

Functional Description

The directional control valves RPE2-04 consist of cast iron housing (1), control spool (5), centering springs (4) and operating solenoids (2, 3).

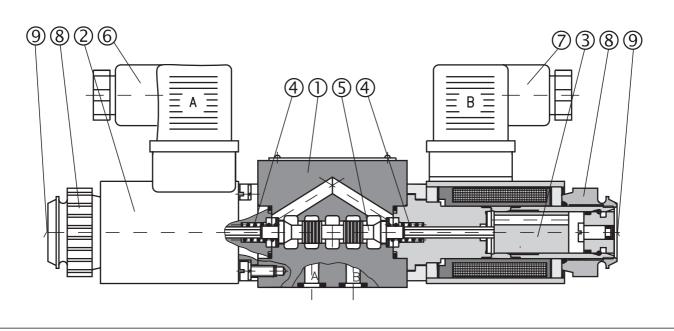
The three-position directional valves are fitted with two solenoids and two springs. The two-position directional valves have either one solenoid and one return spring or two solenoids and the detent assembly.

The operating solenoids are D.C. solenoids and are supplied through connectors A, B (6, 7). For A.C. supply the solenoids are provided with rectifiers, which are

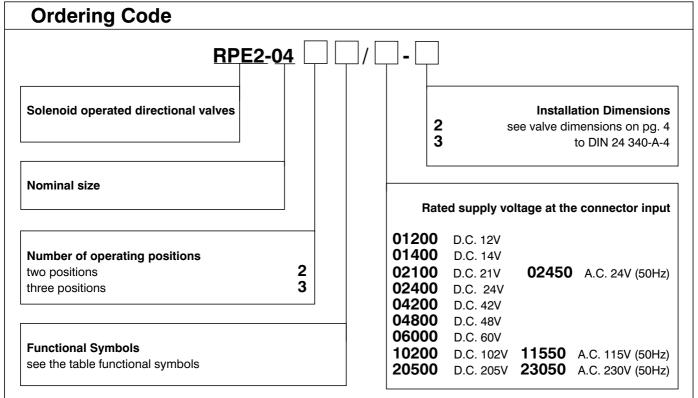
integrated directly into the connectors A, B (6, 7). The plug connectors can be turned by 90° . By loosening the fixing nut (8), the solenoids (2, 3) can be turned on their axis in the range of 360° .

Provided that the pressure in T-port does not exceed 363.6 psi (25 bar), the spool of the valve can be repositioned by manual override (9).

The surface of the valve housing is phosphate coated and the operating solenoids are zinc coated.



