

Cartridge check valve UZZD 10 type

NS 10 | p_{max} 35 MPa | Q_{max} 150 dm³/min | WK 499 435



DATA SHEET - OPERATION MANUAL

APPLICATION

Cartridge check valves **UZZD10...** are used in hydraulic systems, which require free flow in one direction and automatic closure in the opposite direction. The valves can be applied as low-pressure relief valves for keeping defined pressure drop at constant level. Valves can be installed in any required position in the relevant cavity.

DESCRIPTION OF OPERATION

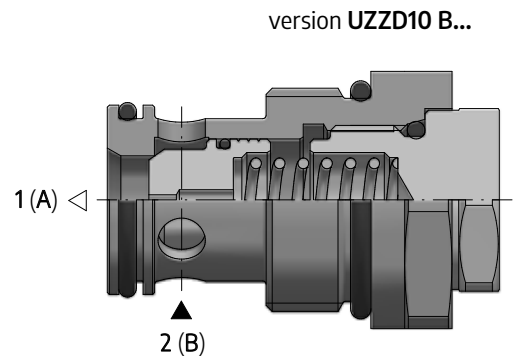
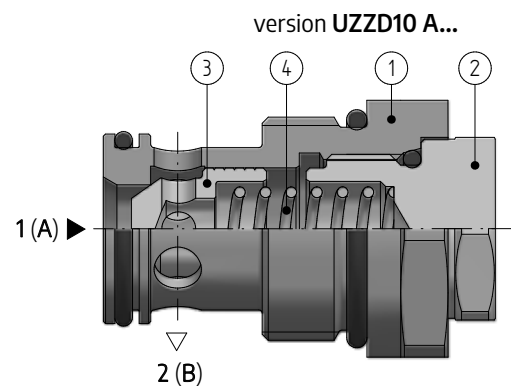
The plug **2** which is also the seat for the spring **4** is mounted in the sleeve **1**. The spring pushes the poppet **3** towards the internal edge of the sleeve.

Operation description of UZZD10A version:

If pressure difference in port **1(A)** exceeds the cracking pressure determined by the spring, the poppet will move along the cylindrical surface of the sleeve allowing free flow from port **1(A)** to **2(B)**.

Operation description of UZZD10B version:

In **UZZD10B...** version there is a reverse flow direction. If pressure difference in port **2(B)** acting on the surface determined by the poppet leading diameter and the cavity diameter, exceeds the cracking pressure value determined by the spring, the poppet is moved and the flow from port **2(B)** to **1(A)** opens.



TECHNICAL PARAMETERS

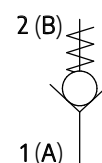
hydraulic fluid	mineral oil	
required fluid cleanliness class	ISO 4406 class 19/17/14	
nominal fluid viscosity	37 mm ² /s at temperature 55°C	
viscosity range	2,8 ÷ 380 mm ² /s	
fluid temperature range (in a tank)	recommended	40 ÷ 55°C
	max.	-30 ÷ 70°C
ambient temperature range	-30 ÷ 70 °C	
cracking pressure	UZZD10 A...	UZZD10 B...
	0,05 MPa	0,17 MPa
	0,12 MPa	0,5 MPa
maximum operating pressure	35 MPa	
maximum flow	150 dm ³ /min	
weight	~0,2 kg	

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

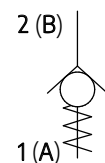
Dedicated subplates **2UL10...** according to **WK 430 310**

