

# Pressure reducing valve, pilot operated sandwich plate UZRR 6

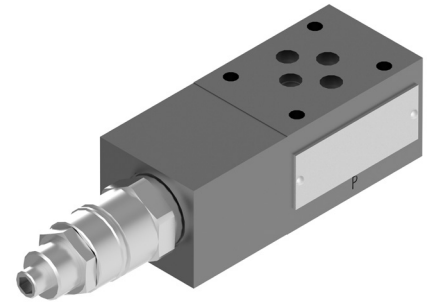
NS 6 |  $p_{max}$  35 MPa |  $Q_{max}$  50 dm<sup>3</sup>/min | WK 499 991



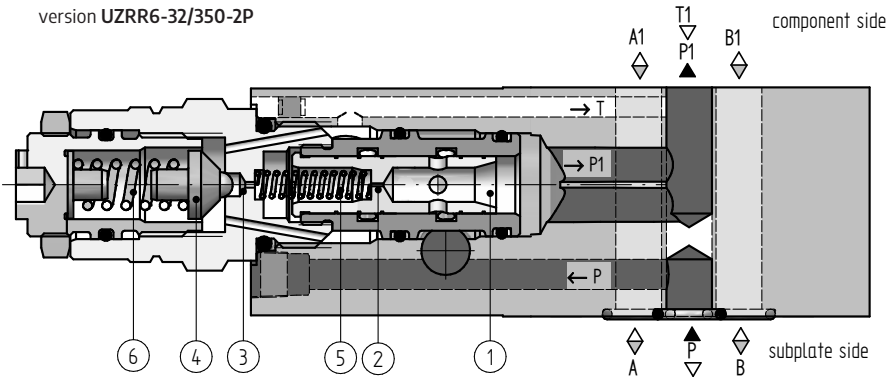
## DATA SHEET - OPERATION MANUAL

### APPLICATION

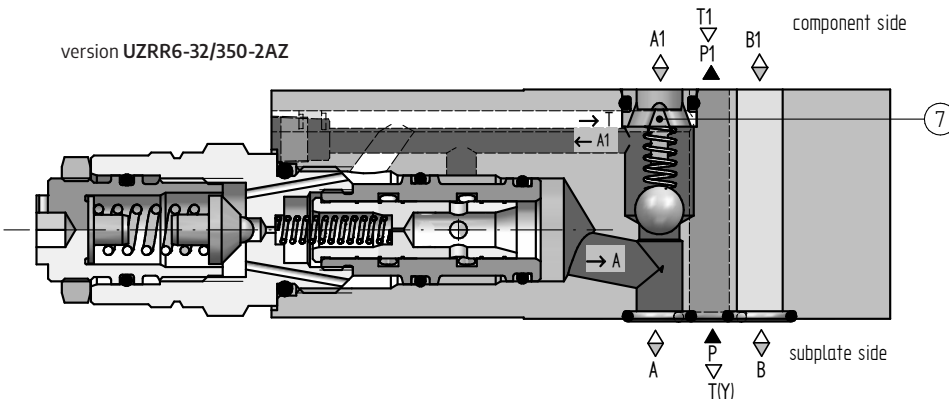
The pressure reducing valve type **UZRR6...** is used for reducing pressure in hydraulic systems.



