

### DATA SHEET - OPERATION MANUAL

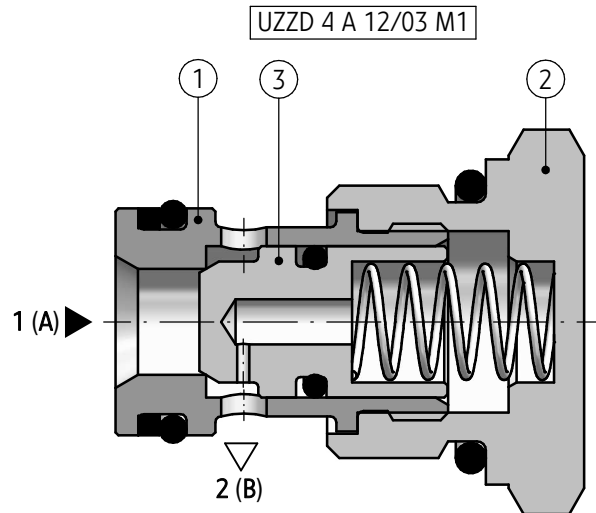
#### APPLICATION

Cartridge check valve type UZZD4... is used in hydraulic systems, where free flow in one direction and self-acting closure in the opposite direction is required. This valve can be applied as low-pressure relief valve for keeping pressure drop at a constant level. Valve can be installed in any desired position.

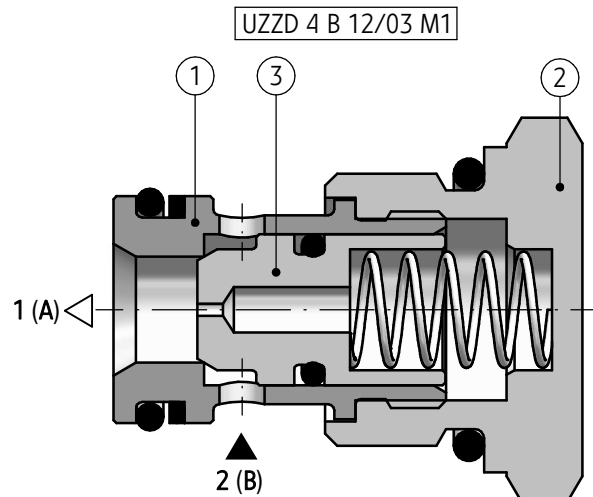


#### DESCRIPTION OF OPERATION

version UZZD4 A...



version UZZD4 B...



The plug (2) being simultaneously the seat for the spring is mounted in the sleeve (1). The spring pushes the poppet (3) onto the internal edge of the sleeve. If a pressure difference in port 1 (A) or 2 (B) 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) in version UZZD4 A... or 2 (B) to 1 (A) in version UZZD4 B....

## TECHNICAL DATA

Hydraulic fluid	mineral oil				
Required fluid cleanliness class	ISO 4406 class 20/18/15				
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				
Cracking pressure	0,03 MPa	0,1 MPa*	0,15 MPa*	0,3 MPa	0,5 MPa
Max operating pressure	31,5 MPa				
Max flow rate	30 dm <sup>3</sup> /min				
Weight	0,06 kg				

### NOTE:

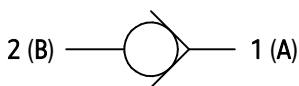
(\*) - option available only for version UZZD4A...

## INSTALLATION AND OPERATION REQUIREMENTS

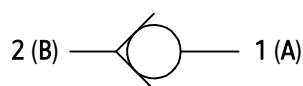
- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Only fully functional and operational valve must be used.</li> <li>2. During the operation one must maintain the recommended fluid viscosity acc. to requirements defined in this Data Sheet - Operation Manual</li> <li>3. In order to ensure failure free and safe operation the following must be systematically checked: <ul style="list-style-type: none"> <li>• proper working of the valve</li> <li>• cleanliness of the hydraulic fluid</li> </ul> </li> <li>4. Due to heating of valve body to high temp., the valve shall be placed in such way to eliminate the risk of accidental contact with the valve body during</li> </ol> | <p style="text-align: right;">operation or suitable covers shall be applied acc. to European standards PN - EN ISO 13732 - 1 and PN - EN 4413</p> <ol style="list-style-type: none"> <li>5. In order to provide proper tightness of the valve connection to the hydraulic system, one should keep the dimensions of the sealing rings, the dimensions of cavity, tightening torques values and valve operation parameters, specified in this Data Sheet - Operation Manual.</li> <li>6. A person that operates the valve must be thoroughly familiar with this Data Sheet - Operation Manual.</li> </ol> |
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## DIAGRAMS

Graphic symbol for the valve type UZZD4...



version UZZD4A...

