

MEF-8300

Marmonix Insertion Type Electromagnetic Flow Meter

OVERVIEW:

Marmonix Insertion Type Electromagnetic Flow Meter MEF-8300 is a type of electromagnetic flow meter has been used throughout industries for more than 50years. Insertion type electromagnetic flow meter comprise an electromagnetic sensing probe in ABS or Polypropylene mounted on the end of a support rod. Marmonix is a company that design and manufacture flowmeters with more than 15 years of experience. One piece insertion type electromagnetic flow meter can be used for pipe sizes between DN100mm and DN3000mm. It is an economic option for large pipeline applications. With hot-tap structure, it can achieve

Application:

Insertion type electromagnetic flow meter provide more economical option for large pipelines flow measurement, while preserving the advantages of common type magnetic flow meter.

Reliable Measurement Marmonix insertion electromagnetic flow meter with simple structure and no moving parts. It is totally independent from the pressure, temperature and mechanical vibrations, density, viscosity etc. No scheduled maintenance required.

Easy Installation Marmonix insertion electromagnetic flow meter can achieve online installation (hot-tapping).

Submersible Available Marmonix insertion electromagnetic flow meter can make as remote type with IP68 protection grade and with submersible sensors for complicated conditions.

Variable Outputs Marmonix insertion electromagnetic flow meter support 4-20mA,pulse, RS485, GPRS and profibus available.



SPECIFICATION

Size	DN100mm-DN3000mm
Nominal Pressure	1.6Mpa
Accuracy	1.5%
Probe	ABS, Polyurethane
Electrode	SUS316L, Hastelloy B, Hastelloy C
Structure Type	Integral type, remote type
Medium Temperature	-20~+80degC
Ambient Temperature	-20~+60degC
Ambient Humidity	5~100%RH(Relative humidity)
Measuring Range	Max 15m/s
Conductivity	>5us/cm
Protection Class	IP65(Standard); IP68(Optional for remote type)
Process Connection	2" Thread (Standard), 2" Flange (Optional)
Output Signal	4-20mA/Pulse
Communication	RS485(Standard), HART (Optional), GPRS/GSM (Optional)
Power Supply	AC220V(Can be used for AC85-250V) DC24V(Can be used for DC20-36V) DC12V(Optional), Battery powered 3.6V(Optional)
Power Consumption	<20W
Alarm	Upper Limit Alarm / Lower Limit Alarm
Self-diagnosis	Empty Pipe Alarm, Exciting Alarm
Explosion Proof	ATEX

Electrode Material Selection

Electrode Material	Applications & Properties
SUS316L	Applicable to industrial/municipal water, wastewater and low corrosive mediums. Widely used in petroleum, chemical industries.
Hastelloy B	Strong resistance to hydrochloric acids below the boiling point. Resist against oxidable acids, alkali and non-oxidable salts. For instance, vitriol, phosphate, hydrofluoric acids, and organic acids.
Hastelloy C	Exceptional resistance to strong solutions of oxidizing salts and acids. For example, Fe ⁺⁺⁺ , Cu ⁺⁺ , Nitric acids, mixed acids

Flow Range

Size	Flow Range & Velocity Table							
(mm)	0.1m/s	0.2m/s	0.5m/s	1m/s	4m/s	10m/s	12m/s	15m/s
100	2.83	5.65	14.13	28.26	113.04	282.6	339.1	423.9
125	4.42	8.83	22.08	44.16	176.63	441.56	529.9	662.34
150	6.36	12.72	31.79	63.59	254.34	635.85	763	953.78
200	11.3	22.61	56.52	113.04	452.16	1130.4	1356	1696
250	17.66	35.33	88.31	176.53	706.5	1766.25	2120	2649
300	25.43	50.87	127.2	254.34	1017	2543.4	3052	3815
350	34.62	69.24	173.1	346.19	1385	3461.85	4154	5193
400	45	90	226.1	452	1809	4522	5426	6782
450	57	114	286.1	572	2289	5723	6867	8584
500	71	141	353.3	707	2826	7065	8478	10598
600	102	203	508.7	1017	4069	10174	12208	15260
700	138	277	692.4	1385	5539	13847	16617	20771
800	181	362	904.3	1809	7235	18086	21704	27130
900	229	458	1145	2289	9156	22891	27469	34336
1000	283	565	1413	2826	11304	28260	33912	42390
1200	407	814	2035	4069	16278	40694	48833	61042
1400	554	1108	2769	5539	22156	55390	66468	83084
1600	723	1447	3617	7235	28938	72346	86815	108518
1800	916	1831	4578	9156	36625	91562	109875	137344
2000	1130	2261	5652	11304	45216	113040	135648	169560
2200	1368	2736	6839	13678	54711	136778	164134	205168
2400	1628	3256	8139	16278	65111	162778	195333	244166
2600	1910	3821	9552	19104	76415	191038	229245	286556
2800	2216	4431	11078	22156	88623	221558	265870	332338
3000	2543	5087	12717	25434	101736	254340	305208	381510

Remark:Suggest flow velocity range 0.5m/s - 15m/s

Insertion Electromagnetic Flow Meter Selection

QTLD/C	xxx	x	x	x	x	x	x	x	x	x	x
Caliber	DN100mm-DN3000mm										
Nominal Pressure	1.6Mpa	3									
	Other	6									
Body Material	SS304		1								
	SS316		2								
Electrode Material	SUS316L			1							
	Hastelloy B			2							
	Hastelloy C			3							
Probe Material	ABS				1						
	Polypropylene				2						
Connection	Thread ball valve					1					
	Flange ball valve					2					
Structure Type	Integral						1				
	Remote						2				
Power Supply	AC220V								A		
	DC24V								B		
	3.6V Lithium Battery								E		
	Others								G		
Output Signal	4-20mA/Pulse,RS485									A	
	4-20mA,HART									B	
	GPRS GSMOthers									C	
	GSM									D	
	Others									E	
Ex-proof	Without Ex-proof										0
	With Ex-proof										1
Protection	IP65										A
	IP68										B

Installation

- In order to obtain a stable and accurate flow measurement, it is very important that the flow meter is installed correctly in the pipe system
- Do not install the meter near equipment that produces electrical interference such as electric motors, transformers, variable frequency, power cables etc
- Avoid locations with pipe vibrations for example pumps
- Do not install the meter close to pipeline valves, fittings or impediments which can cause flow disturbances
- Place the meter where there is enough access for installation and maintenance tasks