DIAGRAMS

version **UZZD10 A...**

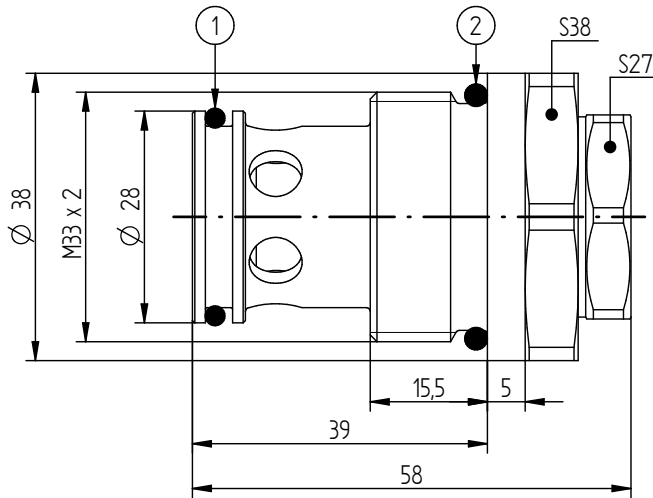


version **UZZD10 B...**



OVERALL AND CONNECTION DIMENSIONS

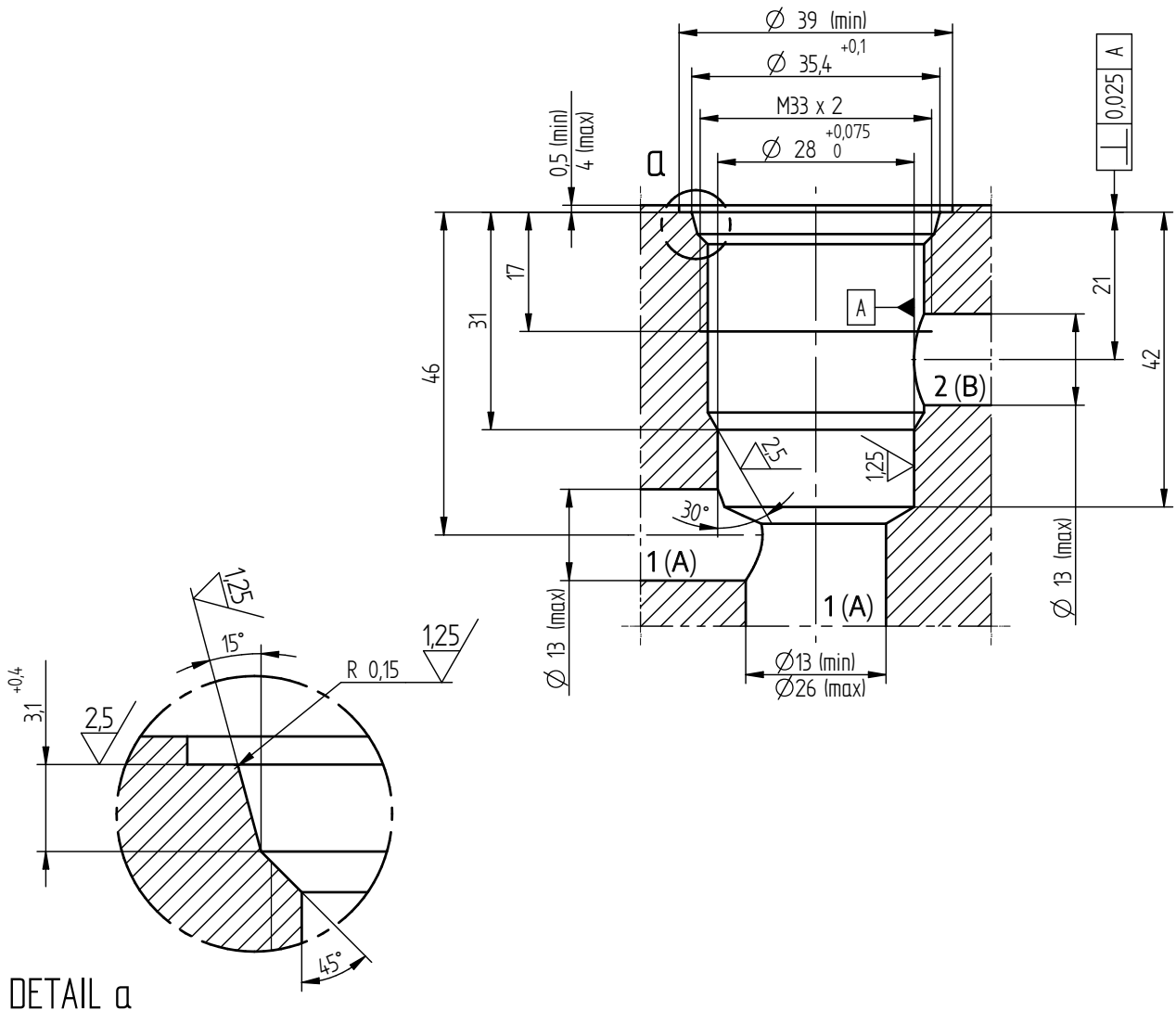
Valve UZZD 10...



