
**Technical Features**

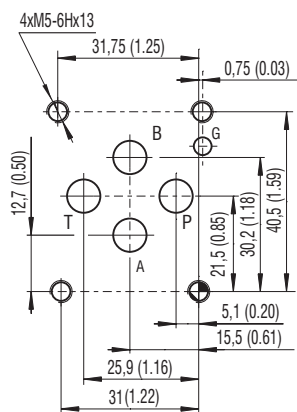
- › Solenoid operated directional control valve, spool type, with subplate mounting surface acc. to ISO 4401, DIN 24340 (CETOP 03) standards
- › Robust design of coil with high resistance to mechanical damage
- › Encapsulation enclosure solenoid version (m)
- › High transmitted hydraulic power
- › Operating pressure up to 350 bar, pressure in T- channel up to 210 bar
- › Low pressure drop achieved by design optimization
- › Five chambers housing design with reduced hydraulic power dependence on fluid viscosity
- › Wide range of interchangeable spools, optional type of manual override
- › Easily interchangeable coil with adjustable connector position by rotating the coil
- › In the standard version, the valve is zinc coated for 520 h protection in NSS acc. to ISO 9227

**Functional description**

Solenoid operated directional control valves in heavy-duty design have higher protection against mechanical damage, against dust, gas and moisture ingress into the coil. They are intended for operation in heavy working conditions.

**Technical Data**

ISO 4401-03-02-0-05


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

Valve size	06 (D03)	
Max. flow	l/min (GPM)	60 (15.9)
Max. operating pressure at ports P, A, B	bar (PSI)	350 (5080)
Max. operating pressure at ports T	bar (PSI)	210 (3050)
Pressure drop	bar (PSI)	see $\Delta p$ -Q characteristics
Fluid temperature range (NBR)	$^{\circ}\text{C}$ ( $^{\circ}\text{F}$ )	-30 ... +80 (-22 ... +176)
Max. switching frequency	1/h	15 000
Switching time ON at $v=32 \text{ mm}^2/\text{s}$ (156 SUS)	ms	30 ... 50
Switching time OFF at $v=32 \text{ mm}^2/\text{s}$ (156 SUS)	ms	10 ... 50
Weight	valve with 1 solenoid	kg (lbs)
	valve with 2 solenoids	2.52 (5.56)
Technical Data - Heavy-duty Solenoid		
Voltage type		DC
Available voltages	V	24
Available nominal power	W	18
Supply voltage tolerance	%	DC: $\pm 10$
Duty cycle		100 % ED
Enclosure type of the Solenoid to EN 60529		IP 66/68
Ambient temperature range	$^{\circ}\text{C}$ ( $^{\circ}\text{F}$ )	-30 ... +50 (-22 ... +122)
	Data Sheet	Type
General information	GI_0060	products and operating conditions
Mounting interface	SMT_0019	Size 06
Subplates	Subplates_0002	
Spare parts	SP_8010	
Solenoid Code	Ordering No.	
ET22-46/02400C32-B	42278700	

**Danger – safety notice**

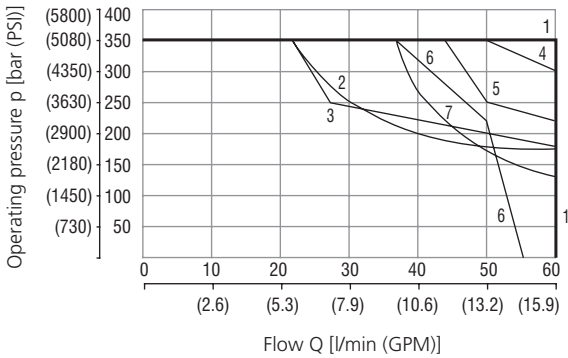
- › Always disconnect the coil from the power supply before any maintenance, assembly, disassembly or other work on it
- › For directional valves with two solenoids, one solenoid must be without supply voltage charge before the other solenoid can be charged
- › The temperature of the valve – coil surface can exceed 100  $^{\circ}\text{C}$  during the operation. There is a risk of burns
- › Damaged or malfunctioning coils (inclusive cable) must be immediately disconnected from the power supply



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

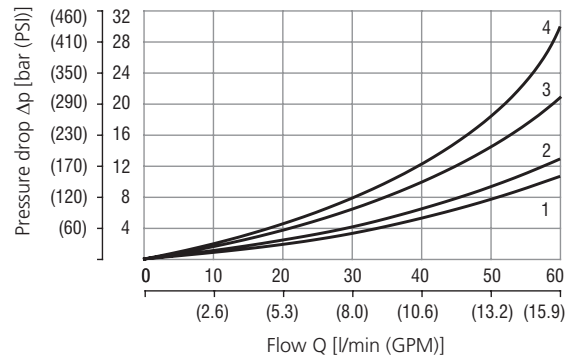
**Operating limits (p-Q)**

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



Z11, J15	1
C11	2
H11, X30, B71	3
R11	4
Y11, N11, V41	5
Y51	6
R30	7

**Pressure drop related to flow rate ( $\Delta p-Q$ )**



	P→A	P→B	A→T	B→T	P→T
Z11, J15, R11, R30, X30	1	1	2	2	
C11	3	3	3	4	2
H11	1	1	1	2	2
B71	1			1	
Y11	1	1	1	1	
Y51		2	2	2	
N11	1		2	2	
V41		1		2	

