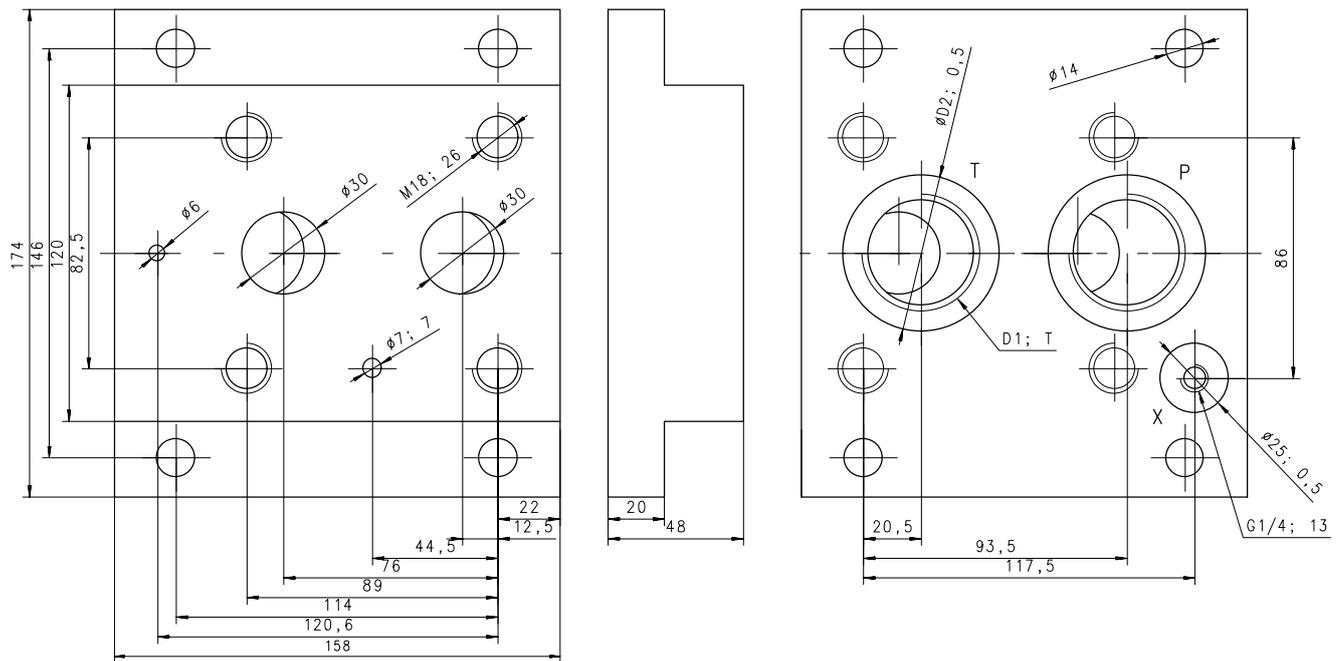
Further requirements in clear text (to be adreed upon with the manufacturer)
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Coding example : WZPPE 10/11-320 Y

CONNECTION DIMENSIONS FOR SUBPLATE



NG 30



Valve	Subplate	D1	D2	T	Bolts mounting the valve to subplate	Torque [Nm]	Weight (kg)
NG 10	G406/01	G3/8	28	12	M12 x 50-10.9 (4 szt) PN-87/M-82302 DIN 912	120	1,9
	G407/01	G1/2	34	15			
NG 20	G408/01	G3/4	42	16	M16 x 50-10.9 (4 szt) PN-87/M-82302 DIN 912	310	4,5
	G409/01	G1	47	18			
NG 30	G410/01	G1 1/4	56	20	M18 x 50-10.9 (4 szt) PN-87/M-82302 DIN 912	430	7,5
	G411/01	G1 1/2	61	22			

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