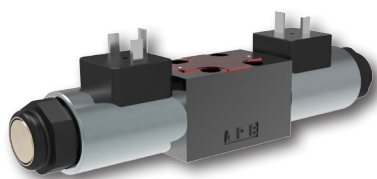


4/2 and 4/3 Directional Control Valve, Solenoid Operated

RPE3-04

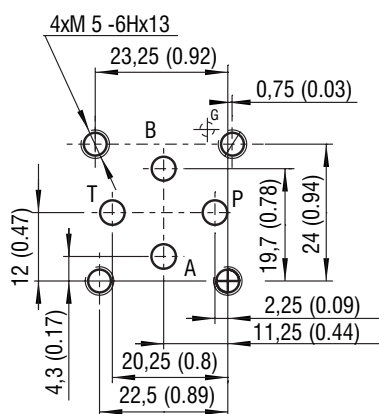
Size 04 (D02) • Q_{max} 30 l/min (8 GPM) • p_{max} 320 bar (4600 PSI)



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
- › The valve is available with interchangeable DC solenoids, also for AC power supply using a built-in rectifier bridge
- › Wide range of solenoid electrical terminal versions available
- › CSA Certificate upon request
- › The coil is fastened to the core tube with a retaining nut and can be rotated by 360° to suit the available space
- › 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)

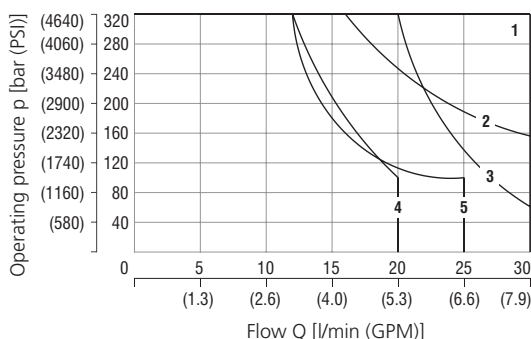
Technical Data

Valve size		04 (D02)	
Max. flow	l/min (GPM)	30 (8)	
Max. operating pressure at ports P, A, B	bar (PSI)	320 (4640)	
Max. operating pressure at port T	bar (PSI)	210 (3050)	
Fluid temperature range (NBR)	°C (°F)	-30 ... +80 (-22 ... +176)	
Fluid temperature range (FPM)	°C (°F)	-20 ... +80 (-4 ... +176)	
Ambient temperature range	°C (°F)	-30 ... +50 (-22 ... +122)	
Supply voltage tolerance	%	AC: \pm 10 DC: \pm 10	
Max. switching frequency	1/h	15 000	
Switching time at $v=32$ mm ² /s (156 SUS)	ON	ms	
	OFF	ms	
Mass	- valve with 1 solenoid	kg (lbs)	
	- valve with 2 solenoids	kg (lbs)	
		Datasheet	Type
General information		GI_0060	Products and operating conditions
Coil types / connectors		C_8007 / K_8008	C19B* / K*
Mounting interface / tolerances		SMT_0019	Size 04
Spare parts		SP_8010	
Subplates		SP_0002	DP*-04

Characteristics measured at $v = 32$ mm²/s (156 SUS)

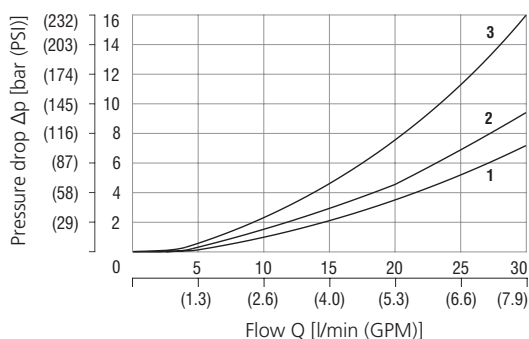
Operating limits

Operating limits for maximum hydraulic power at rated temperature and supply voltage equal to 90% nominal.



Spool symbol	Spool symbol
1	Z11, Z51, H11, P11, P51, Y11, Y51, B11, R11, X11, J15
2	C11, C51
3	R21
4	L21, A51, J75
5	Y71

Pressure drop related to flow rate



Spool symbol	P-A	P-B	A-T	B-T	P-T		P-A	P-B	A-T	B-T	P-T
Z11, P11, Y11, L21, B11	1	1	1	1		C11	3	3	3	3	2
R11, R21, X11, J15	2	2	2	2		C51	3			3	2
A51, J75	1	1				H11	1	1	1	1	2
P51, Y51, Z51		1	1			Y71	2		2	1	

For operating limits under conditions and flow directions other than shown contact our technical support.

