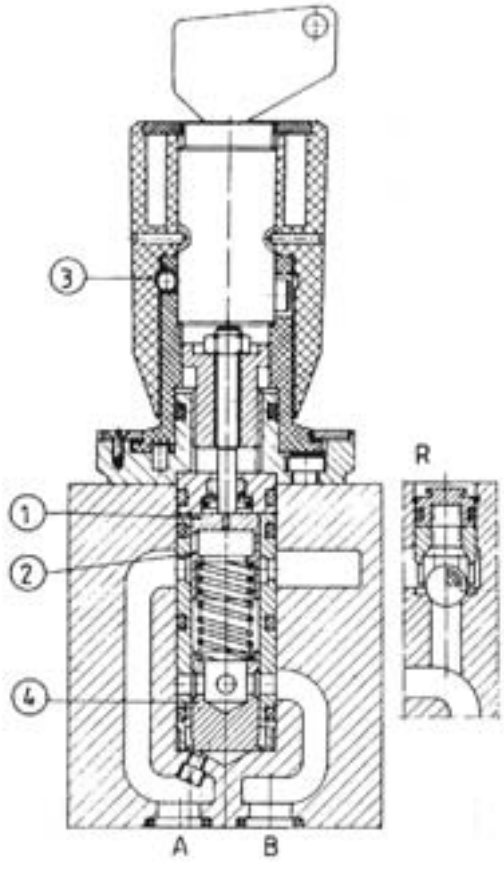
| PONAR wadowice | 2-way flow regulator type UDRD 6 | | | WK 490 010 |
|---|---|---|---|---|
| | Size 6 | 31,5 MPa | up to 43 $dm^3$/min | 04.1999r. |

2-way flow regulator type UDRD6 serves to control fluid flow in one direction and allows free flow in the opposite direction ( in version with check valve ).
The regulator is fixed to the subplate by means of 4 bolts (they are not included with the valve ).
Mating surfaces ( between the valve and the subplate ) are sealed with O-rings which are included.
The regulator may be mounted into a circuit in any position.


## DESCRIPTION OF OPERATION

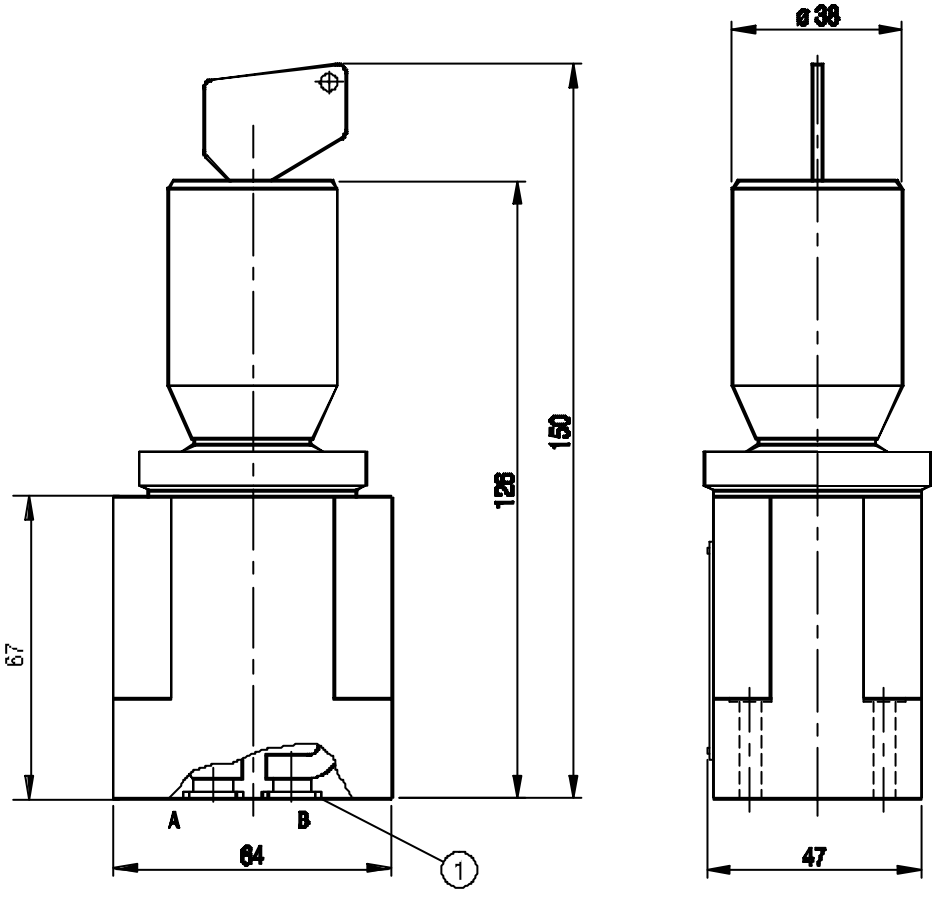
To set fluid flow, oil should be pressurized to line A. The oil is throttled by the restrictor (1) at the throttling gap (2).
Turning the hand knob clockwise in the range of 10 scale division causes the restrictor (1) to move down and the gap to broaden.
The pressure compensator (4) holds the fluid flow independent of pressure. In order to allow free flow from B to A, a check valve is united ( in version with check valve ).



