

Intelligent Electromagnetic Flow Meter

GAIMC

GMF100



PRODUCT DESCRIPTION

GMF100 Intelligent electromagnetic flow meter is composed by sensor and transmitter. The product is a induction instrument and operates with Faraday law of electromagnetic induction for measurement volume flow of liquid medium with conductive rate $\geq 5 \text{ us/cm}$.

FEATURES

1. Measurement result will not be affected by change of density, viscosity, temperature, pressure and conductive rate
2. Product with good anti-corrosion and abrasion resistance performance
3. Full digital process, strong anti-interference performance, operating reliable with high accuracy and wide range of flow rate
4. Super low voltage EMI switch power supply, which could ensure fast response for voltage changes and good resistance on EMI
5. LCD display content could be shifted between Chinese and English, and other languages (Spanish, Japanese, Korean, French and so on) could be customized.
6. Product is manufactured with SMD devices and SMT technology, which provides high reliability circuits.
7. With self checking and diagnosis function.

SPECIFICATIONS

GMF100 Electromagnetic flow meter	
Medium	Domestic water, industrial water, raw water, ground water, urban sewage, industrial wastewater, the processed neutral pulp, pulp slurry, etc
Diameter	DN10~DN2200mm
Accuracy	$\pm 0.5\%$
Medium temperature	$< 180^{\circ}\text{C}$

Nominal pressure	GB 0.6MPa (DN700~DN2000) GB 1.0MPa (DN200~DN600) GB 1.6MPa (DN6~DN150)
	DIN PN16,PN25,PN40,PN63
	JIS10K,20K,40K
	ANSI Class150,Class300,Class600, others can be customized
Flow rate	0.3~10m/s
Straight pipe required	Upstream ≥5DN, downstream ≥3DN
Electrode	316L (Suitable for domestic water, industrial water, raw water, underground water, sewage, etc.; not applicable to acid and alkali salt)
Lining material	Chloroprene rubber(CR), Polyurethane rubber(PU)
Installation way	Carbon steel flange (standard), Stainless steel flange(optional)
Body material	Carbon steel (standard),Stainless steel(optional)
Power supply	220VAC/24VDC/lithium battery
Signal output	Pulse and 4~20mA; (if use lithium battery, without signal output)
Communication	RS485,GPRS,Hart
Explosion-proof	EXdeibmIICT3-T6
Protection proof	IP65 (compact type); IP67,IP68(suitable for remote type)
Work environment	Ambient temperature: -20~+60℃, Ambient humidity: 5%~90%
Power	<20W

Flange range

$$Q=\pi D^2 \times V \times 0.0036 \div 4$$

Size(D)		Flow rate (Q) unit (m3/h)		
		V = 0.3 m/s	V = 6 m/s	V = 10 m/s
mm	inch	Min.	Calibrated	Max.
10	3/8"	0.0848	1.7	2.826
15	1/2"	0.1909	4	6.362
20	3/4"	0.3393	7	11.31
25	1"	0.5302	11	17.67
32	1-1/4"	0.8686	17	28.95
40	1-1/2"	1.358	27	45.24
50	2"	2.121	42	70.69
65	2-1/2"	3.584	72	119.5
80	3"	5.429	109	181.0
100	4"	8.483	170	282.7
125	5"	13.26	265	441.8
150	6"	19.09	382	636.2
200	8"	33.93	679	1131
250	10"	53.02	1060	1767
300	12"	76.35	1527	2545
350	14"	92.37	2078	3079
400	16"	135.8	2714	4524
450	18"	171.8	3435	5726
500	20"	212.1	4241	7069
600	24"	305.4	6107	10180
700	28"	415	8310	13850
800	32"	542	10860	18100
900	36"	662	13740	22900
1000	40"	848	16962	28260

TYPE SELECTION

GMF100-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Note
Diameter	DNXX												DN10~DN2200(mm)
Structure	F												Remote type (standard with 10m cable)
	Y												Compact type
Electrode	S												316L
	T												Titanium(Ti)
	D												Tantalum(Ta)
	C												Hastalloy C(HC)
	P												Platinum iridium alloy
Lining material	X												Chloroprene rubber (CR) Suitable for tap water, industrial water, sea water, etc liquid
	J												Polyurethane rubber (PU) Suitable for pulp, pulp, etc liquid
	E												Polytetrafluoroethylene (PTFE)
	A												PFA
Body material	CS												Carbon steel
	S4												SUS304
Protection class	L0												IP65(compact type)
	L1												IP67(remote type)
	L2												IP68(remote type)
Power supply	1												85~250VAC
	2												20~36VDC
	3												Lithium battery(no signal output)
Signal output	N												No output
	N1												4-20m/pulse output
Communication	H												HART protocol
	R1												MODBUS RS485
	G												GPRS
With grounding ring	0												Without grounding ring
	1												With grounding ring
Nominal pressure	D1												DIN PN16
	D2												DIN PN25
	D3												DIN PN40
	D4												DIN PN63
	J1												JIS 10K
	J2												JIS 20K
	J3												JIS 40K
	A1												ANSI Class150
	A2												ANSI Class300
	A3												ANSI Class600
	O												Others
Cable length												/xxx	Unit: m