

APPLICATION

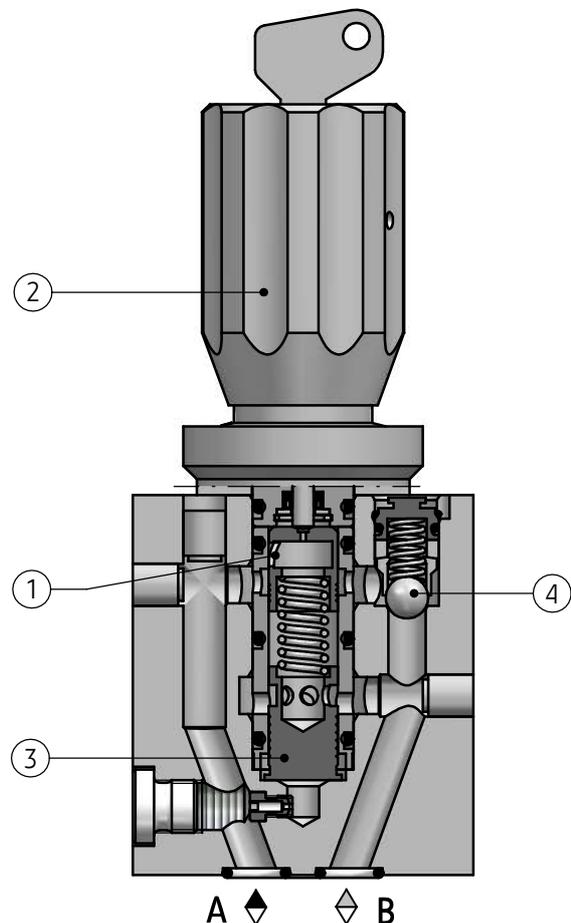
2-way flow control valve type **UDRD6**... serves to control fluid flow rate independently of pressure and temperature in direction **A** to **B** and allows free flow in the opposite direction **B** to **A** (in version with a check valve). The valve may be mounted in a hydraulic circuit in any position.



UDRD6 - 22/20 Q R

DESCRIPTION OF OPERATION

After supplying pressurized oil into line **A** of the valve a flow rate is stabilized at the throttling gap (1). By rotating handknob (2) clockwise (in range of 10 scale divisions – about 300°) the throttling gape (1) broadens and flow through the valve increases. Constant flow independent of pressure is held by pressure compensator (3). Free flow from line **B** to **A** is ensured by check valve (4) – in version with check valve (UDRD6 – 22/...R).



