

# Check valve, pilot operated UZSB 6

NS 6 |  $p_{max}$  35 MPa |  $Q_{max}$  50 dm<sup>3</sup>/min | WK 422 390



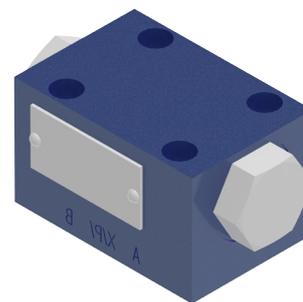
## DATA SHEET - OPERATION MANUAL

### APPLICATION

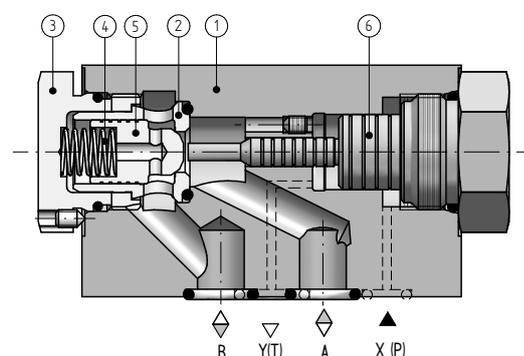
Pilot operated check valve type **UZSB6...** for subplate mounting is used in the hydraulic systems when free flow in one direction and automatic closure in the opposite direction are required. There is a possibility of opening in the direction of closure by pilot pressure. The valves can be mounted in any desired position.

### DESCRIPTION OF OPERATION

The plug **3** being the seat for the spring **4** is fitted in the housing **1**. The spring pushes the poppet **5** to the internal edge of sleeve **2**. When pressure difference in port **A** exceeds cracking pressure determined by the spring, the poppet moves along the cylindrical sleeve and connection from **A** to **B** is then open. When pressure is applied to port **X** oil can also flow through the valve from **B** to **A**. Pressure at port **X** affects the surface of the spool **6** which moves pushing the poppet. It results in opening connection from **A** to **B**. Fluid can flow from **B** to **A** as long as pilot pressure affects port **X**. Port **Y** is an optional external drain connection.



UZSB6-32/Z10



### TECHNICAL PARAMETERS

hydraulic fluid	olej mineralny		
required oil cleanliness class	ISO 4406 class 20/18/15		
nominal fluid viscosity	37 mm <sup>2</sup> /s at temperature 55 °C		
viscosity range	2,8 ÷ 380 mm <sup>2</sup> /s		
temperature range (in tank)	max. -20 ÷ 70 °C; rec. 40 ÷ 55 °C		
ambient temperature range	-20 ÷ 70 °C		
max. working pressure	35 MPa		
max. pilot pressure (port X)	35 MPa		
cracking pressure	0,1 MPa	0,15 MPa	0,3 MPa
weight	0,9 kg		

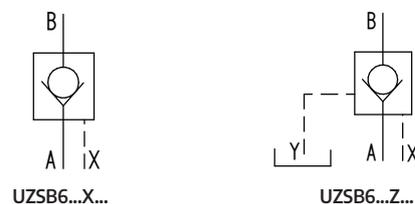
#### control areas

version	F <sub>1</sub> [cm <sup>2</sup> ]	F <sub>2</sub> [cm <sup>2</sup> ]	F <sub>3</sub> [cm <sup>2</sup> ]	C [MPa]		
				UZSB6...10...	UZSB6...15...	UZSB6...30...
UZSB6...X...	1,32	0,38	-	0,05	0,08	0,12
UZSB6...Z...	1,32	0,38	0,19			