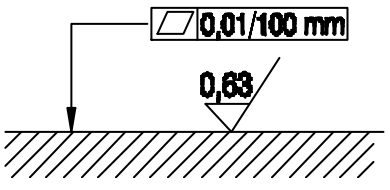
## TECHNICAL DATA

| | |
|---|---|
| Hydraulic fluid | Mineral oil |
| Nominal fluid viscosity | 37 $mm^2/s$ at temp. 328 K |
| Viscosity range | 2, 8 to 380 $mm^2/s$ |
| Optimum working temperature ( fluid in a tank ) | 313 ÷ 328 K |
| Fluid temperature range | 243 ÷ 343 K |
| Maximum working pressure | 31,5 MPa |
| Recquired filtration | 16 μm |
| Tolerance of fluid control for constant pressure and temp. | ± 5% |
| Least pressure difference before and behind the regulator | 1,5 MPa |
| Flow stability at pressure change | ± 5% |
| Weight | 1,4 kg |

## OVERALL DIMENSIONS

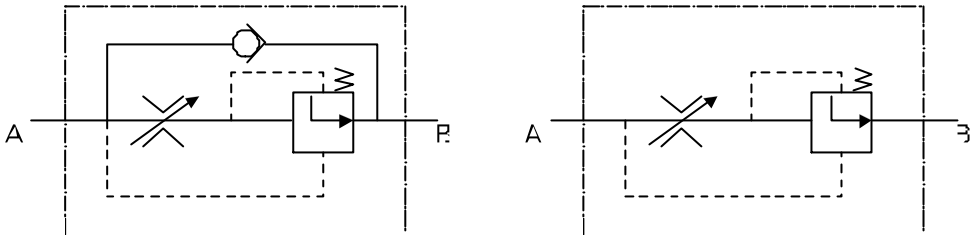



1 - Sealing O-ring 9,2 x 1,8 pcs. 2



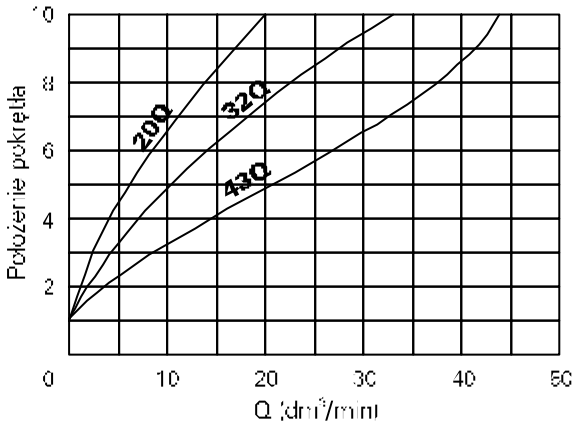

Required surface finish for subplate face

## HYDRAULIC DIAGRAM

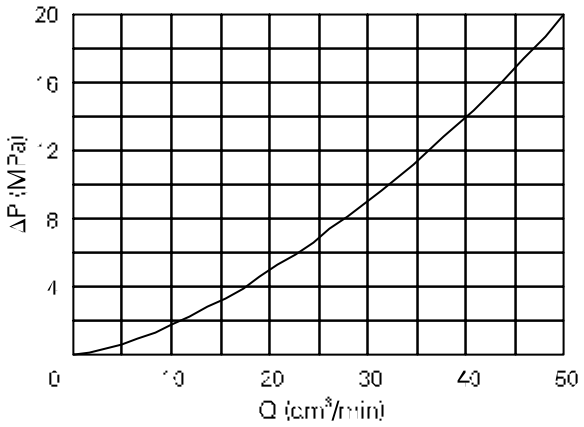



Version R  Version M

## OPERATING CURVES for $\nu$ = 41 mm²/s and T= 323 K




Fluw rate in relation to setting for different versions of the regulator ( direction A - B )




Flow resistance at check valve ( direction B - A )

## HOW TO ORDER

Orders coded as below should be forwarded to the manufacturer.