TECHNICAL DATA

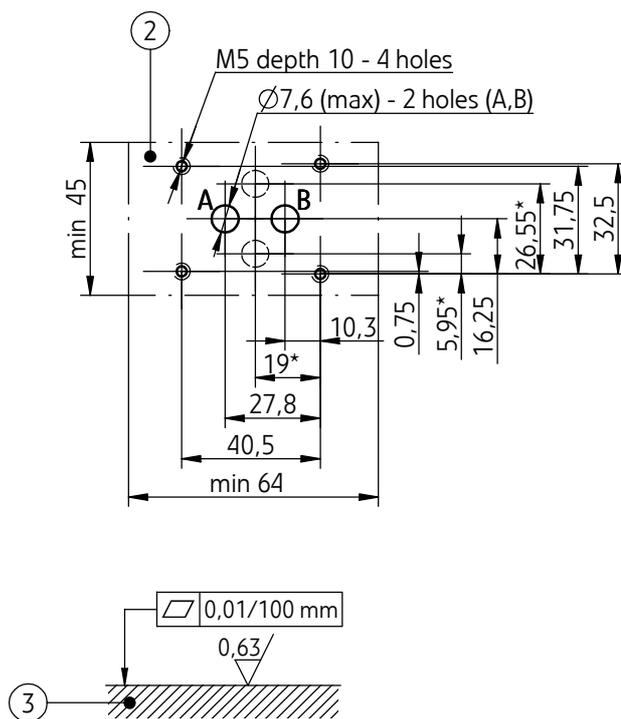
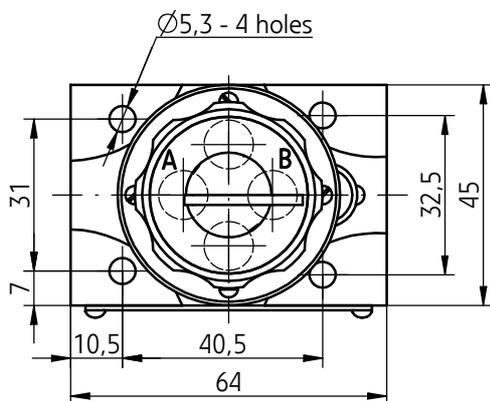
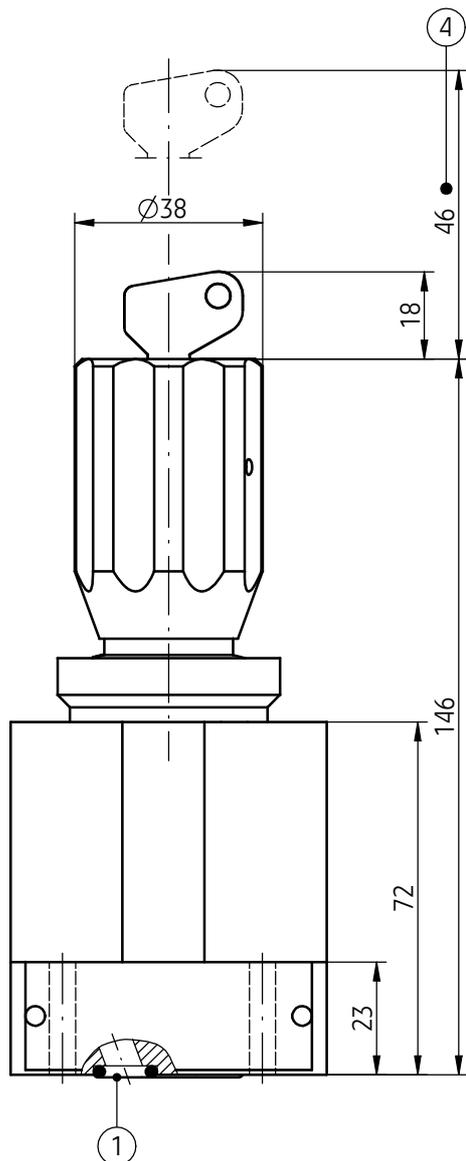
Hydraulic fluid	mineral oil	
Required filtration	up to 16 µm	
Recommended filtration	up to 10 µm	
Nominal fluid viscosity	37 mm ² /s at temperature 55 °C	
Viscosity range	2,8 up to 380 mm ² /s	
Fluid temperature range (in a tank)	recommended	40 °C up to 55 °C
	max	-20 °C up to +70 °C
Ambient temperature range	-20 °C up to +70 °C	
Maximum operating pressure	31,5 MPa	
Tolerance of flow control for constant pressure and temperature	± 5 %	
The least pressure difference before and behind the valve	1,5 MPa	
Flow stability at pressure change	± 5 %	
Weight	1,4 kg	

SCHEMES

Simplified and detailed graphic symbols of flow control valves type UDRD6...

version UDRD6.../...R...	detailed symbol	simplified symbol
version UDRD6.../...R...		
version UDRD6.../...M...		

OVERALL AND CONNECTION DIMENSIONS



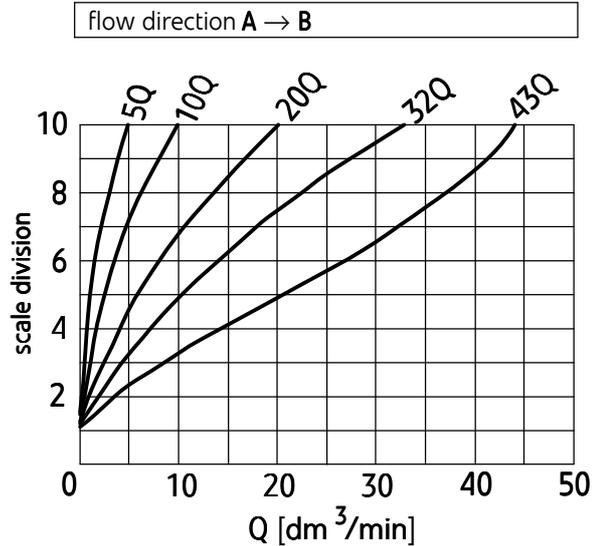
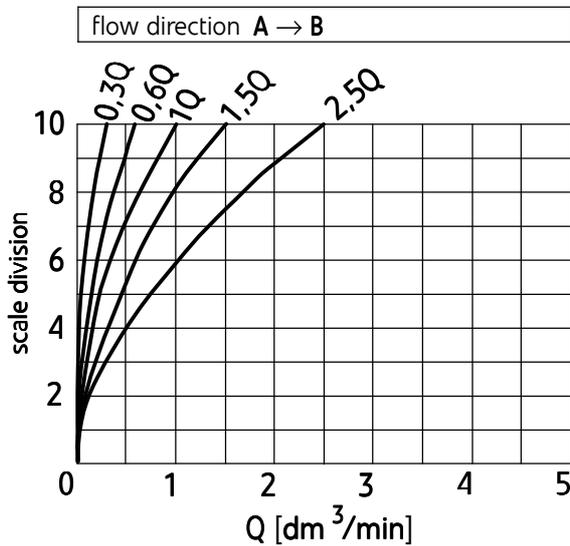
- 1 - Sealing ring **o-ring 9,2 x 1,8** - 4 pcs/kit
- 2 - Porting pattern - configuration of surface holes in subplate in accordance with the following standards:
 - **CETOP RP 121H** - identified by **CETOP 4.2-4-03** (nominal size **CETOP 03**)
 - **ISO 4401** - identified by **ISO 4401-03-02-0-94**
- mounting bolts **M5 x 30 -10.9** - 4 pcs/kit in accordance with **PN - EN ISO 4762**
- tightening torque **Md = 9 Nm**
- NOTE:**
- (*) - dimensions related to centers of deep holes (with sealing rings item 1 - 2 pcs) in housing of flow control valve in order to apply an accordance with **CETOP RP 121H, ISO 4401**
- 3 - Subplate surface required
- 4 - Space required to remove the key from the lock of the adjustment

