

## E85--0 Series, 1", 5/3 Function Solenoid Valve

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### DESCRIPTION

5 port 3 position, spring centering pilot operated solenoid valve.

Valve is illustrated with dual safe area plug & socket coils.

Body material available in

- Aluminium (standard)
- Stainless Steel
- Brass

Seal kit available – VSK1001

### FEATURES

- Internal or external pilot air connection
- Interchangeable coils, including various hazardous area options
- Convenient fixing holes to enable bracket mounting
- Optional all ports open or all ports closed in center position

PRODUCT CODE: **E 8 5**

**0**

**0**

OPERATOR

**0**

COIL

**0**

VOLTAGE

**0**

OPTIONS 2

SEE BELOW FOR PRODUCT CODE DETAILS

Any of the below options that are not required enter '0' in relevant box.

#### Operator

- |          |          |   |
|----------|----------|---|
| <b>1</b> | <b>4</b> | All ports sealed mid position, internal pilot air feed                |
| <b>4</b> | <b>0</b> | All ports sealed mid position, external pilot air connection          |
| <b>1</b> | <b>5</b> | Inlet sealed open exhaust mid position, internal pilot air feed       |
| <b>5</b> | <b>0</b> | Inlet sealed open exhaust mid position, external pilot air connection |

#### Coil

- |          |  |
|----------|--|
| <b>A</b> | Exia (BASEEFA)                         |
| <b>B</b> | Terminal Box                           |
| <b>U</b> | Exia (FM)                              |
| <b>D</b> | Exd                                    |
| <b>K</b> | MC30 Plug & Socket                     |
| <b>N</b> | ExnA                                   |
| <b>P</b> | Plug & Socket                          |
| <b>S</b> | Exia (BASEEFA) Stainless Steel Housing |
| <b>0</b> | No Coil Unit                           |
| <b>9</b> | Exm                                    |

#### Options 1

- |          |                             |
|----------|-----------------------------|
| <b>C</b> | Lever manual override       |
| <b>D</b> | Push button manual override |
| <b>1</b> | Tamperproof manual override |
| <b>0</b> | No option required          |

#### Standard Voltage

- |          |                                 |
|----------|---------------------------------|
| <b>B</b> | 24v DC                          |
| <b>H</b> | 24v DC Low Power <sup>(1)</sup> |
| <b>R</b> | 24v AC (50/60 Hz)               |
| <b>T</b> | 110v AC (50/60 Hz)              |
| <b>N</b> | 220v AC (50/60 Hz)              |
| <b>U</b> | 240v AC (50/60 Hz)              |

\* A comprehensive range of non-standard voltages available on request

#### Note:

- (1) "H" option not available with Exia solenoids  
 (2) IECEX only available with Exia and Exd Solenoids  
 (3) GOST CU TR only available with Exd solenoids  
 (4) NEPSI only available with Exia and Exd solenoids

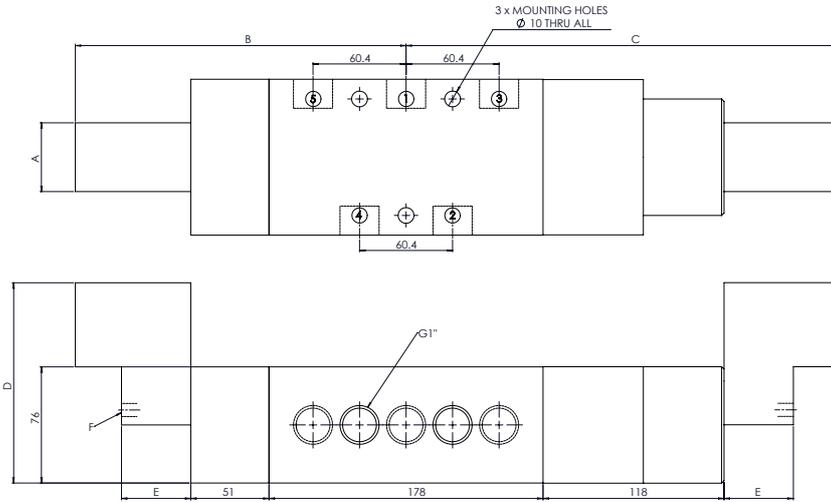
#### Designator

- |          |                           |
|----------|---------------------------|
| <b>A</b> | ATEX                      |
| <b>C</b> | IECEX <sup>(2)</sup>      |
| <b>E</b> | Exme 0.5W                 |
| <b>G</b> | ATEX Exd IIB              |
| <b>H</b> | Exm                       |
| <b>J</b> | Exme 2.4W                 |
| <b>R</b> | GOST CU TR <sup>(3)</sup> |
| <b>X</b> | NEPSI <sup>(4)</sup>      |

#### Options 2

- |          |  |
|----------|--|
| <b>B</b> | Valve body brass   |
| <b>C</b> | Valve body brass and NPT ports   |
| <b>D</b> | Valve body brass, NPT ports and 1/2" NPT electrical connection           |
| <b>E</b> | 1/2" NPT electrical connection   |
| <b>L</b> | Low temperature duty -40°C   |
| <b>M</b> | NPT ports and 1/2" NPT electrical connection                             |
| <b>N</b> | NPT ports  |
| <b>P</b> | Valve body stainless steel, NPT ports and 1/2" NPT electrical connection |
| <b>R</b> | Valve body stainless steel and NPT ports                                 |
| <b>S</b> | Valve body stainless steel   |
| <b>X</b> | Valve suitable for use with Oxygen                                       |

DIMENSIONS (mm)



COIL TYPE	A	B	C	D	E	F
Plug & Socket	45	215	282	131	45	G 1/4
Terminal Box	35	205	272	131	35	G 1/8
ExnA	35	205	272	131	35	G 1/8
Exd	52	225	292	151	35	G 1/8
Exia	35	205	272	151	35	G 1/8
Exm	35	212	279	131	35	G 1/8

MATERIAL SPECIFICATIONS

STANDARD

Body And End Caps	Black Anodised Aluminium (Dural)
Spool	Hard Anodised Aluminium PTFE Impregnated
Jet	Brass
Spacers	Natural Anodised Aluminium (Dural)
Seals	Nitrile
Spring	Music Wire

VALVE SPECIFICATIONS

STANDARD

Port Connection Size	1" BSP
Working Pressure Internal Pilot Version	3 to 10 bar
Working Pressure External Pilot Version	3 to 10 bar
Minimum External Pilot Pressure	3 bar
Cv Factor	10
Flow Rate (at 6 bar with 1 bar pressure drop)	10384 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	H	H	H	H	H	H

\* FURTHER SOLENOID OPTIONS AVAILABLE ON REQUEST