

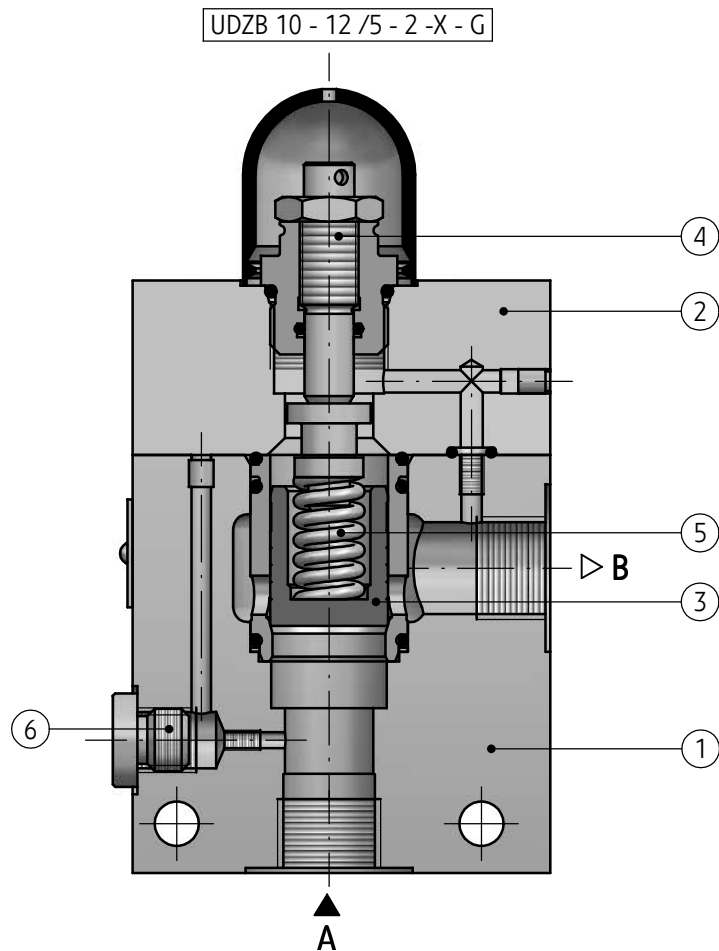
DATA SHEET - OPERATION MANUAL

APPLICATION

Pressure relief valve type UDZB... is intended for limiting the maximum pressure in the entire lubrication system or in its part.



DESCRIPTION OF OPERATION



Direct operated pressure relief valve type UDZB... consists of a body (1), cover (2), a pressure setting (4) of the main valve (3), and a spring (5). Pressure of the system through the port **A** affects the bottom surface of the main valve spool (3). The spring (5) holds the spool in the initial position. Ports **A** and **B** are separated from each other if the pressure in the system reaches the value set by the

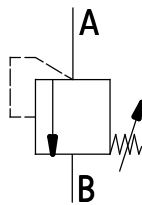
spring tension (5) resulting from the position of the pressure setting of the valve (4), spool of the main valve (3) moves up allowing the excess fluid to drain out of the system into the tank and to reduce the pressure in the system to a specified value. Instead of a plug (6) it is possible to install a connector for direct pressure measurements on the valve.

TECHNICAL DATA

Hydraulic fluid	mineral oil		
Required fluid cleanliness class	ISO 4406 class 20/18/15		
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 +50 °C		
Maximum operating pressure	10 MPa		
Minimum set pressure	0,01 MPa		
Maximum set pressure	1,5 MPa		
Hydraulic connection (ports A, B)	version UDZB 10...	version UDZB 20...	version UDZB 30...
	G 1/2	G 1	G 1 1/2
Maximum flow	75 dm ³ /min	150 dm ³ /min	300 dm ³ /min
Weight	2,9 kg	3,8 kg	4,7 kg

DIAGRAMS

Graphical symbol of the valve type UDZB...

