F5001
Electromagnetic Flow Meter

VF5001-002.00-14/03

Description

The principle of F5001 Electromagnetic Flow Meter is based on Faraday's law of electromagnetic induction, according to which the sensor converts the flow into an electrical voltage proportional to the velocity of the flow. The processed signal will be multiplied by the pipe cross-sectional area and resulted in flow volume.

Features

F5001 Electromagnetic Flow Meter offers you cost-effective flow measurement with high accuracy.

- Small influence by density, viscosity, temperature, pressure, or conductivity of the medium,
- No moving parts in the measuring pipe, and not sensitive to vibration,
- Various lining material and electrode chosen for different medium,
- SMT(surface mounted technology),
- Low requirement of straight pipe (5D:2D),
- IP67 for compact version ,and IP68 for remote version,
- SMART: low-consumption, small zero-point drift, self-examination, nonlinear correction, bi-directional measurement, high reliability,
- Explosion-proof: ExdeiaⅡCT4.

Specification

- Accuracy:±0.5%,±0.3%,
- Repeatability: 0.25%,
- Working Temperature:
  Remote Version: -4 to +248° F(-20 to 120℃) for sensor,
  -14 to 122° F(-10 to 50℃) for transmitter
  Compact Version: -14 to 149° F(-10 to 65℃)
- Working Pressure: 90 to 6090psi(6 to 420bar)
- Size:1/2" to 88"(15 to 2200mm)
- Humidity: (5% to 95%) RH,
- Ambient Magnetic Strength: 400A/m,
- Conductivity: ≥5μ/cm,
- Power Supply: 16 to 36V DC
  85 to 265V AC (50/60Hz)
- Measuring Tube: SS304,
- Electrode Material: SS316L, Hastelloy, Titanium, Tantalum, Platinum/Lridium, Monel, Tungsten Carbide, etc.
- Tube Lining: PTFE, Synthetic Rubber, FEP, etc.
- Multiple Output Signal: Current (4 to 20)mA/(0 to 10)mA, Frequency (1 to 5000)Hz, HART/Modbus Protocol.

Application

F5001 Electromagnetic Flow Meter offer you cost-effective flow measurement with high accuracy for a wide range of process conditions. And it can be applied to the supply, distribution, conveyance and discharge of water and waste water in such fields as process industry, waste water treatment, chemical industry, steel industry, mining, pulp & paper, irrigation, power generation.

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Model Selection

Table 1

Model		1	2	4	5	6	7	8	9	Note
F5001	–	Size (mm)	PN	Power supply	Lining	Electrode	Structure	Output signal	Connection	
		015								1/2"(15mm)
		020								3/4"(20mm)
		032								1 1/4"(32mm)
		040								1 1/2"(40mm)
		050								2"(50mm)
		065								2 1/2"(65mm)
		080								3"(80mm)
		100								4"(100mm)
		125								5"(125mm)
		150								6"(150mm)
		200								8"(200mm)
		250								10"(250mm)
		300								12"(300mm)
		X								X mm(Refer to Table2)
			0							90psi(6bar)
			1							145psi(10bar)
			2							230psi(16bar)
			3							360psi(25bar)
			4							580psi(40bar)
			5							915psi(63bar)
			6							1450psi(100bar)
			7							2320psi(160bar)
			8							3625psi(250bar)
			9							6090psi(420bar)
				A						AC 85 to 265V
				D						DC 18 to 36V
				B						Battery
					P					PTFE
					R					Rubber
					O					Others
						1				SS316L
						2				HastelloyC
						3				Titanium
						4				Tantalum
						6				Tungsten Carbide
						7				Platinum/Iridium
							1			Compact version (Round Transmitter)
							2			Compact version (Square Transmitter)
							3			Remote Version
							4			Remote Version (IP68)
								P		4 to 20mA/Pulse
								R		RS-485
								H		HART
								O		Others
									1	ANSI
									2	DIN
									3	JIS
									4	Others

Table 2

X:

Size	Code	Size	Code
16"(400mm)	400	48"(1200mm)	121
18"(450mm)	450	56"(1400mm)	141
20"(500mm)	500	64"(1600mm)	161
24"(600mm)	600	72"(1800mm)	181
28"(700mm)	700	80"(2000mm)	201
32"(800mm)	800	88"(2200mm)	221
36"(900mm)	900		
40"(1000mm)	101		

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