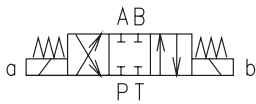
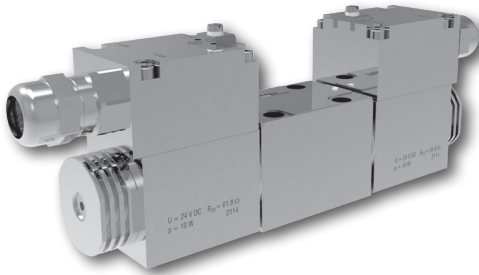


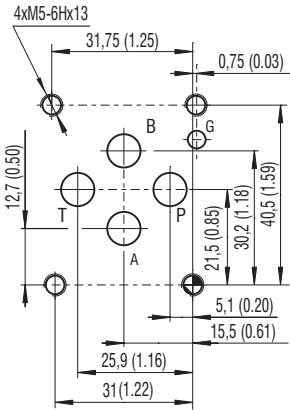
Explosion Proof, 4/2 and 4/3, Directional Control Valve, Solenoid Operated

RPEX3-06

Size 06 (D03) • Q_{max} 60 l/min (16 GPM) • p_{max} 350 bar (5100 PSI)



ISO 4401-03-02-0-05



Parts P, A, B, T max. Ø 7,5 mm (0.29 in)

Technical Features

- Hydraulic, spool-type directional control valve with cast iron body and connection pattern according to ISO 4401 and DIN 24340 (CETOP 03)
- Maximum operating pressure 350 bar (P, A, B ports) / 210 bar (T port)
- High transmitted power and low pressure drops
- Certification of solenoid coil ATEX (Directive 2014/34/EU) and IECEx, valid for mines and environments with potentially explosive atmospheres consisting of gases or dust
- Coil protection by encapsulation "m" for gases and by flameproof enclosure "t" for dust
- Robust design resistant to mechanical damage
- Protection against static discharge by grounding the valve surface
- Valves applicable for temperature classes T4 (135 °C), T5 (100 °C) and T6 (85 °C) depending on the coil input and maximum ambient temperature
- Selectable coil supply voltage, valve gate connection and type of manual emergency control
- The valve is zinc coated for 520 h corrosion protection in NSS acc. to ISO 9227 and as protection against ignition spark in the event of mechanical impact

Product Description

Direct-acting, spool-type directional control valve operated by solenoid. The valve is designed to control the direction of movement of the appliance output component (direction of piston feed in the cylinder, direction of rotation of the hydraulic motor shaft) or its stop. The valve is certified for use in potentially explosive atmospheres of gases, vapors, dusts and flammable particles with high protection level EPL = b.

Use of the valve in potentially explosive atmospheres

	EPS14ATEX1744 X	IECEx EPS14.0064 X
AC	Ex I M2 Ex mb I Mb	Ex mb I Mb
	Ex II 2G Ex mb IIC T4, T5, T6 Gb	Ex mb IIC T4, T5, T6 Gb
	Ex II 2D Ex mb IIC T135°C, T100°C, T85°C Db	Ex mb IIC T135°C, T100°C, T85°C Db
DC	Ex I M2 Ex eb mb I Mb	Ex eb mb I Mb
	Ex II 2G Ex eb mb IIC T4, T5, T6 Gb	Ex eb mb IIC T4, T5, T6 Gb
	Ex II 2D Ex tb IIC T135°C, T100°C, T85°C Db	Ex tb IIC T135°C, T100°C, T85°C Db

Ordering Code

<p>Explosion proof, 4/2 and 4/3, directional control valve, solenoid operated</p> <p>Valve size</p> <p>Number of spool positions two positions 2 three positions 3</p> <p>Spool symbols see the table "Spool Symbols"</p> <p>Rated supply voltage of solenoids DC voltage (I_N of coil 10 W) (connection box + cable gland) 12 V DC / 0.75 A 01200 24 V DC / 0.39 A 02400 48 V DC / 0.19 A 04800 110 V DC / 0.094 A 11000 AC voltage 50/60 Hz (I_N of coil 10 W) (fix installed cable) 110 V AC / 0.112 A 11050 230 V AC / 0.052 A 23050</p>	<p>RPEX3-06 [] [] / [] [] [] [] [] [] - B []</p>	<p>Certifications of valve No designation ATEX, IECEx A IECEx for Australia and New Zealand E EAC for EAEU* States</p> <p>Surface treatment 520 h salt spray test (ISO 9227)</p> <p>Seals NBR</p> <p>Manual override standard detent assembly without manual override</p> <p>Cable length without cable 3 3 m 8 8 m</p> <p>Temperature class - solenoid nominal input power Class T4 - 10 W Class T6 (T5) - 10 W Class T4 - 18 W**</p>
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**Coil B4 (18 W) available only in combination with spool J15

*EAEU= Eurasian Economic Union, certificate according to TR TS 012/2011 valid for the Russian Federation, Belarus, Armenia, Kazakhstan and Kyrgyzstan.
- Mounting bolts M5x45 DIN 912 10.9 (ISO 4762) or studs must be ordered separately.
- Besides the valve versions shown, which are the most frequently used, other special versions are available. Consult our technical department for their identification, feasibility and operating limits.