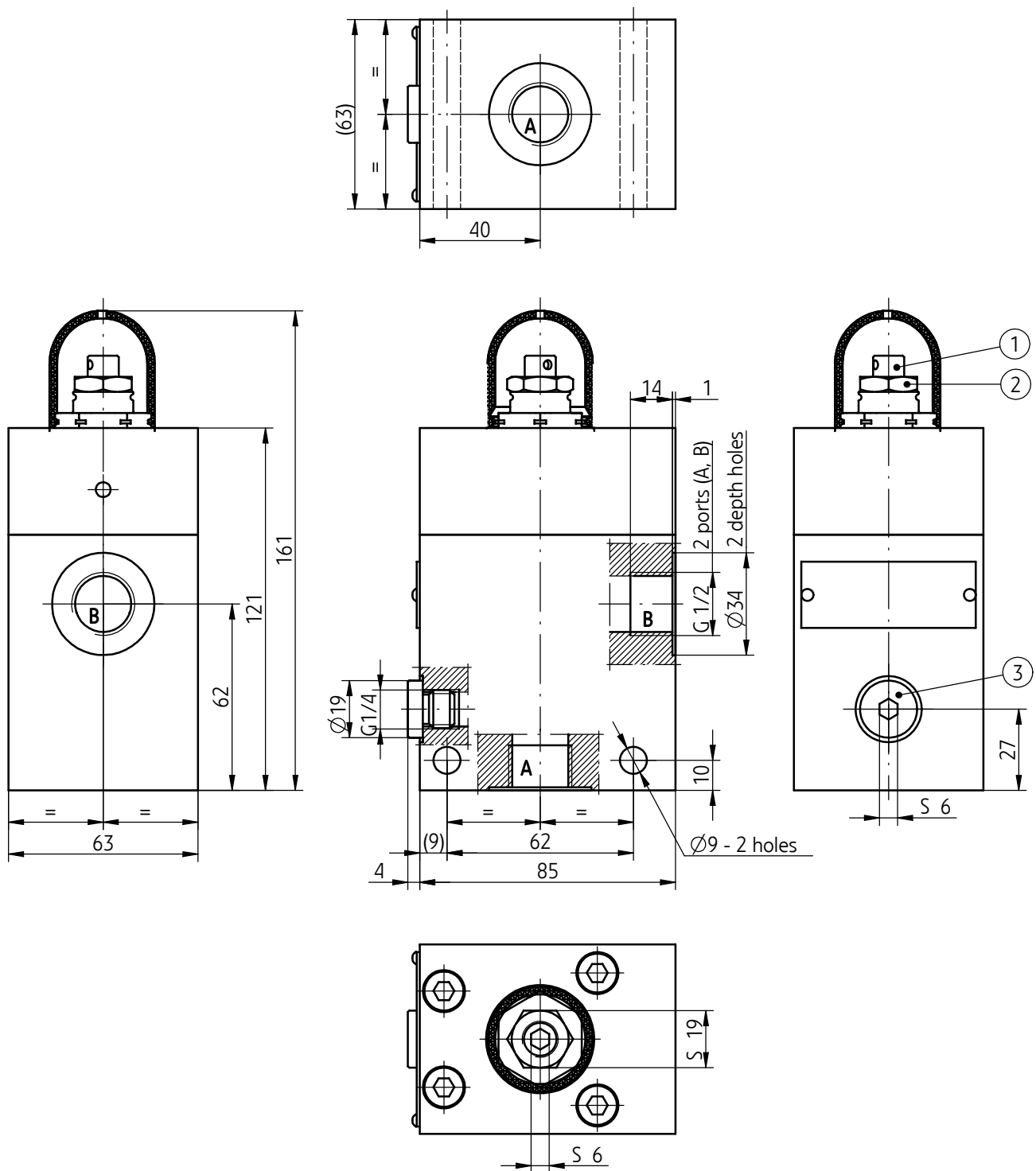


INSTALLATION AND OPERATION REQUIREMENTS

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Only fully functional and operational valve must be used. 2. During the period of operation must be kept fluid viscosity acc. to requirements defined in this Data Sheet - Operation Manual 3. In order to ensure failure free and safe operation the following must be checked: <ul style="list-style-type: none"> • proper working of the valve • cleanliness of the hydraulic fluid 4. Due to heating of valve body to high temp., the valve shall be placed in such way to eliminate the risk of | <ol style="list-style-type: none"> 5. accidental contact with the valve body during operation or to apply suitable covers acc. to PN-EN ISO 13732 - 1 and PN - EN 982 5. In order to ensure tightness of the directional valve block, one should take care of dimension valve operation parameters given in this Data Sheet - Operation Manual 6. A person that operates the valve must be thoroughly familiar with this Data Sheet - Operation Manual. |
|---|--|