**Ordering Code**

**RPET3-06** [ ] [ ] / [ ] [ ] [ ] [ ] - [ ]

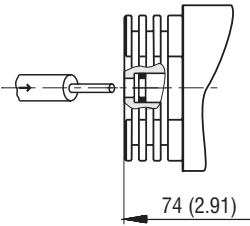
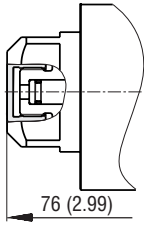
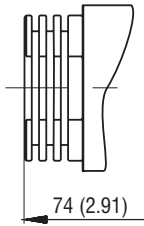
- 4/2 and 4/3 directional control valve, solenoid operated, heavy-duty design**
- Valve size**
- Number of spool positions**  
two positions: 2  
three positions: 3
- Spool symbols**  
see the table „Spool Symbols“
- Rated supply voltage of solenoids**  
24 V DC / 0.75 A
- 02400**
- Surface treatment**  
B: zinc-coated (Zn-Ni), ISO 9227 (520 h)
- Seals**  
NBR
- No designation**
- Manual override**  
standard (operated by pin)  
metal cap nut covered  
without manual override
- Solenoid electric connection**  
connection box without cable gland
- ET1**
- No designation**  
N1  
N9

- The valves are delivered without cable glands.
- Mounting bolts M5x45 DIN 912-10.9 or studs must be ordered separately.
- Tightening torque is 8.9+1 Nm (6.56+0.7 lbf.ft).
- The orifice to the P-port can be ordered separately, see data sheet SP\_8010.
- Besides the shown types, commonly used valve versions other special models are available. Contact our technical department for their identification, feasibility and operating limits.

**Spool Symbols**

Type	Symbol	Interposition	Type	Symbol	Interposition	Type	Symbol	Interposition
Z11			Y51			Z11		
C11			R30			B71		
H11			R11			N11		
Y11			X30			V41		
						J15		

**Manual Override** in millimeters (inches)

No designation - standard (operated by pin)	Designation N1 - metal cap nut covered	Designation N9 - without manual override
		

**Installation**

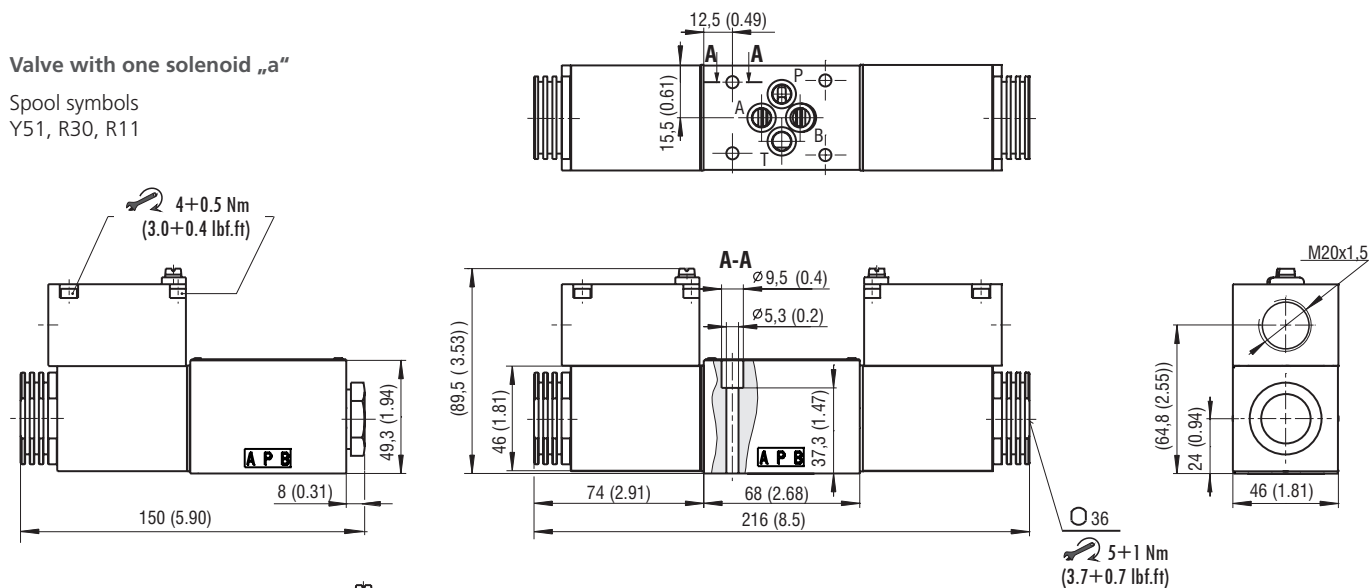
- Ambient operating temperature of the used connecting cable and cable gland shall be at least +105 °C (+221 °F). Use the cable shoe M3 – 0.75 mm<sup>2</sup> for wire connecting.
- Fastening torque of screws in connecting plate is 0.4 Nm (0.30 lbf.ft). Fastening torque of screws for cover is 4 Nm (2.95 lbf.ft).
- The user shall to ensure free heat emission from the coil surface during operation. The coil must not be activated alone – without connecting to the valve.
- We recommend connecting of the coil to the ground via the purpose-built ground clamp on the coil casing.

