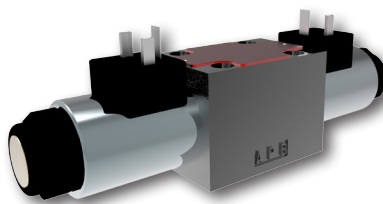


4/2 and 4/3 Directional Control Valve, Solenoid Operated, Lightline

RPEL1-06

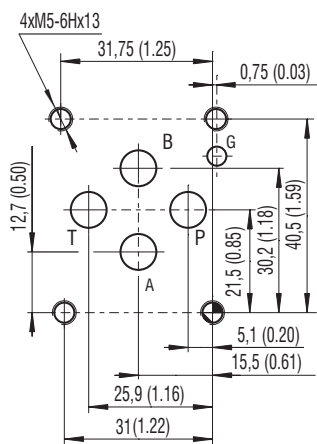
Size 06 (D03) • Q_{max} 50 l/min (13 GPM) • p_{max} 250 bar (3600 PSI)



Technical Features

- › Direct acting directional control valve with subplate mounting interface acc. to ISO 4401, DIN 24340 (CETOP 03)
- › Cost-effective Lightline design with reduced solenoid dimensions, suitable for applications with lower required power
- › Three chamber valve design for high transmitted hydraulic power
- › Wide range of solenoid electrical terminas and supply voltage types for electromagnets
- › The coil, fastened to the core tube with a retaining nut, can be rotated by 360° to suit the available space
- › Wide range of interchangeable spools
- › In the standard version, the valve housing is phosphated and steel parts zinc-coated for 240 h protection in NSS acc. to ISO 9227.
- › Enhanced surface protection for mobile sector available (520 h in NSS, ISO 9227)

ISO 4401-03-02-0-05



Ports P, A, B, T - max Ø7.5 mm (0.29 in)

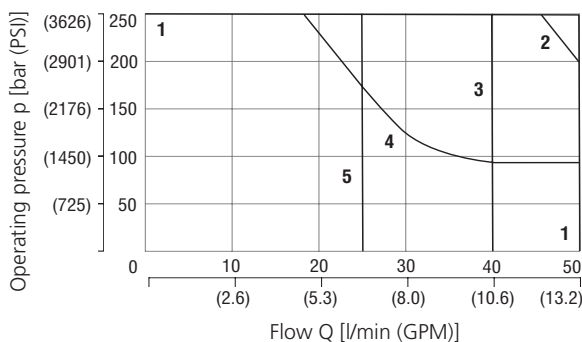
Technical Data

Valve size		06 (D03)
Max. flow	l/min (GPM)	50 (13.2)
Max. operating pressure at ports P, A, B	bar (PSI)	250 (3630)
Max. operating pressure at port T	bar (PSI)	100 (1450)
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	%	DC: ±10
Max. switching frequency	1/h	10 000
Switching time at v=32 mm ² /s (156 SUS)	ON	ms DC: 30 ... 50
	OFF	ms DC: 30 ... 50
Weight	- valve with 1 solenoid	kg (lbs) 1.3 (2.9)
	- valve with 2 solenoids	kg (lbs) 1.6 (3.5)
Datasheet		Type
General information		GI_0060 Products and operating conditions
Coil types / connectors		C_8007 / K_8008 C 19B*/K*
Mounting interface		SMT_0019 Size 06
Spare parts		SP_8010
Subplates		SP_0002 DP*-06

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

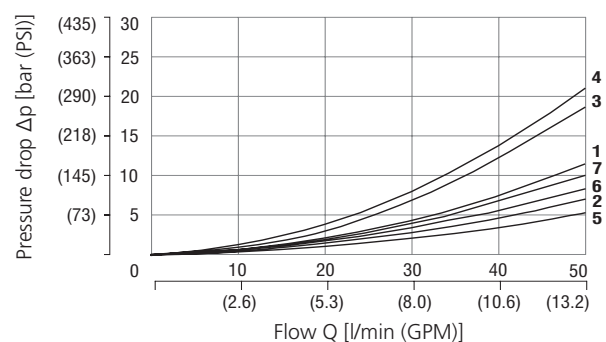
Operating limits

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



Spool symbol	
1	H11, H51, R11, X11
2	Z11, Z51
3	Y11, Y51
4	C11, C51
5	L21

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	1	1	1	1		X11	3	2	2	3	
C11	4	4	4	4	7	Z51		1	1		
H11	5	5	5	5		C51	4			4	7
Y11	6	6	5	5		H51		5	5		
L21	5	6	5	6	4	Y51		6	5		
R11	2	3	3	2							

