

APPLICATION

Pressure relief valves type **WZPSE6...** electrically and proportionally operated are used to adjust pressure in hydraulic system. The pressure setting in hydraulic system is related to the solenoid current.



DESCRIPTION OF OPERATION

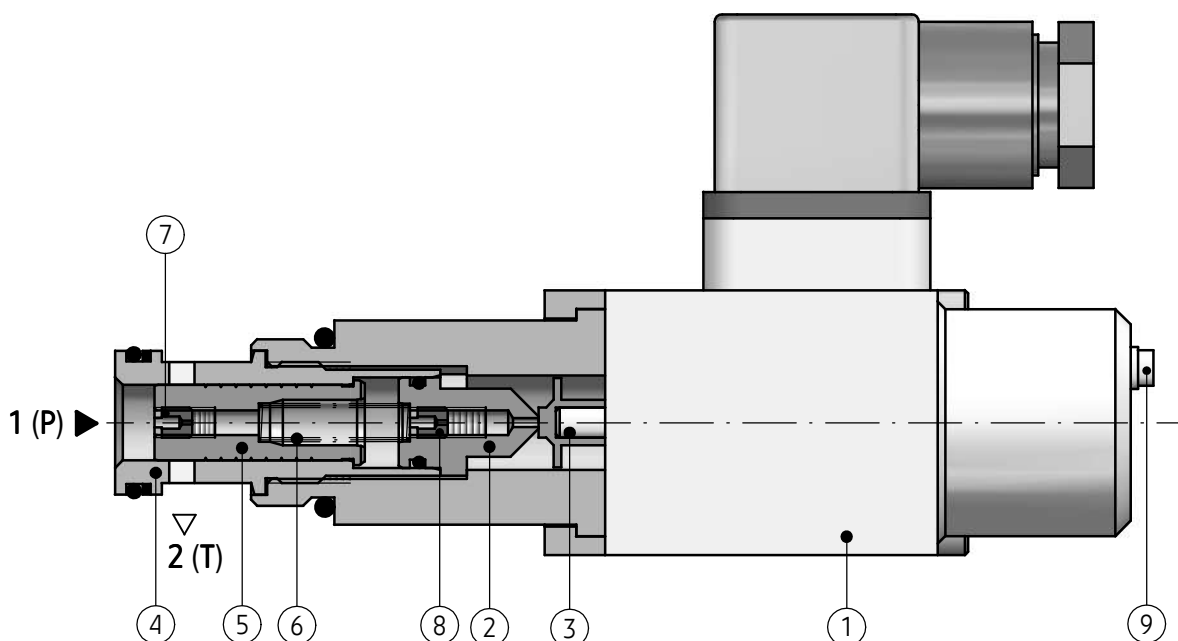
Proportional pressure relief valve type **WZPSE6...** is a pilot-operated valve. The pressure in port **1 (P)** through the jets assembly (7) and (8) and adjusting jet (2) acts on the blind (3) connected with the plunger (1) of proportional solenoid. Pushing force of the blind (3) to jet (2) is proportional to the strength of current flowing through the solenoid (1). Electronic regulator type **20RE10E** according to

data sheet **WK 420 820** is used to supply the solenoid (1). If the pressure acting on the blind (3) exceeds the pressure set, then the blind (3) is pushed back and pressure at the top of the spool (5) drops. Thus, the spool is shifted in the sleeve (4) and the line **1 (P)** to **2 (T)** opens. The spring (6) maintains the spool (5) in position to cut off the flow.

CAUTION:

The valve must be precisely bled by means of bleeding screw (9) in order to work properly. In case of any vibrations, bias current at electronic regulator must be adjusted.

WZPSE6/02 - 100 - 24 Z4

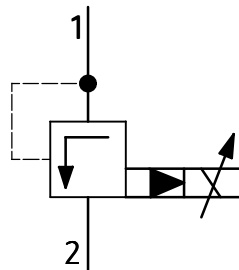


TECHNICAL DATA

Hydraulic fluid	mineral oil	
Required filtration	up to 16 μm	
Recommended filtration	up to 10 μm	
Nominal fluid viscosity	37 mm ² /s at temperature 55 °C	
Viscosity range	2,8 up to 380 mm ² /s	
Fluid temperature range (in a tank)	recommended	40 °C up to 55 °C
	max	-20 °C up to +70 °C
Ambient temperature range	- 20 °C up to +50 °C	
Pressure in port P	31,5 MPa	
Nominal flow	60 dm³/min	
Working position	any position (horizontal position recommended)	
Hysteresis	2,5 % of max pressure	
Repetition accuracy	2 %	
Control power	up to 0,8 A	
Resistance of cold solenoid coil	supply voltage 12V	6 Ω
	supply voltage 24V	24,2 Ω
Electronic regulator	type 20RE10 E according to data sheet WK 420 820 (when powered by a stabilized voltage 12 to 24V DC , set the maximum current I_{max} = 1,5A)	