version UZRR6-32/350-2P



version UZRR6-32/350-2AZ

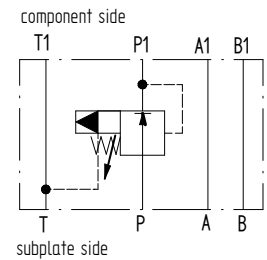


### DESCRIPTION OF OPERATION

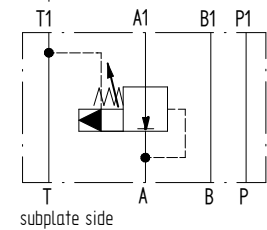
The valve consists of pilot valve and main valve. The reduced pressure acts on the lower face of main spool **1**, and through nozzle **2** also on the upper face and through nozzle **3** on pilot valve poppet **4**. In rest position the pressure on both sides of the main spool **1** is identical. Spring **5** maintains the spool in initial (open) position. Channels **P** and **P1** (**A1** and **A**, **B1** and **B**) are connected. When the pressure reaches the value determined by the tension of spring **6**, the pilot valve **4** opens and oil flows through nozzle **2**. A pressure drop is created across the nozzle, which acts on the upper and lower faces of spool **1** and moves it causing throttling of flow from **P** to **P1** (**A1** to **A**, **B1** to **B**). Unrestricted flow in opposite direction from **A** to **A1** (**B** to **B1**) is effected through check valve **7** - design with check valve: UZRR6...AZ, UZRR6...BZ.

### HYDRAULIC DIAGRAM

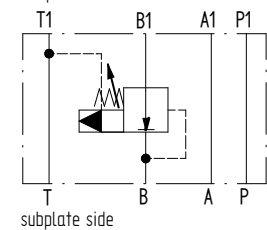
version UZRR6...P...



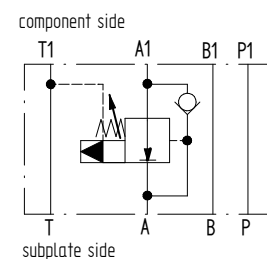
version UZRR6...A...



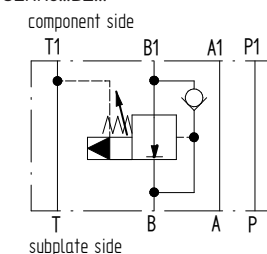
version UZRR6...B...



version UZRR6...AZ...



version UZRR6...BZ...



## TECHNICAL PARAMETERS

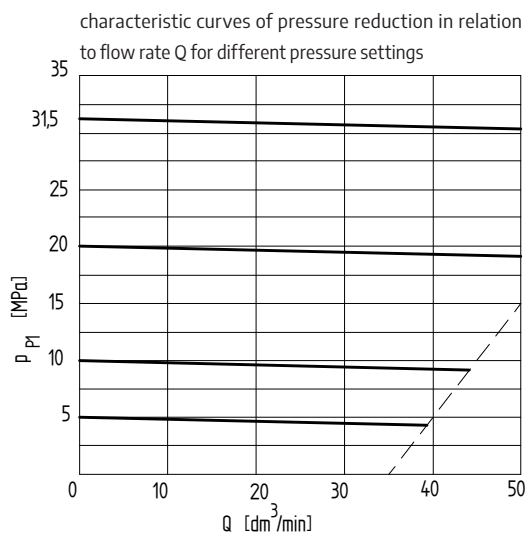
hydraulic fluid	mineral oil	max. set pressure	35 MPa
required fluid cleanliness	<b>ISO 4406 class 20/18/15</b>	pressure at inlet connection	up to 35 MPa
nominal fluid viscosity	37 mm <sup>2</sup> /s at temperature 55°C	pressure at outlet connection	0,3 ÷ 35 MPa
viscosity range	2,8 ÷ 380 mm <sup>2</sup> /s	pressure setting	5 MPa 10 MPa 20 MPa 35 MPa
fluid temperature range (in a tank)	rec.: 40 ÷ 55°C; max. -20 ÷ 70°C	max. flow	50 dm <sup>3</sup> /min
ambient temperature range	-20 ÷ 70°C	weight	1,7 kg
max. working pressure	35 MPa		

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

## PERFORMANCE CURVES

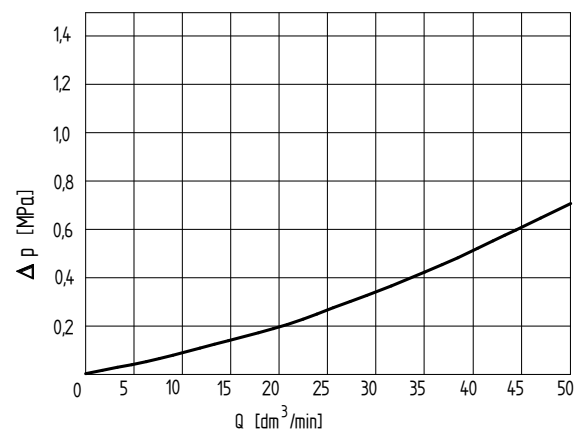
measured at viscosity  $\nu = 41 \text{ mm}^2/\text{s}$  and temperature  $t = 50^\circ\text{C}$