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

Ordering Code
RPEL1-06 / -
4/2 and 4/3 directional control valve, solenoid operated, Lightline
Valve size
Number of valve positions

 two positions
 three positions

2
3
Spool symbols

see the table "Spool Symbols"

Rated supply voltage of solenoids (at the coil terminal)

 12 V DC / 2.45 A
 14 V DC / 1.70 A
 24 V DC / 1.15 A
 27 V DC / 0.89 A
 48 V DC / 0.55 A

01200
01400
02400
02700
04800
Surface treatment
No designation housing phosphated, steel parts
 zinc-coated (ZnCr-3), ISO 9227 (240 h)
A zinc-coated (ZnCr-3), ISO 9227 (240 h)
B zinc-coated (ZnNi), ISO 9227 (520 h)

No designation
V
Seals
 NBR
 FPM (Viton)

No designation
M2
Manual override
 standard
 rubber boot protected

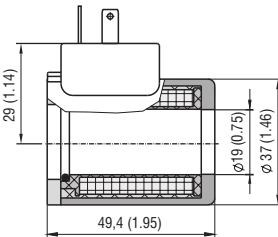
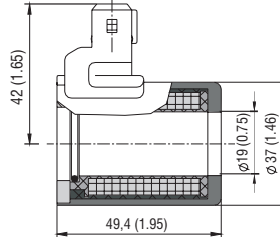
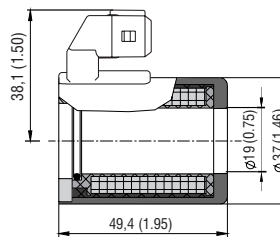
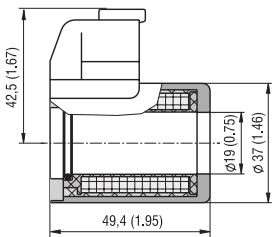
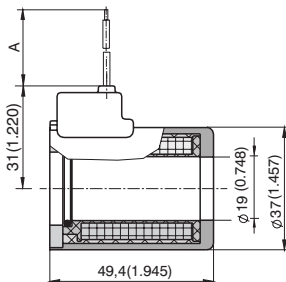
Connector
 EN 175301-803-A
E1 E1 with quenching diode
E2 AMP Junior Timer - radial direction
E3 E3 with quenching diode
E4 AMP Junior Timer - axial direction (2 pins; male)
E3A E3A with quenching diode
E4A loose conductors (two insulated wires)
E8 E8 with quenching diode
E9 E8 with quenching diode
E12A Deutsch DT04-2P - axial direction (2 pins; male)
E13A E12A with quenching diode

- 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 45 DIN 912-10.9 or studs must be ordered separately. Tightening torque is 8.9 Nm (6.56 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

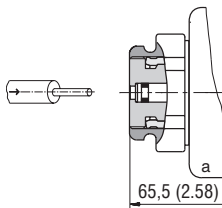
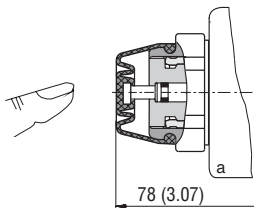
Type	Symbol	Interposition	Type	Symbol	Interposition
Z11			Z51		
C11			H51		
H11			Z11		
Y11			X11		
L21			C11		
R11			H11		
Y51			Y11		
C51					

Solenoid Coil in millimeters (inches)

