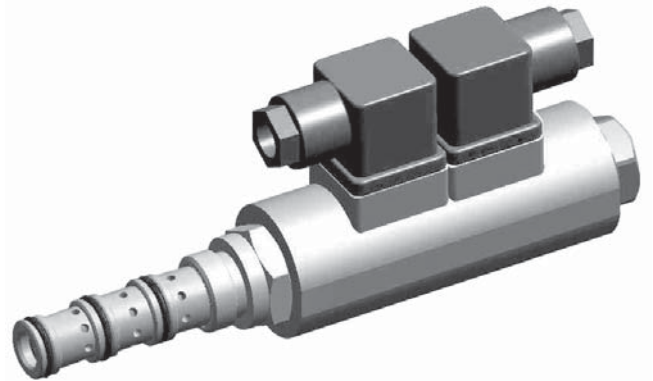


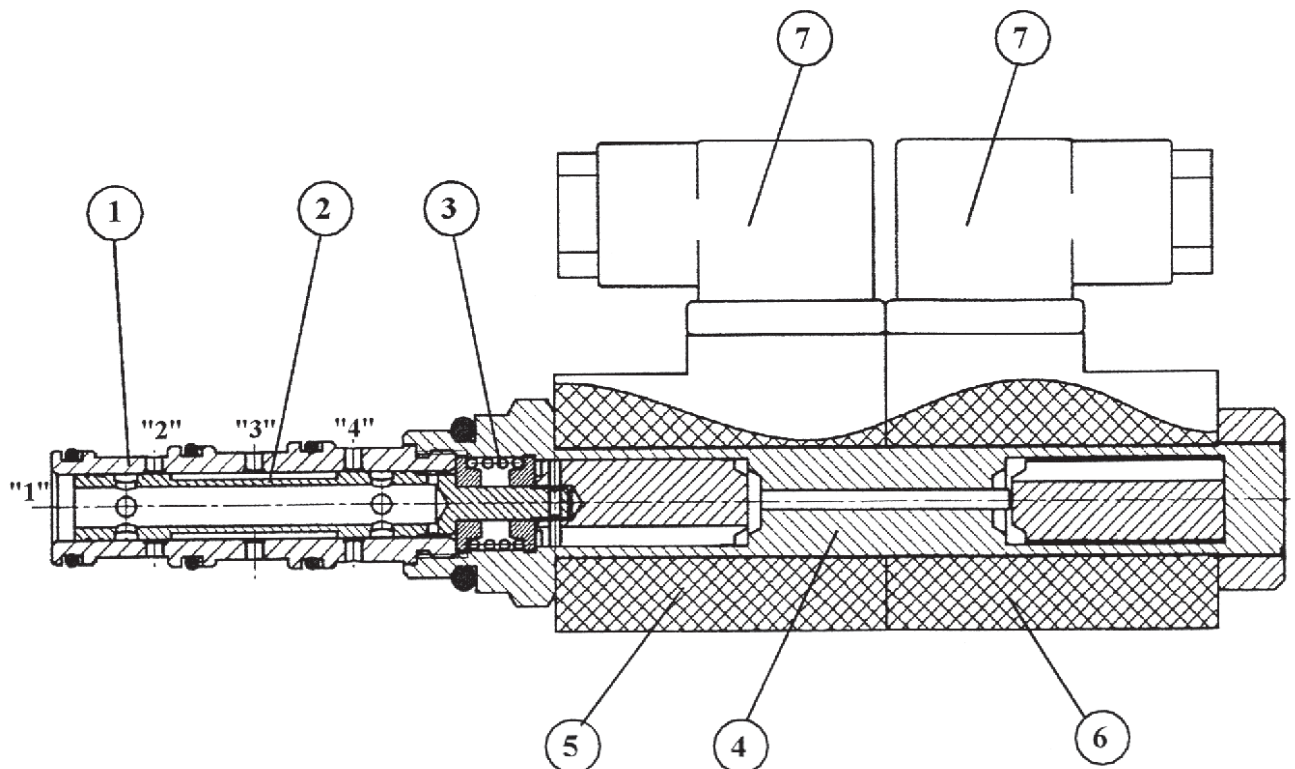
APPLICATION

Directional cartridge control valves type 4 URED 6 are solenoid operated directional control valves. They control direction of oil flow. The directional valves may be installed in hydraulic systems in any position.