Technical Data

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 Δp -Q characteristics	
Fluid temperature range (NBR)	°C (°F)	-30 ... +70 (-22 ... +158)	
Max. switching frequency	1/h	15 000	
Switching time ON at $v=32$ mm ² /s (156 SUS)	ms	AC: 30 ... 40	DC: 30 ... 50
Switching time OFF at $v=32$ mm ² /s (156 SUS)	ms	AC: 30 ... 70	DC: 10 ... 50
Weight	valve with 1 solenoid	2.52 (5.56)	
	valve with 2 solenoids	3.97 (8.75)	
Technical Data - Explosion Proof Solenoid			
Voltage type		AC 50 / 60 Hz	DC
Available nominal voltages U_N	V	110, 230	12, 24, 48, 110
Available nominal input power	W	10, 18	
Supply voltage fluctuations		$U_N \pm 10$ %	
Duty cycle		100 % ED	
Enclosure type of the Solenoid to EN 60529		IP66 / IP68*	
*Test procedure IP68: Pressure 1 m under water, test duration 24 h. The indicated IP protection level is only achieved if the cable is properly mounted.			
Ambient temperature range			
Temperature class / Nominal inputpower	T4-10 W / 18 W	°C (°F)	-30 ... +70/60 (-22 ... +158/140)
	T5-10 W		-30 ... +55 (-22 ... +131)
	T6-10 W		-30 ... +45 (-22 ... +113)
	Data Sheet	Type	
General information	GI_0060	products and operating conditions	
Operating Instructions	14054		
Mounting surface	SMT_0019	Size 06	
Subplates	Subplates_0002		
Spare parts	SP_8010		

Spool Symbols

Type	Symbol	Interposition	Type	Symbol	Interposition	Type	Symbol	Interposition
Z11			R30			Z11		
C11			A51			X30		
H11			Y51			C11		
Y11			C51			H11		
M21			H51			N11		
N41			X51			B71		
J15			Y13			V41		

Manual Override in millimeters (inches)

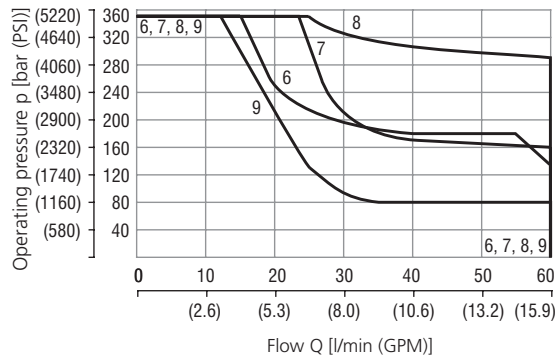
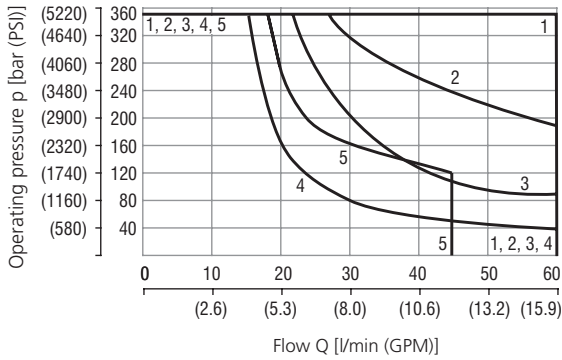
No designation - standard	N7 - detent assembly	N9 - without manual override

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.

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

Operating limits

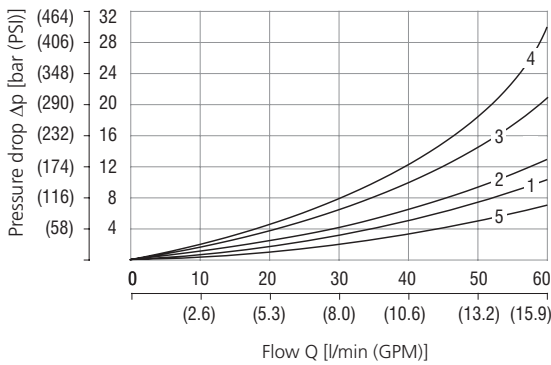
Ambient temperature $70 \text{ }^\circ\text{C}$ (158 $^\circ\text{F}$), Voltage $U_N -10 \%$ (24 V DC), Power $P_N 10 \text{ W}$



1	R30, X30, J15*
2	Z11
3	Y11, N11, V41
4	H11, B71
5	C11
6	H11, H51
7	C51
8	M21
9	A51

Operating limits of other than shown versions consult with our technical department. *Spool J15 is available only with Coil B4 (18 W).

