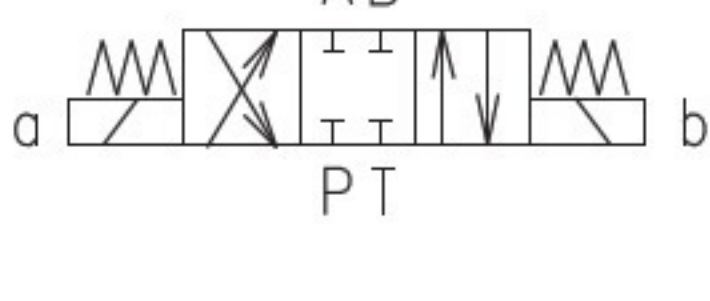


- ☐ 4/3-, 4/2- way directional control valves with solenoid control
- ☐ Solenoids can be turned around their axis to any position
- ☐ Push button manual override
- ☐ Installation dimensions according to DIN 24 340 / ISO 4401 / CETOP RP121-H
- ☐ Subplates see data sheet HA 0002
- ☐ CSA Upon request



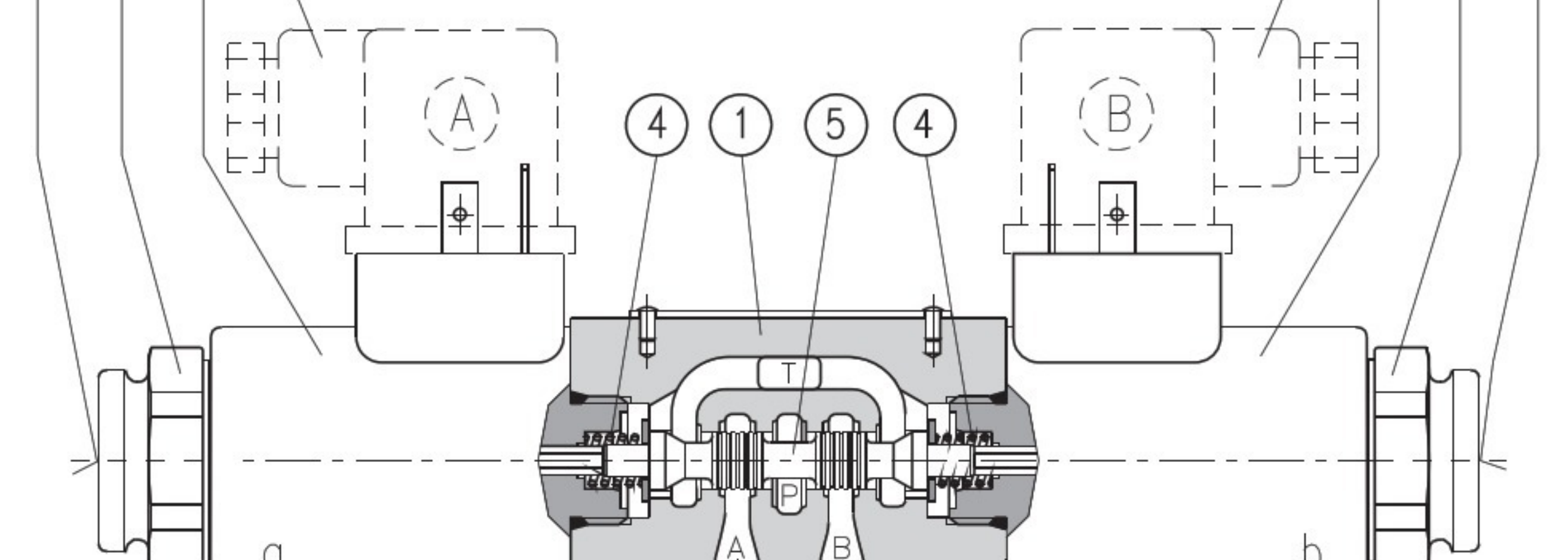
Functional Description

The RPE3-04 directional control valves consist of cast iron housing (1), control spool (5) with two centering springs (4) and operating solenoids (2, 3). The three-position directional valves are fitted with two solenoids and two springs. Two-position directional valves have either one solenoid and one return spring or two solenoids and a detent assembly.

The operating solenoids are DC solenoids supplied through connectors A, B (6, 7). For AC supply the solenoids are provided with a rectifiers which are

integrated in the DIN connector socket as part of the solenoid. By loosening the nut (8), the solenoid can be turned around its axis up to 360°. In the case of solenoid malfunction or power failure, the spool of the valve can be repositioned by manual override (9), provided the pressure in the T-port does not exceed 25 bar (363 PSI).

The valve housing (1) is phosphate coated and the solenoids (2, 3) are zinc coated.