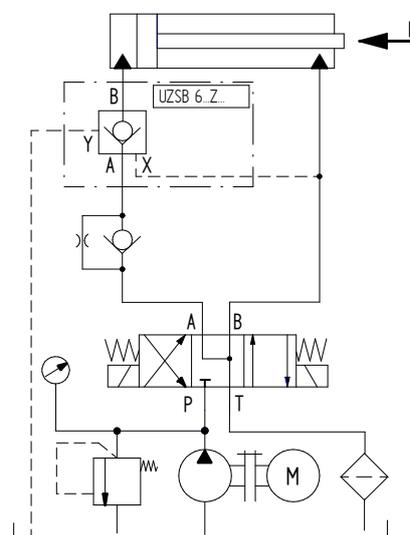
assembly and operation requirements at: [www.operating-conditions.ponar.pl](http://www.operating-conditions.ponar.pl)

F<sub>1</sub> - surface area of the spool **6**  
 F<sub>2</sub> - surface area of the poppet **5**  
 F<sub>3</sub> - surface area of the rod of the spool **6** inverse to F<sub>1</sub>  
 C - pressure affecting area F<sub>1</sub> required for exceeding the spring **4** force

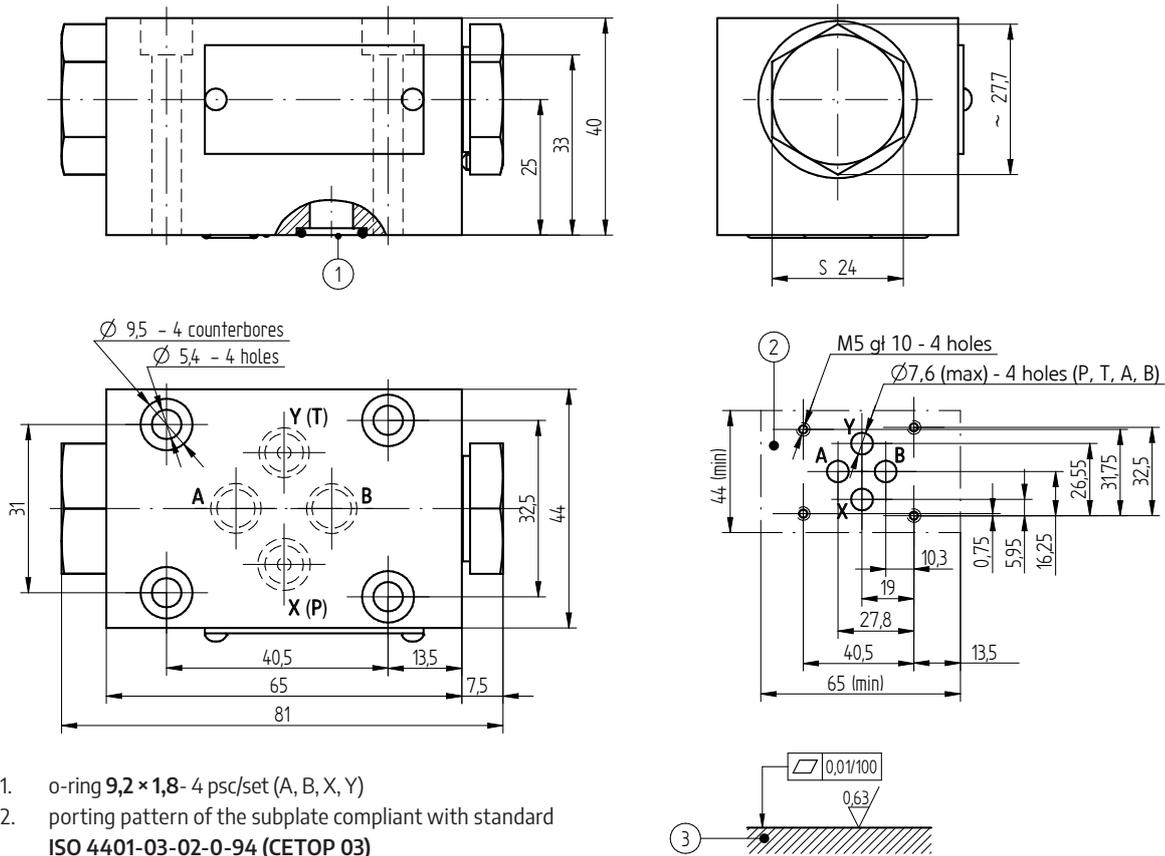
### HYDRAULIC DIAGRAM



### APPLICATION EXAMPLE



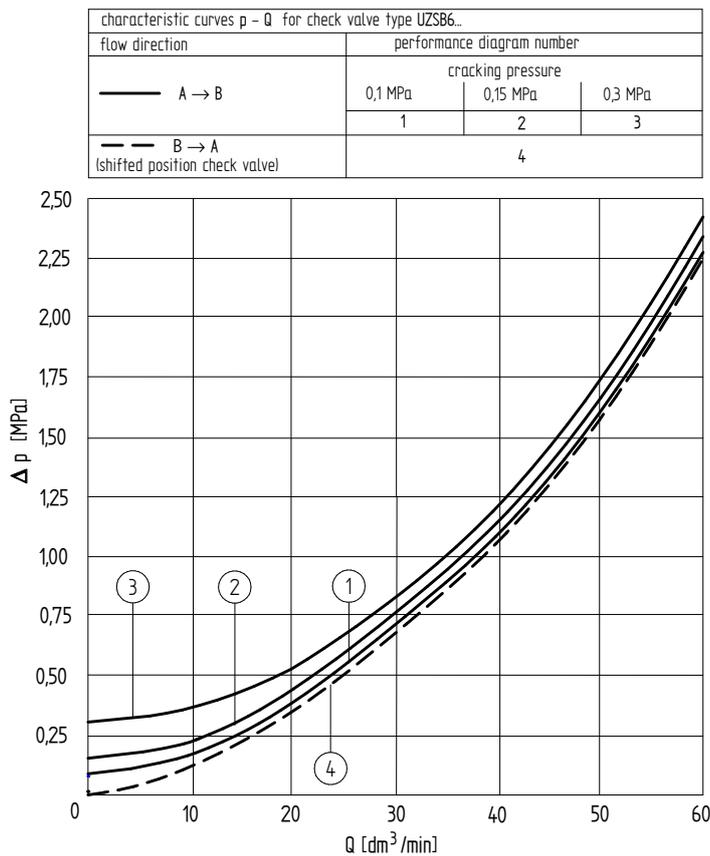
## OVERALL AND CONNECTION DIMENSIONS



## CHARACTERISTICS

for fluid viscosity  $\nu = 41 \text{ mm}^2/\text{s}$  and temp.  $t = 50 \text{ }^\circ\text{C}$

### flow resistance curves



## HOW TO ORDER

UZSB 6 -   /          

1                      2                      3                      4                      5                      6

### 1 nominal size

NS6 = 6

### 2 series number

series 32 = 32  
(30 ÷ 39) - connection and installation dimensions unchanged

### 3 draining of leakage

internally drained (without drain port) = X  
externally drained (with drain port) = Z

### 4 cracking pressure

0,1 MPa = 10  
0,15 MPa = 15  
0,30 MPa = 30

### 5 sealing

NBR (for fluids on mineral oil base) = Ø  
FKM (for fluids on phosphate ester base) = V

**6 further requirements = \***  
(to be agreed upon with the Manufacturer)

Ø indicates that the box should be left blank.

The symbols in bold are the preferred versions available in short delivery time.

Coding example: **UZSB6-32/X10**

## SUBPLATES AND MOUNTING SCREWS

Subplates should be ordered according to data sheet

**WK 496 480:**

**G341/01** – threaded connection – G 1/4

**G342/01** – threaded connection – G 3/8

**G502/01** – threaded connection – G 1/2

Subplates and mounting screws for mounting the valve **M5 × 40 – 10.9** acc. to **PN – EN ISO 4762** (PN/M – 82302) – 4 pcs/set **delivered on separate order.**

Tightening torque of screws **M<sub>d</sub> = 9 Nm.**

## CONTACT

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