

# Integrated electromagnetic flow meter



## FEATURES:

1. There is no movable parts in the electromagnetic flowmeter, no loss pressure , simple structure, woke reliable;
2. The measurement accuracy is not affected by the change of the measured medium's pressure, density (including liquid-solid two-phase),temperature, viscosity and other physical parameter;
3. Moisture proof and waterproof performance is good. Suit for setting up and being used underground or wet environments;
4. Compare with other flowmeter, its advantage : big measurement range , low demand in straight pipe, high accuracy;
5. Low power consumption, one set flowmeter power consumption less than 20W.

## The main technical indicators:

Nominal diameter: DN15~DN2000

Accuracy:  $\pm 0.2\%$ ,  $\pm 0.3\%$ ,  $\pm 0.5\%$

Measurement range(flow rate):0.01m/s~15m/s

Conductivity of medium:more than  $5\mu\text{S}/\text{cm}$

Nominal pressure:0.6MPa,1.0MPa,4.0MPa



Protection grade:IP65,IP67,IP68

Electrode material:Stainless steel 316L,Hastelloy B, Hastelloy C, Titanium alloy, Tantalum alloy, Platinum-iridium alloy, Stainless steel-coated tungsten carbide and other special material .

Lining material: Neoprene,Polyurethane rubber,natural rubber, nitrile rubber, Teflon(PFA),Polytetrafluoroethylene(PTFE), fluorinated ethylene propylene (FEP OR F46), ceramics.

Connection:Flange connection[GB/T9119-2010 standard]

Ambient temperature:-10°C~50°C

Power supply:AC220V/DC24V/DC3.6V

Signal output: Analog 4mA-20mA, 0Hz~ 5 KHz frequency, two alarm outputs: high limit alarm and low limit

alarmCommunication:RS485,RS232,MODBUS,HART,PROFIBUS-DP (OPTIONAL).

### SHAPE SIZE AND WEIGHT:

Size Caliber	Length (mm)	Flange diameter (mm)	Flange center distance (mm)	Flange thickness (mm)	Height (mm)		Bolt		
					Separatin g type	Integrated type	Hole DIA	QTY	Bolt Size
DN15	200	95	65	14	190	265	14	4	M12
DN20	200	105	75	16	200	275	14	4	M12
DN25	200	115	85	16	210	285	14	4	M12
DN32	200	140	100	18	220	310	18	4	M16
DN40	200	150	110	18	230	320	18	4	M16
DN50	200	165	125	20	245	335	18	4	M16
DN65	200	185	145	20	265	355	18	8	M16
DN80	200	200	160	20	280	370	18	8	M16
DN100	250	220	180	22	300	390	18	8	M16
DN125	250	250	210	22	330	420	18	8	M16
DN150	300	285	240	24	360	450	22	8	M20
DN200	350	340	295	24	420	505	22	8	M20
DN250	400	395	350	26	480	560	22	12	M20
DN300	500	445	400	26	530	610	22	12	M20
DN350	500	505	460	30	590	670	22	16	M20
DN400	600	565	515	32	645	725	26	16	M24
DN450	600	615	565	36	695	775	26	20	M24
DN500	600	670	620	38	750	830	26	20	M24
DN600	600	780	725	42	855	940	30	20	M27
DN700	700	895	840	50	970	1055	30	24	M27
DN800	800	1015	950	56	1090	1170	33	24	M30
DN900	900	1115	1050	62	1190	1270	33	28	M30
DN1000	1000	1230	1150	70	1290	1380	36	28	M33
DN1200	1200	1455	1380	83	1530	1610	39	32	M36
DN1400	1400	1675	1590	90 <sup>b</sup>	1740	1820	42	36	M39
DN1600	1600	1915	1820	100 <sup>b</sup>	1950	2050	48	40	M45
DN1800	1800	2115	2020	110 <sup>b</sup>	2170	2250	48	44	M45
DN2000	2000	2325	2230	120 <sup>b</sup>	2380	2460	48	48	M45



### Selection of Electrode Materials:

Electrode material should be selected according to the measured medium corrosion, users can access relevant anti-corrosion manual.

No.	Electrode material	Corrosion resistance
1	316L	Measuring water, sewage or organic acid or inorganic acid of minor corrosive medium.
2	HB HC	Resistant to corrosion of oxidizing acid such as nitric acid, mixed acid, chromic acid and sulfuric acid, or a mixed medium of corrosion, but also resistant to salts of the oxidation as Fe + + +, Cu + +, or the other oxidant-containing corrosion. Such as hypochlorous acid alkaline solution is higher than normal temperature or sea water corrosion
3	Ti	Applicable in seawater, various chloride and hypochlorite, chlorinated acids (including fuming nitric acid), organic acid, alkali, etc.  Do not resistant to the pure reduction acid (such as sulfuric acid, hydrochloric acid) corrosion. However, if an acid containing an oxidizing agent (such as nitric acid and containing Fe + + +, Cu + + ions in the medium) the corrosion is greatly reduced.
4	Tantalum (Ta)	Having strong resistance to corrosive mediums that is similar with glass.  Almost applicable in all chemical mediums except for hydrofluoric acid, fuming sulfuric acid and alkali (including the boiling point of hydrochloric acid, nitric acid and sulfuric acid below 175 °C). It has not any resistant to corrosion in alkali.
5	Stainless steel covered	Applicable in mediums of non-corrosive and low abrasion.
6	Platinum-iridium	Almost be applicable in all chemical mediums except for aqua for this, ammonium salt.

### Expression of electromagnetic flowmeter caliber:

The expression of the electromagnetic flowmeter caliber is three digits, the first two are the first and the second

Number of caliber, the third digit means number of 0.

For example, code 150 indicates a caliber of 15 mm; code 151 indicates a diameter of 150 mm; code 152 indicates a caliber of 1500.



# SELECTION CODETABLE:

DC-□□□□□□□□□□

CaliberDN15~DN800(Expression to three digits, the top two for the first, the second caliber digital, the third of the number of 0 for the unit for).

Standard pressure:

1.0.6mpa 2.1.0mpa 3.1.6mpa 4.4.0mpa

Liner material:

- 1:Neoprene
- 2:Polyurethane
- 3:PTFE
- 4:F46
- 5:PFA
- 6:F46
- 8:Nitrile rubber

Electrode Material:

- 1.316L 2.HB,HC 3.Ti 4.Ta
- 5. Stainless steel covered with tungsten carbide
- 6. Platinum-iridium

Connection type:

- 1. Flange
- 2. Clamp

Protecion class:

- 1.IP65 2.IP 68

Working environment:

- 1.General place environment temperature  $\leq 60^{\circ}\text{C}$   
medium temperature  $\leq 80^{\circ}\text{C}$
- 2.General place environment temperature  $\leq 60^{\circ}\text{C}$   
medium temperature  $\leq 140^{\circ}\text{C}$  (only for separate type)

Cable length:

Separate type  $\leq 100\text{m}$ , integral type is 0M, if have special require, please discription when place an order

Structure:

- 1.Integral type 2. Separate type

Power supply:

- 1. DC 3.6V

Output :

- 1.With GPRS 2.Without GPRS 3.RS485