

### DATA SHEET - OPERATION MANUAL

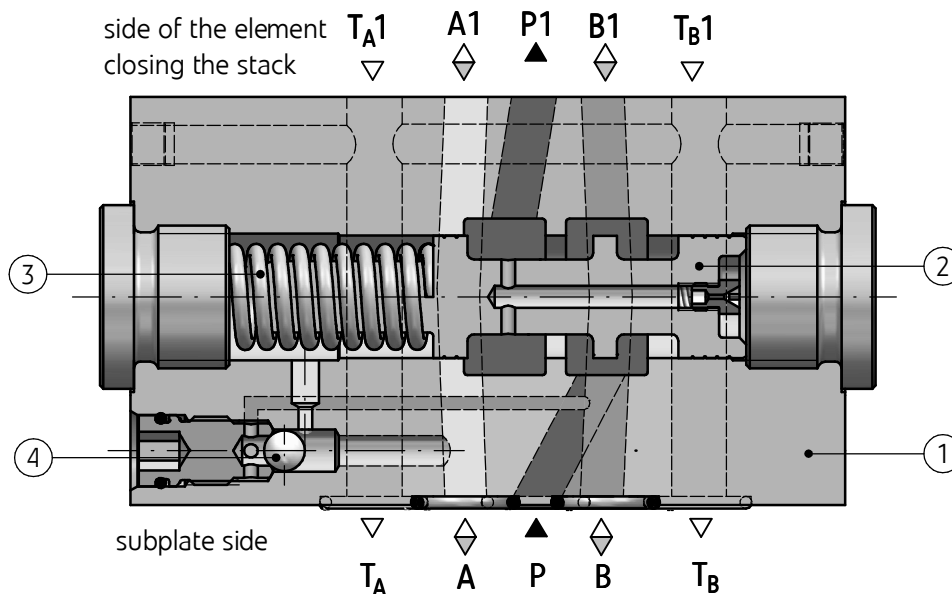
#### APPLICATION

Compensation valve type **UZUC10**... is intended for keeping the constant flow rate of hydraulic fluid, independently of the pressure at the receiver (a cylinder) in systems, where the main working stream (the flow) is controlled with throttling. The valve is adjusted for inter-plate installation, dedicated for hydraulic systems with proportional valves and subplate connection acc. to **ISO 4401-05**.



#### DESCRIPTION OF OPERATION

UZUC10 - 22/P 10



Main elements of the valve type **UZUC10**... are body (1), spool (2), spring (3) and logic valve (4) used to select higher control pressure from port **A** or **B**. For version **UZUC10...P...** (2-way version) the difference of pressures between port **P** and ports **A** or **B** acts on the spool (2), and after the initial spring (3) tension is overcome, the way

in port **P - P1** is opened. The flow in port **P** is being kept on the permanent level (see the valve characteristics) independently of pressure change in the system. Additionally for version **UZUC10...PT...** (3-way version) the compensator operation consists in draining the excess operating fluid from port **P** to port **T** (drain).

## TECHNICAL DATA

Hydraulic fluid	mineral oil	
Required fluid 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 up to 380 mm <sup>2</sup> /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	
Max operating pressure	35 MPa	
Max flow rate	30 dm <sup>3</sup> /min	
Weight	1,3 kg	

