

# **EXPLOSION PROOF GENERAL PURPOSE SOLENOID VALVES**

2/2 Wav **Pilot Operated** G3/8", G1/2", G3/4", G1" **S7021 SERIES** 

#### **GENERAL FEATURES**

- TORK series \$7021 (N.O) diaphragm explosion proof solenoid valves are 2/2 way normally open and pilot operated
- Explosion proof solenoid valves for use in zone 1 and zone 2
- Suitable for non-aggressive liquids (water, light oil (2E) etc...), gaseous fluids (air, inert gases etc...)
- Working Temperature:-10°C / +80°C
- Not suitable for use with dangerous fluids listed in Group 1
- Don't require any differential pressure (for 3/8", 1/2", 3/4", 1")
- Internal exhaust system for normally open solenoid valves
- High reliability, quality and performance; long life, corrosion resistance
- Wide pressure ratings, range of flow rate and orifice options
- Ideal for the automatic control of media in a wide range of applications.
- TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED) and 2006/95/EEC Low Voltage Directive (LVD).
- Coils interchangeable
- Flow factor Kv of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids.
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

#### **ELECTRICAL CHARACTERISTICS**

Continuous Duty ED %100 Coil Insulation Class : H (180°C)

Fiber Glass Reinforced or PP-V0 (Self-Exitinguishing Polypropylene): Fiber Glass Reinforced or PP-V0 (Self-Exitinguishing Polypropylene) Coil Impregnation Coil Encapsulation Material

Explosionproof operator, intended for use in potentially explosive atmospheres Easy electrical installation by means of the cable, standard length 3 meters

Safety mode :EEx em II T4/T5 (Max Surface Temperature:100°C -135°C, em:encapsulation increased safety, II:Equipment group) IP 65 (EN 60529) with coil duly fitted with the plug connector

Protection Degree **Electrical Safety** : IEC 335

For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V Standard Voltages

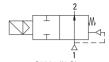
Other voltages on request;

: For AC -15%; +10%, For DC -5%; +10% Voltage Tolerances :50 Hz, other frequencies on request; (60 Hz) Frequency

Specify coil voltage with order

# Normally Open







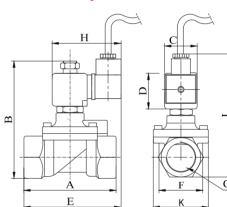












## **MATERIALS IN CONTACT WITH FLUID**

Body : Brass

Internal Parts: Stainless Steel and brass

Sealing : NBR Shading Ring : Copper Seats : Brass Core Tube

: Stainless Steel : Stainless Steel Springs On request; nickel plated body

On request; sealing can be FPM (VITON), EPDM

### **TECHNICAL FEATURES**

Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s)

Response Time: Opening Time:400 ms to ~ 1600 ms , Closing Time:1000 ms to ~ 2000 ms Maximum Allowable Pressure:25 bar

Fluid Temperature for FPM (VITON) from -10°C; +160°C, for EPDM from -10°C; +140°C

#### Dimensions (mm)

G	Α	В	С	D	Ε	F	K	Н			
3/8"	74	97	32	45	91.3	37.5	52	76	108		
1/2"	79	100	32	45	92	39.8	52	76	110		
3/4"	79	107.5	32	45	94	41.5	52	76	118		
1″	85	115	32	45	96	42.5	52	76	124		

Valve Type / Order no	Connection Size	Orifice size	Pres min	ressure KV		Fluid Temperature		Seal	Weight
S7021	G	mm	bar	bar	lt/min	°C min   max			(kg)
\$7021.02	3/8"	12.5	0	12	38	-10	80	NBR	0.92
\$7021.03	1/2"	14.5	0	12	62	-10	80	NBR	0.95
\$7021.04	3/4"	17	0	12	85	-10	80	NBR	1.03
\$7021.05	1"	17	0	12	100	-10	80	NBR	1.21

1 bar:14,5 PSI:10 mH<sub>2</sub>0:10 N/cm<sup>2</sup>:1 kg/cm<sup>2</sup>:100000 Pa , 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings: NBR: Nitrile-Butylene Elastomer, FPM (VITON): Fluoro-Carbon Elastomer, EPDM: Ethylene-Propylene Elastomer