DESCRIPTION OF OPERATION

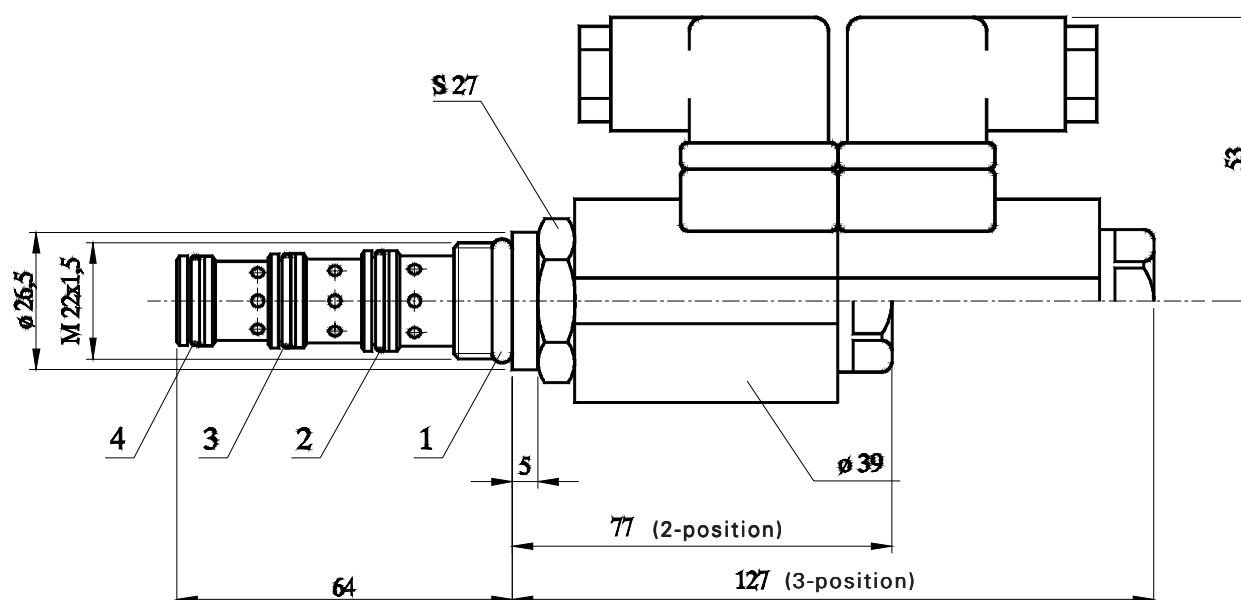
A plunger 2 moves inside the directional valve sleeve 1 with controlling edges. Depending on the position of the plunger, ducts "1", "2", "3" and "4" communicate with each other or are separated. Various flow control functions follow directly from the shape of the control plunger and sleeve. The plunger is moved when voltage is switched on to coil 5 or 6 via plug 7. The plunger is reversed by spring 3. The coil may be set at any angle in relation to sleeve 4. Two-way directional valves have only one coil (item 5), and three-way directional valves have two coils (items 5 and 6).



TECHNICAL DATE

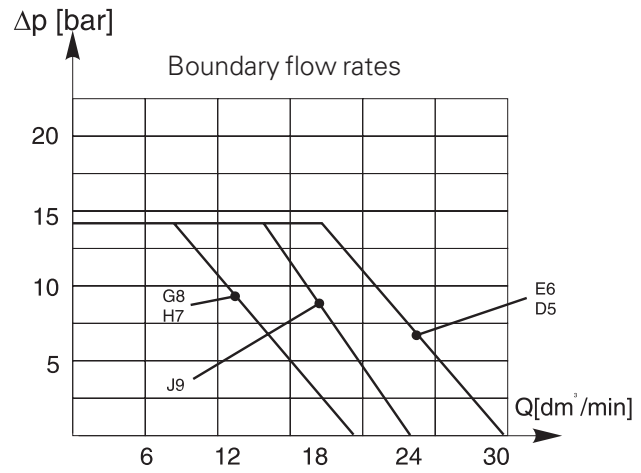
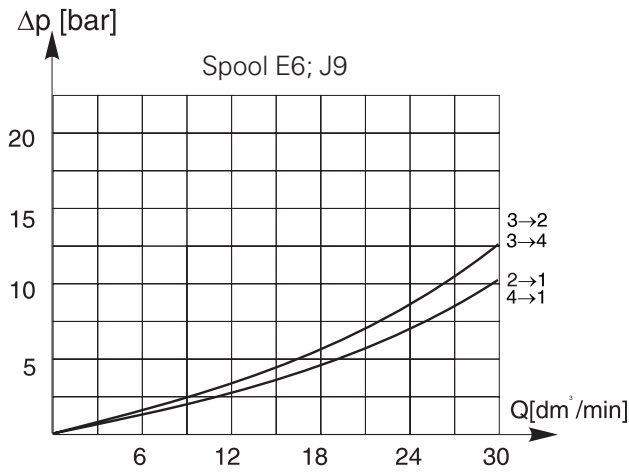
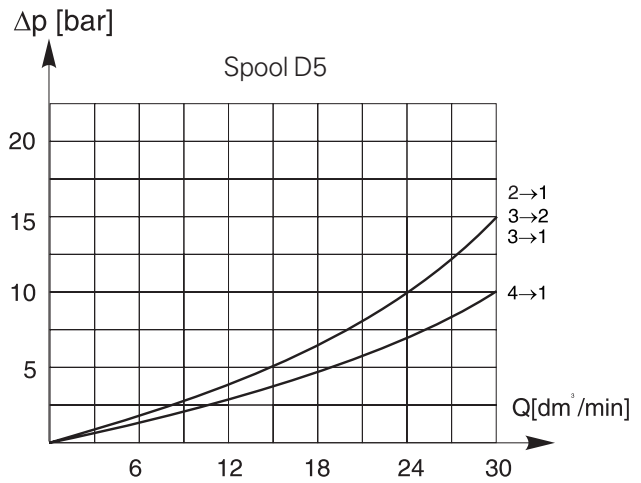
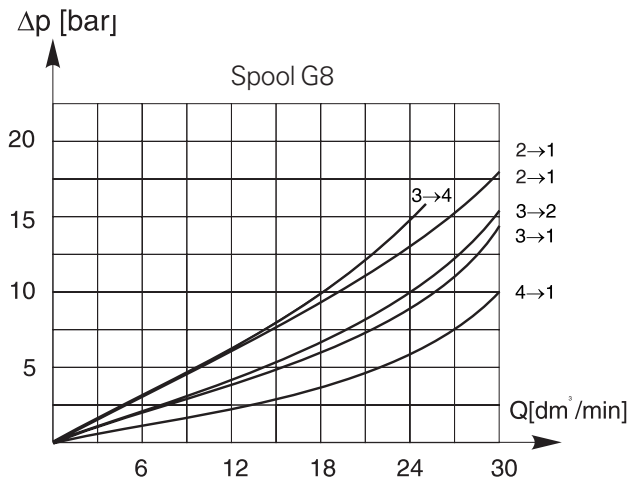
| | |
|-----------------------------------|---|
| Working fluid | Mineral oil |
| Nominal fluid viscosity | 37 mm ² / s at temperature 328 K |
| Viscosity range | 2,8 up to 380 mm ² / s |
| Optimum working temperature range | (313 up to 328 K) 40 up to 55 °C |
| Fluid temperature range | (243 up to 343 K) - 30 up to 70 °C |
| Required fluid filtration | 16 μm |
| Recommended fluid filtration | 10 μm |
| Max flow rate | 30 dm ³ /min |
| Max working pressure 1 | 21 MPa |
| Max working pressure 2; 3; 4 | 29 MPa |
| Power requirement | 26 W |
| Security degree | IP 65 |
| Weight - 2-position | 0,4 kg |
| Weight - 3-position | 0,7 kg |