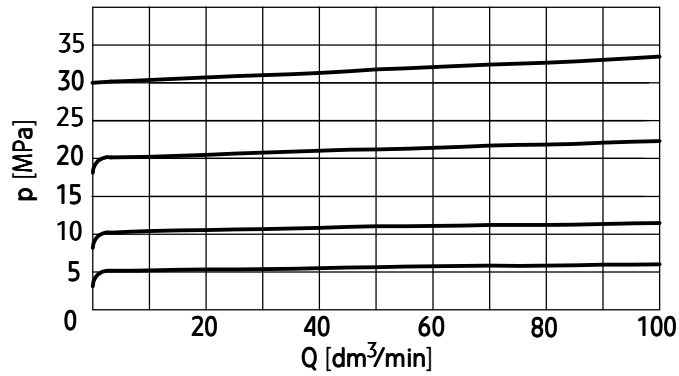
SCHEMES

Graphic symbol for the valve type **WZPSE6...**



PERFORMANCE CURVES

measured at viscosity $\nu = 41 \text{ mm}^2/\text{s}$ and temperature $t = 50^\circ\text{C}$

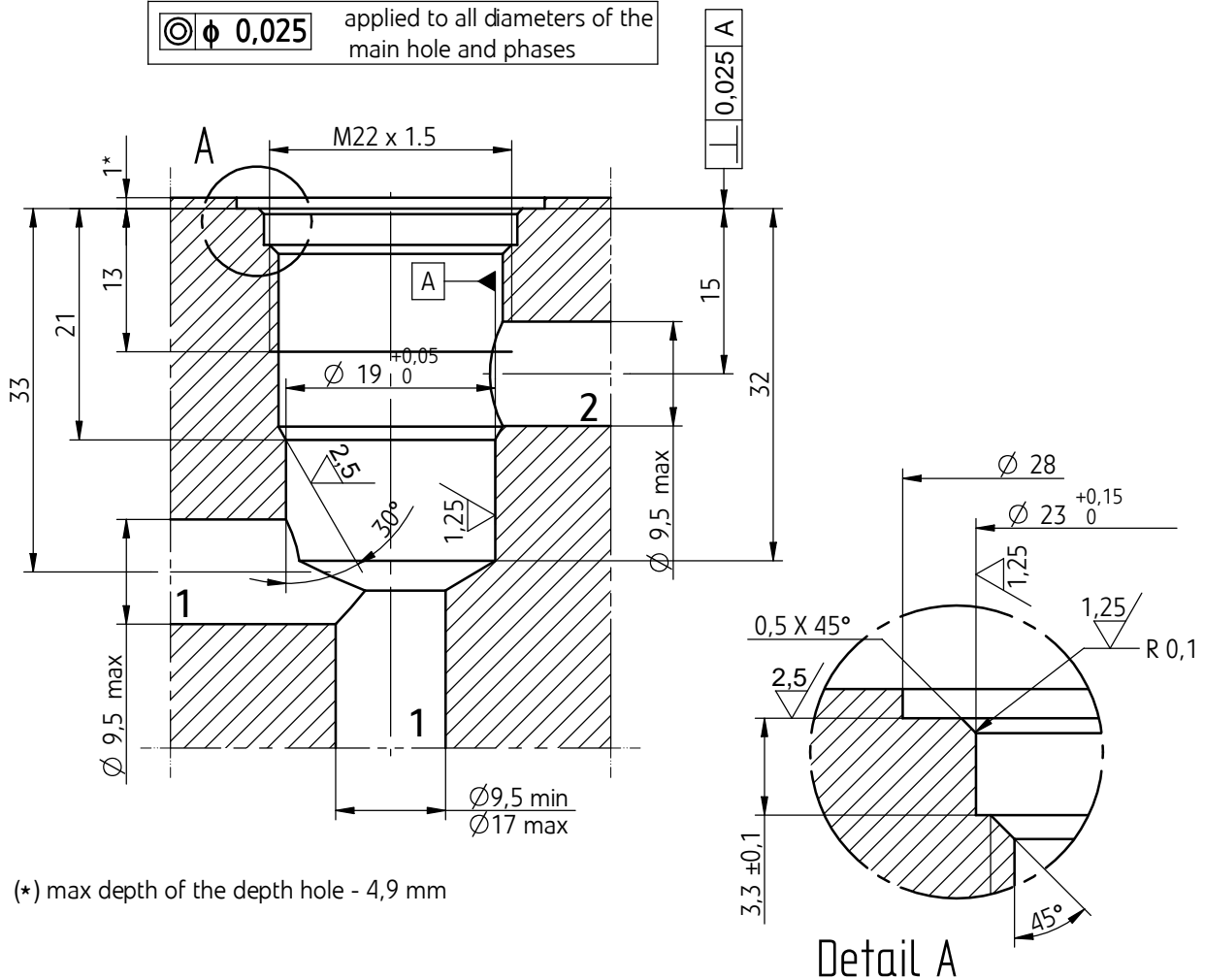


OVERALL AND CONNECTION DIMENSIONS

cavity - size M-06-2 (M22 x 1,5)

