

4/2 and 4/3 Directional Control Valve, Manually Operated

RPR3-04

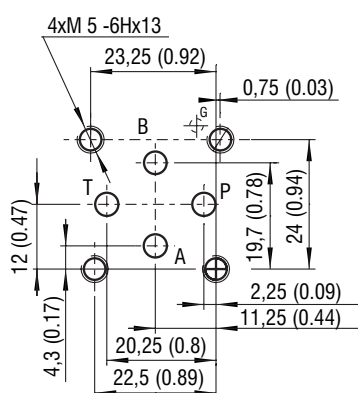
Size 04 (D 02) • Q_{max} 30 l/min (8 GPM) • p_{max} 320 bar (4600 PSI)



Technical Features

- › Direct acting directional control valve with subplate mounting interface acc. to ISO 4401, DIN 24340 (CETOP 02)
- › High transmitted hydraulic power up to 320 bar with optimized design to minimize pressure drop
- › Three chamber housing design for production cost saving
- › Manual lever and actuating section can be rotated in 90° increments for flexible installation
- › Wide range of interchangeable spools available
- › Springless, detented valves available, valve holds last selected position, available for all spools
- › In the standard version, the valve housing is phosphated and steel parts zinc-coated for 240 h salt spray protection acc. to ISO 9227
- › Enhanced surface protection for mobile sector available (ISO 9227, 520 h salt spray)

ISO 4401-02-01-0-05



Ports P, A, B, T - max. \varnothing 4,5 mm (0.18 in)

| Model Code | Z11 | R11 | J15 |
|------------|-----|-----|-----|
| Symbol | | | |

Technical Data

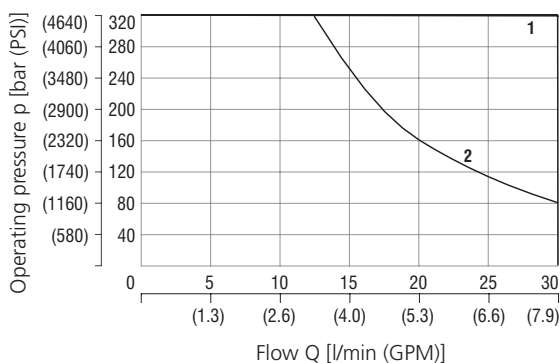
| Valve size | 04 (D02) | |
|---|-------------|-----------------------------|
| Max. flow | l/min (GPM) | 30 (7.9) |
| Max. operating pressure at ports P, A & B | bar (PSI) | 320 (4640) |
| Max. operating pressure at port T | bar (PSI) | 100 (1450) |
| Operating force | N (lbf) | < 40 (9) |
| Fluid temperature range (NBR) | °C (°F) | -30 ... +100 (-22 ... +212) |
| Fluid temperature range (FPM) | °C (°F) | -20 ... +120 (-4 ... +248) |
| Service life | cycles | 10 ⁶ |
| Weight | kg (lbs) | 1 (2.20) |

| | Datasheet | Type |
|---------------------|-----------|-----------------------------------|
| General information | GI_0060 | Products and operating conditions |
| Mounting interface | SMT_0019 | Size 04 |
| Spare parts | SP_8010 | |

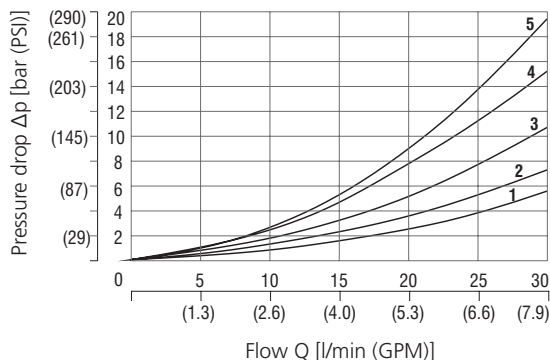
Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

Operating limits

Operating limits for maximum hydraulic power and rated lever force.