Dimensions in millimeters (inches)

RPET3-06\*\*/\*ET1-B, RPET3-06\*\*/\*ET1N9-B

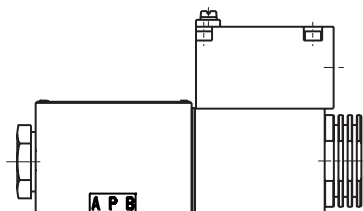
Valve with one solenoid „a“

Spool symbols  
Y51, R30, R11



Valve with one solenoid „b“

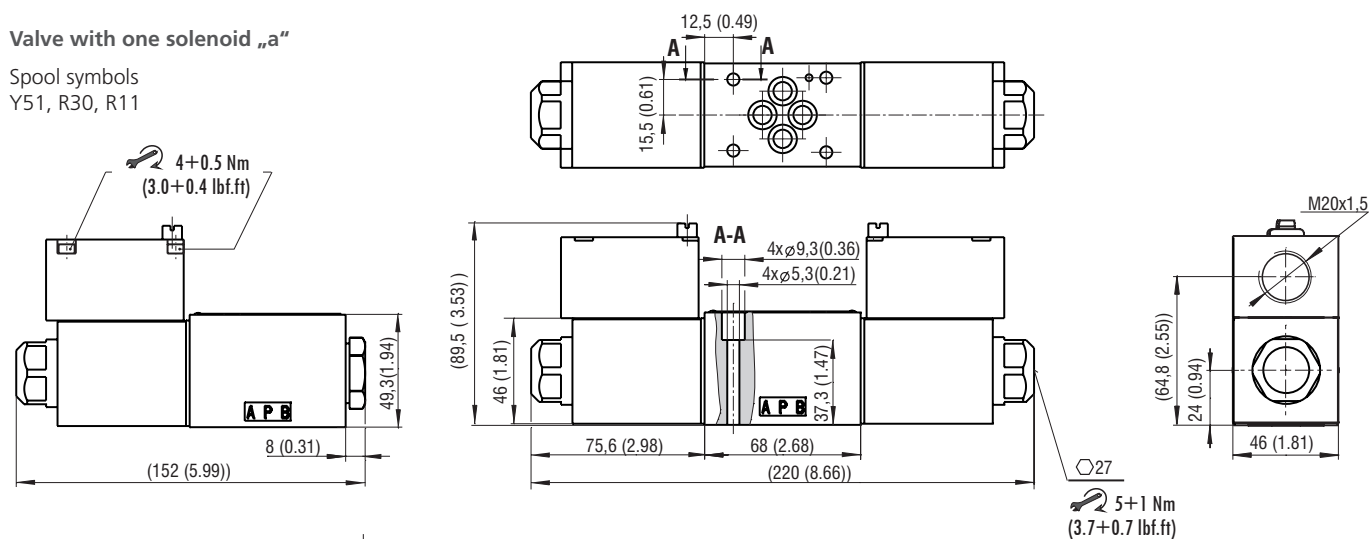
Spool symbols  
X30, Z11, B71, N11, V41



RPET3-06\*\*/\*ET1N1-B

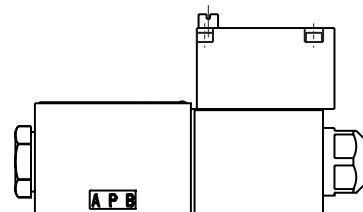
Valve with one solenoid „a“

Spool symbols  
Y51, R30, R11



Valve with one solenoid „b“

Spool symbols  
X30, Z11, B71, N11, V41



Mounting screws  $\curvearrowright$  8.9+1 Nm (6.56+0.7 lbf.ft)  
M5x45 DIN 912-10.9