## INSTALLATION AND OPERATION REQUIREMENTS

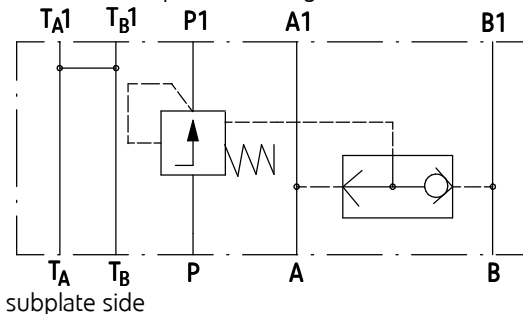
- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Only fully functional and operational valve can be used.</li> <li>2. During the operation one must maintain the recommended fluid viscosity acc. to requirements defined in this Data Sheet - Operation Manual.</li> <li>3. In order to provide failure-free and safe operation of the valve, one should systematically check: <ul style="list-style-type: none"> <li>• proper working of the valve</li> <li>• cleanliness of the hydraulic fluid</li> </ul> </li> <li>4. Due to heating of the valve body to high temperature, the valve should be placed in such a way to eliminate the risk of accidental contact with the valve body</li> </ol> | <ol style="list-style-type: none"> <li>5. In order to provide tightness of the valve connection to the hydraulic system, one should keep the dimensions of the sealing rings, tightening torques and valve operation parameters specified in this Data Sheet - Operation Manual.</li> <li>6. A person operating the valve must be thoroughly familiar with the content of this Data Sheet - Operation Manual.</li> </ol> |
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## DIAGRAMS

Hydraulic diagrams of valves type UZUC10...

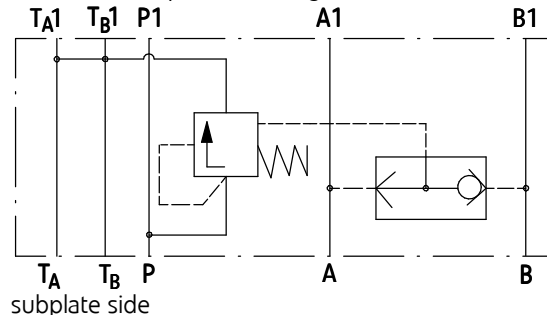
version UZUC10...P...

side of a component closing the stack

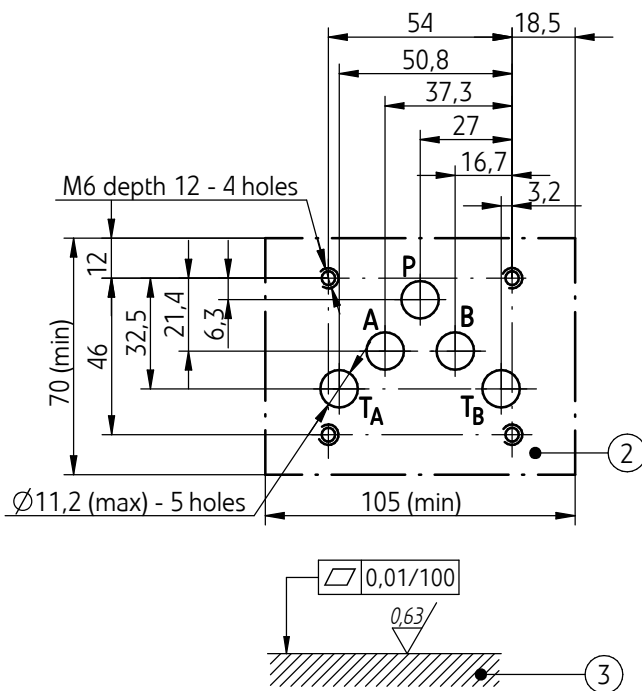
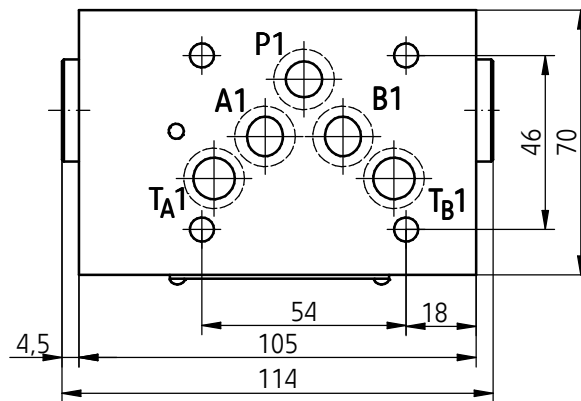
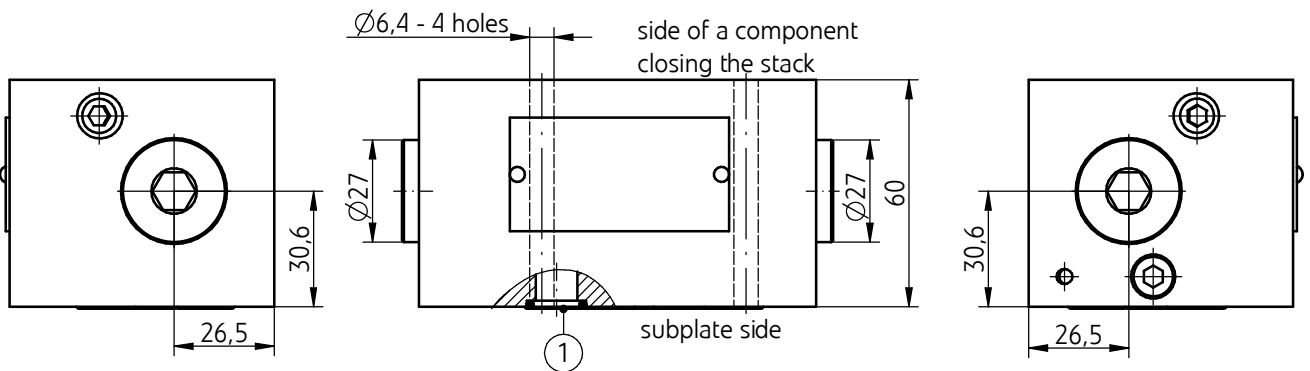