OVERALL AND CONNECTION DIMENSIONS

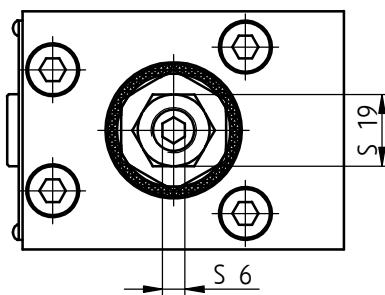
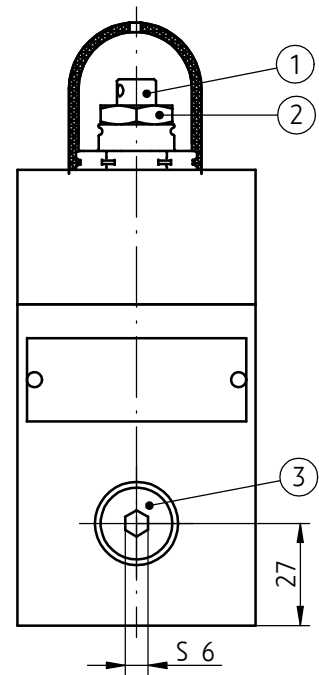
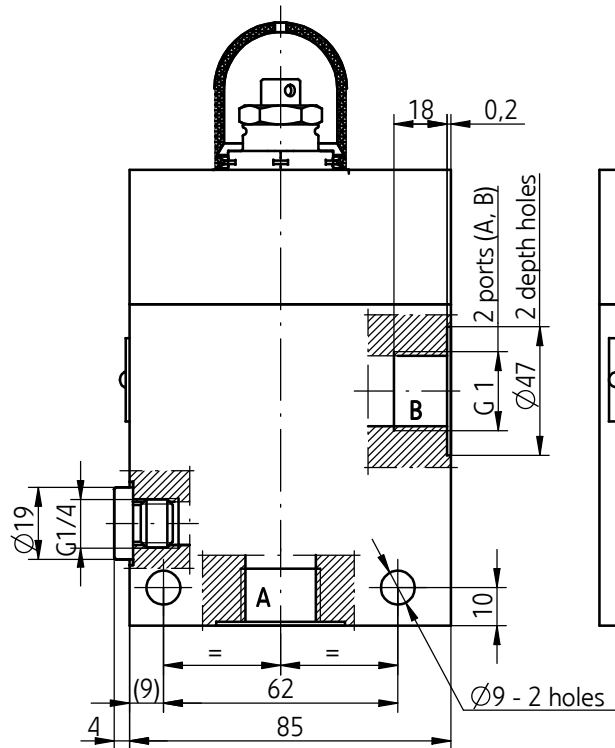
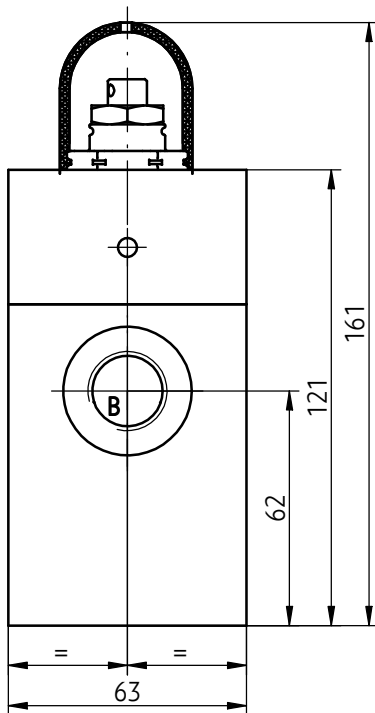
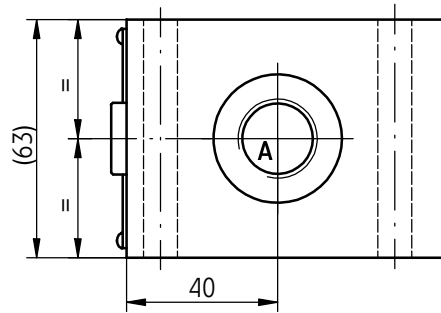
version UZDB 10...