**UDRD 6 / – – ***

**Series number**
11 = 11
( 10 - 19 ) = connection and mounting dimensions unchanged

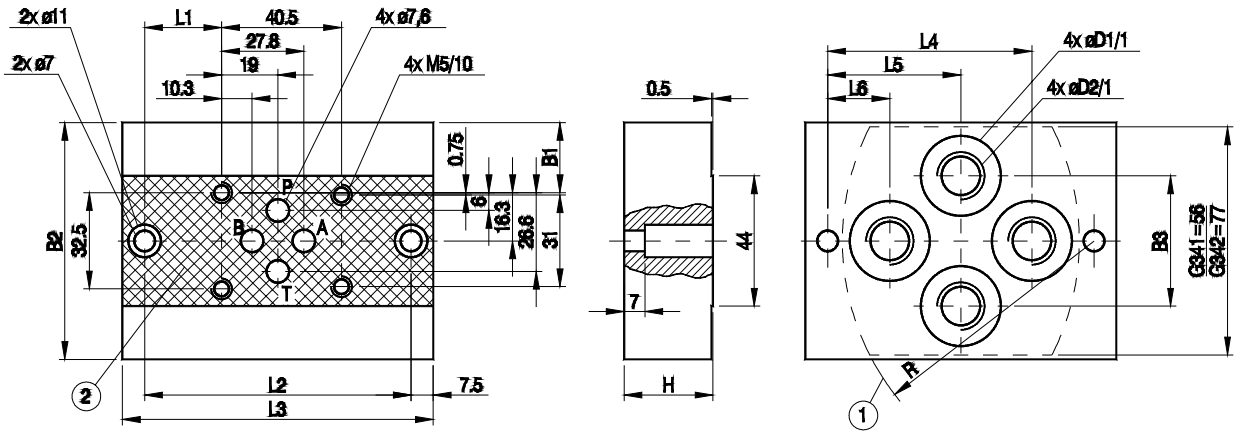
**Flow range**
up to 20 dm³/min = 20 Q
uo to 32 dm³/min = 32 Q
up to 43 dm³/min = 43 Q

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

**Version**
With check valve = R
Without check valve = M

Example : UDRD 6/ 11-20QR

## CONNECTION DIMENSIONS




Subplate weight ~0,8 kg.

item 1 - recess in a subplate face
item 2 - subplate surface

| Type | B1 | B2 | B3 | L1 | L2 | L3 | L4 | L5 | L6 | H | D1 | D2 | R | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G341/01 | 12,7 | 58 | 34 | 21 | 80 | 95 | 55 | 40 | 25 | 25 | 22 | G1/4 | 70 | 13 |
| G341/01 | 23,7 | 80 | 44 | 26 | 90 | 105 | 69 | 45 | 21 | 30 | 28 | G3/8 | 85 | 13 |
| G341/02 | 12,7 | 58 | 34 | 21 | 80 | 95 | 55 | 40 | 25 | 25 | 22 | M14x1,5 | 70 | 15 |
| G342/02 | 23,7 | 80 | 44 | 26 | 90 | 105 | 69 | 45 | 21 | 30 | 27 | M16x1,5 | 85 | 16 |

Mounting the valve to the subplate by means of M5 x 30-10.9 to PN-74/M-82302 (DIN 912)- 4 pcs .
Tightening torque 9 Nm.
Subplates and fixing bolts have to be ordered separately.

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