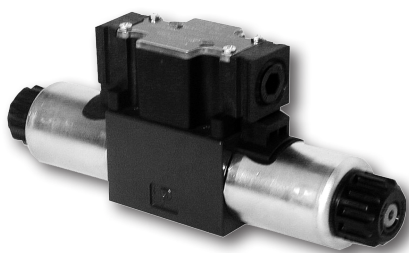


RPEA3-06

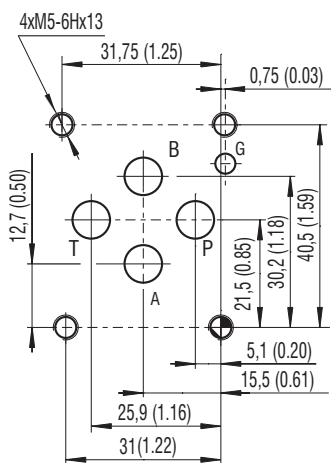
Size 06 (D03) • Q_{max} 80 l/min (21 GPM) • p_{max} 350 bar (5100 PSI)



Technical Features

- › Direct acting directional control valve with subplate mounting interface acc. to ISO 4401, DIN 24340 (CETOP 03)
- › Low power/current (8 W/ <0.35 A) solenoid allows direct connection to a PLC or a bus node
- › High transmitted hydraulic power up to 350 bar with optimized design to minimize pressure drop
- › Five chamber housing with reduced hydraulic power dependence on fluid viscosity
- › Solenoid electrical terminal (as per EN 175301-803) and wire box version with 5-Pin M12x1 connection as per IEC 61076-2-101 (code D)
- › The valve is available with interchangeable DC solenoids
- › Wide range of interchangeable spools and manual overrides available
- › Soft-shift spool speed control option
- › Optional shift position indicators (raised arrows) installed on the terminal plate
- › 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 4401-03-02-0-05



Ports P, A, B, T - max \varnothing 7.5 mm (0.29 in)

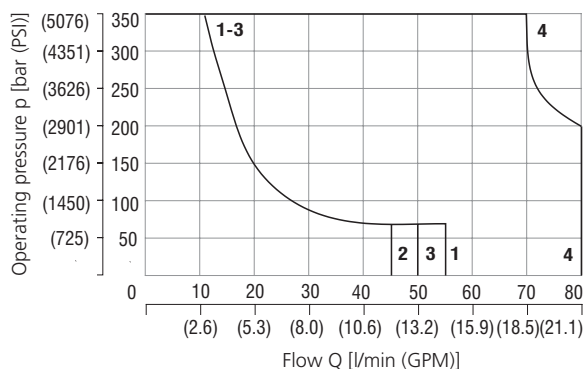
Technical Data

Valve size	06 (D03)		
Max. flow	l/min (GPM)	80 (21.1)	
Max. operating pressure at ports P, A, B	bar (PSI)	350 (5080)	
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	%	DC: \pm 10	
Max. switching frequency	1/h	15 000	
Enclosure type acc.to EN 60529	IP65		
Switching time at $v=32 \text{ mm}^2/\text{s}$ (156 SUS)	ON	ms	30 ... 50
	OFF	ms	10 ... 50
Mass	- valve with 1 solenoid	kg (lbs)	1.3 (2.8)
	- valve with 2 solenoids	kg (lbs)	1.9 (4.2)
		Datasheet	Type
General information	GI_0060	Products and operating conditions	
Coil types / connectors	C_8007 / K_8008	C22* / K*	
Mounting interface / tolerances	SMT_0019	Size 06	
Spare parts	SP_8010		

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

Operating limits

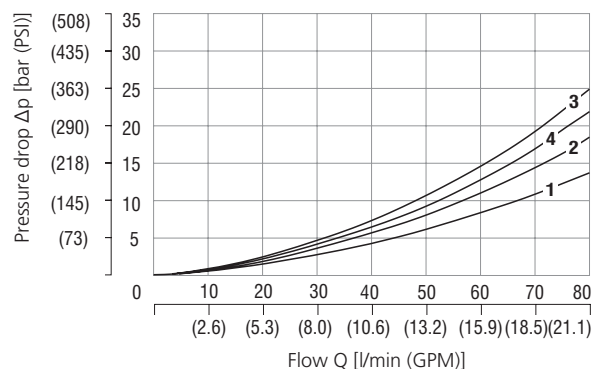
Operating limits for maximum hydraulic power at rated temperature and supply voltage equal to 90% nominal.



