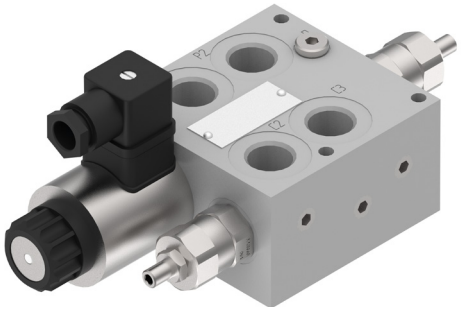
Directional spool valve electrically operated type 6UREE6 with a cross-over relief valve

NS 6 | p_{max} 35 MPa | Q_{max} 55 dm³/min | WK 431 740

DATA SHEET – OPERATION MANUAL

APPLICATION



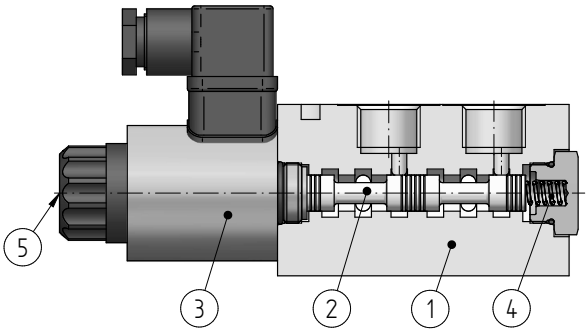
Directional spool valves electrically operated **6UREE6** type are designed to change the direction of fluid flow in a system, they are mainly used for supply switching and control between independent parts of a hydraulic system.

The cross-over relief (shock) valve are intended for limiting maximal pressure at two connections. It also provides a protection against a sudden pressure increase.

Directional valves electrically operated **6UREE6** type are adapted for threaded mounting in any position in a hydraulic system.

The product is compliant with the regulations of directive 2014/35/UE.

DESCRIPTION OF OPERATION



Main elements of directional spool valve **6UREE6** type are housing **1**, spool **2**, solenoid **3**, centering spring **4** and manual override **5**.

The spool **2** shifts into one of end positions by direct means of the solenoid **3**. The return to the neutral position is forced by the centering spring **4**.

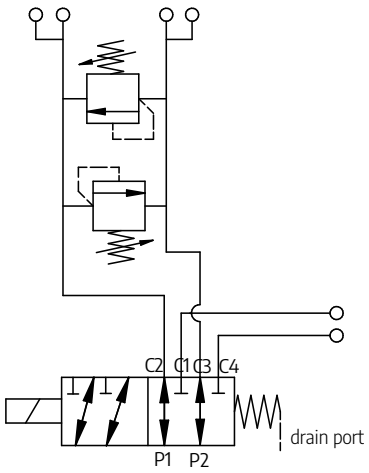
In case of emergency the spool can be shifted manually by the use of the override **5**.

TECHNICAL PARAMETERS

hydraulic fluid	mineral oil
required fluid cleanliness class	ISO 4406 class 20/18/15
nominal fluid viscosity	37 mm²/s at temperature 55°C
viscosity range	2,8 ÷ 380 mm²/s
ambient temperature range	-30 ÷ 50°C
maximum operating pressure	21 MPa without drain port 35 MPa with drain port
switching frequency	switching on: up to 60ms switching off: up to 40 ms
max. switching frequency	15000 on/h
weight	max 4 kg
nominal supply voltage for solenoids	DC 12V; DC 24V;
supply voltage tolerance	±10%
insulation class	IP 65
power requirement (direct current)	30 W
solenoid coil temperature	max 150°C