Ordering Code

RPE3 - 04 / -

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

Valve size

Number of valve positions

two positions
three positions

Spool symbols

see the table "Spool Symbols"

Rated supply voltage of solenoids

(at the coil terminal)

12 V DC / 2.45 A
24 V DC / 1.15 A
27 V DC / 0.89 A
205 V DC / 0.12 A
24 V AC / 1.31 A / 50 (60) Hz
120 V AC / 0.22 A / 50 (60) Hz
230 V AC / 0.12 A / 50 (60) Hz

01200
 02400
 02700
 20500
 02450
 12060
 23050

No designation
U

CSA Certified
standard
CSA marking

No designation
A
B

Surface treatment

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

No designation
V

Seals

NBR
FPM (Viton)

No designation

N2
N4
N5

Manual override

standard
rubber boot protected
hand screw
socket head screw

Connector

EN 175301-803-A
E1 with quenching diode
AMP Junior Timer - radial direction
E3 with quenching diode
AMP Junior Timer - axial direction (2 pins; male)
E3A with quenching diode
EN 175301-803-A with integrated rectifier
Loose conductors (two insulated wires)
E8 with quenching diode
Deutsch DT04-2P - axial direction (2 pins; male)
E12A with quenching diode

E1
E2
E3
E4
E3A
E4A
E5
E8
E9
E12A
E13A

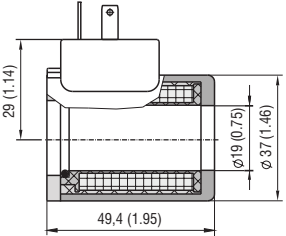
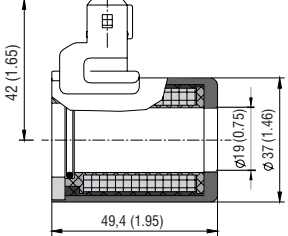
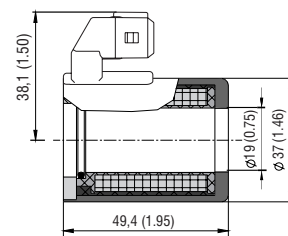
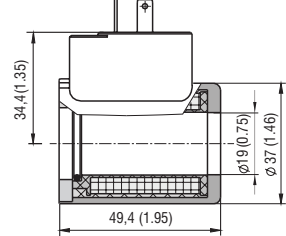
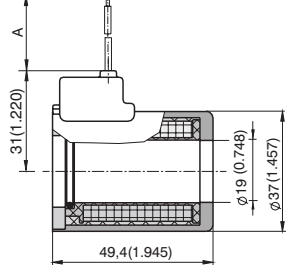
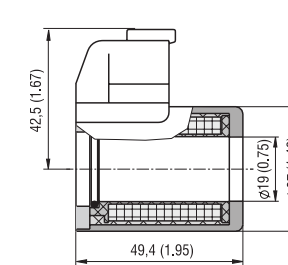
CSA upon request

- For directional valves with two solenoids, one solenoid must be de-energized before the other solenoid can be charged.
- For AC voltage supply use coils with connector type E5.
- For other solenoid voltage supply options see data sheet C_8007.
- The solenoid operated valves are delivered without connectors. For available connectors see data sheet K_8008.
- The orifice to the P port can be ordered separately, see data sheet SP_8010.
- Mounting bolts M5 x 35 DIN 912-10.9 or studs must be ordered separately. Tightening torque is 5 Nm (3.7 lbf.ft).
- Besides the shown, commonly used valve versions other special models are available. Contact our technical support for their identification, feasibility and operating limits.

Spool Symbols

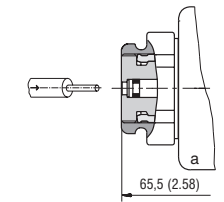
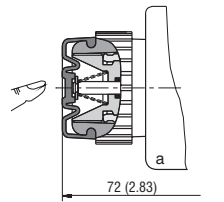
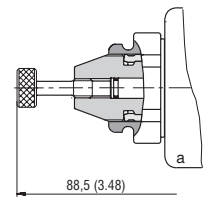
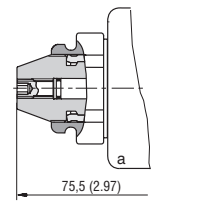
Type	Symbol	Interposition	Type	Symbol	Interposition	Type	Symbol	Interposition
Z11			Y71			Z51		
C11			R11			Z11		
H11			R21			X11		
P11			A51			C11		
Y11			P51			H11		
L21			Y51			J15		
B11			C51			J75		

Solenoid Coil in millimeters (inches)