Z11, Y11, Z51, Y51	1
R11, X11	2
C11, C51	3
P11, P51	4

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.)

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	2	2	2	2		Z51		2	2		
C11	2	2	2	2	3	C51	2			2	3
P11	2	2	4	4		P51		1	1		
Y11	2	2	1			Y51		2	4		
R11, X11	2	2	4	2							

Ordering Code
RPEA3-06 [] [] / [] [] [] [] [] [] [] [] - [] []

4/2 and 4/3 directional control valve, solenoid operated, 8 watt
Valve size
Number of spool positions

 two positions **2**
 three positions **3**
Spool symbols

see the table "Spool Symbols"

Rated supply voltage of solenoids

 24 V DC / 0.33 A **02400**
Connector

 EN 175301-803-A **E1**
 Wire box (plug-in coil), DC version **EW1K**
Wire box version EW1K supply connector

 5-Pin connector M12x1 as per IEC 61076-2-101 (code D) **63**
 mounted on A-side (B-side plugged)
 5-Pin connector M12x1 as per IEC 61076-2-101 (code D) **64**
 mounted on B-side (A-side plugged)
 63 with LED diode **65**
 64 with LED diode **66**
No designation
U
CSA Certified
 standard
 CSA marking

No des.
Surface treatment

 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)

Spool symbol - solenoid identification standards
No designation ISO 4401
AN* ANSI-B93.9

*see comment at spool symbol section

No designation
V
Seals

 NBR
 FPM (Viton)

No designation
T1
Soft-shift spool speed control

 without soft shift control
 orifice \varnothing 0.7 mm (0.03 inch) in actuator

Manual override
No designation
N1
N2
N3
N4
N5
N9

 standard
 cap nut covered
 rubber boot protected
 detent assembly
 hand screw
 socket head screw
 without manual override

- For directional valves with two solenoids, one solenoid must be de-energized before the other solenoid can be charged.
- 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 ft-lbf).
- 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			C51		
C11			Z51		
P11			Z11		
Y11			X11		
R11			C11		
P51			Y11		
Y51			P11		

Note:

Contrary to the European Norm, the US Standard ANSI-B93.9 states that the energized solenoid routing oil flow to port A be marked with „a“ and the energized solenoid routing oil flow to port B be marked with „b“. This rule is valid independently of the solenoid lay-out.

Solenoid Coil in millimeters (inches)

EW1 - Solenoid coil with terminals for wire box electrical connector Protection degree IP65	E1 - Connector EN 175301-803-A Protection degree IP65

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

Manual Override in millimeters (inches)

No designation - standard	Designation N1 - cap nut covered	Designation N2 - rubber boot protected	Designation N3 - detent assembly	Designation N4 - hand screw	Designation N5 - socket head screw, size 3	Designation N9 - without manual override

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.

Connector - 5-Pin M12x1 (IEC 61076-2-101)

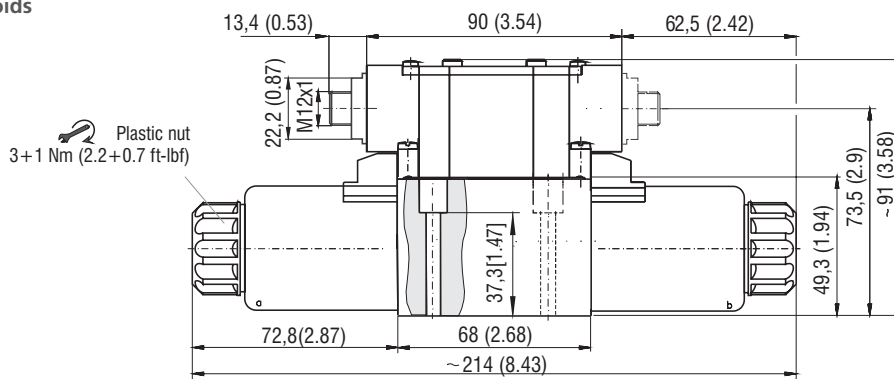
Pinout Valve with 1 magnet	Pinout Valve with 2 magnets

Note:

