PONAR wadowice	Pilot operated pressure relief valve type UZPSX6			WK 499 301
	NS6	30MPa	60 dm³/min	02.2009

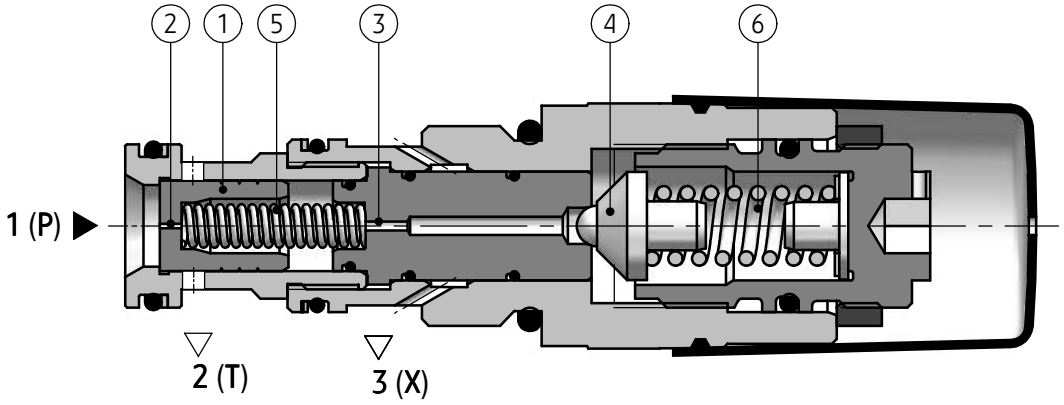
APPLICATION

Pilot operated pressure relief valves type **UZPSX6...** serve to limit a pressure in hydraulic systems, unload a hydraulic system or to actuate the pump without pressure.

DESCRIPTION OF OPERATION

The valve type **UZPSX6...** is a pilot pressure relief valve and consists of a pilot valve and main valve. Regulated pressure of the system affects the lower surface of the main spool (1) and at the same time via jet (2) affects the upper surface of the main spool. Pressure affects the pilot poppet (4) via the jet (3) as well. In neutral position, the pressure on both sides of the main spool (1) is the same. The spring (5) holds the spool in rest position (closed position). The ports **P** and **T** are separated from each other. When the pressure in the system reaches the height set by spring force (6), then the pilot valve (4) opens and the oil flows through the jet (3). At the jet (2) arises the pressure difference which affects both the upper and lower surface of the spool. By this, the spool lifts up and thereby excessive oil can be drained to the tank. When the port **X** is connected to the tank, then the pressure drops over the main spool and free flow from port **P** to port **T** is possible.

UZPSX 6/02 -100 -2 M1

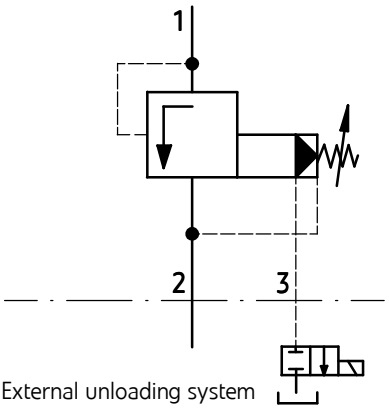


TECHNICAL DATA

Hydraulic fluid	mineral oil			
Required filtration	**up to 16 µm**			
Recommended filttration	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 +70 °C			
Cracking pressure range	**5 MPa**	**10 MPa**	**20 MPa**	**30 MPa**
Maximum pressure set	**30 MPa**			
Maximum flow rate	**60 dm^3/min**			
Weight	0,3 kg			

