

# PRESSURE RELIEF VALVE, PILOT OPERATED, SANDWICH PLATE TYPE UZPR10

NS 10 | up to 31,5 MPa | up to 100 dm<sup>3</sup>/min

WK 497 100

Pressure relief valve, pilot operated, sandwich plate design type **UZPR10...** is used to limit pressure in hydraulic systems.

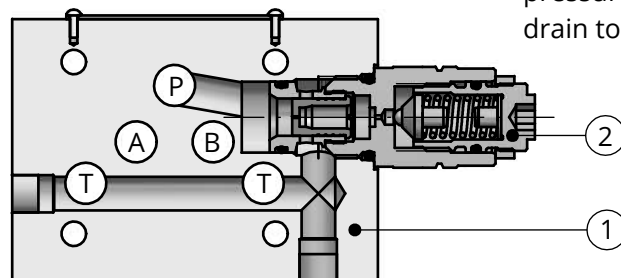


## DESCRIPTION OF OPERATION

Pressure relief valve sandwich plate type **UZPR10...** consists of a main body (1) and screwed-in relief cartridge valve pilot operated (2) type **UZPS6** according to catalogue sheet **WK 492 860**. Proper drilling of the body allows connections as per

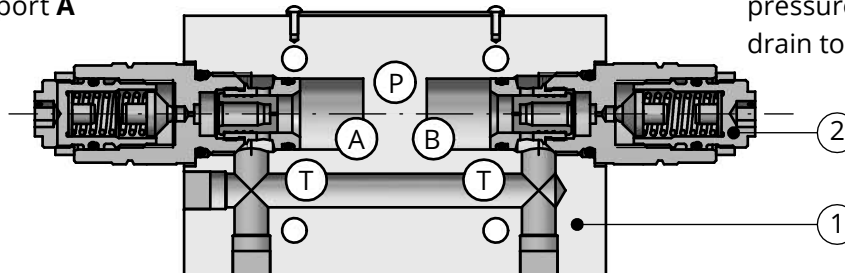
hydraulic diagram for the version. When the pressure in the system exceeds the setting of the valve (2), it opens, causing relief flow to port T (for the version ...**ABBA**... to port **A** or **B**).

UZPR10S - 02/100 - 2 **PT**



pressure setting at port **P**  
drain to port **T**

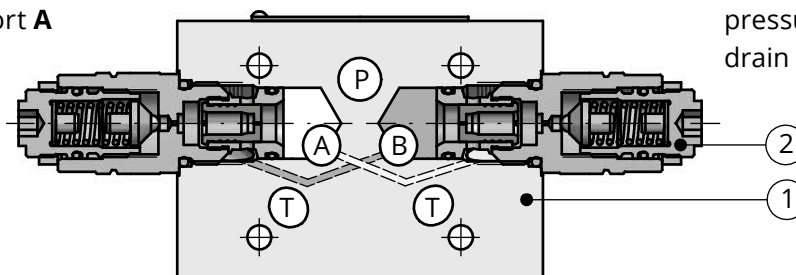
UZPR10S - 02/100 - 2 **ATBT**



pressure setting at port **A**  
drain to port **T**

pressure setting at port **B**  
drain to port **T**

UZPR10S - 02/100 - 2 **ABBA**



pressure setting at port **A**  
drain to port **T**

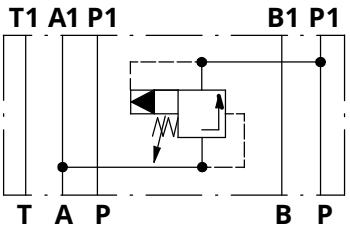
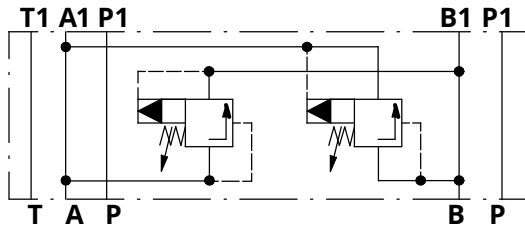
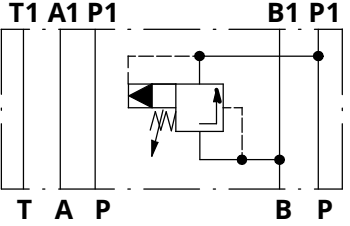
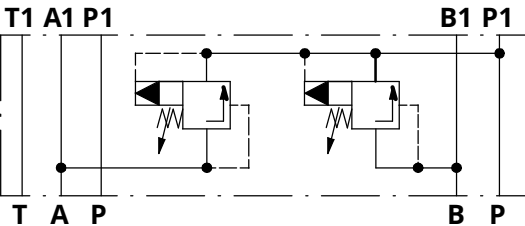
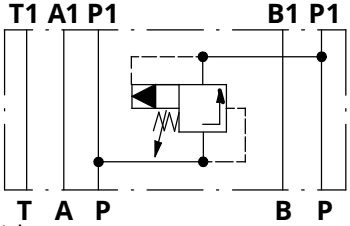
pressure setting at port **B**  
drain to port **T**

