

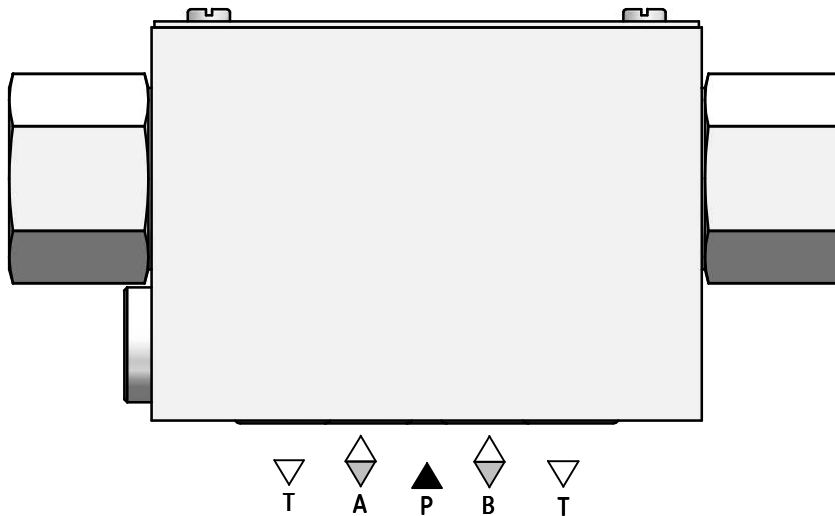
## APPLICATION

Reverse directional valve type **URJP10...** is used for continuous duty together with a hydraulic cylinder. It functions in self-reversible cycle. It is applied in scraping systems e.g. dung or sawdust. **The reverse directional valve can operate under fire hazard conditions.**



## DESCRIPTION OF OPERATION

URJP10/02



The reverse directional valve type **URJP10...** makes an automatic change in direction of fluid flow. It is possible by opening and closing the flow lines by means of a working element – a spool in this case. The reverse directional valve type **URJP10...** is 4-way 2-position directional spool valve automatically controlled. The piston rod of a cylinder reaches the extreme position causing increase of the pressure in a system up to the set pressure at pressure relief valve and at the same time causing decrease of flow rate.

In this moment the reverse directional valve is

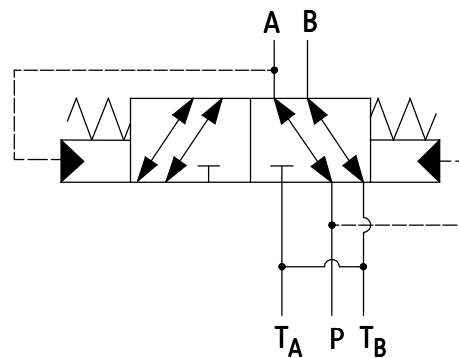
switched automatically and the direction of movement of the piston rod is changed. **Minimum pressure** set at pressure relief valve in the hydraulic system should be **2 MPa** in order to secure the shift of the spool. The pressure as the result of loading outside cylinder should be lower by at least **0,6 MPa** than the pressure set at pressure relief valve. It is recommended that the reverse directional valve is recommended to work together with a cylinder of minimum **piston diameter 63mm**.

## 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>Maximum operating pressure</b>	<b>20 MPa</b>	
<b>Maximum operating pressure</b>	<b>2 MPa</b>	
Weight	2,6 kg	

## SCHEMES

Graphic symbol of reverse directional valve type URJP10...