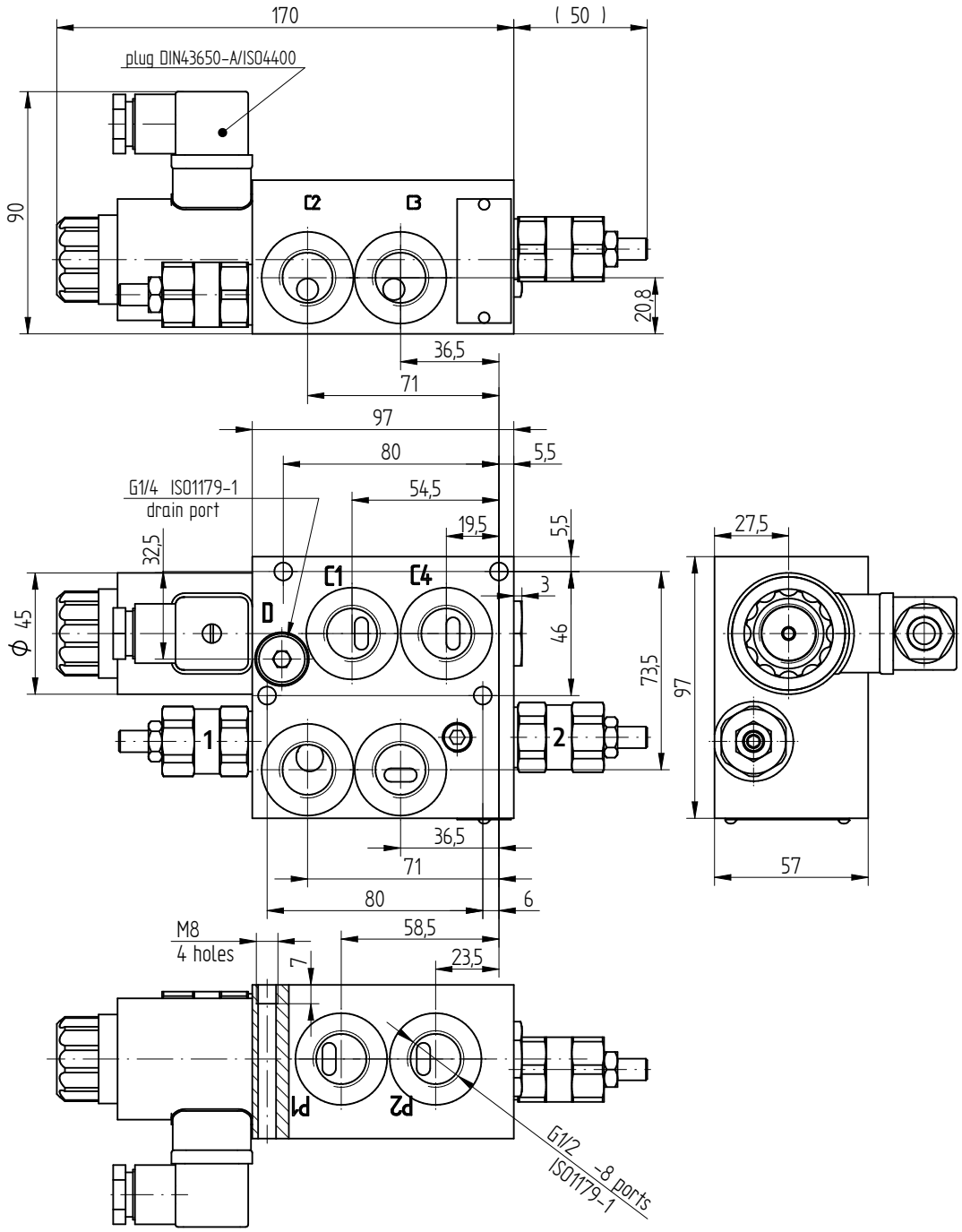
assembly and operation requirements at www.operating-conditions.ponar.pl

DIAGRAM



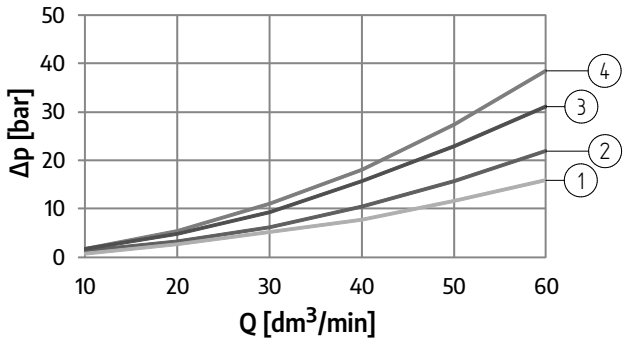
OVERALL AND CONNECTION DIMENSIONS

version: 6UREE6.../R1-P...