<p>E1 - EN 175301-803-A E2 - E1 with quenching diode</p> <p>Protection degree IP65</p>	<p>E3 - AMP Junior Timer - radial direction E4 - E3 with quenching diode</p> <p>Protection degree IP67</p>	<p>E3A - AMP Junior Timer - axial direction E4A - E3A with quenching diode</p> <p>Protection degree IP67</p>	<p>E12A - Deutsch DT04-2P - axial direction E13A - E12A with quenching diode</p> <p>Protection degree IP67 / IP69K</p>
			
<p>E8 - Loose conductors (two insulated wires) E9 - (E8 with quenching diode)</p> <p>Protection degree IP65</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 M2 - rubber boot protected</p>
	

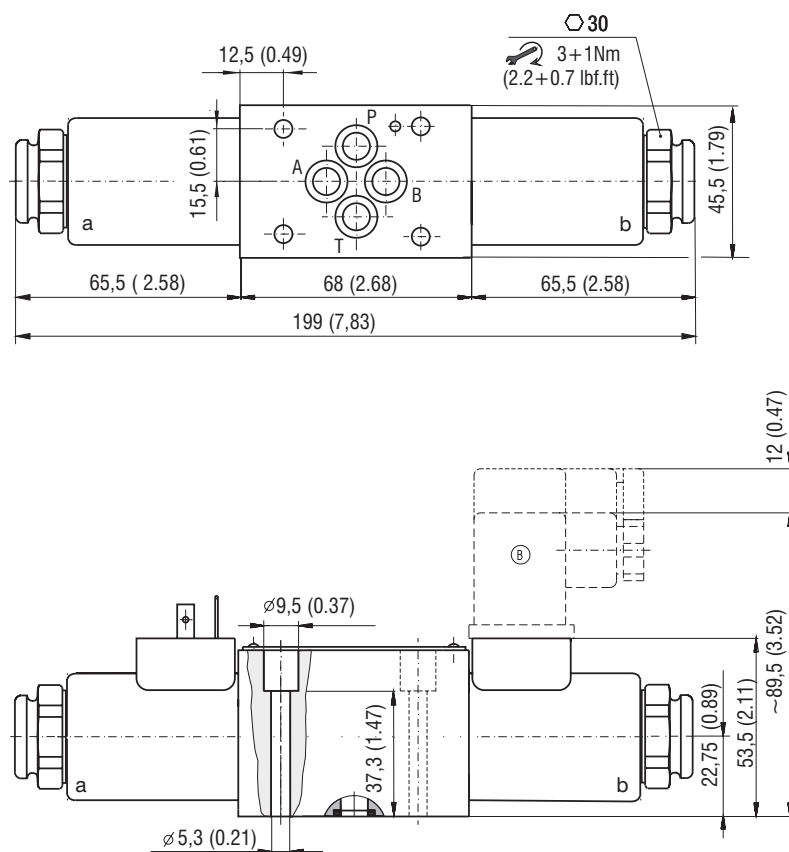
In case of solenoid malfunction or power failure, the spool of the valve can be shifted by manual override as long as the pressure in port T does not exceed 25 bar (363 PSI). For alternative manual overrides contact our technical support.

Valve Dimension in millimeters (inches)

RPEL1-063x/xE1*
Valve with two solenoids

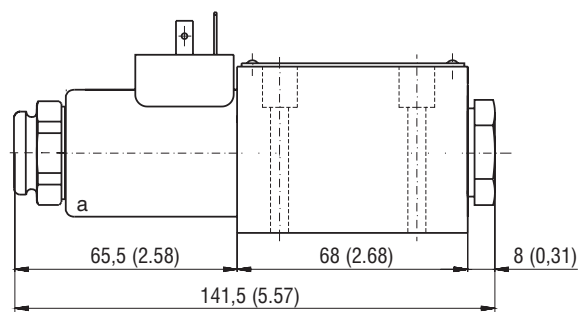
Spool symbols

Z11, C11, H11, Y11, L21


RPEL1-062x/xE1*
Valve with one solenoid „a“

Spool symbols

R11, Y51, C51, Z51, H51


RPEL1-062x/xE1*
Valve with one solenoid „b“

Spool symbols

Z11, X11, C11, H11, Y11