- 1 - Pressure set screw (S6)
- 2 - Lock nut (S19)
- 3 - Manometer connection - plug G 1/4 (S6)

OVERALL AND CONNECTION DIMENSIONS

version UZDB 20...



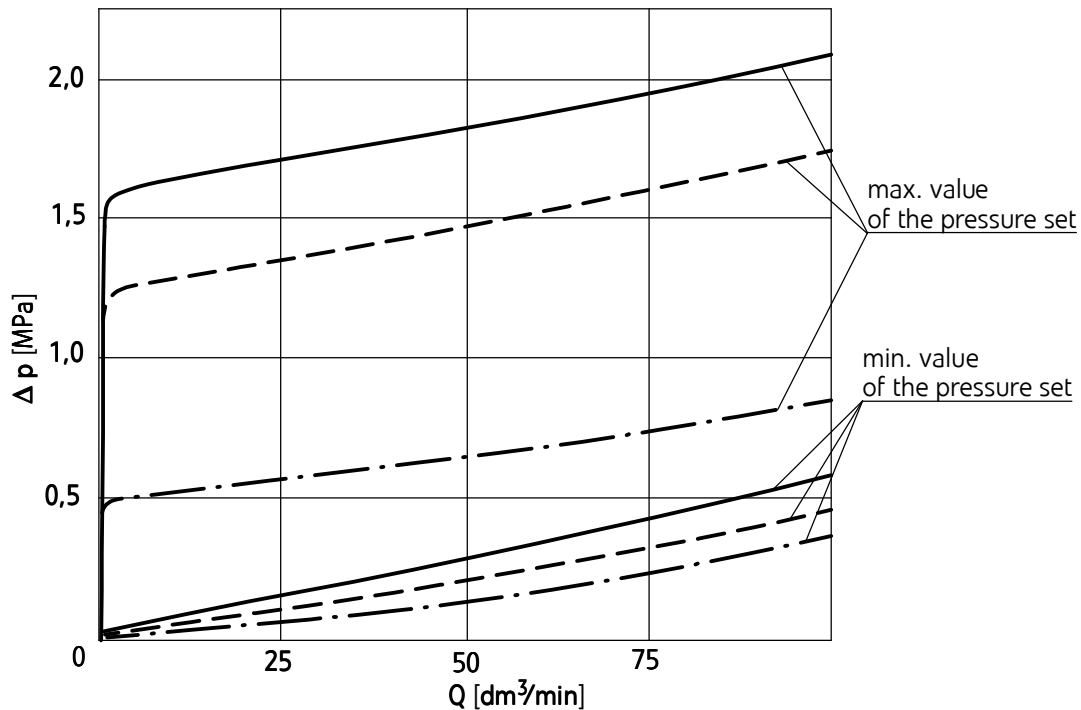
- 1 - Pressure set screw (S6)
- 2 - Lock nut (S19)
- 3 - Manometer connection - plug G 1/4 (S6)

PERFORMANCE CURVES

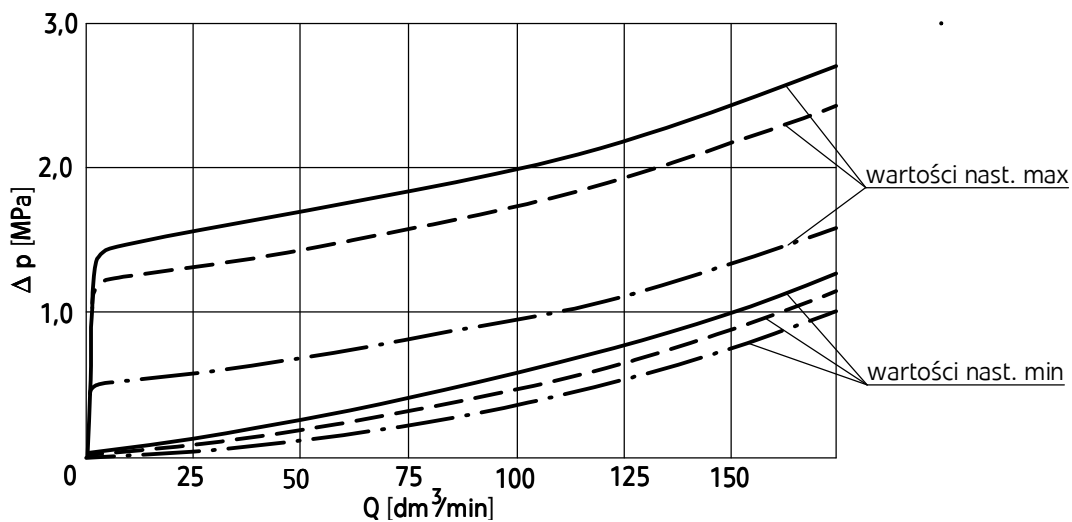
measured at viscosity $\nu = 41 \text{ mm}^2/\text{s}$ and temperature $t = 50^\circ\text{C}$