PERFORMANCE CURVES

measured at viscosity ν=41 mm²/s and temperature t=50 °C



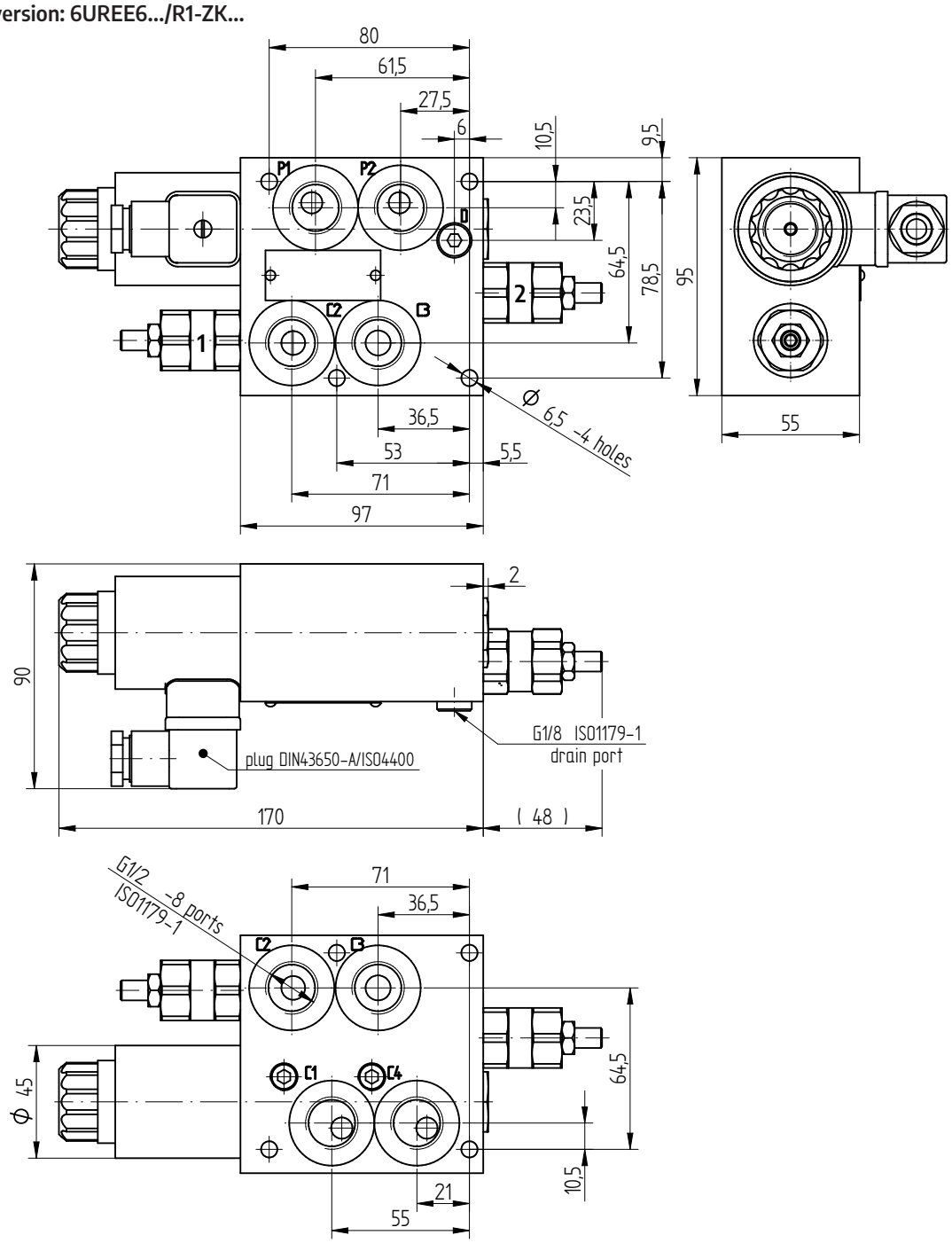
flow resistance curves

charts of pressure changes **Δp** in the function of directional valve **6UREE6/R1-P...** flow Q

flow direction	performance curve number
P1 → C1	1
P1 → C2	2
P1 → C1 → C4 → P2	3
P1 → C2 → C3 → P2	4