version UZUC10...PT...

side of a component closing the stack



## WYMIARY GABARYTOWE I PRZYŁĄCZENIOWE



- 1 - Sealing **o-ring 12,42 x 1,78** - pcs 5/set (P, T<sub>A</sub>, T<sub>B</sub>, A, B)
- 2 - Porting pattern of the subplate surface compliant with **ISO 4401** standard designation **ISO 4401-05-04-0-94 (CETOP 05)** fixing screws **M6 x L\*** - **10.9** in accordance with **PN - EN ISO 4762** - pcs 4/set; must be ordered separately; tightening torque **Md = 15 Nm**
- 3 - Subplate surface required

### NOTE:

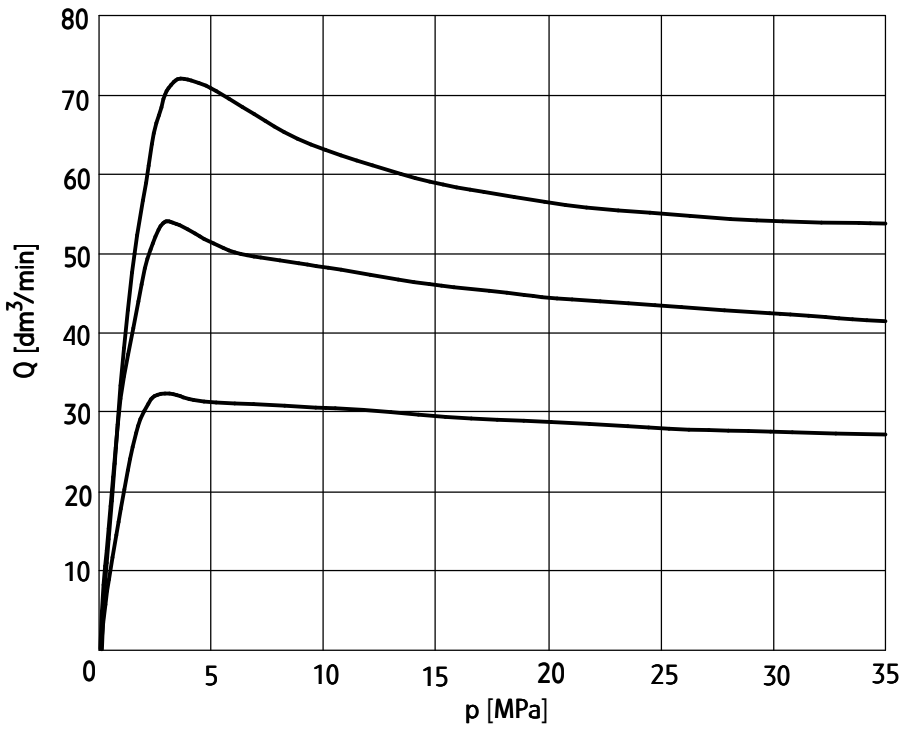
(\* ) - Required length of the screws **L** is related to type and the number of hydraulic components sandwich fitted

