Fluxera

ELECTROMAGNETIC FLOW METER

PRODUCT LITERATURE

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GENERAL INTRODUCTIONS

Electromagnetic flow meter is a kind of induction instrument designed by Faraday's law of electro-magnetic induction to measure flow of conductive media in the tube. It adopts the technology of insertion of single chip to realize digital excitation and employs CAN local fieldbus.

Electromagnetic flow meter can realize local indication and output electrical current signal of 4-20mA which can be used to record, adjust, and control. Electromagnetic flow meters are widely used in industrial sectors such as chemical industry, environmental protection, metallurgy, pharmaceutical, paper making, water supply and removal etc.

Besides measuring flow of general conductive liquid electromagnetic flow meter can measure flow of liquid-solid mixed fluid, high-viscosity fluid and salt, strong acid and strong alkali.

FEATURES:

1. Simple structures, firm, no movable parts and long operation life. (Guarantee in 1 years)
2. No intercepting fluid parts, no pressure loss and fluid clogging.
3. No mechanical inertia, quick response and good stability, application in automatic examination, adjustment & controlling. Measuring accuracy not influenced by physical parameters such as style, temperature, viscosity, density and pressure.
4. Employ Teflon or rubber liner and different combination of electrode material such as Hastelloy C, Hastelloy B, 316L, and Titanium and adapt the need of different mediums.
5. Supply many styles of flow meters such as inline type and insertion type, etc. Adopt EEPROM memory to measure operation data, safe and reliable protection of memory.
6. Integral type flow meters and remote type flow meters.
7. LCD back light display with high clearness.

PARAMETERS:

Items	Description
Suitable Diameter	DN25~DN2600 (below DN25 non-standard)
Suitable Fluid	Liquid with conductive ratio more than 5 μs/cm
Measuring Range	0.5~10m/s (extendable to 15m/s)

TECHNICAL PARAMETERS

MECHANICAL DATA:

Materials	Electrode	316L (Stainless Steel), Hastelloy, Titanium, Tantalum, etc.
	Liner	PTFE, Soft Rubber, Hard Rubber.
	Measuring tube	SUS 304
	Body & Flange	Carbon Steel
	Ground Ring	316L (stainless steel), HC, Ti, Ta, Cu.
Connection of Flange	National Standard GB9119-88 (DIN2051, BS4504), JIS, ANSI. Screw. Insertion type, Tri-clamp for sanitary application.	
Ambient Environment	Temperature: Humidity:	Sensor -40 to 80°C; Transducer -15 to 50°C ≤85% (RH) at 20°C.
Measurable Fluid	Water	
Fluid Temperature	-20°C~80°C, 80°C ~130°C, 130°C ~180°C Depending on Lining Material	
Max. Pressure	10Bar, 16Bar Standard, 40Bar	
Flow Velocity	Limit of Span 0.5~10m/s. 1~5m/s Recommended	
Accuracy	0.3% (Option), 0.5%, 1.0% of F.S.	
Protection Ratings	Integral Type: IP65. Remote Type: Sensor IP68, Transducer IP65.	
Ex-Proof Protection	Exde ib ii BT2	

ELECTRICAL DATA:

Power Supply	220VAC ±10%, 50-60Hz, 24VDC±10%, Battery power (3-5years)
Power Consumption	≤ 8W
Output Signals	4~20m ADC, Load ≤ 750ohm, 0~3kHz, 5V with Source and Changeable Width. High terminal and Effective Frequency Output Voltage Output: 0-5 V DC
Communication Interface	RS232, RS485, HART
Display Unit	Flow rate (4-digits), Totalizer (9-digits), Velocity, Alarm status Scale unit: selectable of L/h, L/m, L/s, m3/h, m3/m, m3/s Flow direction: selectable by program 3 Digits display below of decimal points K-factor: 5 digits. Mounting: Integral type; Remote Type
Data Storage	Data Logger for 2-3years.

APPROVAL:

Compliance	ISO9001-2008, CE EMC Directive 2014/30/EU

FLOW RANGE & CODE

INLINE ELECTROMAGNETIC FLOW METER

Model	Nominal diameter (mm)	Flow rate (m³/h)
FEF-15	DN15	0.32~6.36
FEF-20	DN20	0.57~11.30
FEF-25	DN25	0.88~17.66
FEF-32	DN32	1.45~28.94
FEF-40	DN40	2.26~45.22
FEF-50	DN50	3.53~70.65
FEF-65	DN65	5.97~119.40
FEF-80	DN80	90.4~180.86
FEF-100	DN100	14.13~282.60
FEF-125	DN125	22.08~441.56
FEF-150	DN150	31.79~635.85
FEF-200	DN200	56.56~1130.40
FEF-250	DN250	88.31~1766.25
FEF-300	DN300	127.17~2543.4
FEF-350	DN350	173.09~3461.85
FEF-400	DN400	226.08~4521.6
FEF-450	DN450	286.13~5722.65
FEF-500	DN500	353.25~7065.00