### characteristic curves of pressure reduction



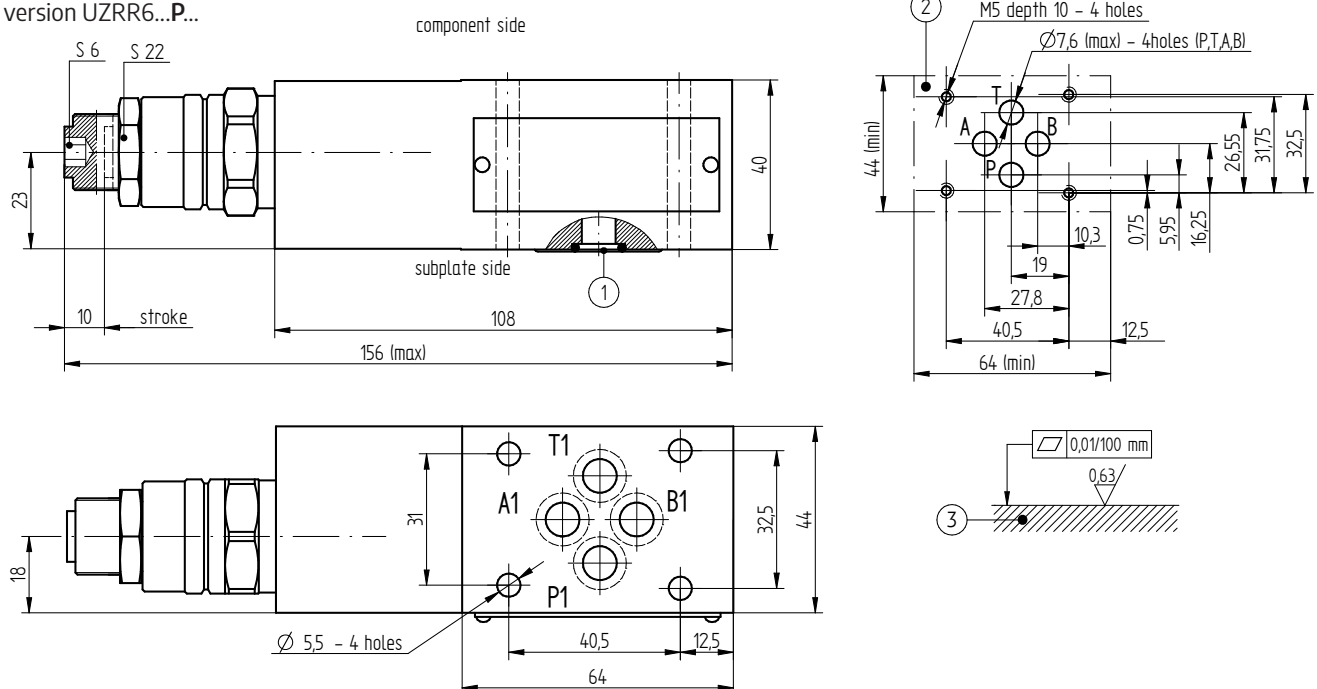
### characteristic curves of flow resistance

characteristic curves of flow resistance  $\Delta p$  (Q) through the check valve, flow direction A  $\rightarrow$  A1, B  $\rightarrow$  B1