1. sealing ring o-ring 24 × 2 – 1 pc
2. sealing ring o-ring 29,2 × 3 – 1 pc

Connection cavity **M - 10 - 2** (M33 × 2)
Tightening torque **Md = 50 ÷ 55 Nm**

$\phi 0,025$ -refers to all diameters of main hole and chamfers

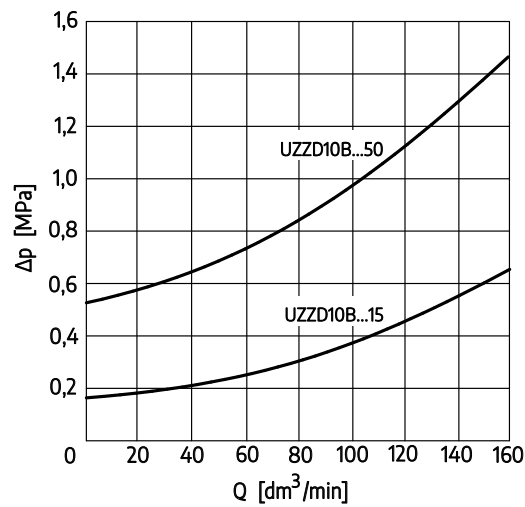
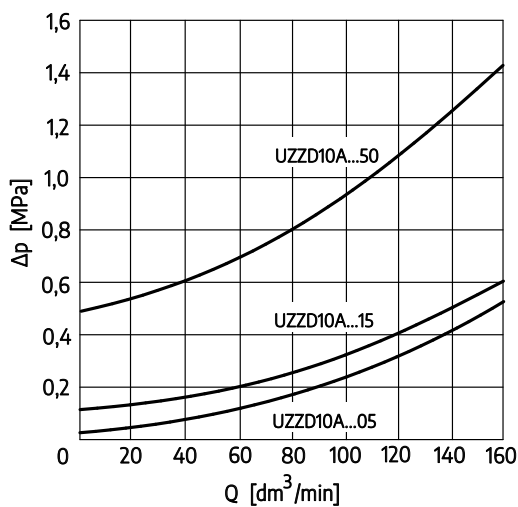


DETAIL a

FLOW RESISTANCE CURVES

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

Relation of flow resistances to the volumetric flow rate



HOW TO ORDER

UZZD 10 / **M1**

1 2 3 / 4 5 6 7

1 nominal size

NS 10 =

10

4 cracking pressure

0,05 MPa - only for UZZD10A... =

05

0,12 MPa - for UZZD10A... =

15

0,17 MPa - for UZZD10B... =

15

0,50 MPa =

50

6 sealing

NBR (for fluids on mineral oil base) =

FKM (for fluids on phosphate ester base) =

V

2 flow direction

from 1 to 2 =

A

from 2 to 1 =

B

5 type of hydraulic connection cavity M33 × 2 =

M1

3 series number

series 32 =

32

(32 ÷ 39) connection and installation

dimensions unchanged =

3X

7 further requirements in clear text = *

(to be agreed upon with the manufacturer)

Ø indicates that the box should be left blank.

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

Coding example: **UZZD 10 A 32 / 15 M1**

SUBPLATES

Plates **2UL10 ...** should be ordered acc. to data sheet **WK 430 310**

Plates are delivered on separate order.

CONTACT

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