# PILOT OPERATED PRESSURE RELIEF VALVE TYPE UZPS 32

**WK 480 050**

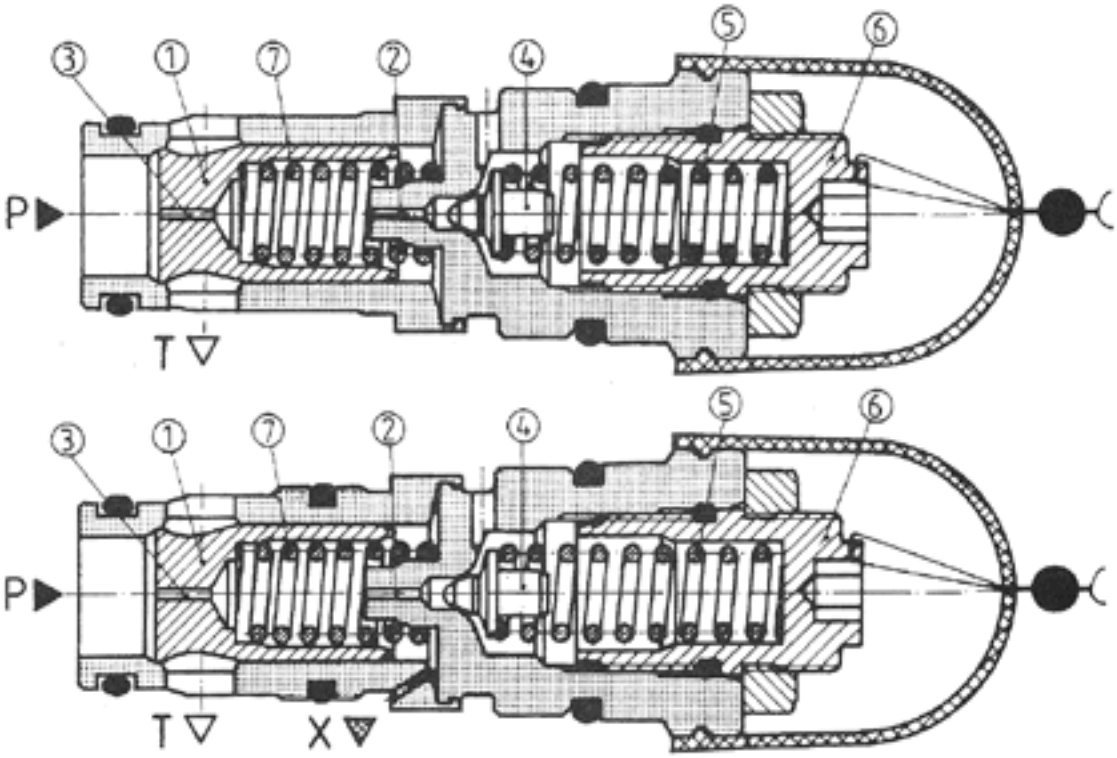
| NG 32 | 35 MPa | 400 dm³/min |
|---|---|---|

04. 2003r.

Pressure relief valves UZPS 32 serve to limit pressure in a hydraulic system or in a part of it. Version UZPS 32...X is also used to unload pressure in a system.

Example of application :
UZPS 32 for setting up maximum pressure in a system
UZPS 32...X for actuation of a pump without pressure

## DESCRIPTION OF OPERATION



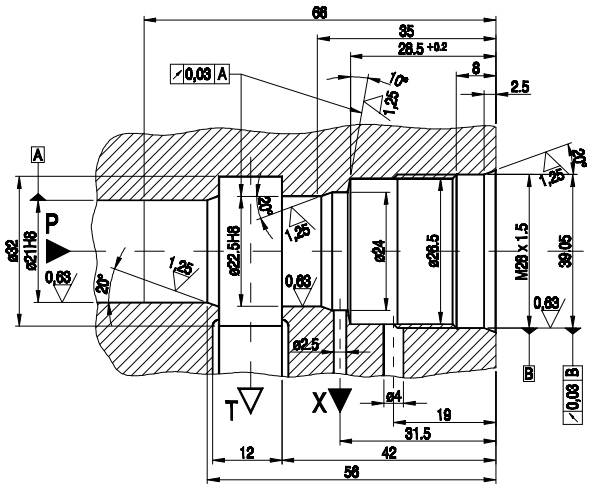

Pilot operated pressure relief valve UZPS 32 consists of a pilot valve and main valve. Pressure of the system affects the main spool end 1 via port P and at the same time the spring loaded side of the main spool and pilot poppet 4 via jets 2, 3. At standstill, on both sides of the spools pressures are equal. The spring 5 holds the main spool in starting position.
Ports P and T are separated from each other. If pressure in the system meets the value set at the adjustment 6 and determined by tension of the spring 5 in the pilot valve, fluid will flow via the jet and the pilot poppet into a tank.

