STEAM SOLENOID VALVES

2/2 Way
Pilot Operated, ΔP = 0
G 3/8", G1/2", G3/4", G1"

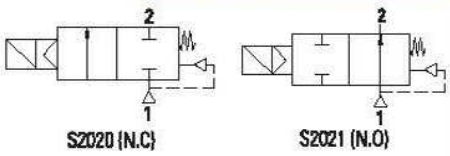
GENERAL FEATURES

- **TORK series S2020 (N.C) and S2021 (N.O) diaphragm steam solenoid valves are 2/2 way normally closed and normally open and pilot operated**
- **Especially for overheated water and steam**
- **Suitable for liquids and gaseous fluids**
- Working Temperature : -10°C / +160°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).
- Some applications; closed circuits, laundry, auto claves, dry cleaning, sterilizers, ironing machines
- 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 preferred.
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

NEW

Normally Closed

Normally Open



S2020 (N.C) S2021 (N.O)

S2021 (N.O) S2020 (N.C)

ELECTRICAL CHARACTERISTICS

Continuous Duty	:ED %100
Coil Insulation Class	:H (180°C)
Coil Impregnation	:Polyester Fiber Glass
Coil Encapsulation Materia	:Fiber Glass Reinforced
Ambient Temperature	:from -10°C; +60°C
Protection Degree	:IP 65 (EN 60529) with coil duly fitted with the plug connector
Electric Plug Connection	:DIN 46340 3-poles connectors (DIN 43650)
Connector Specification	:ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø 6-8 mm)
Electrical Safety	:IEC 335
Standard Voltages	:For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V
Other voltages on request;	
Voltage Tolerances	:For AC -15%; +10%, For DC -5%; +10%
Frequency	:50 Hz, other frequencies on request; (60 Hz)

On request; connector with LED
Specify coil voltage with order

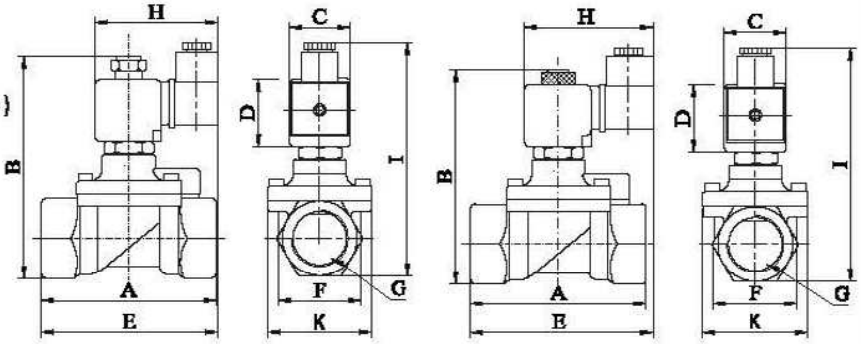
MATERIALS IN CONTACT WITH FLUIDS

Body	: Brass
Internal Parts	: Stainless Steel and brass
Sealing	: PTFE
Shading Ring	: Copper
Seats	: Brass
Core Tube	: Stainless Steel
Springs	: Stainless Steel

On request; nickel plated body

TECHNICAL FEATURES

Max Viscosity : 5°E (~37cSt or mm^2/s)
Response Time : Opening Time : 400 ms to ~ 1600 ms,
Closing Time: 1000 ms to ~ 2000 ms
Maximum Allowable Pressure : 5 bar
Fluid Temperature for PTFE from -10°C; +160°C



Dimensions (mm) (S2021)

G	A	B	C	D	E	F	K	H	I
3/8"	75	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	107.3	32	45	94	41.5	52	76	118
1"	85	115	32	45	101	42.5	52	76	124

Dimensions (mm) (S2020)

G	A	B	C	D	E	F	K	H	I
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	107.3	32	45	94	41.5	52	76	118
1"	85	115	32	45	101	42.5	52	76	124

Valve Type / Order no	Connection Size	Orifice size	Pressure min	Pressure max	KV	Fluid Temperature °C min	Fluid Temperature °C max	Seal	Weight
S2020 / S2021	G	mm	bar	bar	lt/min	min	max		(kg)
S2020.02	3/8"	12.5	0	5	38	-10	160	PTFE	0.69
S2020.03	1/2"	14.5	0	5	62	-10	160	PTFE	0.72
S2020.04	3/4"	17	0	5	85	-10	160	PTFE	0.8
S2020.05	1"	17	0	5	100	-10	160	PTFE	0.98
S2021.02	3/8"	12.5	0	5	38	-10	160	PTFE	0.7
S2021.03	1/2"	14.5	0	5	62	-10	160	PTFE	0.73
S2021.04	3/4"	17	0	5	85	-10	160	PTFE	0.81
S2021.05	1"	17	0	5	100	-10	160	PTFE	0.99

Useful Informations

1 bar: 14,5 PSI: 10 mH_2O: 10 N/cm^2: 1 kg/cm^2: 100000 Pa , 1 PSI: 69 mbar,1 m^3/h: 4,405 GPM: 16,7 L/d 1 Gallon / minute: 0,227 m^3/h, 0°C: 89,6 F, 2 bar steam: 133°C , 3 bar steam: 144 °C, 4 bar steam: 151°C, 5 bar steam: 160°C, 6 bar steam: 165°C
Sealings: PTFE : Polytetrafluorethylene