

Throttle valve UDDB 10

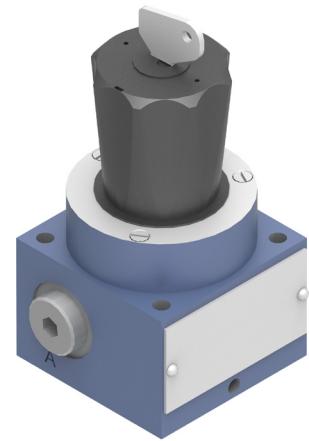
NS 10 | p_{max} 35 MPa | Q_{max} 80 dm³/min | WK 496 230



DATA SHEET - OPERATION MANUAL

APPLICATION

Throttle valves type UDDB10... are designed to control (throttle) fluid flow which depends on pressure difference and fluid viscosity at throttling point. They can be used in hydraulic systems with constant operating resistance or where change in flow speed is of no importance when the load is changed. They are intended for subplate mounting in any position in hydraulic systems.



DESCRIPTION OF OPERATION

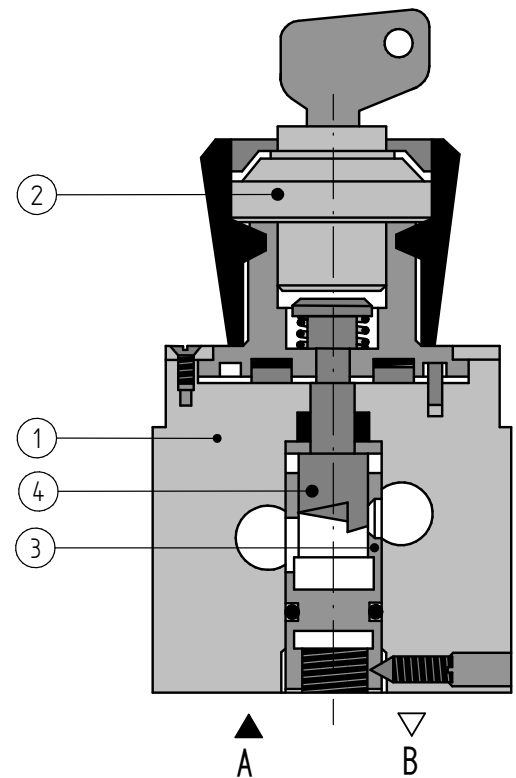
Throttle valve type UDDB10... is a precise throttle valve. Main elements of the valve are: housing 1, adjustment element 2, throttle elements - sleeve 3 and curved bolt 4. The fluid flow is throttled through the controlled coverage of the hole in the sleeve 3 with a spiral curved bolt 4 edge.

TECHNICAL PARAMETERS

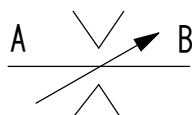
hydraulic fluid	mineral oil	
required fluid cleanliness	ISO 4406 class 20/18/15	
nominal fluid viscosity	37 mm ² /s at temperature 55 °C	
viscosity range	2,8 ÷ 380 mm ² /s	
fluid temperature range (in a tank)	40 ÷ 55 °C	
ambient temperature range	-20 ÷ 70 °C	
max. working pressure	35 MPa	
max. flow	depending on the valve version - flow ranges acc. to pages 3 and 4	
rotation degree of hand knob	300°	
turning torque of hand knob	up to 10 MPa	1,1 Nm
	up to 20 MPa	1,8 Nm
weight	1,4 kg	