TECHNICAL DATA

Hydraulic fluid	mineral oil	
<b>Required filtration</b>	<b>up to 16 µm</b>	
Recommended filtration	up to 10 µm	
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	
<b>Max operating pressure</b>	<b>31,5 MPa</b>	
<b>Settable pressure ranges</b>	<b>5 MPa; 10 MPa; 20 MPa; 31,5 MPa</b>	
<b>Maximum set pressure</b>	<b>31,5 MPa</b>	
<b>Maximum flow</b>	<b>100 dm<sup>3</sup> / min</b>	
Type of cartridge pressure relief valves fitted	<b>UZPS6</b> according to catalogue sheet <b>WK 492 860</b>	
Weight	1,6 kg for versions: ...AT...; ...PT...; ...BT...	
	2 kg for versions: ...ATBT...; ...ABBA...	

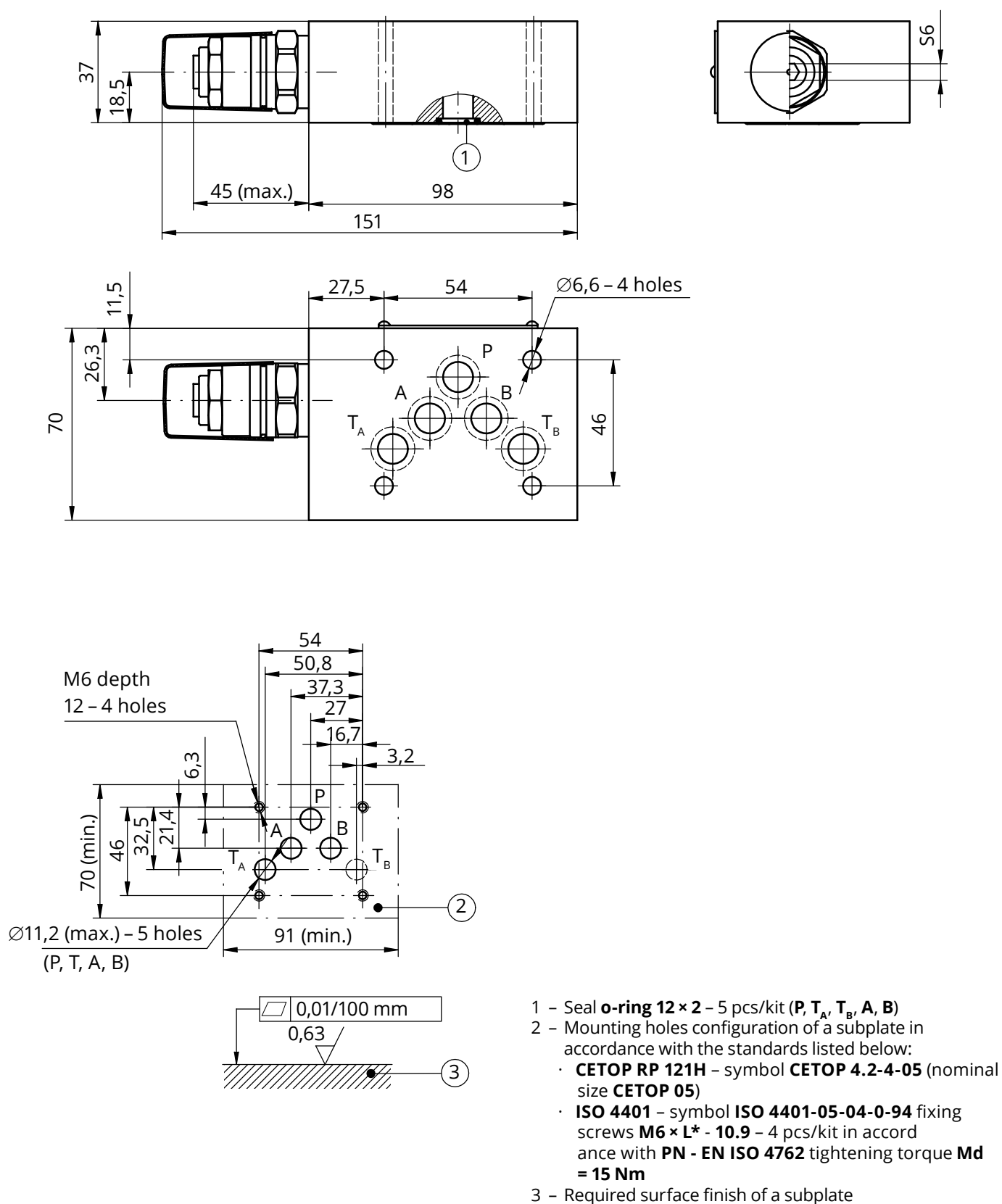
SCHEMES

Hydraulic schemes of valves type UZPR10...

<p>version UZPR10S...<b>AT</b>...</p> <p>side of a component closing the stack</p>  <p>subplate side</p>	<p>version UZPR10S...<b>ABBA</b>...</p> <p>side of a component closing the stack</p>  <p>subplate side</p>
<p>version UZPR10S...<b>BT</b>...</p> <p>side of a component closing the stack</p>  <p>subplate side</p>	<p>version UZPR10S...<b>ATBT</b>...</p> <p>side of a component closing the stack</p>  <p>subplate side</p>
<p>version UZPR10S...<b>PT</b>...</p> <p>side of a component closing the stack</p>  <p>subplate side</p>	

## OVERALL AND CONNECTION DIMENSIONS

version UZPR10...AT...