## SUBPLATES AND MOUNTING BOLTS

Subplates must be ordered according to the data sheet

**WK 496 520.** Subplates:

**G 66/01** - threaded connection **G 3/8**

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

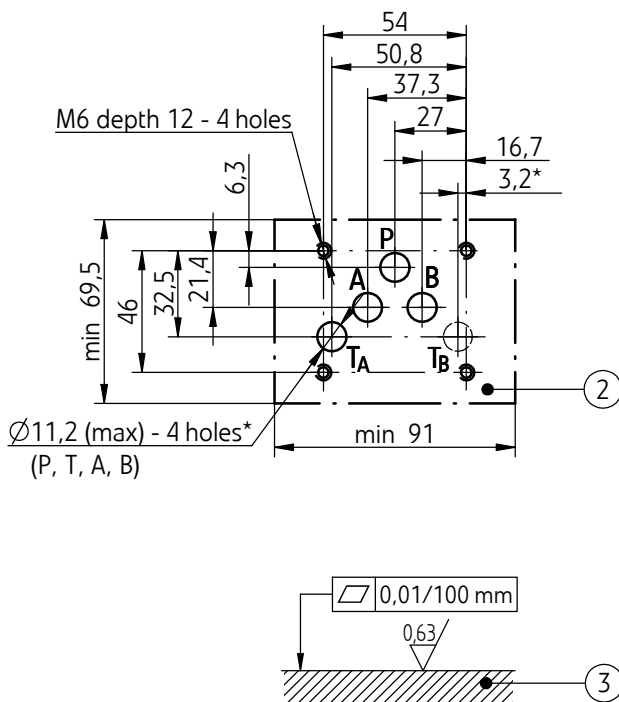
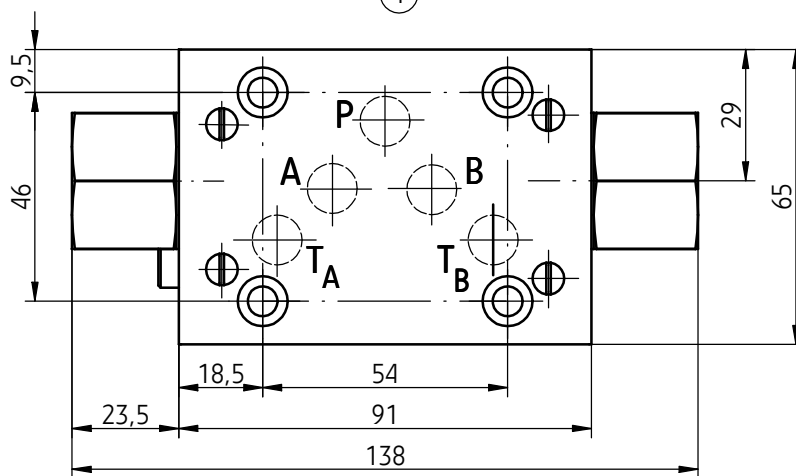
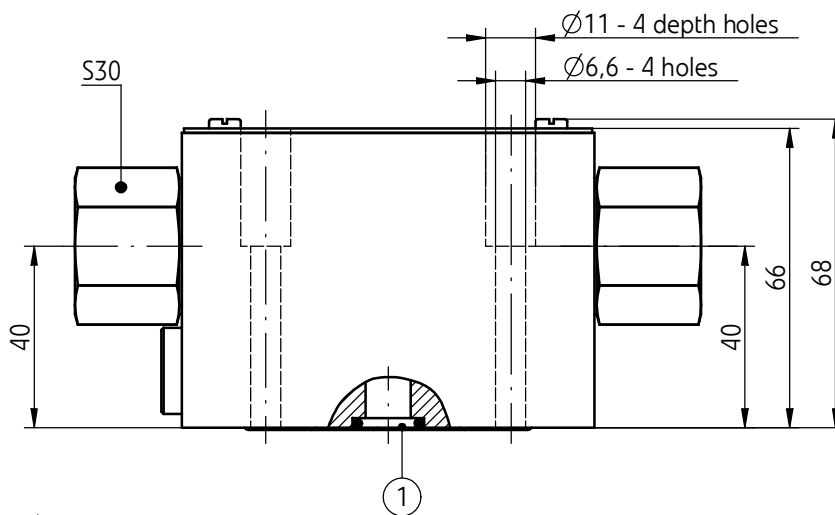
**G 89/01** - threaded connection **G1/4**

**G 67/02** - threaded connection **M22 x1,5**

Subplates and bolts fixing directional valve **M6 x 50 - 10,9** in accordance with **PN - EN ISO 4762** - 4 pcs/kit must be ordered separately.