assembly and operation requirements at www.operating-conditions.ponar.pl

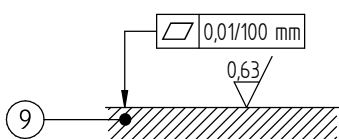
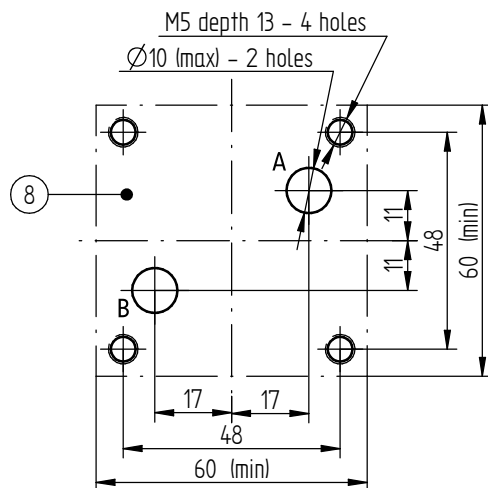
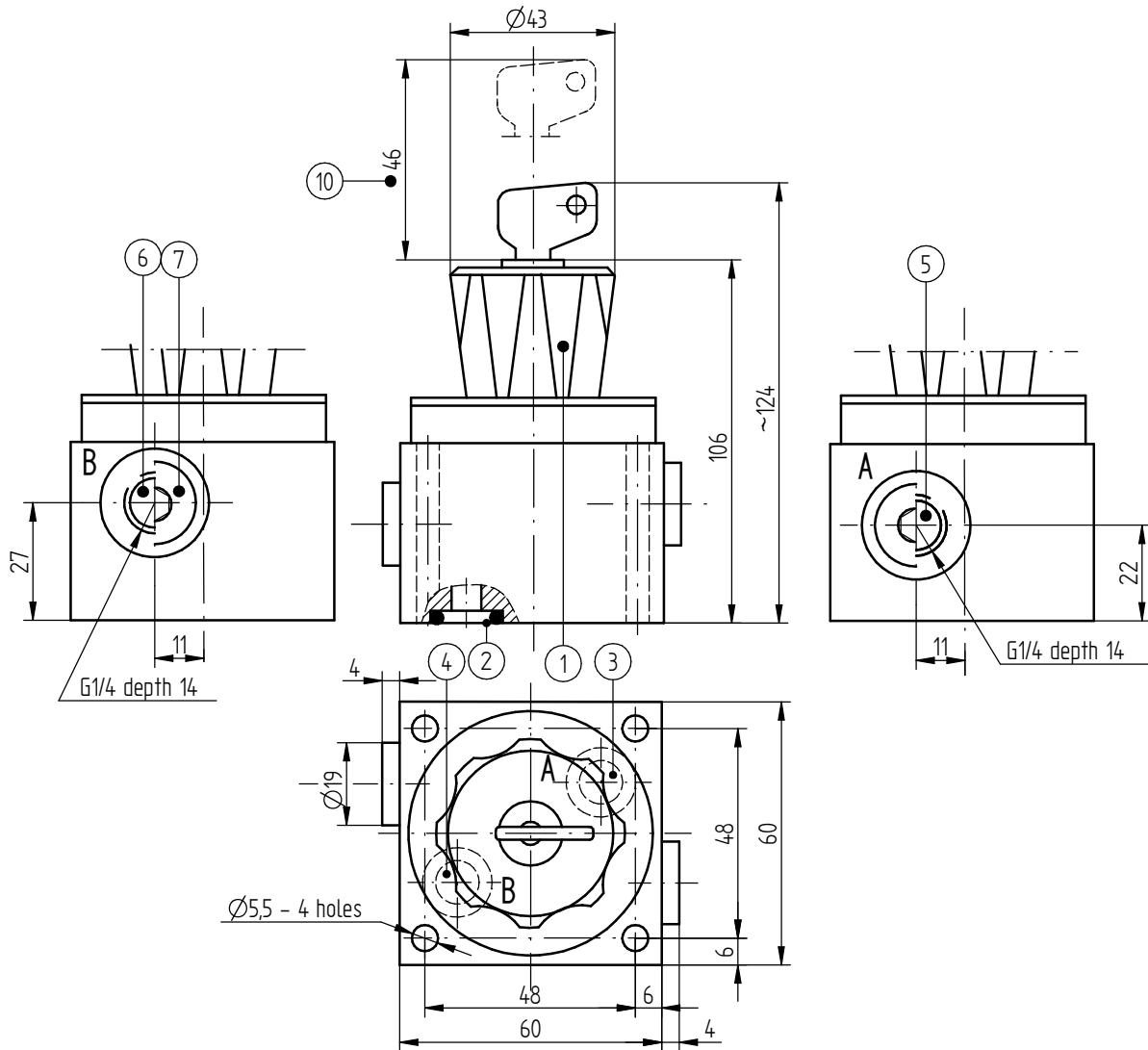
version UDDB10-02/50L



HYDRAULIC DIAGRAM



OVERALL AND CONNECTION DIMENSIONS



1. hand knob (rotaty knob with a key lock)
2. o-ring 12 x 2 - 2 pcs/kit (A, B)
3. inlet port (A)
4. outlet port (B)
5. additional port A (G1/4)
6. additional port B (G1/4)
7. plug G1/4 - 2 pcs/kit (A, B)
8. porting pattern of subplate surface
9. required surface quality of the valve contact surface
10. space required to remove the key from the lock the adjustmet element