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Technical Data

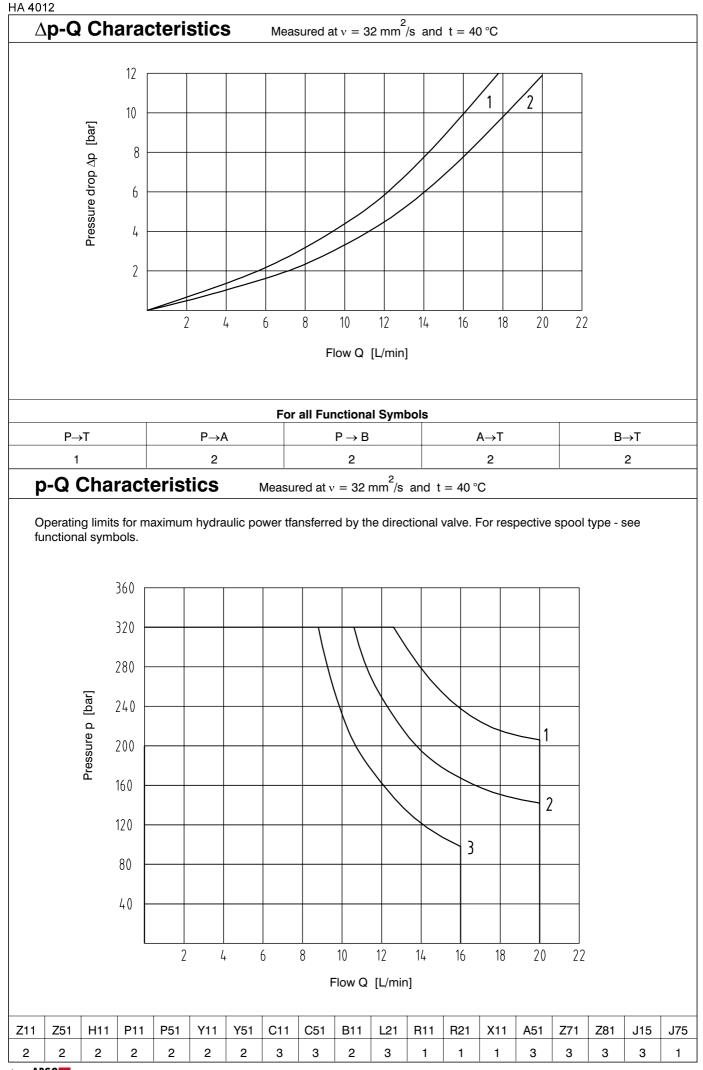
Nominal size	mm	04		
Maximum flow	L/min	see p-Q characteristics		
Max. operating pressure at ports P, A, B	bar	320		
Max. operating pressure at port T	bar	100		
Pressure drop	bar	see Δp -Q characteristics		
Hydraulic fluid		Hydraulics oils of power classes HM, HV to CETOP RP 91 H in viscosity classes ISO VG 32, 46 and 68		
Fluid temperature range	°C	-30 +80		
Ambient temperature, max.	°C	up to +50		
Viscosity range	mm²/s	20 400		
Maximum degree of fluid contamination		Class 21/18/15 to ISO 4406 (1999).		
Rated voltage and current at connector input without rectifier	V/A D.C.	12/2.4 14/2.0 21/1.33 24/1.16 42/0.66 48/0.56 60/0.46 102/0.29 205/0.15 ^{~~}		
Rated voltage and current at connector input with rectifier	V/A A.C.	24/1.52 115/0.33 230/0.17		
Permissible rated voltage variation	%	A.C. ±10 D.C. ±10		
Max. switching frequency	1/h	15 000		
Switching time, ON; at $v = 32 \text{ mm}^2/\text{s}$	ms	30 50		
Switching time, OFF; at $v = 32 \text{ mm}^2/\text{s}$	ms	A.C. 70 100 D.C. 30 50		
Duty cycle	%	100		
Service life	cycles	10 ⁷		
Enclosure type to DIN 40 050		IP 65		
Weight - valve with 1 solenoid valve with 2 solenoids	kg	1.10 1.50		
Mounting position		optional		

HA 401. Functional Symbols						
Designatior	A B	Interposition	Designatio	n Symbol	Interposition	
Z11			X11			
C11			J15			
H11			J75			
P11			Z11			
Y11			Z51			
L21			C51			
B11			Z71			
R11			Z81			
A51			C11			
P51			R21			
Y51						

Caution!

- For applications outside these parameters, please consult the manufacturer.
- With functional symbols A51 and J75 for pressures exceeding 100 bar, the T-port should be connected directly to the tank.
- For directional valves with two solenoids, one solenoid must be without charge before the other solenoid can be charged. Switching time for directional valves with detent assembly should not be shorter than 60 ms.
- Directional valves with other functional symbols as those shown in the table above can be delivered on request.
- The packing foil is recyclable.
- The protective plate can be returned to manufacturer.
- Mounting bolts M5 x 50 DIN 912-10.9 or studs must be orderer separately. Tightening torque is 5 Nm.
- The technical information regarding the product presented in this catalogue is for descriptive purposes only. It should not be construed in any case as a guaranteed representation of the product properties in the sense of the law.

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