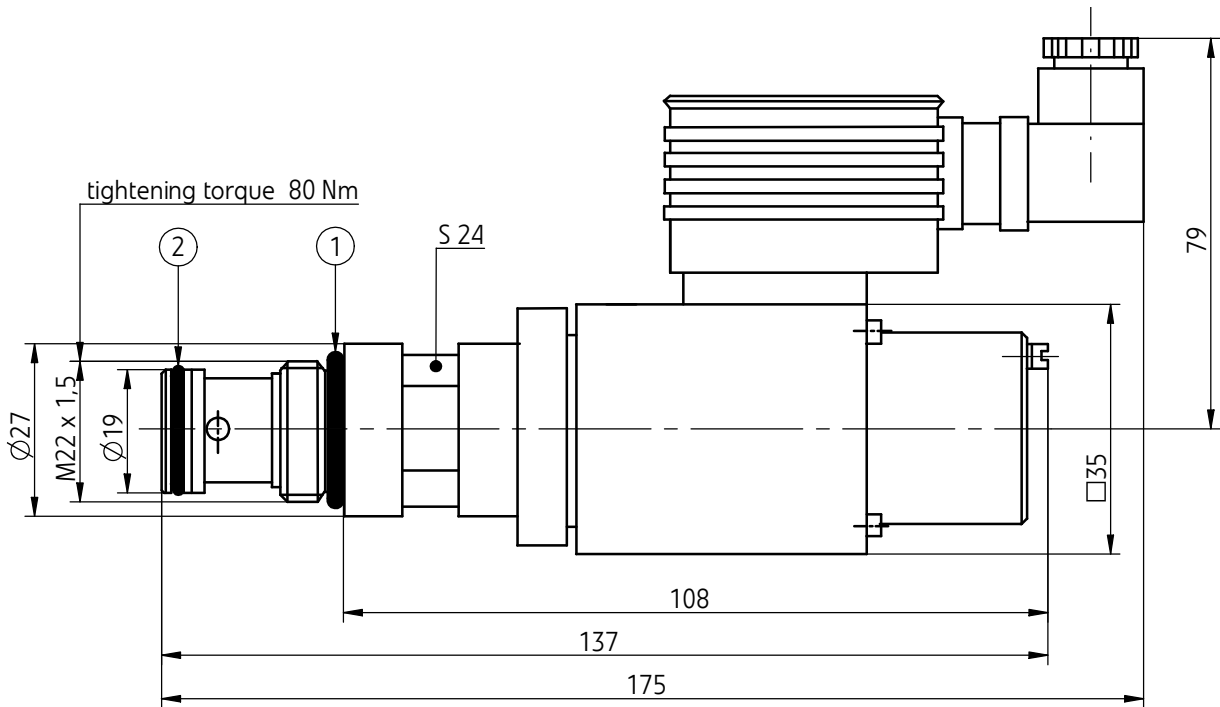
tightening torque **Md = 80 Nm**

$\text{Ⓞ} \phi 0,025$ applied to all diameters of the main hole and phases



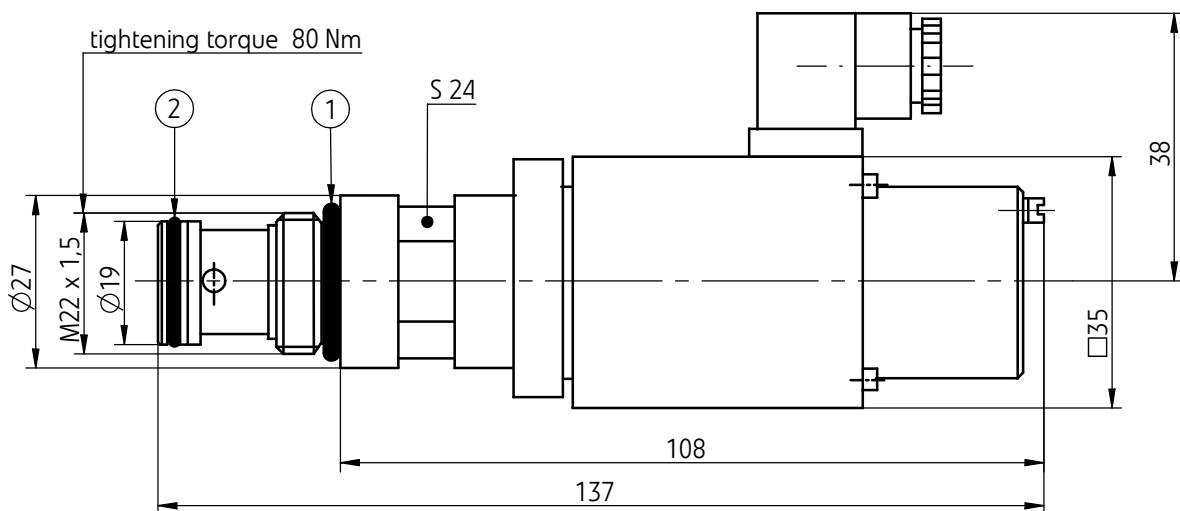
OVERALL AND CONNECTION DIMENSIONS

version WZPSE6/02...VPC (with electronic regulator type 20RE10E)



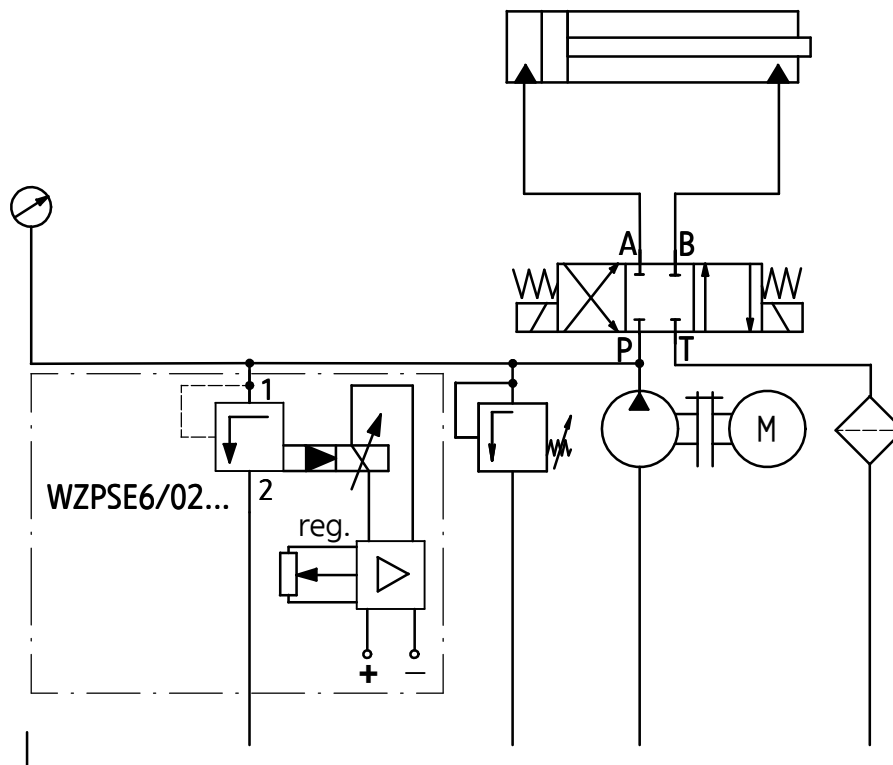
- 1 - O-ring 18 x 2,65
- 2 - O-ring 15,6 x 1,78

version WZPSE6/02...Z4 (with connector-in-plug type ISO 4400)



- 1 - O-ring 18 x 2,65
- 2 - O-ring 15,6 x 1,78

EXAMPLE OF APPLICATION IN HYDRAULIC SYSTEM



MOUNTING PLATES

Mounting plates must be ordered according to the data sheets:

WK 495 531 - plate type 2 UL 06/1...- 2 threaded connections G 3/8 or G1/2

WK 495 532 - plate type 2 UL 06/2...- 3 threaded connections G 3/8 or G1/2

WK 495 533 - plate type 2 UL 06/3...- 3 threaded connections G 3/8 or G1/2
or M16 x 1,5

Mounting plates must be ordered separately.

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