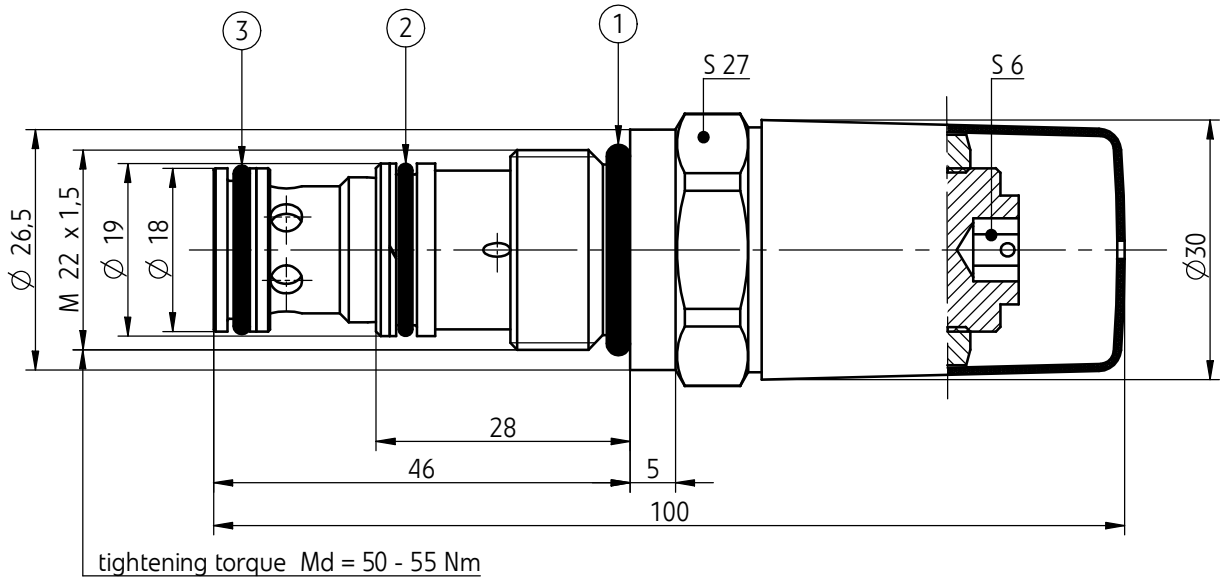
SCHEMES

Hydraulic scheme of the valve type **UZPSX6**



OVERALL AND CONNECTION DIMENSIONS

Valve type UZPSX6...



tightening torque Md = 50 - 55 Nm

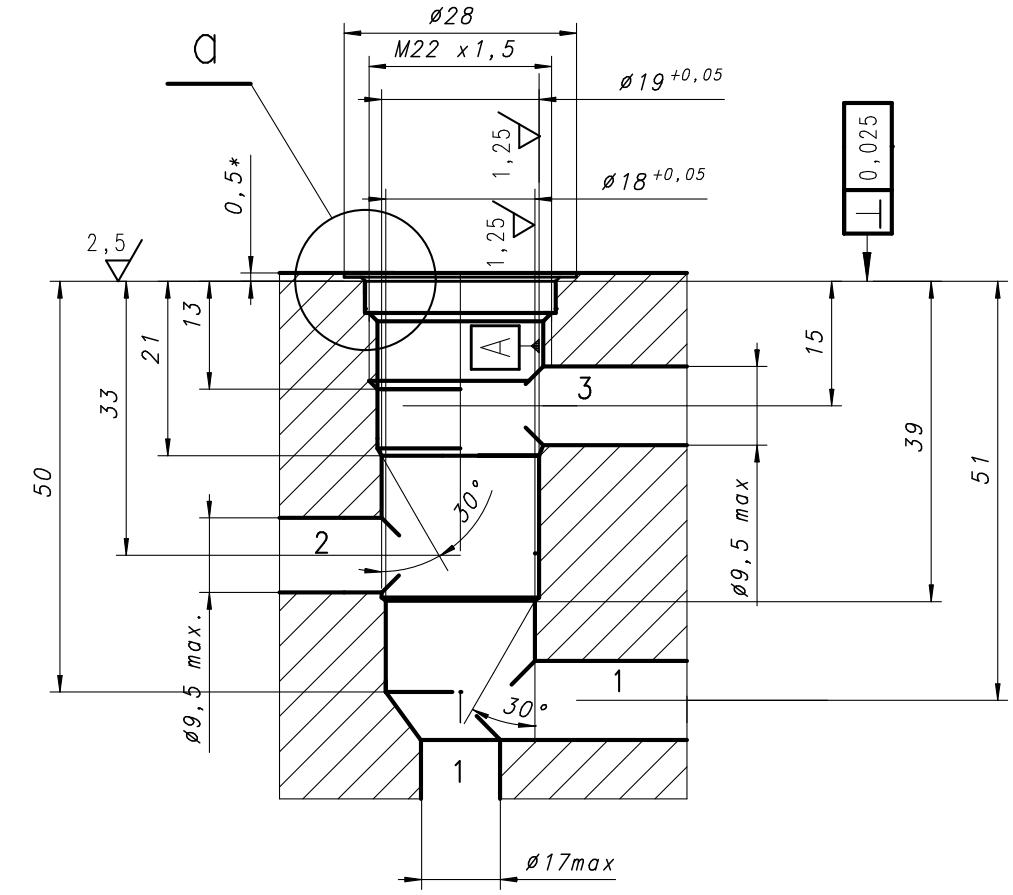
1 - **O-ring 18 x 2,65**
2 - **O-ring 16 x 1,5**
3 - **O-ring 15 x 1,8**