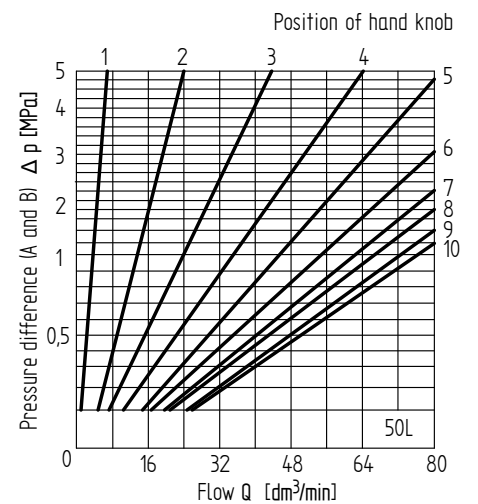
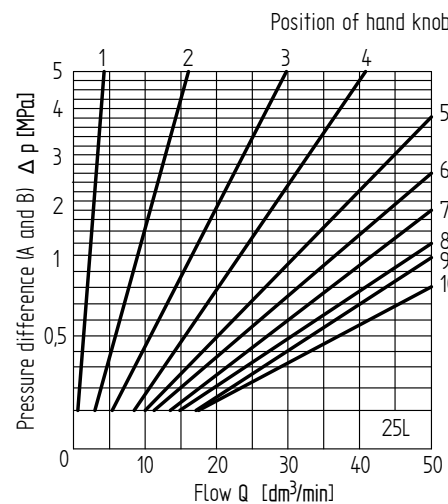
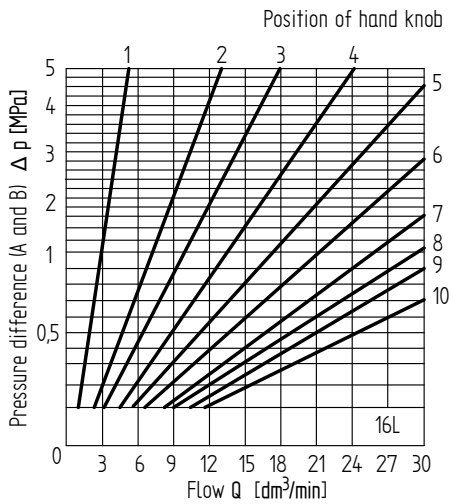
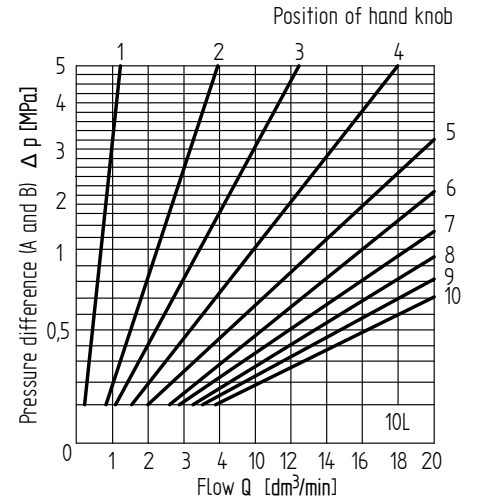
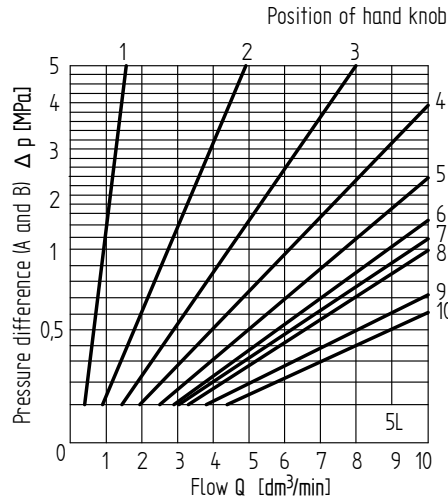
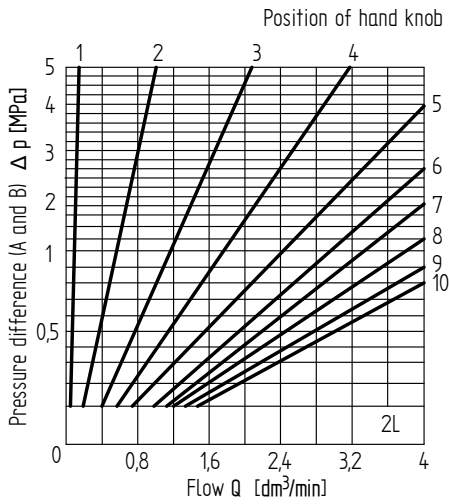
Fixing screws **M5 x 50 - 10.9** according to **PN - EN ISO 4762** (PN/M - 82302 - 4 pcs/set; tightening torque **M_d = 6 Nm**)

NOTE:
subplates and mounting screws must be ordered separately.