## PERFORMANCE CURVES

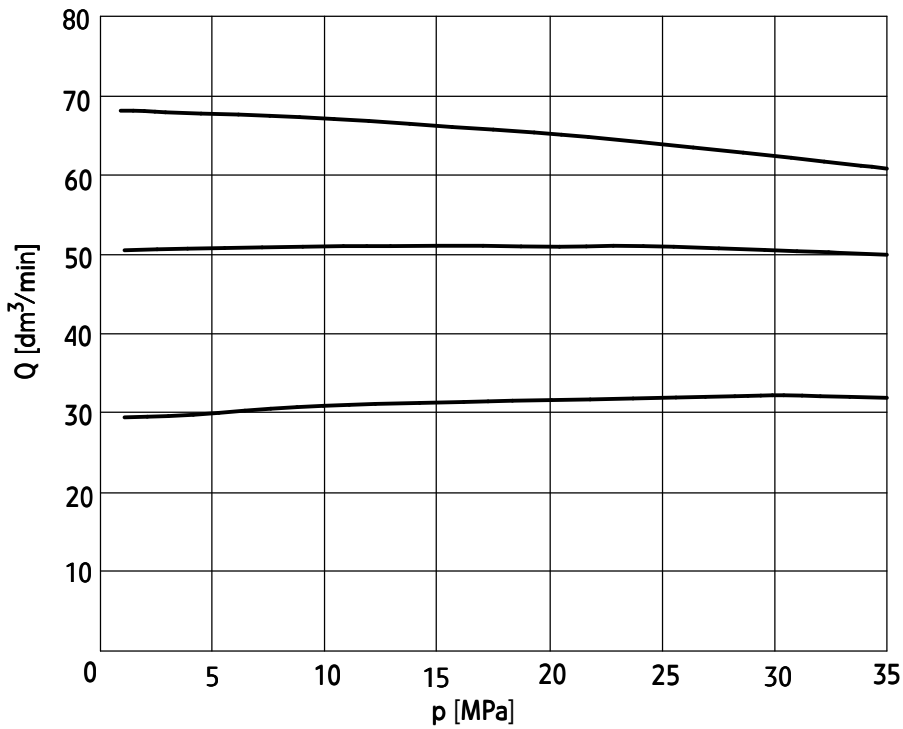
measured at viscosity  $\nu = 41 \text{ mm}^2/\text{s}$  and temperature  $t = 50^\circ\text{C}$

### Pressure curves

version UZUC10...P...



version UZUC10...PT...



## HOW TO ORDER

<b>UZUC</b>	<b>10</b>	+	/	<b>10</b>		<b>*</b>
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### Nominal size (NS)

**NS10** = 10

### Series number

(20-29) - connection and installation dimensions unchanged = 2X

**series 22** = 22

### Pressure compensation

2-way = P

3-way = PT

### Pressure compensation range

**Δ p - 1 MPa** = 10

### Sealing

**NBR** (for fluids on mineral oil base) = no designation

FKM (for fluids on phosphate ester base) = V

### Further requirements in dear text

(to be agreed with the manufacturer)

### NOTES:

The valve should be ordered according to the above coding.