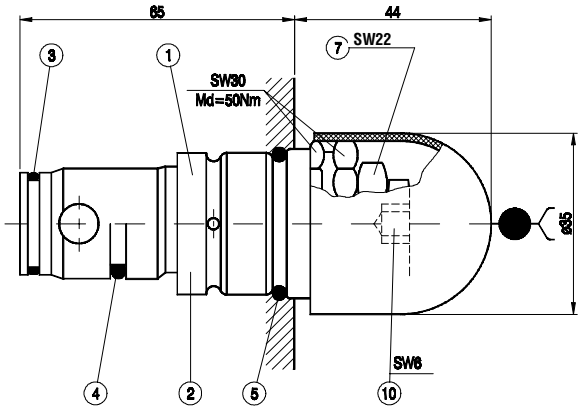
Resulting pressure differential across the jet affects the both main spool surfaces. The main spool is thus pushed up allowing the excess fluid to drain out of the system into the tank.
Pressure relief valve is also available with directional valve unloading UZPS32...X. In the starting position, directional control valve as a pilot valve, closes the return line X in front of the pilot poppet. The valve operated as above described. In switched position the directional valve connects the spring side of the main spool with the tank. This side of the spool is thus unloaded and the spool opens the connection from port P to port T.

## TECHNICAL DATA

| | |
|---|---|
| Hydraulic fluid | Mineral oil |
| Nominal fluid viscosity | 37 $mm^3$ / s at temperature 328 K |
| Viscosity range | 2,8 up to 380 $mm^2$ / s |
| Optimum working temperature ( fluid in a tank ) | 313 - 328 K |
| Fluid temperature range | 253 - 343 K |
| Maximum operating pressure | 35 MPa |
| Maximum set pressure | 35 MPa |
| Maximum flow rate | 400 $dm^3$/min |
| Required fluid filtration | 25 μm |
| Recommended fluid filtration | 10 μm |

## OVERALL AND CONNECTION DIMENSIONS

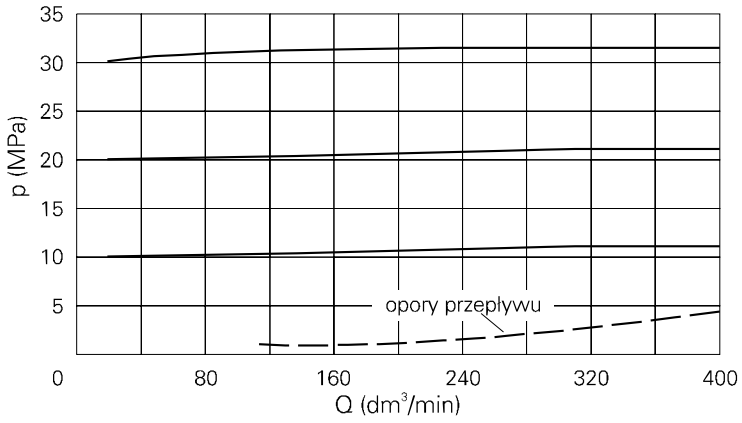



1 - UZPS 32
2 - UZPS 32...X
3 - O - ring
4 - Stopper ring
5 - Port X for UZPS 32...X

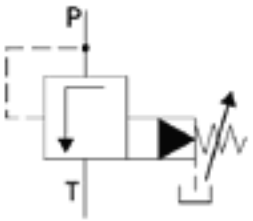
6 - Lock-nut Md = 10 Nm
7 - Fit depth
8 - Pilot fluid return
9 - Bolt with hexagonsocket

## PERFORMANCE CURVE

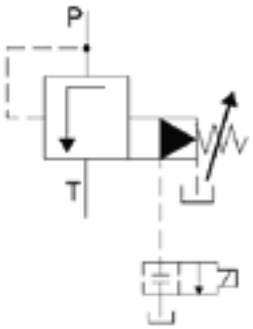



Operating pressure in relation to flow rate

## SYMBOL




Type **UZPS 32**




Type **UZPS 32...X**

## HOW TO ORDER UZPS 32

UZPS 32 / 10 - 350 - W2 - X | *

**Series no**

| | |
|---|---|
| 10 | = 10 |
| (10 - 19) unchanged | = installation and connection dimensions |

**Pressure setting**

| | |
|---|---|
| up to 5 MPa | = 50 |
| up to 10 MPa | = 100 |
| up to 20 MPa | = 200 |
| up to 35 MPa | = 350 |

**Version**

| | |
|---|---|
| Without unloading | = with no code |
| With unloading | = X |

Any further requirements in clear text ( to be agreed upon with the manufacturer )

Coding example:

**UZPS 32/10-200-W2-X**

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