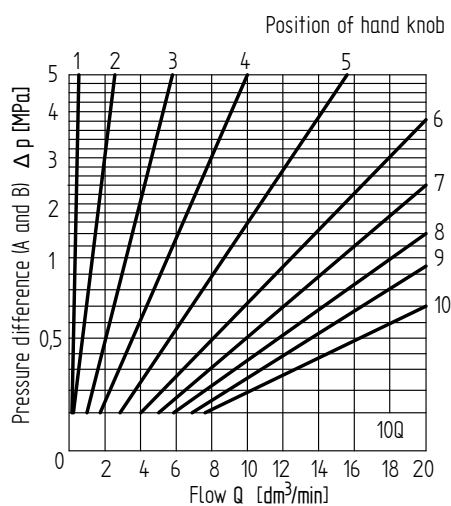
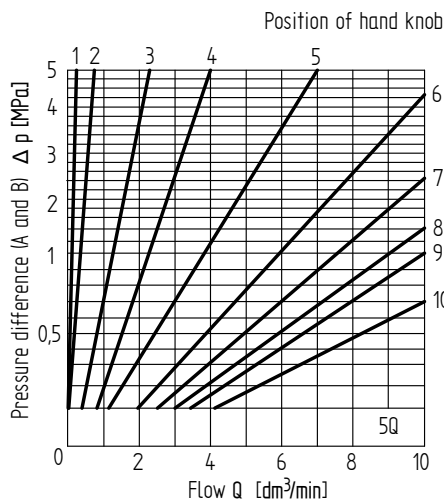
PERFORMANCE CURVES

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

version UDDB10-02/...L...



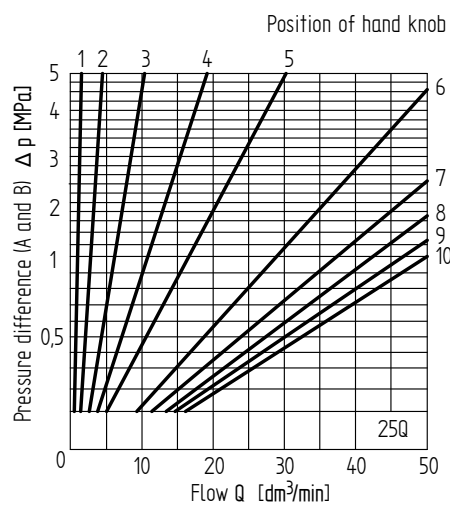
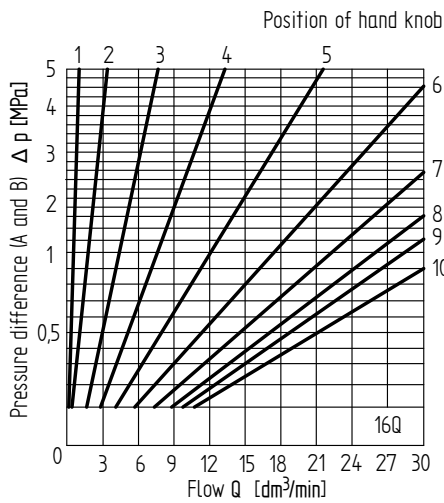
version UDDB10-02/...Q...



PERFORMANCE CURVES

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

version UDDB10-02/...Q...



HOW TO ORDER

UDDB - /

1 2 3 4 5

1 nominal size

NS10 = 10

2 series number

series 02 = 02
(02 ÷ 09) - connection and installation dimensions unchanged

3 flow range (A → B)

linear
 2 dm³/min = 2L
 5 dm³/min = 5L
 10 dm³/min = 10L
 16 dm³/min = 16L
 25 dm³/min = 25L
 50 dm³/min = 50L

progressive
 5 dm³/min = 5Q
 10 dm³/min = 10Q
 16 dm³/min = 16Q
 25 dm³/min = 25Q

4 sealing

NBR (for fluids on mineral oil base) = ∅
 FKM (for fluids on phosphate ester base) = V

5 further requirements = *
 (to be agreed upon with the Manufacturer)

∅ indicates that the box should be left blank. The **symbols in bold** are the preferred versions available in short delivery time.
 Coding example: **UDDB10-02/10L**

SUBPLATES AND MOUNTING SCREWS

Subplates must be ordered according to the data sheet **WK 470 012**:
G45/01 – threaded connections – **G½**

Subplate and mounting screws for valve assembly **M5 x 50 – 10.9** in accordance with **PN – EN ISO 4762** (PN/M – 82302) - 4 pcs./kit must be ordered separately.
 Tightening torque for screws **M_d = 6 Nm**.

CONTACT

PONAR Wadowice S.A.
 ul. Wojska Polskiego 29
 34-100 Wadowice

tel. +48 33 488 21 00
 www.ponar-wadowice.pl