PERFORMANCE CURVES

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

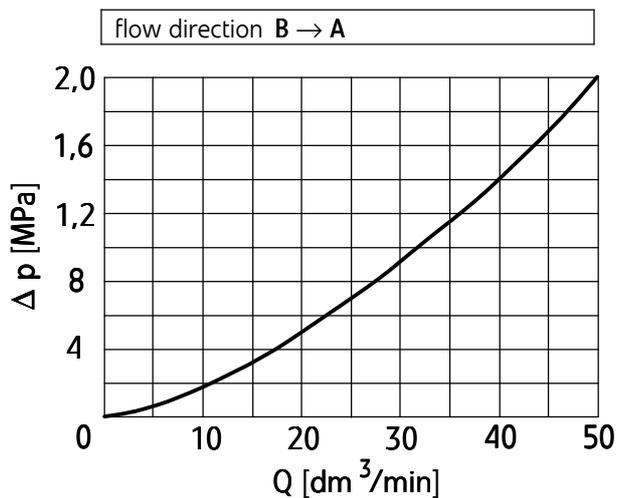
Characteristic of flow in relation to the valve setting

Characteristic curves of flow relation to handknob position on scale for flow control valves with different settable flow ranges



Characteristic of flow resistance

Characteristic curves of flow resistance through check valve - version UDRD6-22/...R...



HOW TO ORDER

UDRD	6	+	/				*
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Nominal size (NS) NS6 = 6					
Series number (20 - 29) - connection and installation dimensions unchanged = 2X series 22 = 22					
Flow range (A → B) up to 0,3 dm³/min = 0,3 Q up to 0,6 dm³/min = 0,6 Q up to 1,0 dm³/min = 1 Q up to 1,5 dm³/min = 1,5 Q up to 2,5 dm³/min = 2,5 Q up to 5,0 dm³/min = 5 Q up to 10 dm³/min = 10 Q up to 20 dm³/min = 20 Q up to 32 dm³/min = 32 Q up to 43 dm³/min = 43 Q					
Version with check valve = R without check valve = M					
Sealing NBR (for fluids on mineral oil base) = no designation FKM (for fluids on phosphate ester base) = V					
Further requirements in clear text (to be agreed with the manufacturer)					

NOTES:

The flow control valve should be ordered according to the above coding.

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

Coding example: UDRD6 - 22/20 Q M

SUBPLATES AND MOUNTING BOLTS

Subplates should be ordered according to data sheet **WK 496 480**. Symbols of subplates:

G 341/01 - threaded connections **G 1/4**
G 342/01 - threaded connections G 3/8
G 502/01 - threaded connections G 1/2
G 341/02 - threaded connections M14 x 1,5
G 342/02 - threaded connections M16 x 1,5

Subplates and mounting bolts **M5 x 30 - 10,9** - 4 pcs/kit in accordance with **PN - EN ISO 4762** must be ordered separately.

Tightening torque for bolts **Md = 9 Nm**

NOTE:

Subplate symbols in bold are preferred versions in short delivery time.

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