Code	Pressure
P1	10 Bar
P2	16 Bar
P3	25 Bar
P4	40 Bar

Code	Body Material
B1	304 stainless steel
B2	Carbon steel

Code	Liner Material
C1	Hard rubber ≤80°C
C2	PTFE ≤120°C

Code	Electrode
K1	SS316L
K2	Hastelloy
K3	Titanium

Code	Function
E2	Accuracy 0.5%
E3	Accuracy 1.0%
J1	Integral Type
J2	Remote Type
L1	Flange connection
D1	220VAC+10%;
D2	24VDC+10%
F1	4-20mA; Frequency; Pulse
F2	RS485
F3	Modbus
F4	HART
U1	IP65 without explosion-proof
U2	IP68 without explosion-proof
U3	IP65 with explosion-proof

FEC-80-P2-B2-C1-K1-E3-J1-L1-D1-F1-U1

Example: Inline sensor, size DN80, 16 Bar, Carbon steel, 80°C, SS316L electrode, Accuracy1%, Integral display, Flanged, 220V, 4-20 mA/RS485, IP65

FLOW RANGE & CODE

INSERTION ELECTROMAGNETIC FLOW METER

Model	Nominal diameter (mm)	Flow rate (m³/h)
FEFI-200	DN200	56.52~1130.40
FEFI-250	DN250	88.31~1766.25
FEFI-300	DN300	127.17~2543.40
FEFI-350	DN350	173.09~3461.85
FEFI-400	DN400	226.08~4521.60
FEFI-450	DN450	286.31~5722.65
FEFI-500	DN500	353.25~7065.00
FEFI-600	DN600	508.68~10173.60
FEFI-700	DN700	692.37~13847.40
FEFI-800	DN800	904.32~18086.40
FEFI-900	DN900	1144.53~22890.60
FEFI-1000	DN1000	1413.00~28260.00
FEFI-1200	DN1200	2034.72~40694.40
FEFI-1400	DN1400	2769.48~55389.60
FEFI-1600	DN1600	3617.28~72345.60
FEFI-1800	DN1800	4578.12~91562.40

Code	Pressure
P1	10 Bar
P2	16 Bar

Code	Body Material
B1	Stainless steel

Code	Liner Material
C1	PTFE ≤120°C
C2	Hard rubber ≤80°C

Code	Electrode
K1	SS316L
K2	Hastelloy
K3	Titanium

Code	Function
E4	Accuracy 1.5%
J1	Integral Type
J2	Remote Type
L5	Insertion Type
D1	220VAC+10%;
D2	24VDC+10%
F1	4-20mA; Frequency; Pulse
F2	RS485
F3	Modbus
F4	HART
U1	IP65 without explosion-proof

FEFI-300-P2-B1-C2-K1-E4-J1-L5-D1-F1-U1

Example: Insertion Flow Meter, size DN300, 16 Bar, Stainless steel, 80°C, SS316L electrode, Accuracy1.5%, Integral display, 220V, 4-20 mA/RS485, IP65

FLOW RANGE & CODE

SANITARY ELECTROMAGNETIC FLOW METER

Model	Nominal diameter (mm)	Flow rate (m³/h)
FEFS-10	DN10	0.14~1.4
FEFS-15	DN15	0.32~6.36
FEFS-20	DN20	0.57~11.30
FEFS-25	DN25	0.88~17.66
FEFS-32	DN32	1.45~28.94
FEFS-40	DN40	2.26~45.22
FEFS-50	DN50	3.53~70.65
FEFS-65	DN65	5.97~119.40
FEFS-80	DN80	9.04~180.86
FEFS-100	DN100	
FEFS-125	DN125	
FEFS-150	DN150	

Code	Pressure
P3	16 Bar

Code	Sensor Material
B1	304 stainless steel

Code	Liner Material
C1	PTFE
C2	F46
C6	PFA

Code	Electrode
K1	SS316L
K2	Hastelloy B
K3	Hastelloy C

Code	Function
E3	Accuracy 1.0%
J1	Integral Type
J2	Remote Type
L2	Thread installs
L3	Clamp install
D1	220VAC+10%;
D2	24VDC+10%
F1	4-20mA; Frequency; Pulse
F2	RS485
F3	Modbus
F4	HART
U1	IP65 without explosion-proof
U2	IP68 without explosion-proof
U3	IP65 with explosion-proof

FEFS-40-P1-B1-C1-K1-E3-J1-L3-D1-F1-U1

Example: Sanitary Meter, size DN40, 16 Bar, 304 Stainless steel, PTFE, SS316L electrode, Accuracy 1.0%, Integral display, Clamp install, 220V, 4-20 mA, IP65

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