Flow resistance curves

characteristic curves $\Delta p(Q)$ for the valve type UDZB10... in versions with various range of the pressure set adjustment: — UDZB10...15...; — UDZB10...10...; - · - UDZB10...5...



characteristic curves $\Delta p(Q)$ for the valve type UDZB20... in versions with various range of the pressure set adjustment: — UDZB20...15...; — UDZB20...10...; - · - UDZB20...5...

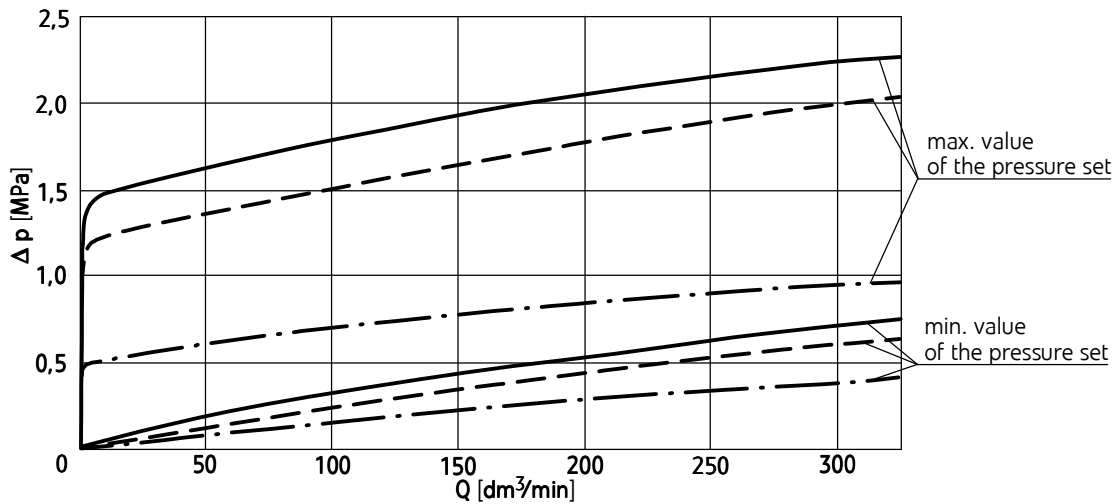


PERFORMANCE CURVES

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

Flow resistance curves

characteristic curves $\Delta p(Q)$ for the valve type UDZB30... in versions with various range of the pressure set adjustment: — UDZB30...15...; - - UDZB30...10...; - · - UDZB30...5...



HOW TO ORDER

UDZB	+	/	+	2-X-G		★
-------------	---	---	---	--------------	--	---

Nominal size (NS)

NS10 (threaded connection G1/2)	= 10
NS20 (threaded connection G1)	= 20
NS30 (threaded connection G1 1/2)	= 30

Series number

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

Settable pressure range

from 0,01 to 0,5 MPa	= 5
from 0,01 to 1,0 MPa	= 10
from 0,2 to 1,5 MPa	= 15

Sealing

NBR (for fluids on mineral oil base)	= no designation
FKM (for fluids on phosphate ester base)	= V

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

NOTES:

The valve should be ordered according to the above coding.

The symbols in bold indicate preferred versions available in short delivery time.

Coding example: UDZB10 - 12/5 - 2 - X - G

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