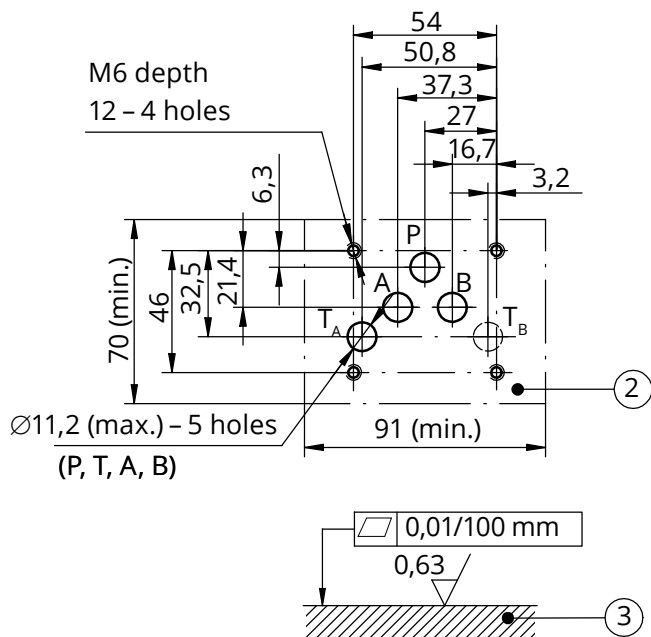
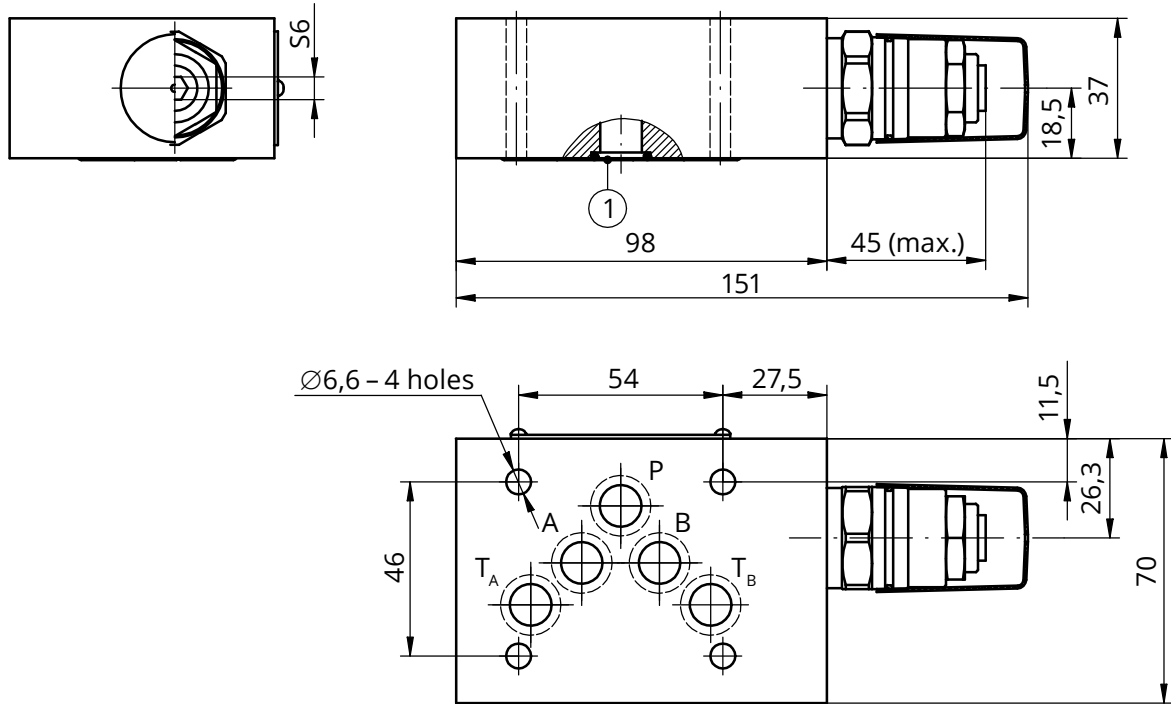


NOTE:

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

## OVERALL AND CONNECTION DIMENSIONS

versions: UZPR10...BT...; ...PT...