OVERALL DIMENSIONS

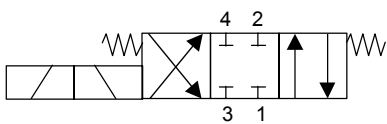


1. Sealing ring 18 x 2,65
2. Sealing ring 15,6 x 1,78
3. Sealing ring 15 x 1,8
4. Sealing ring 14 x 1,78

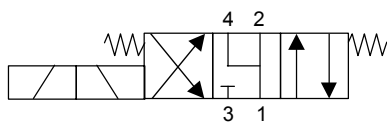
PERFORMANCE CURVES at $v = 41 \text{ mm}^2/\text{s}$ and temp. 323 K



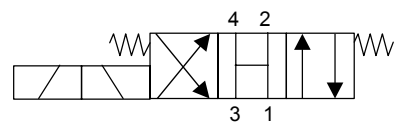
SYMBOL



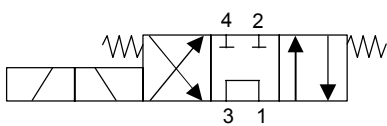
Spool E6



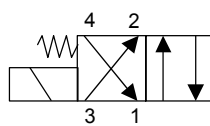
Spool J9



Spool H7



Spool G8



Spool D5

HOW TO ORDER

Orders coded in the way showed below should be forwarded to the manufacturer

4 URED 6 -12/ M 1 *

Multi-way spool type directional valve

Control spool type
 Spool E6 = E6
 Spool J9 = J9
 Spool G8 = G8
 Spool H7 = H7
 Spool D5 (Two position spool) = D5

Series number
 12 = 12
 (12 - 19) = installation and connection dimension unchanged

Number of working position
 Two position valve = 2
 Three position valve = 3

Kind of cavity
 Cavity M22x1,5 = M1

Voltage for solenoid
 DC voltage 12V = G 12
 DC voltage 24V = G 24
 AC voltage 220V 50Hz plug with rectifier = W220 R
 AC voltage 110V 50Hz plug with rectifier = W110 R

Electrical connection
 Angled plug Z4 = Z 4

Sealing
 for fluids on mineral oil base = no designation
 for fluid on phosphate ester base = V

Further requirements to be added in text (to agree with the manufacturer)

CODING EXAMPLE :
4 URED 6 D5 - 12/2 M1 G12 Z4

PONAR WADOWICE S.A.
ul. Wojska Polskiego 29
34-100 Wadowice
tel. 033/ 823 39 43, 823 30 41
fax 033/ 873 48 80
e-mail: ponar@ponar-wadowice.pl