## OVERALL AND CONNECTION DIMENSIONS

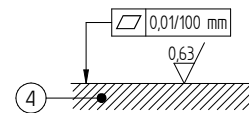
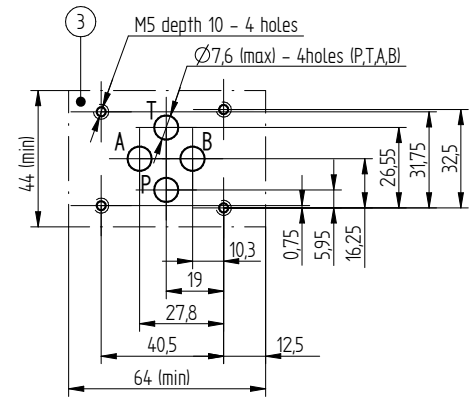
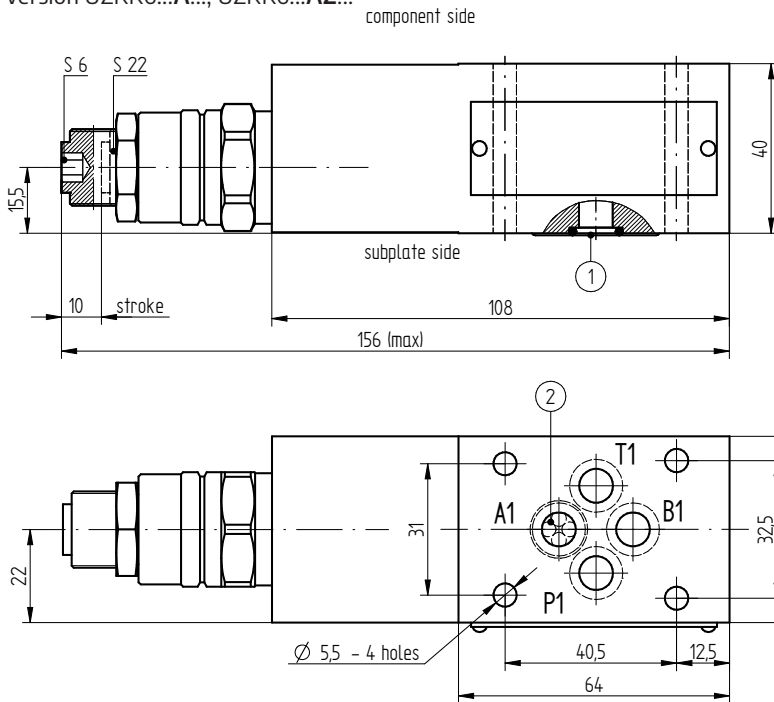
version UZRR6...P...



- o-ring 9,25 × 1,78 - 4 pcs/set (P, T, A, B)
- mounting holes configuration in accordance with ISO 4401 symbol ISO 4401-03-02-0-94 (CETOP 03)
- required surface quality of the valve contact surface

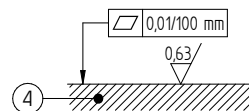
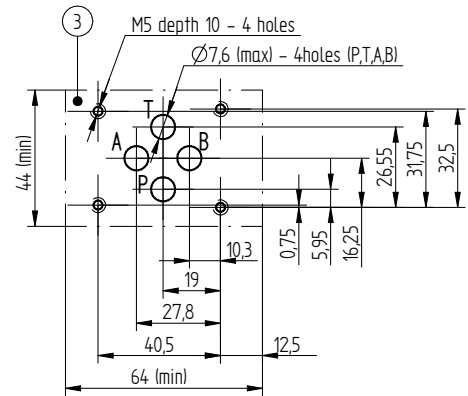
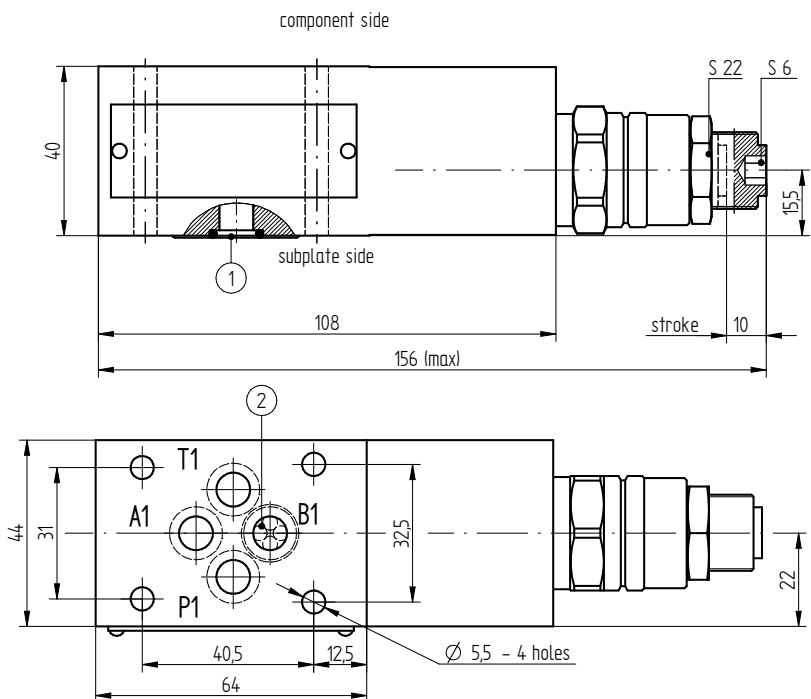
## OVERALL AND CONNECTION DIMENSIONS