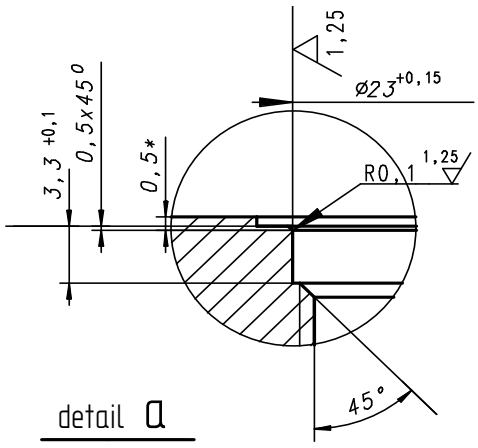
OVERALL AND CONNECTION DIMENSIONS

Cavity M22 x 1,5

tightening torque **Md = 50 - 55 Nm**

⌀ 0,025 applied to all diameters of the main hole and phases



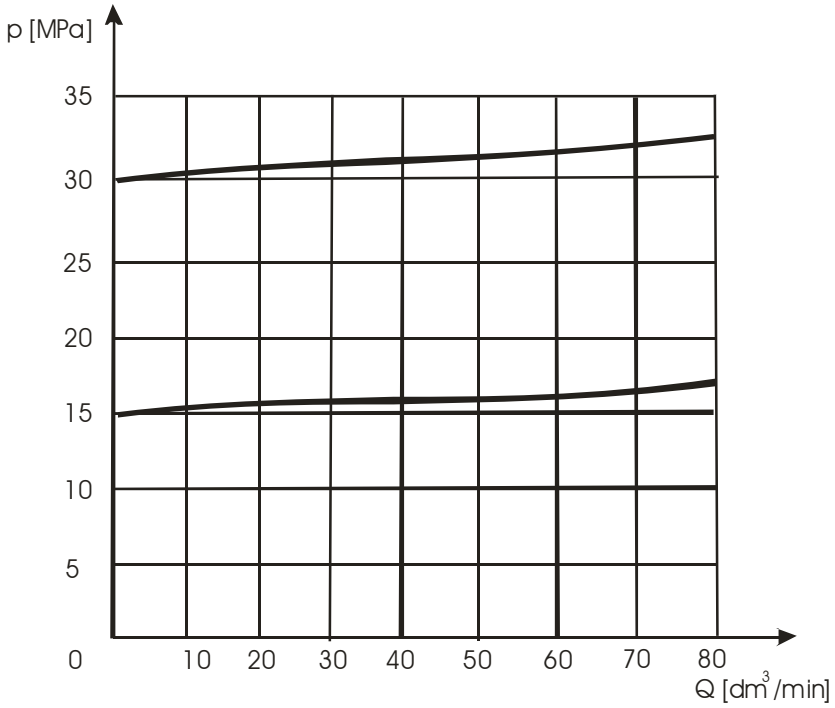


(*) max depth of the depth hole - 4,9 mm