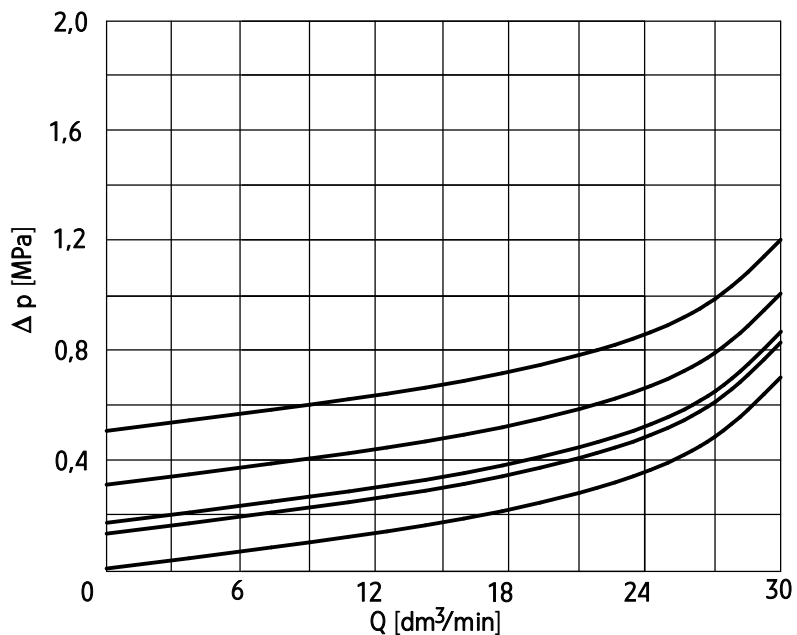


version UZZD4B...

## PERFORMANCE CURVES

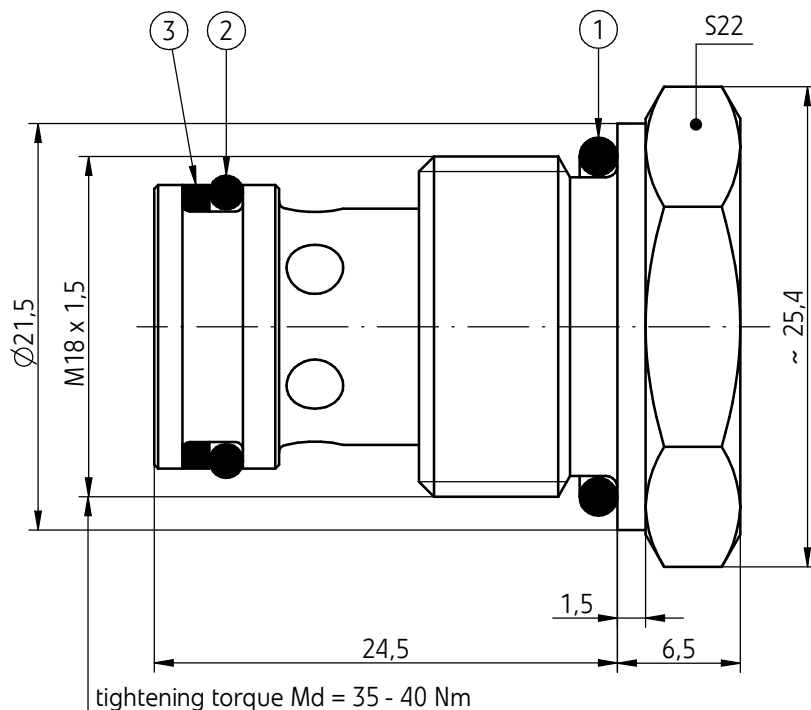
measured at viscosity  $\nu = 41 \text{ mm}^2/\text{s}$  and temperature  $t = 50^\circ\text{C}$

Flow curves



## OVERALL AND CONNECTION DIMENSIONS

valve type UZZD4...



- 1 - Sealing o-ring 16 x 2 - 1 pc/set
- 2 - Sealing o-ring 12,42 x 1,78 - 1 pc/set
- 3 - Back-up ring 15 x 12,2 x 1 - 1 pc/set



## HOW TO ORDER

<b>UZZD</b>	<b>4</b>		/	<b>M1</b>		<b>*</b>
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### Nominal size (NS)

**NS4** = **4**

### Flow direction

**from 1 to 2** = **A**

**from 2 to 1** = **B**

### Series number

(12 - 19) - connection and installation dimensions unchanged = 1X

**series 12** = **12**

### Cracking pressure

**0,03 MPa** = **03**

0,1 MPa\* = 10

0,15 MPa\* = 15

0,3 MPa = 30

0,5 MPa = 50

### NOTE:

(\* ) - option available only for version UZZD4A...

### Type of connection

**cavity M18 x 1,5** = **M1**

### 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 valve should be ordered according to the above coding.

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

Coding example: UZZD4 A 12/03 M1

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