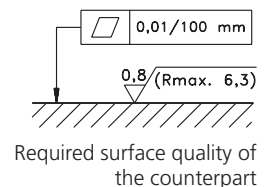
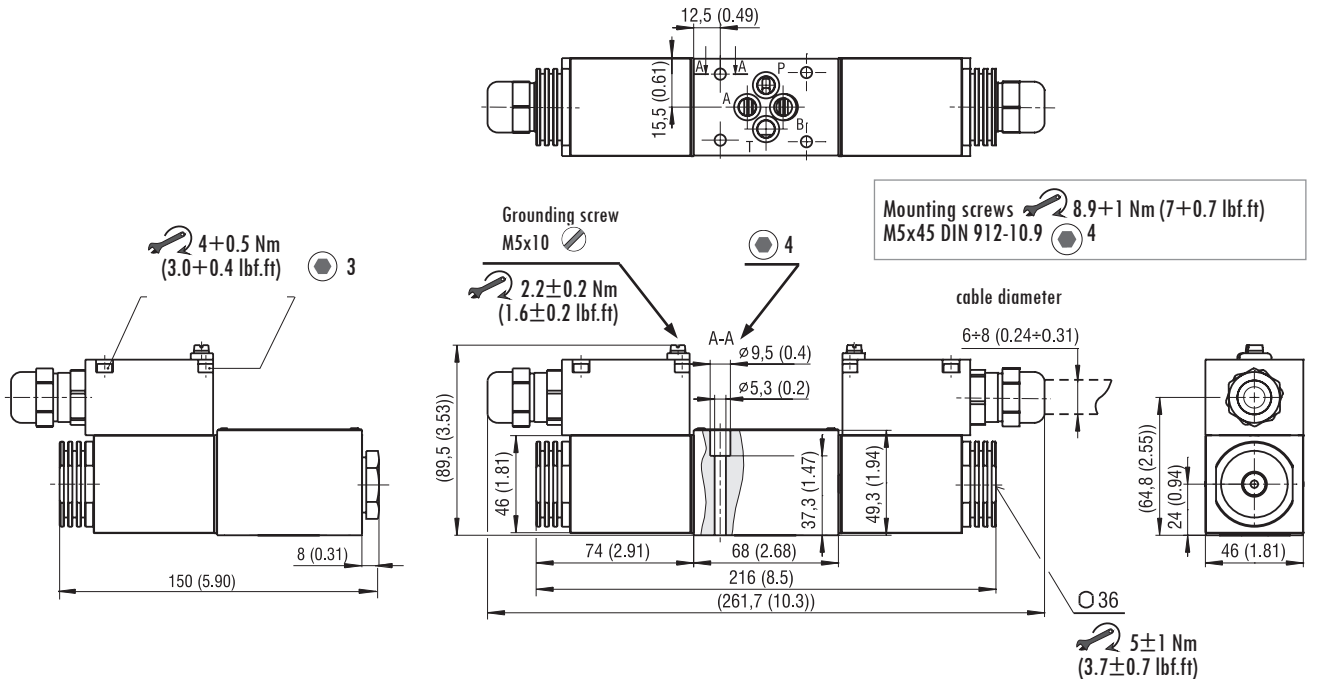
Pressure drop related to flow rate



	P→A	P→B	A→T	B→T	P→T		P→A	P→B	A→T	B→T	P→T
Z11, J15*	1	1	2	2		Y11	1	1	1	1	
C11	3	3	3	4	2	R30	1	1	2	2	
H11	1	1	1	2	2	X30	1	1	2	2	
B71	1			1		2C51	3			4	2
2A51	1	1				2H11	1	1	1	2	2
2H51		1	2			3M21	1	6	1	1	

