Proportional Solenoid Valve
SP Series (G1/8" , G1/4")

NORMALLY CLOSED
2 WAY
DIRECT ACTING
PROPORTIONAL

WATER AIR GAS

GENERAL FEATURES

- Proportional Valves can change the flow rate according to the energy supplied to the coils..
- SP series proportional valves can be used in wide pressure ranges and flow rates according to customer need.
- Like other solenoid valves, the SP series must be used with filters.
- Solenoid valves can be mounted in any position without affecting their operation.
- It is recommended to use the coils in a vertical position.
- SP Series proportional valves can be controlled by a voltage or current, but it is highly recommended to use with PWM signal and sensor in feedback circuit to achieve maximum efficiency in hysteresis and repeatability.

ELECTRICAL CHARACTERISTICS

Continuous Duty	: ED %100
Coil Insulation Class	: H (180°C)(IEC 85) B
Coil Impregnation	: Polyester Fiber Glass
Ambient Temperature	: -20°C, +60°C
Protection Degree	: IP65 (ISO 60529) On request; IP68
Electric Plug Connection	: DIN 46340 3-Poles Connector (DIN43650)
Connector Specification	: ISO 4400 / EN 175301-803 Form A, Spade Plug (Cable Ø6-8 mm)
Electrical Safety	: IEC 335
Standard Voltages	: 24V DC 10W (On request 12V DC 10W)
Voltages Tolerance	: DC -5%, +10%

MATERIALS IN CONTACT WITH FLUID

Body	: Brass (stainless steel, aluminum on request)
Internal Parts	: Stainless Steel
Sealing	: NBR (On request; VITON)
Shading Ring	: Copper (EN 12735-1)
Seats, Core Tube, Springs	: Stainless Steel

OPTIONS

Female connection : BSP; (On request NPT)

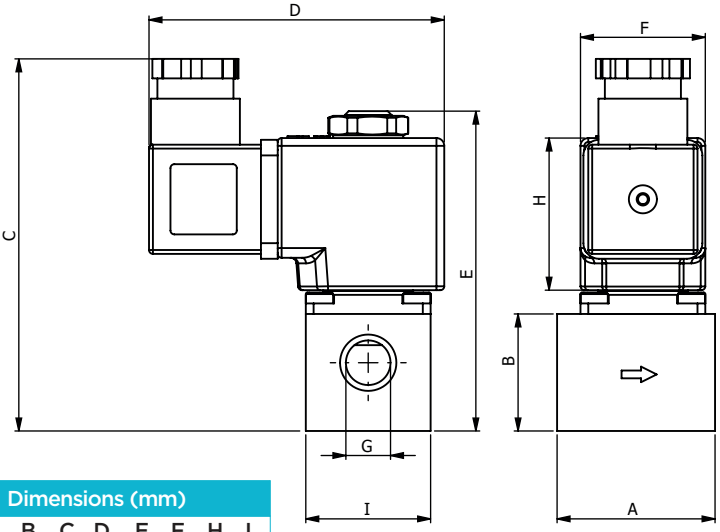
- On request CR-Ni plated, PTFE coated done
- On request Atex (exproof) coil.

TECHNICAL FEATURES

Max. Viscosity	: 5°E (~37cST or mm2 /s)
Hysteresis	: Max. %7 (250 Hz PWM)
Repeatability	: Max. %3 (250 Hz PWM)
Reaction Time	: 15 ms

SEALS FEATURES

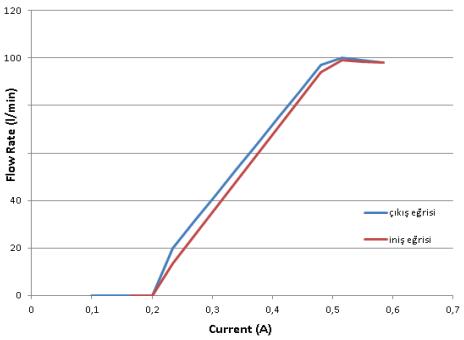
NBR	: -20°C...+80°C
VİTON	: -20°C...+160°C

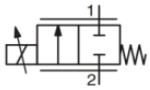


Dimensions (mm)								
G	A	B	C	D	E	F	H	I
1/8"	40.5	30	96	76	82	32	39	32
1/4"	40.5	30	96	76	82	32	39	32

Coils	Nominal Values	Cold/ Hot	Inrush	Holding	Current (A)	Surface Temperature (°c)
C40012VDC10W	12VDC 10W	COLD	11	11	0.90	25
		HOT	8.4	8.4	0.70	76
C40024VDC10W	24VDC 10W	COLD	10.7	10.7	0.43	25
		HOT	8.2	8.2	0.34	74

"With 1.5 bar input and 250 Hz PWM
Flow-flow graph of the valve with 3 mm orifice"



Solenoid Vave Symbol	Valve Type/ Order No	Connection Size	Orifice Size	Pressure min/max		Flow	Kv	Seal		Weight
	SP1070	G	mm	Bar	Bar	l/min	l/min	NBR	Viton	kg
	SP1070.00.015	1/8"	Ø1,5	0	3	80	1,2	✓	✓	0,55
	SP1070.00.020		Ø2	0	2,5	94	2,5	✓	✓	0,55
	SP1070.00.025		Ø2,5	0	2	100	3,2	✓	✓	0,55
	SP1070.00.030		Ø3	0	1,5	100	4,6	✓	✓	0,55
	SP1070.01.015	1/4"	Ø1,5	0	3	80	1,2	✓	✓	0,54
	SP1070.01.020		Ø2	0	2,5	94	2,5	✓	✓	0,54
	SP1070.01.025		Ø2,5	0	2	100	3,2	✓	✓	0,54
	SP1070.01.030		Ø3	0	1,5	100	4,6	✓	✓	0,54

Not: Please look catalogues for more details

STANDARDS

- Standard tube connection G (BSP) (ISO 228-1) and other tube connections (NPT (ANSI 1.20.3)) are available on request.
- TORK solenoid valves 97/23/EC, are available for pressure equipment directive (PED) and 2006/95/ECC low voltage directive (LVD).

TSP1070EN260403