version UZRR6...A..., UZRR6...AZ...



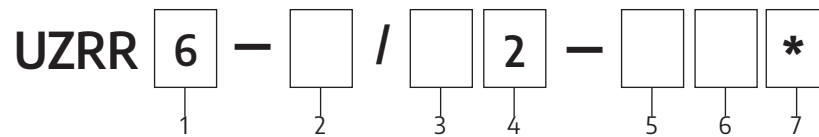
1. o-ring 9,25 × 1,78 - 4 pcs/set (P, T, A, B)
2. check valve in line A - A1 - only for version UZRR6...AZ...
3. mounting holes configuration in accordance with ISO 4401 symbol ISO 4401-03-02-0-94 (CETOP 03)
4. required surface quality of the valve contact surface

version UZRR6...B..., UZRR6...BZ...



1. o-ring 9,25 × 1,78 - 4 pcs/set (P, T, A, B)
2. check valve in line B - B1 - only for version UZRR6...BZ...
3. mounting holes configuration in accordance with ISO 4401 symbol ISO 4401-03-02-0-94 (CETOP 03)
4. required surface quality of the valve contact surface

## HOW TO ORDER



<b>1 nominal size (NS)</b>		<b>4 adjustment element</b>		<b>6 sealing</b>
NS6 =	6	set screw with internal hexagon =	2	NBR (for fluids on mineral oil base) = Ø FPM (for fluids on phosphate ester base) =V
<b>2 series number</b>		<b>5 connection</b> (see page 1)		<b>7 further requirements = *</b>
series 32=	32	reduction in channel P =	P	(to be agreed upon with the Manufacturer)
(30-39) connection and installation dimensions unchanged		reduction in channel A =	A	
		reduction in channel B =	B	
		reduction in channel A + check valve =	AZ	
		reduction in channel B + check valve =	BZ	
<b>3 pressure setting range</b>				
up to 5 MPa =	50			
<b>up to 10 MPa =</b>	<b>100</b>			
up to 20 MPa =	200			
<b>up to 35 MPa=</b>	<b>350</b>			

Ø indicates that the box should be left blank. The **symbols in bold** are the preferred versions available in short delivery time.

Coding example: **UZRR6-32/350-2P**

## SUBPLATES AND MOUNTING SCREWS

Subplates must be ordered according to data sheet **WK 496 480**:

G 341/01 - threaded connection G 1/4

**G 342/01 - threaded connection G 3/8**

G 502/01 - threaded connection G 1/2

Subplates and mounting screws for valve assembly **M5 × L\*** in accordance with **PN - EN ISO 4762 (PN/M-82302)** 4 pcs/set **delivered on separate order**. Tightening torque **M<sub>d</sub> = 9 Nm**.

### NOTE:

(\*) - required length of the screws **L** is related to type and the number of hydraulic components mounted under and over the sandwich plate valve

## CONTACT

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