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

Coding example: UZUC10 - 22/P 10

## SUBPLATES AND FIXING SCREWS

Subplates must be ordered according to data sheet

**WK 496 520**. Subplate symbols:

G 66/01 - threaded connections G 3/8

**G 67/01** - threaded connections **G 1/2**

G 89/01 - threaded connections G 1/4

G 67/02 - threaded connections M22 x 1,5

G 534/01 - threaded connections G 3/4

### NOTE:

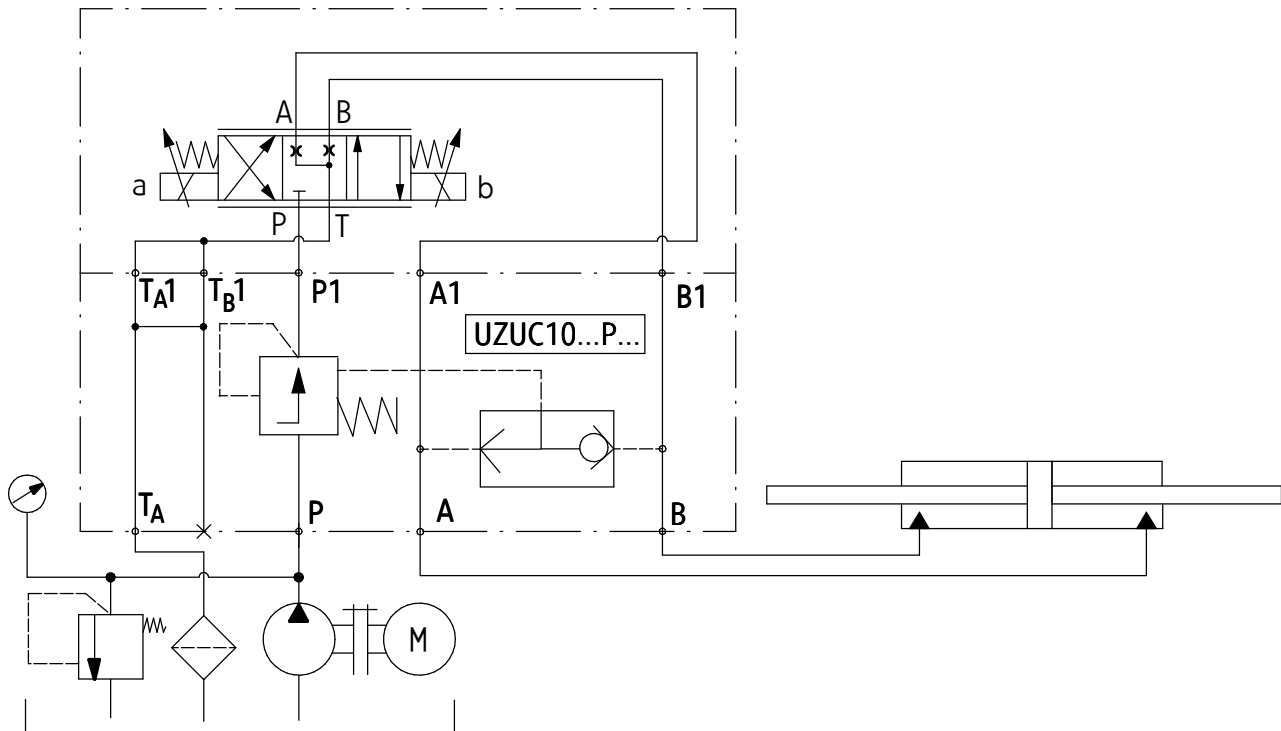
Subplate symbol in bold is the preferred version available in short delivery time.

Subplates and screws fixing the valve **M6 x L\*** - 10,9 in accordance with **PN - EN ISO 4762** - pcs 4/set must be ordered separately. Tightening torque **Md = 15 Nm**

### NOTE:

(\*) - Required length of the screws L is related to type and the number of hydraulic components sandwich fitted

## EXAMPLE OF APPLICATION IN HYDRAULIC SYSTEM



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