<p>E1 - EN 175301-803-A</p> <p>E2 - E1 with quenching diode</p> <p>Protection degree IP65</p>	<p>E3 - AMP Junior Timer - radial direction</p> <p>E4 - E3 with quenching diode</p> <p>Protection degree IP67</p>	<p>E3A - AMP Junior Timer - axial direction</p> <p>E4A - E3A with quenching diode</p> <p>Protection degree IP67</p>	<p>E5 - EN 175301-803-A and integrated rectifier</p> <p>Protection degree IP65</p>
			
<p>E8 - Loose conductors (two insulated cables)</p> <p>E9 - (E8 with quenching diode)</p> <p>Protection degree IP65</p>	<p>E12A - Deutsch DT04-2P</p> <p>E13A - E12A with quenching diode</p> <p>Protection degree IP67 / IP69K</p>		
 <p>Note: A = Standard 300 mm (11.81 in), other lengths on demand</p>			

The indicated IP protection level is only achieved if the connector is properly mounted.

Manual Override in millimeters (inches)

<p>No designation - standard</p> 	<p>Designation N2 - rubber boot protected</p> 	<p>Designation N4 - hand screw</p> 	<p>Designation N5 - socket head screw, size 3</p> 
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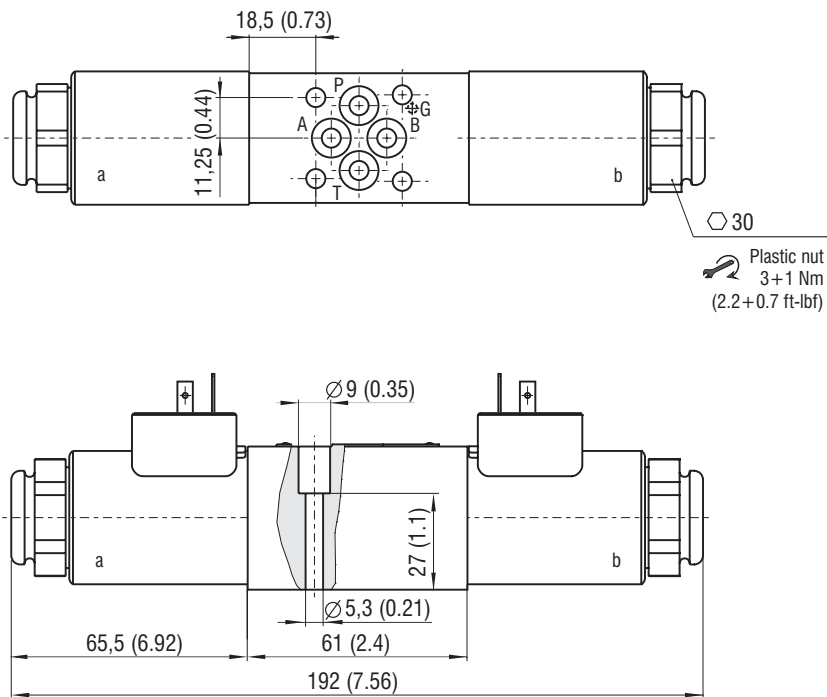
In case of solenoid malfunction or power failure, the spool of the valve can be shifted by manual override as long as the pressure in port T does not exceed 25 bar (363 PSI). For alternative manual overrides contact our technical support.

Dimensions in millimeters (inches)

RPE3-043*/*E1*

Valve with two solenoids

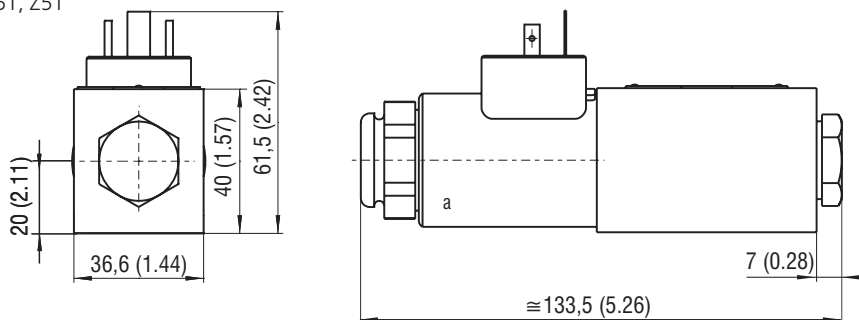
Spool symbols Z11, C11, H11,
P11, Y11, L21, B11, Y71



RPE3-042*/*E1*

Valve with one solenoid „a”

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



RPE3-042*/*E1*

Valve with one solenoid „b”

Spool symbols Z11, X11, C11, H11