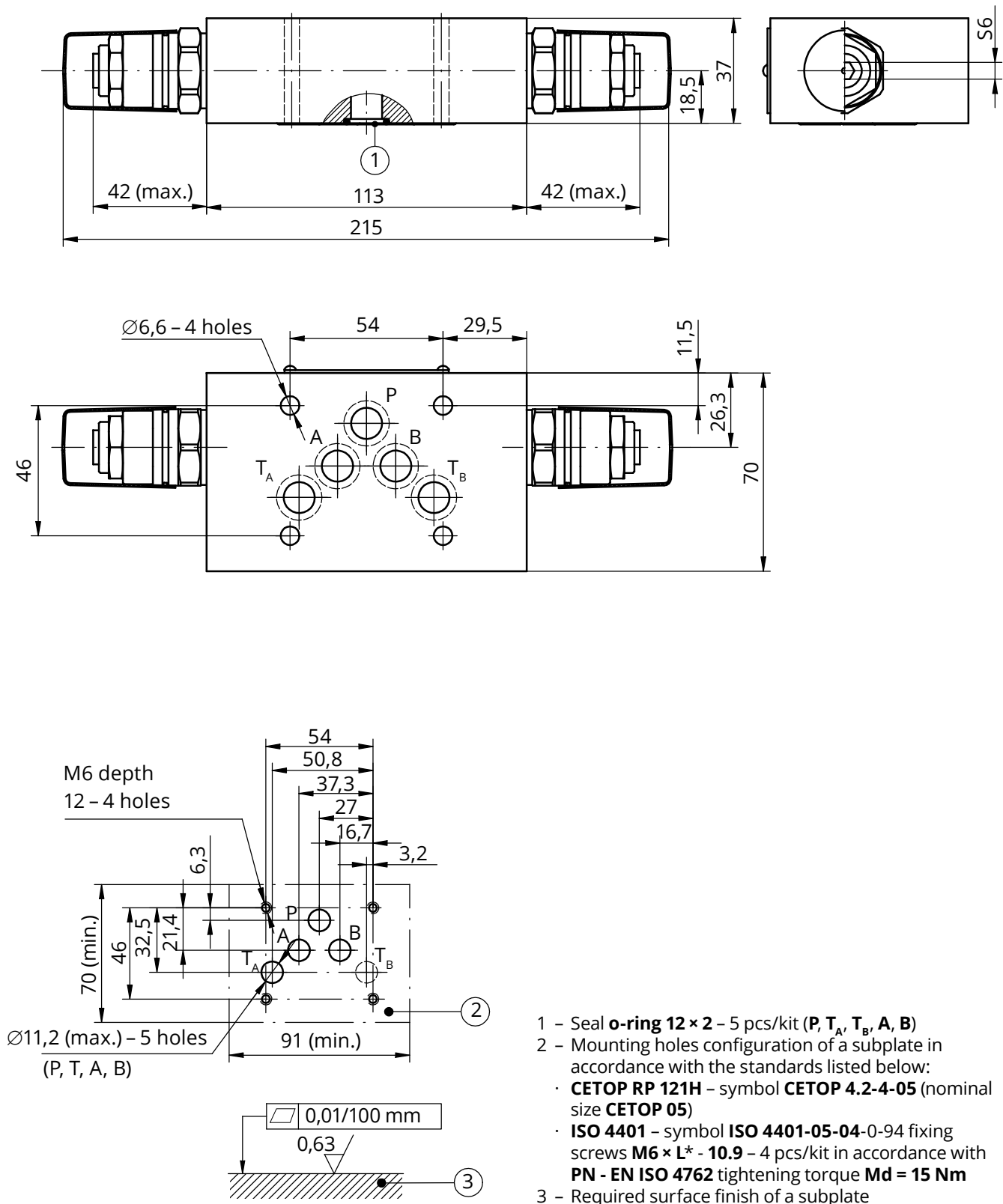
- 1 - Seal **o-ring 12 × 2** - 5 pcs/kit (P, T<sub>A</sub>, T<sub>B</sub>, A, B)
- 2 - Mounting holes configuration of a subplate in accordance with the standards listed below:
  - **CETOP RP 121H** - symbol **CETOP 4.2-4-05** (nominal size **CETOP 05**)
  - **ISO 4401** - symbol **ISO 4401-05-04-0-94** fixing screws **M6 × L\*** - 10.9 - 4 pcs/kit in accordance with **PN - EN ISO 4762** tightening torque **Md = 15 Nm**
- 3 - Required surface finish of a subplate