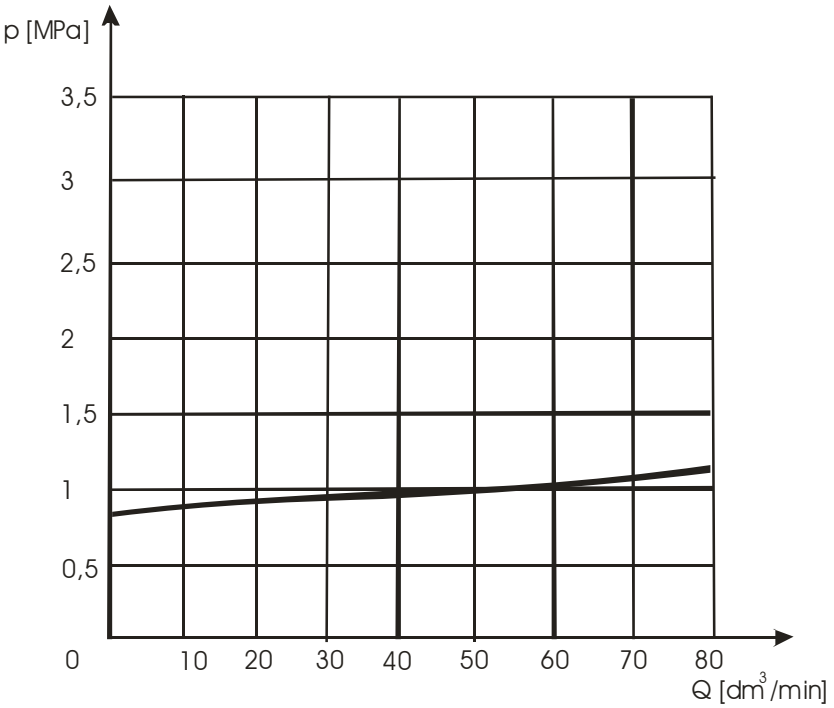
PERFORMANCE CURVES

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

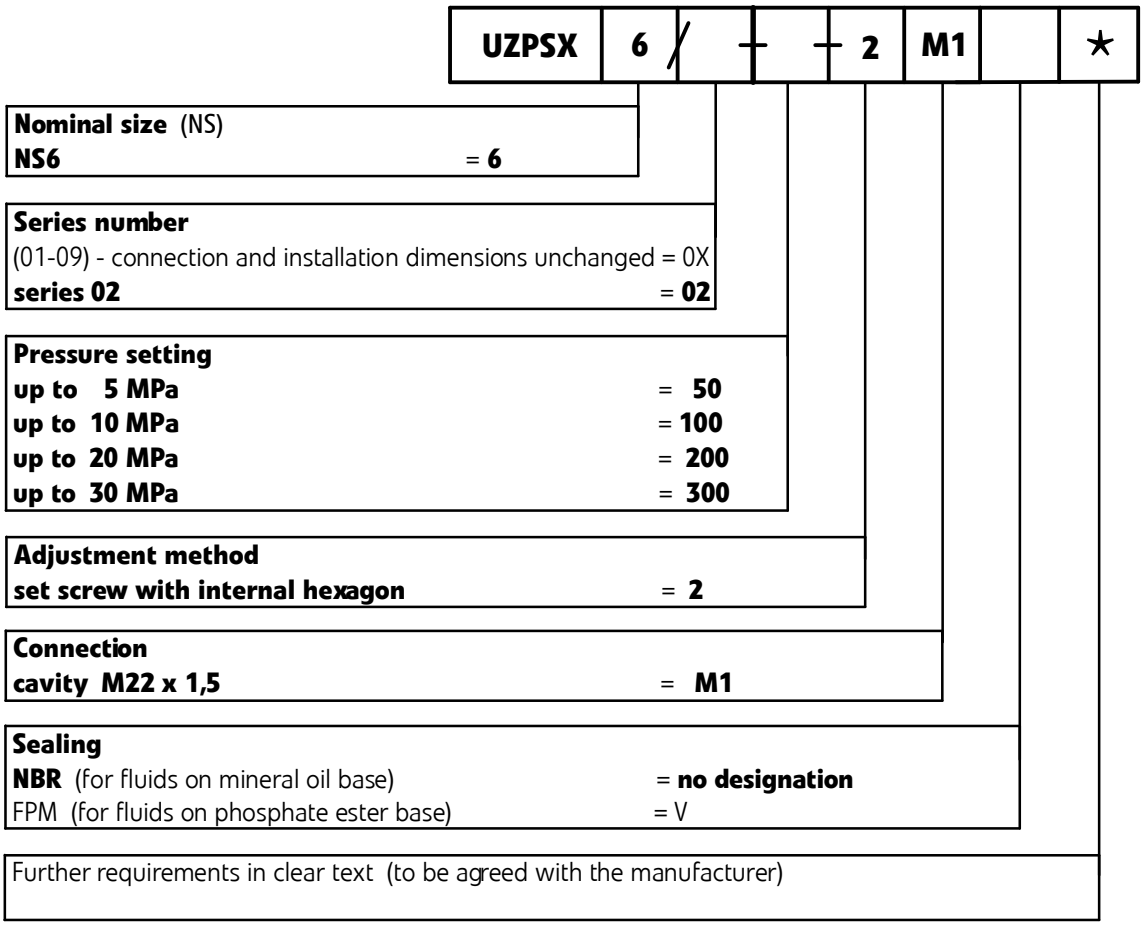
Working pressure in relation to flow



The lowest set pressure depending on the flow



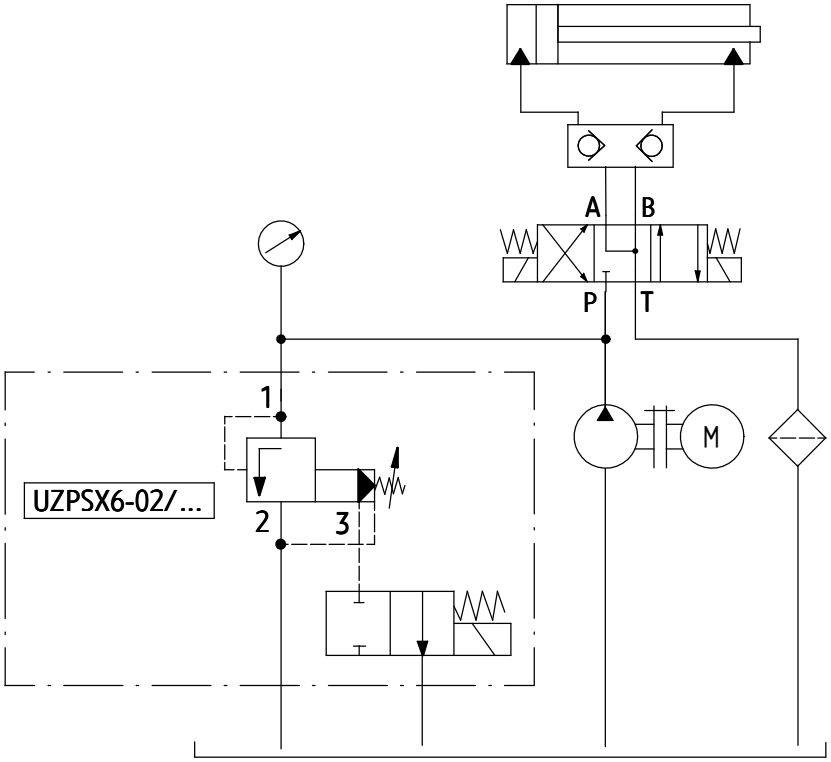
HOW TO ORDER



NOTES:

The valve should be ordered according to the above coding.
The symbols in bold are preferred versions in short delivery time.
Coding example: UZPSX6/02 - 100 - 2 M1

EXAMPLE OF APPLICATION IN HYDRAULIC SYSTEM



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