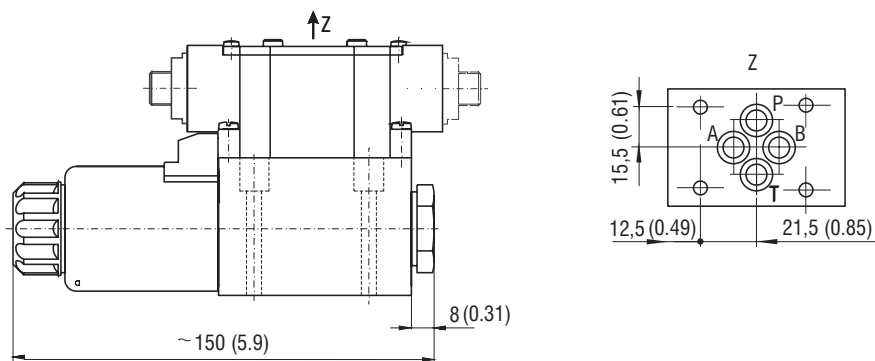
On valves with solenoid identification according to US Standard ANSI-B93.9 wiring will be different from above: on valves with one (1) solenoid Pin 2 is always driving solenoid „a” and Pin 4 solenoid „b”. This is independent from the actual physical location of the solenoid.

Dimensions in millimeters (inches)

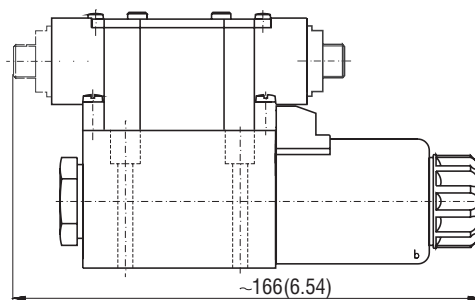
Valve with two solenoids
EW1



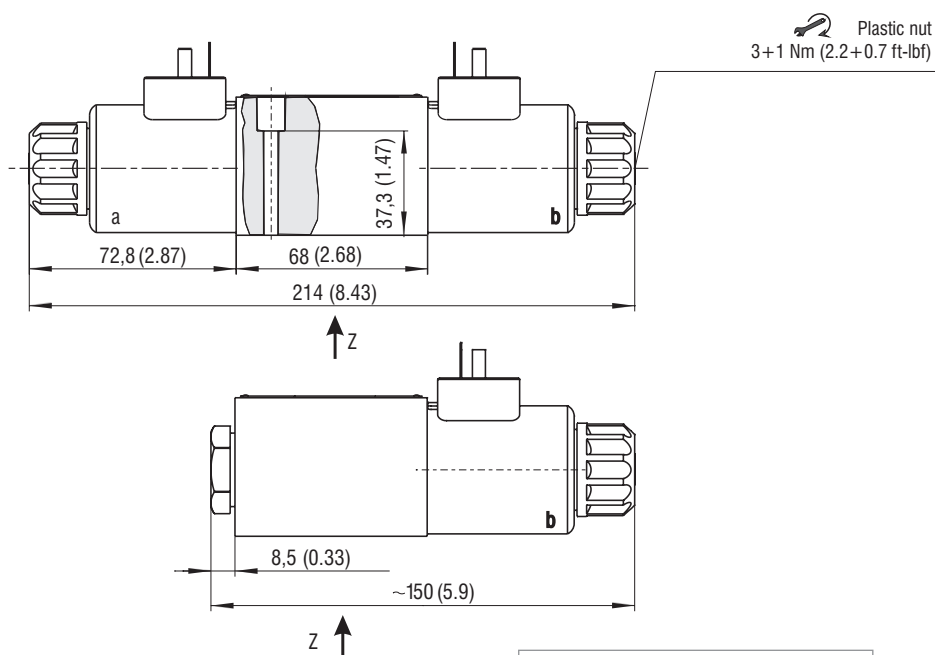
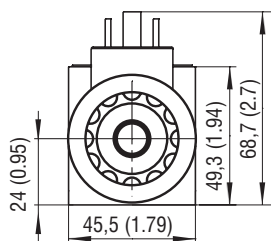
Valve with one solenoid „a“
Spool symbols R11, P51, Y51, Z51, C51



Valve with one solenoid „b“
Spool symbols X11, Z11, C11, Y11, P11



Valve with two solenoids
E1



Mounting screws 8.9 Nm (7 ft-lbf)
M5 x 45 DIN 912-10.9