Technical Data		
Valve size	mm (US)	04 (D 02)
Maximum flow	L/min (GPM)	see p-Q characteristics
Maximum operating pressure at ports P, A, B	bar (PSI)	320 (4600)
Maximum operating pressure at port T	bar (PSI)	210 (3045)
Pressure drop	bar (PSI)	see Δp-Q characteristics
Hydraulic fluid	Hydraulic oils of power classes (HL, HLP) to DIN 51524	
Fluid temperature range (NBR / Viton)	°C (°F)	-30 ... +80 (-22 ... +176) / -20 ... +80 (-4 ... +176)
Ambient temperature, max.	°C (°F)	+50 (122)
Viscosity range	mm ² /s (SUS)	20 ... 400 (98 ... 1840)
Maximum degree of fluid contamination	Class 21/18/15 to ISO 4406	
Maximum allowable voltage variation	%	AC: ±10 DC: ±10
Maximum switching frequency	h ⁻¹	15 000
Switching time, ON; at v = 156 SUS (32 mm ² /s)	ms	30 ... 50
Switching time, OFF; at v = 156 SUS (32 mm ² /s)	ms	AC: 70 ... 100 DC: 30 ... 50
Duty cycle	%	100
Service life	cycles	10 ⁷
Enclosure type to EN 60 529	IP 65	
Weight - valve with 1 solenoid - valve with 2 solenoid	kg (lbs)	0.9 (1.978) 1.25 (2.747)
Mounting position	unrestricted	

Spool Symbols

Type	Symbol	Crossover	Type	Symbol	Crossover
Z11			P51		
C11			Y51		
H11			C51		
P11			Z51		
Y11			Z11		
L21			X11		
B11			C11		
Y71			H11		
R11			J15		
R21			J75		
A51					

HA 4014

Valve Dimensions

Dimensions in millimeters (inches)

Valve with two solenoids

- 1 Solenoid a
[(Nut torque 2.21 ft-lbs. (3Nm))]
- 2 Solenoid b
[(Nut torque 2.21 ft-lbs. (3Nm))]
- 3 Manual override
- 4 Name plate
- 5 Square ring 7.65 x 1.68 (4 pcs.)
supplied with valve
- 6 4 mounting holes
- 7 Retaining nut of the solenoid
- 8 Electrical connector,
DIN EN1745301-803
- 9 Space required to remove connector

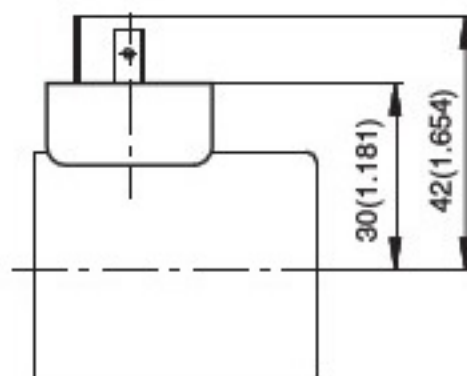
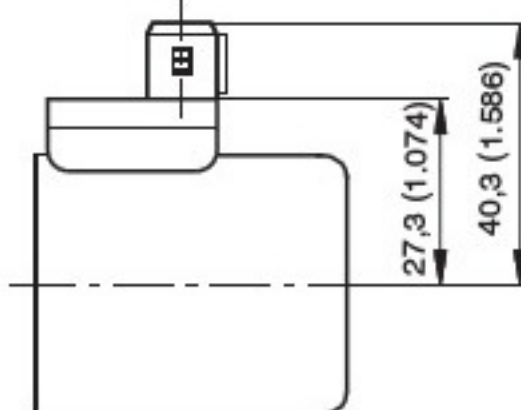
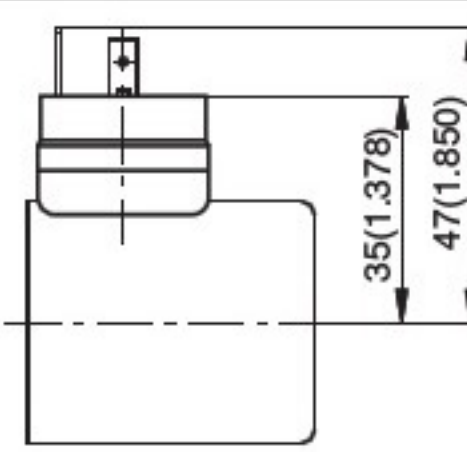
Valve with one solenoid a

Spool symbols R11, R21, A51, P51,
Y51, C51, Z51

Valve with one solenoid b

Spool symbols Z11, X11, C11, H11

ARCO
HYTOS

Type of the Solenoid Coil		
Type	Dimensions	Description
E1		Solenoid coil with terminal for the electrical connector, EN 1745301-803
E2		Solenoid coil with integrated quenching diode (bipolar transil diode) and terminal for the electrical connector, EN 1745301-803
E3		Solenoid coil with terminal for AMP-Junior-Timer electrical connector.
E4		Solenoid coil with integrated quenching diode (bipolar transil diode) and terminal for AMP-Junior-Timer electrical connector.
E5		Solenoid coil with integrated rectifier and terminal for the electrical connector, EN 1745301-803

Electrical connector, EN1745301-803				
K1	Connector B (black)	without rectifier - M16x1.5 (bushing bore Ø 6-8 mm)	230 V AC/DC	
	Connector A (grey)			
K5	Connector B (black)	without rectifier - M16x1.5 (bushing bore Ø 4-6 mm)	230 V AC/DC	
	Connector A (grey)			
K2	Connector B (black)	without rectifier with LED and quenching diode - M16x1.5 (bushing bore Ø 6-8 mm)	12 ... 24 V DC	
	Connector A (grey)			
K3	Connector B (black)	with rectifier - M16x1.5 (bushing bore Ø 6-8 mm)	230 V AC	
	Connector A (grey)			
K4	Connector B (black)	with rectifier with LED and quenching diode - M16x1.5 (bushing bore Ø 6-8 mm)	230 V AC	

Manual override

STANDARD	RUBBER BOOT
no designation Dimensions	Type N2 Dimensions
Standard model of manual override. Standard retaining nut of the solenoid.	Manual override protected by rubber boot.