OVERALL AND CONNECTION DIMENSIONS

version: 6UREE6.../R1-ZK...



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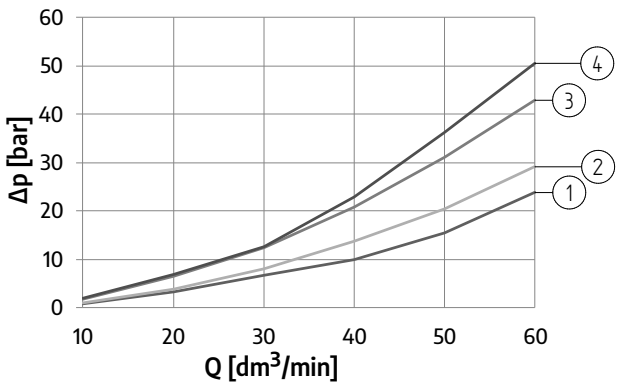

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charts of pressure changes Δp in the function of directional valve 6UREE6/R1-ZK... flow Q.

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HOW TO ORDER

6UREE6 – □ / R1 – □ – □ □ □ / □ / □ / □

1 2 3 4 5 6 7 8 9

1 series number
series 12 = 12
(10÷19) connection and installation dimensions unchanged

2 type of connection
thread G1/2 = R1

3 cross-over relief valve
version 1 = P (page 2)
version 2 = ZK (page 3)

4 supply voltage for solenoid with emergency override swith
12V DC = G12N
24V DC = G24N

5 solenoid plug
plug Z4 = Z4
plug Z4L (z lampką) = Z4L

6 sealing
NBR (for fluids based on mineral oils) = Ø
FPM (for fluids on phosphate ester base) = V

7 valve no. 1 setting in bar, if required
(pressure-relief valves protected with caps)

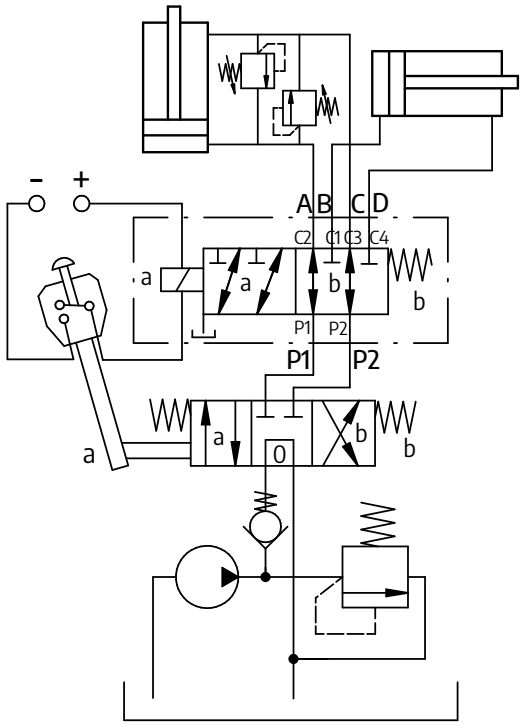
8 valve no. 2 setting in bar, if required
(pressure-relief valves protected with caps)

9 further requirements = *
(to be agreed with the manufacturer)

Ø Symbol means the field should be left blank
The symbols in bold are preferred versions available in short delivery time.

Coding example: **6UREE6-12/R1PG24NZ4**

EXAMPLE OF APPLICATION IN HYDRAULIC SYSTEM



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