

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)

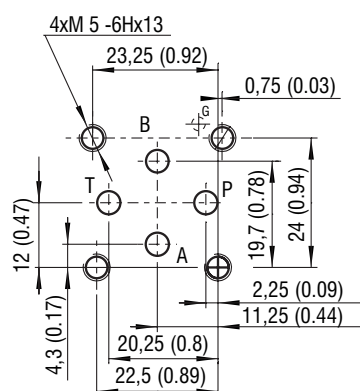


Technical Features

- › Direct acting directional control valve with subplate mounting interface acc. to ISO 4401, DIN 24340 (CETOP 02)
- › High transmitted hydraulic power up to 350 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)

Model Code	Z11	R11	J15
Symbol			

ISO 4401-02-01-0-05



Ports P, A, B, T - max Ø4.5 mm (0.18 in)

Technical Data

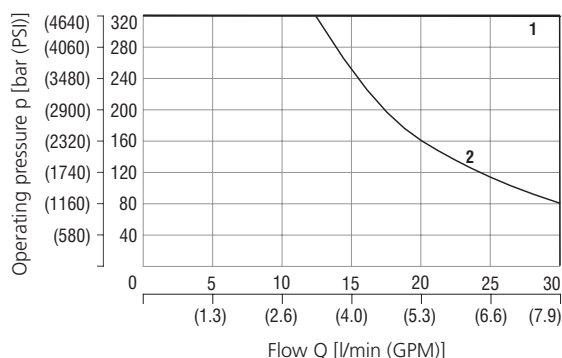
Valve size	04 (D02)	
Max. flow	l/min (GPM)	30 (7.9)
Max. operating pressure at ports P, A, B	bar (PSI)	320 (4640)
Max. operating pressure at port T	bar (PSI)	100 (1450)
Operating force	N (lbf)	< 40 (9)
Fluid temperature range (NBR)	°C (°F)	-30 +100 (-22 ... +212)
Fluid temperature range (FPM)	°C (°F)	-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 pattern	SMT_0019	Size 04
Spare parts	SP_8010	

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

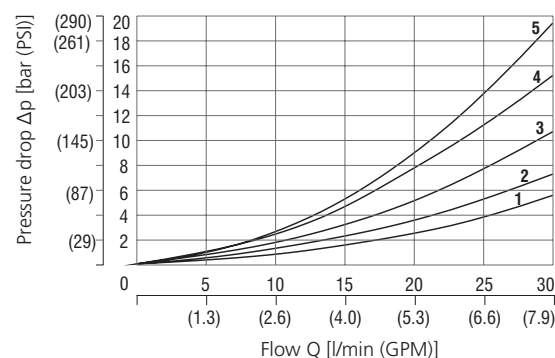
Operating limits

Operating limits for maximum hydraulic power and rated lever force.



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		

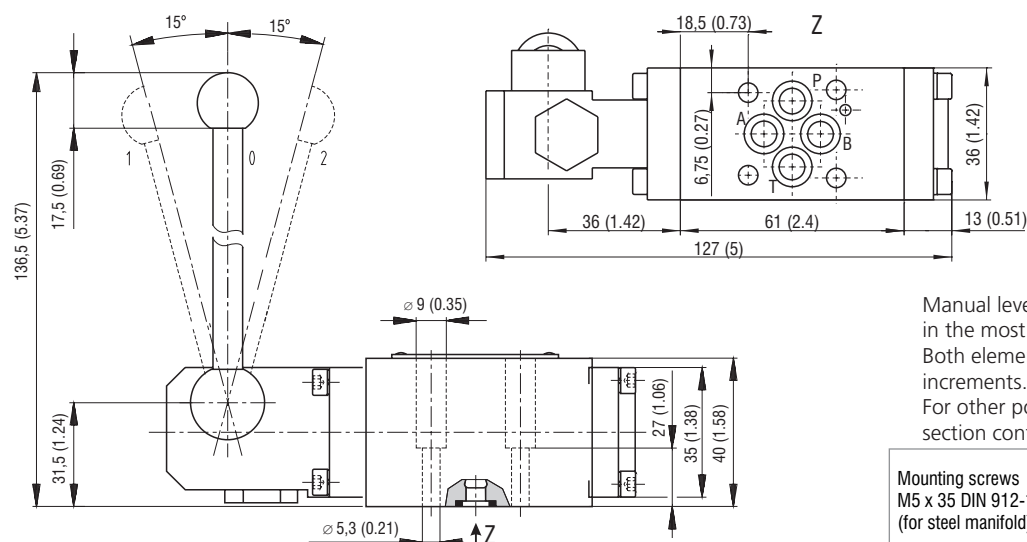
Pressure drop related to flow rate



	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 8.9 Nm (6.56 ft-lbf)
M5 x 35 DIN 912-10.9
(for steel manifold) - 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

4/2 and 4/3 Directional Control Valve, manually operated

Valve size

Number of valve positions

two positions
three positions

Spool symbols

see the table "Spool symbols"

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No designation

B
A

Surface treatment

housing phosphated, steel parts
zinc-coated (ZnCr-3), ISO 9227 (240h)
zinc-coated (ZnCr-3), ISO 9227 (240h)
zinc-coated (ZnNi), ISO 9227 (520h)

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.

Besides the shown, commonly used valve versions other special models are available. Contact our technical support for their identification, feasibility and operating limits.