Tightening torque for bolts **Md = 15 Nm.**

# OVERALL AND CONNECTION DIMENSIONS



- 1 - Sealing ring **o-ring 12 x 2** - 5 pcs/kit (P, T<sub>A</sub>, T<sub>B</sub>, A, B)
- 2 - Porting pattern for directional spool valve configuration of connection holes in accordance with the following standards:
  - CETOP RP 121H - identified by CETOP 4.2-4-05-320 (nominal size **CETOP 05**)
  - ISO 4401 - identified by ISO 4401-05-04-0-94
- (\* ) - connection with 1 hole T from the side of the hole A or B is enough - holes T<sub>A</sub> and T<sub>B</sub> are connected with the port in the housing of directional spool valve mounting bolts **M6 x 50 - 10.9** in accordance with **PN-EN ISO 4762** - 4 pcs/kit tightening torque **Md = 15 Nm**.
- 3 - Subplate surface required

## HOW TO ORDER

<b>URJP</b>		<b>10</b>	/	<b>*</b>
<b>Nominal size (NS)</b> <b>NS10</b>		= <b>10</b>		
<b>Series number</b> (00-09) - connection and installation dimensions unchanged = 1X <b>series 02</b>		= <b>02</b>		
Further requirements in clear text (to be agreed with the manufacturer)				

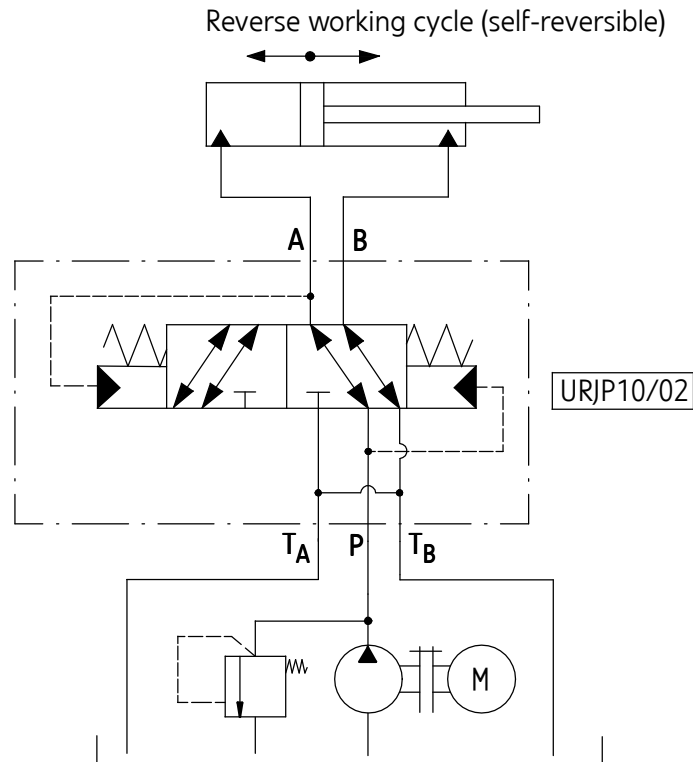
### NOTES:

Reverse directional valve should be ordered according to the above coding.

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

Coding example: URJP 10/02

### EXAMPLE OF APPLICATION IN HYDRAULIC SYSTEM



PONAR Wadowice S.A.  
ul. Wojska Polskiego 29  
34-100 Wadowice  
tel. +48 33 488 29 00  
fax. +48 33 488 21 03  
[www.ponar-wadowice.pl](http://www.ponar-wadowice.pl)

**PONAR**<sup>®</sup>  
wadowice