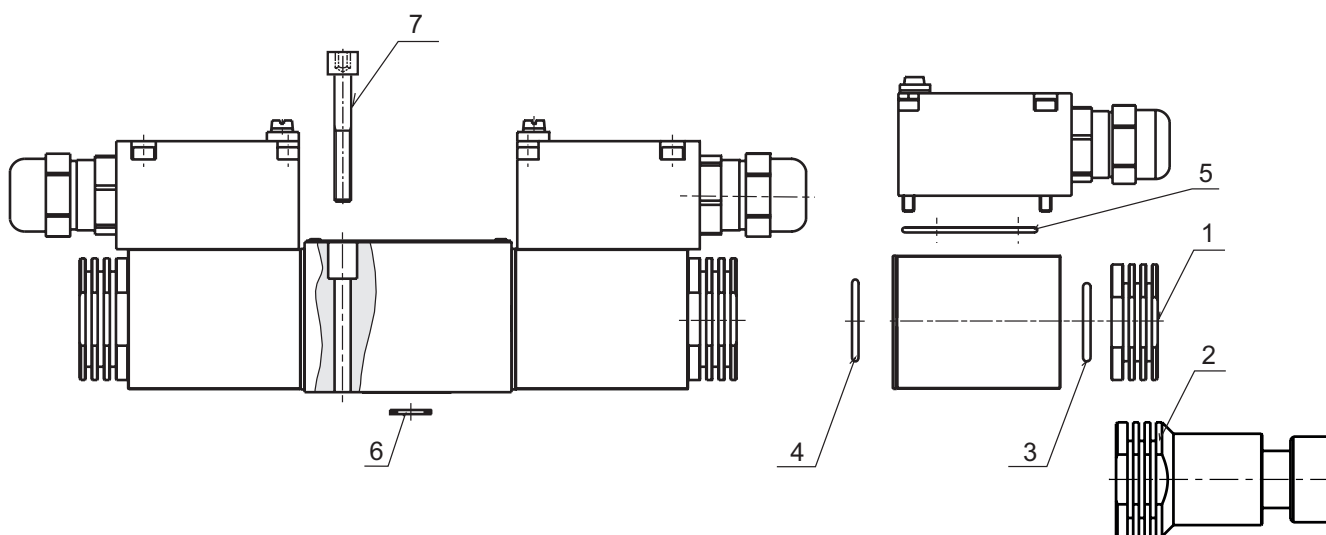
*Spool J15 available only with solenoid B4 (18 W)

Dimensions in millimeters (inches)



SPARE PARTS

Position	Component name	Description	Ordering number
1	Coil nut	Nut	45904300
3	Nut sealing	O-ring 21.89x2.62 VMQ 70 (silicone)	
4	Sealing ring actuating system-coil	O-ring 22x1.5 VMQ 50 (silicone)	
2	Coil nut with manual override N7	Nut	45904200
3	Nut sealing	O-ring 21.89x2.62 VMQ 70 (silicone)	
4	Sealing ring actuating system-coil	O-ring 22x1.5 VMQ 50 (silicone)	
5	Sealing ring of terminal box cover	O-ring 46x2 VMQ (silicone)	34950700
6	Set of seals	4x Square ring 9.25x1.68 NBR	15845200
7	Valve mounting screws	4x M5x45 DIN 912 10.9	15845100



Information for Customers

- › Before installing the product, please read the Product Instructions for Use, which is available in full on the manufacturer's website (www.argo-hytos.com) near the data sheet. Please also pay attention to the chapter describing the target user group, their professional qualifications and medical fitness to install, use and repair the product.
- › The product may only be used in the zones indicated, otherwise there is a risk of initiating an explosion.

Area of application

Equipment - group I – MINES	Equipment - group II (IIG) - GAS	Equipment - group III (IID) - DUST
Category M1 – NO	Zone 0 - NO	Zone 20 - NO
Category M2 (the device remains switched off)	Zone 1 Zone 2	Zone 21 Zone 22
	IIA (propane) IIB (ethylene) IIC (hydrogen)	IIIA (combustible particles) IIIB (non-conductive dust) IIIC (conductive dust)

- › For use in the temperature class, the maximum ambient temperature (see technical data table) must be observed for the coil input (10/18 W), the maximum working fluid temperature of 70 °C and the nominal coil supply voltage. The 18 W coil valve may only be used in temperature class T4 (135 °C).
- › The user must ensure free heat dissipation from the valve surface. The surface must not be covered, exposed to a heat source or direct sunlight. When mounting the valves in groups, observe the minimum distances specified in the Instructions for Use.
- › A certified cable of temperature insulation class corresponding to the application temperature class must be used to the electrical connection of coil with DC supplying.
- › The rectifier and terminal block of coils with AC supplying are protected with encapsulation. Therefore, these coils are only supplied with mounted cable. No modification to the connected cable are allowed except for shortening the cable to a suitable length and fitting a connector to the free end.
- › The valve surface must be grounded using the screw on the terminal box cover of coil to prevent electrostatic discharge.
- › It is forbidden to install, dismantle or repair the product in an explosive atmosphere. Repairs to the product shall be carried out by the manufacturer, except for repairs permitted by the user under the conditions specified in the Instructions for Use.
- › Attention! The surface of the coil and the valve gets hot during operation. There is a risk of skin burns if touched.