pneumatrol

Type C15, 'P' Series Solenoid Valve







DESCRIPTION

Solenoid valve designed for direct mounting onto 1/4 turn pneumatically operated valve actuators meeting 'NAMUR' standard fixing dimensions.

Hazardous area approved pilot operators (ExnA, Exm, Exme, Exd and Exia) are available with various international approvals – ATEX, IECEx, FM, GOST CU TR (Russia) and NEPSI (China).

Body material available in

- Aluminium (standard)
- Stainless Steel
- Brass

Seal kit available – VSKC15P

FEATURES

- · Interchangeable CNOMO interface coil units, including various hazardous area options
- Integrated Exhaust to Spring (ETS) feature in 3/2 position
- Top face air connection
- 1/4"BSP mains air connection and 1/8"BSP exhaust ports, also available in NPT ports
- Single coil spring return function or double coil stay put function
- Pilot exhaust dust caps fitted as standard
- The valve is fitted with a change-over plate that allows the valve to be converted from 3/2 to 5/2 function quickly and easily for spring return and double acting actuators
- SIL2 on energising, SIL3 on de-energising when used in 3/2 mode



Operator	Coil	Options 1	Standard Voltage	Designator	Options 2
1 8 Spring return, internal pilot air feed	A Exia (BASEEFA)	C Lever manual override	B 24v DC	A ATEX	B Valve body brass
Spring return, external	B Terminal Box	D Push button manual override	H 24v DC Low Power ⁽¹⁾	B Exia 10mA	C Valve body brass and NPT ports
8 0 pilot air connection	D Exd	S Screw driver override (standard)	R 24v AC (50/60 Hz)	C IECEx ⁽²⁾	Valve body brass, NPT ports and 1/2"
1 9 Double solenoid, internal	H Plug & Socket Exia	0 No option required	T 110v AC (50/60 Hz)	E Exme 0.5W	NPT electrical connection
pilot air feed	K MC30 Plug & Socket	_	N 220v AC (50/60 Hz)	G ATEX Exd IIB	E 1/2" NPT electrical connection
9 0 pilot air connection	L MC30 Plug & Socket with LED		U 240v AC (50/60 Hz)	H Exm	L Low temperature duty -40°C
	N ExnA		* A comprehensive range of non-standard	J Exme 2.4W	M NPT ports and 1/2" NPT electrical connection
	P Plug & Socket voltages available on		voltages available on request	R GOST CU TR ⁽³⁾	N NPT ports
	S Exia (BASEEFA) Stain Steel Housing	S Note:	request	X NEPSI ⁽⁴⁾	P Valve body stainless steel, NPT ports and 1/2" NPT electrical connection
	T Inline Terminal Box	(1) "⊦	H" option not available with Ex		R Valve body stainless steel and NPT ports
	U Exia (FM)	(2) IECEx only available with Exia and Exd Solenoid(3) GOST CU TR only available with Exd solenoid			S Valve body stainless steel
	0 No Coil Unit	(4) NEPSI only available with Exia			
	9 Exm				X Valve suitable for use with Oxygen
					* A comprehensive range of non-standard options available on request

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COIL ORIENTATION

The solenoid pilot can be mounted in two possible positions by rotating the solenoid base through 90° (FIG 1). This is achieved by releasing the two M4 pozi-drive screws which secure the solenoid pilot to the valve body. When changing the solenoid pilot position care should be taken to ensure the triangular gasket seal is in place. (FIG 2)





MATERIAL SPECIFICATIONS

STANDARD

Body and End Caps	Black Anodised Aluminium (Dural)
Spool	Hard Anodised Aluminium PTFE Impregnated
Jet	Brass
Spacers	Glass Filled Acetal
Seals	Nitrile (Alternative Seals Available)
Spring	Music Wire
Mounting Screws	Stainless Steel
Change Over Plate	Nylon 66 30% Glass Filled
Gasket	Nitrile

The coil itself can be rotated in 90° steps by releasing the four securing screws. (FIG 3) When rotating the coil care should be taken to ensure the core assembly (core, spring, seal and washer) remains intact and aligned correctly. This is easily achieved by only lifting the coil the small amount required to clear the screws enabling the coil to be rotated.



DIMENSIONS (mm)

COIL TYPE	Α	в	Е
Moulded Plug & Socket	50	85	130
Heavy Duty Mazak Plug & Socket	50	85	130
Standard Terminal Box	50	93	146
SS Terminal Box	58	110	180
ExnA Terminal Box	50	93	146
Exd SS Terminal Box	58	110	180
Exm Flying Lead	50	81	122
Exme Terminal Box	50	93	146
Piezo Operator	48	94	148
Exia SS Terminal Box	58	117	194
Exia Std. Terminal Box	50	100	160
Exia Plug & Socket	50	88	136

VALVE SPECIFICATIONS

	STANDARD
Inlet Port Connection Size	1/4" BSP
Exhaust Port Connection Size	1/8" BSP
Working Pressure	3 to 10 bar
Cv Factor	0.7
Flow Rate (at 6 bar with 1 bar pressure drop)	675 l/min
Maximum Ambient Temperature	+80 °C
Minimum Working Temperature	-20 °C

COIL DETAILS

Coil Type	Plug & Socket	Terminal Box	ExnA	Exd	Exm	Exia
Area Class	Safe	Safe	Zone 2	Zones 1 & 2	Zones 1 & 2	Zone 0, 1 & 2
Area Category	N/A	N/A	ExN II T4-T6	Exd IIC T3-T6	Exm IIC T5	Exia IIC T6
Ingress Protection	IP65	IP65	IP65	IP66	IP65	IP65
Cable Entry	PG.9	M20 x 1.5	M20 x 1.5	M20 x 1.5	Flying leads	M20 x 1.5
Ambient Temperature	-20 to +80 °C	-20 to +80 °C	-40 to +60 °C	-60 to +80 °C	-20 to +65 °C	-40 to +65 °C
Magnetic Wire Class	Н	Н	Н	Н	Н	Н

* FURTHER SOLENOID OPTIONS AVAILABLE ON REQUEST

NAMUR Mounted, Type C15, 'P' Series Solenoid Valve