Pressure drop related to flow rate

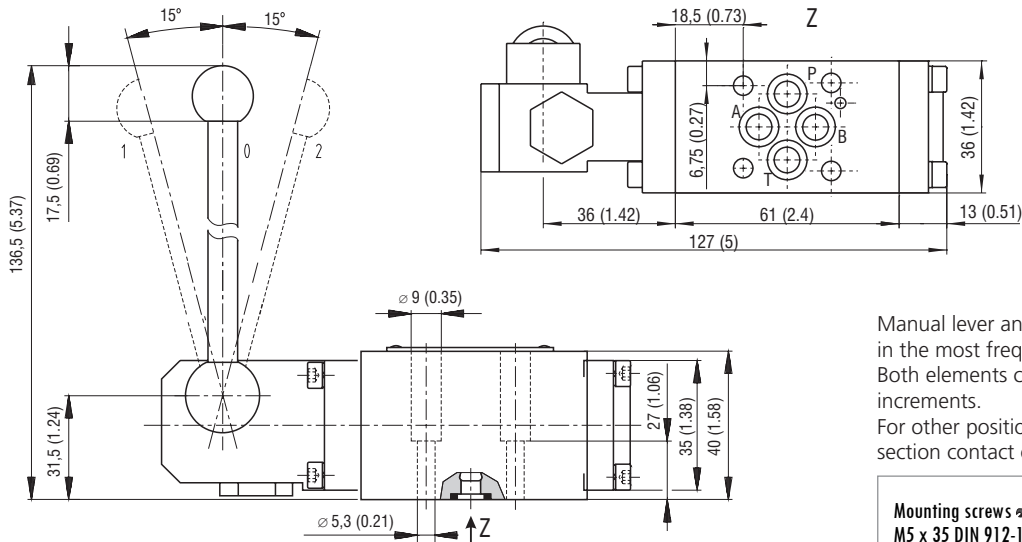


| | | | | | | | |
|---|-----|---|-----|---|-----|---|-----|
| 1 | Z11 | 2 | L21 | 1 | C15 | 1 | Y35 |
| 1 | C11 | 1 | Y31 | 1 | H15 | 1 | Y75 |
| 1 | H11 | 1 | Y71 | 1 | P15 | 1 | J15 |
| 1 | P11 | 1 | R11 | 1 | Y15 | 1 | J75 |
| 1 | Y11 | 1 | A51 | 1 | B15 | 1 | R25 |
| 1 | B11 | 1 | R21 | 1 | L15 | | |
| 2 | L11 | 1 | Z15 | 1 | L25 | | |

| | P-A | P-B | A-T | B-T | P-T | | P-A | P-B | A-T | B-T | P-T |
|---------------|-----|-----|-----|-----|-----|---------------|-----|-----|-----|-----|-----|
| Z11, Z15 | 3 | 2 | 2 | 2 | | B11, B15 | 3 | 3 | 2 | 1 | |
| C11, C15 | 5 | 5 | 4 | 4 | 3 | L11, L15 | 3 | 2 | 1 | 2 | 4 |
| H11, H15 | 3 | 3 | 2 | 2 | 3 | L21, L25 | 2 | 2 | 3 | 3 | 4 |
| P11, P15 | 1 | 1 | 1 | 3 | | Y71, Y75 | 3 | 1 | | | |
| Y11, Y15 | 3 | 3 | 1 | 1 | | A51, J75 | 2 | 2 | | | |
| Y31, Y35, R11 | 3 | 3 | 2 | 2 | | J15, R21, R25 | 3 | 3 | 2 | 2 | |

For operating limits under conditions and flow directions other than shown contact our technical support. Admissible operating limits may be considerably lower with only one direction of flow (A or B plugged, or without flow.)

Dimensions in millimeters (inches)



Manual lever and actuating section are shown in the most frequently used standard position. Both elements can be rotated in 90° increments. For other positions of lever and actuating section contact our technical support.

Mounting screws τ 25 Nm (3.69 lbf.ft)
M5 x 35 DIN 912-10,9 - not supplied

Spool Symbols

| Type | Symbol | Interposition | Type | Symbol | Interposition | Type | Symbol | Interposition |
|------|--------|---------------|------|--------|---------------|------|--------|---------------|
| Z11 | | | Z15 | | | R11 | | |
| C11 | | | C15 | | | A51 | | |
| H11 | | | H15 | | | R21 | | |
| P11 | | | P15 | | | J15 | | |
| Y11 | | | Y15 | | | J75 | | |
| B11 | | | B15 | | | P55 | | |
| L11 | | | L15 | | | R25 | | |
| L21 | | | L25 | | | X11 | | |
| Y31 | | | Y35 | | | | | |
| Y71 | | | Y75 | | | | | |

Ordering Code

RPR3-04 / -

4/2 and 4/3 directional control valve, manually operated

Valve size

Number of valve positions

two positions **2**
three positions **3**

Spool symbols

see the table "Spool Symbols"

No designation

A
B

Surface treatment

standard
zinc-coated (ZnCr-3), ISO 9227 (240 h)
zinc-coated (ZnNi), ISO 9227 (520 h)

No designation

V

Seals

NBR
FPM (Viton)

A1

Manual lever and actuating section position

standard, lever on side A, upward

The port restrictor plugs can be ordered separately from the spare parts data sheet HA 8010. Besides the commonly used valve versions shown other special models are available. Contact our technical support for their identification, feasibility and operating limits.