**NOTE:**

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

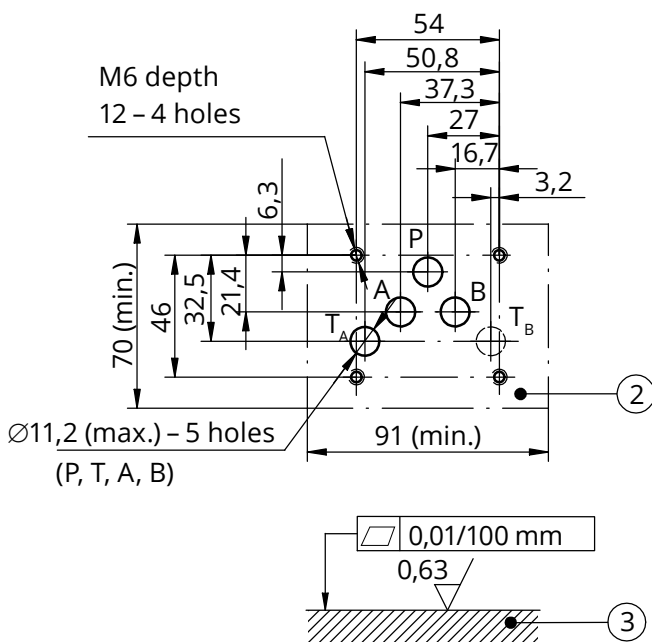
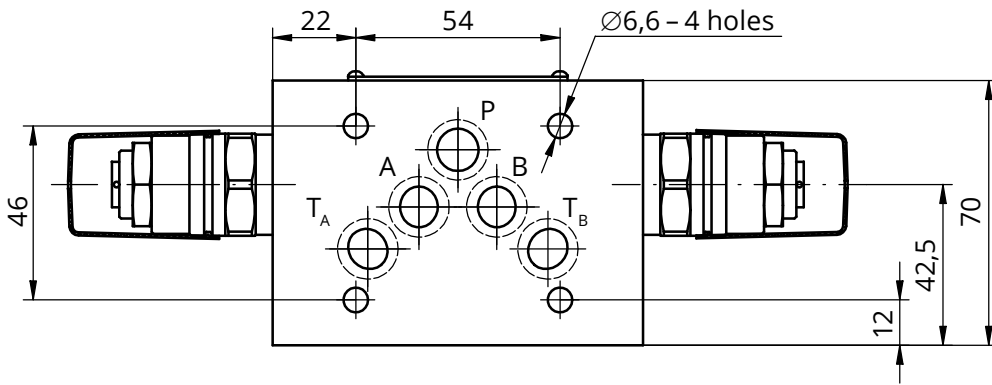
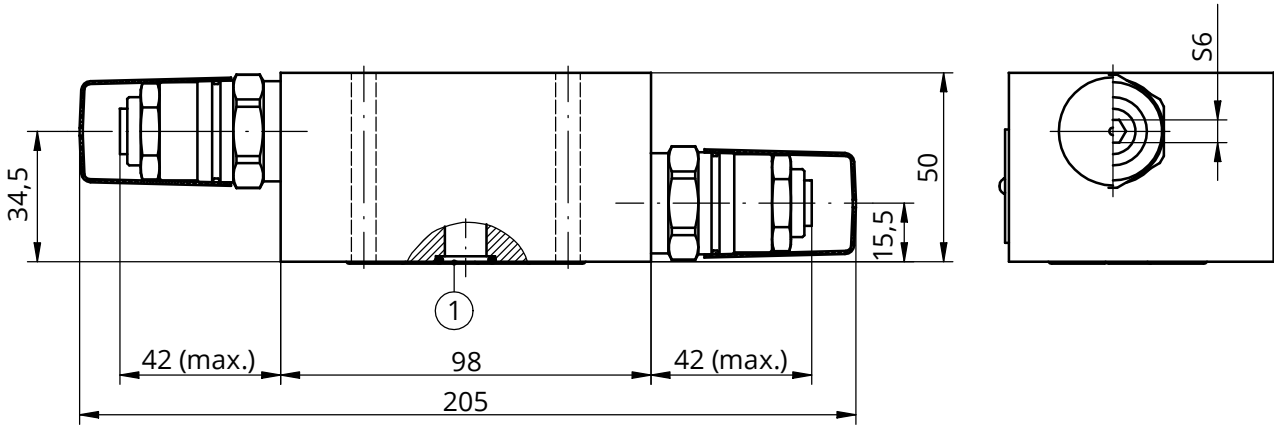
## OVERALL AND CONNECTION DIMENSIONS

version UZPR10...ATBT...



## OVERALL AND CONNECTION DIMENSIONS

version UZPR10...ABBA...

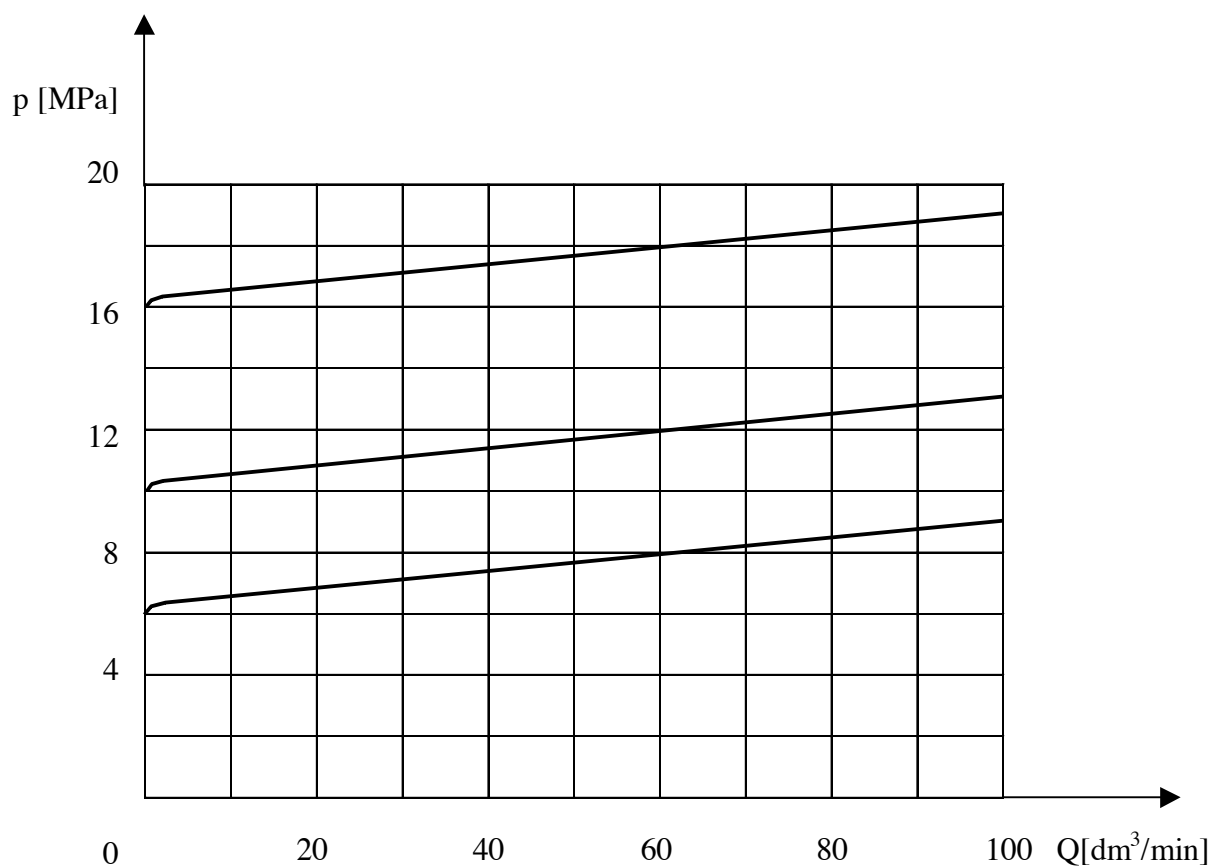


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NOTE:  
 (\*) - Required length of the screws L is related to type and the number of hydraulic components sandwich fitted

## PERFORMANCE CURVES

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



### SUBPLATES AND FIXING SCREWS

Subplates must be ordered according to the catalogue sheet **WK 496 520**. Subplate symbols:

G 66/01 – threaded connection G 3/8

**G 67/01** – threaded connection **G 1/2**

G 89/01 – threaded connection G1/4

G 67/02 – threaded connection M22 x1,5

Subplates and screws fixing the relief valve

**M6 × L\*** – 10,9 – 4 pcs/kit in accordance with

**PN - EN ISO 4762** must be ordered separately.

Tightening torque **Md = 15 Nm**

NOTES:

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

**The subplate symbol in bold is the preferred version available in short delivery time.**

## HOW TO ORDER

UZPR 10 S / - - - \*

**Nominal size (NS)**  
NS10 = 10

**Pressure relief valves fitted**  
**valves type UZPS6** = S

**Series number**  
(00 - 09) - connection  
and installation dimensions  
unchanged = 0X  
**series 02** = 02

**Settable pressure range**  
up to 5 MPa = 50  
**up to 10 MPa** = 100  
up to 20 MPa = 200  
**up to 31,5 MPa** = 315

**Adjustment element**  
**set screw with internal hexagon** = 2

**Relief function for flow direction**  
(hydraulic schemes according to page 2)  
from A to T = AT  
from B to T = BT  
from **P** to **T** = **PT**  
from A to T and from B to T = ATBT  
from A to B and from B to A = ABBA

**Sealing**  
**NBR** (for fluids on mineral oil base) = **no code**  
FKM (for fluids on phosphate ester base) = V

Further requirements in clear text  
(to be agreed with the manufacturer)

NOTES:

The pressure relief valve should be ordered according to the above coding.

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

Coding example: UZPR10S - 02/315 - 2 PT