



**Battery Powered Electromagnetic Flow Meter**

Size: DN10mm-DN2000mm  
Nominal Pressure: 0.6-1.6Mpa  
(2.5Mpa/4.0Mpa/6.4Mpa...Max 42Mpa)  
Accuracy: +/-0.5%(Standard)  
Liner: PTFE, Neoprene, Hard Rubber, EPDM, FEP,  
Polyurethane, PFA

**Flange Electromagnetic Flow Meter**

Size: DN10-DN3000mm  
Nominal Pressure: 0.6-1.6 Mpa  
(2.5Mpa/4.0Mpa/6.4Mpa...Max 42Mpa)  
Accuracy: +/-0.5%(Stand), 0.3% or 0.2% (Optional)  
Liner: PTFE, Neoprene, Hard Rubber, EPDM, FEP,  
Polyurethane, PFA  
Output Signal: 4-20mA/Pulse

Bi-directional flow measurement. Built-in self-diagnosis function, Data record / bluetooth

**Application**

Electromagnetic flow meter is widely used in water treatment, food industry, pharmaceutical, petrochemical, paper mill, chemical monitoring etc.

In the metallurgical industry, it is often used to control the flow of cooling water for continuous steel casting, continuous steel rolling, and steel-making electric furnaces;

In the field of water supply and drainage in public utilities, electromagnetic flow meters are often used for the transfer measurement of finished product water and raw water in water plants;

In the pulp process of the paper industry, electromagnetic flow meters are involved in the measurement of the flow of grinding pulp, water, acid, and alkali;

In the coal industry, measuring coal washing and pipeline hydraulic conveying coal slurry.

For food and beverage industries, it is used for beer and beverage filling measurement.

For chemical and petrochemical industries, it is used to measure corrosive liquids, such as acids and alkalis etc



### Technical Data

Size	DN10-DN3000mm
Nominal Pressure	0.6-1.6Mpa(2.5Mpa/4.0Mpa/6.4Mpa...Max 42Mpa)
Accuracy	+/-0.5%(Standard) +/-0.3% or +/-0.2%(Optional)
Liner	PTFE, Neoprene, Hard Rubber, EPDM, FEP, Polyurethane, PFA
Electrode	SUS316L, Hastelloy B, Hastelloy C Titanium, Tantalum, Platinum-iridium
Structure Type	Integral type, remote type, submersible type, ex-proof type
Medium Temperature	-20~+60 degC(Integral type)
	Remote type(Neoprene, Hard Rubber, Polyurethane, EPDM) -10~+80degC
	Remote type(PTFE/PFA/FEP) -10~+160degC
Ambient Temperature	-20~+60deg C
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	Flange (Standard), Wafer, Thread, Tri-clamp etc (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) Battery Powered 3.6V
Power Consumption	<20W
Alarm	Upper Limit Alarm / Lower Limit Alarm
Self-diagnosis	Empty Pipe Alarm, Exciting Alarm
Explosion Proof	ATEX



**Flow Meter Selection Guide**

TMAG401	xxx	x	X	x	x	x	x	x	x
DN	DN10mm-DN3000mm								
Nominal Pressure	0.6Mpa	1							
	1.0Mpa	2							
	1.6Mpa	3							
	4.0Mpa	4							
	Other	5							
Connection Mode	Flange connection	1							
	Clamp connection	2							
	Sanitary connection	3							
Liner Material	PTFE	1							
	PFA	2							
	Neoprenen	3							
	Polyurethane	4							
	Ceramic	5							
Electrode Material	316L	1							
	Hastelloy B	2							
	Hastelloy C	3							
	Titanium	4							
	Platinum-iridium	5							
	Tantalum	6							
	Stainless steel covered with tungsten carbide	7							
Structure Type	Integral type	1							
	Remote type	2							
	Remote type immerse	3							
	Integral type Ex-proof	4							
	Remote type Ex-proof	5							
Power	220VAC 50Hz							E	
	24VDC							G	
	Battery							B	
Output comm	Flow volume 4-20mADC/pulse								A
	Flow volume 4-20mADC/RS232C communication								B
	Flow volume 4-20mADC/RS485 communication								C
	Flow volume HART output/with communication								D
Converter Figure	Square								A
	Circular								B



### Installation Requirement

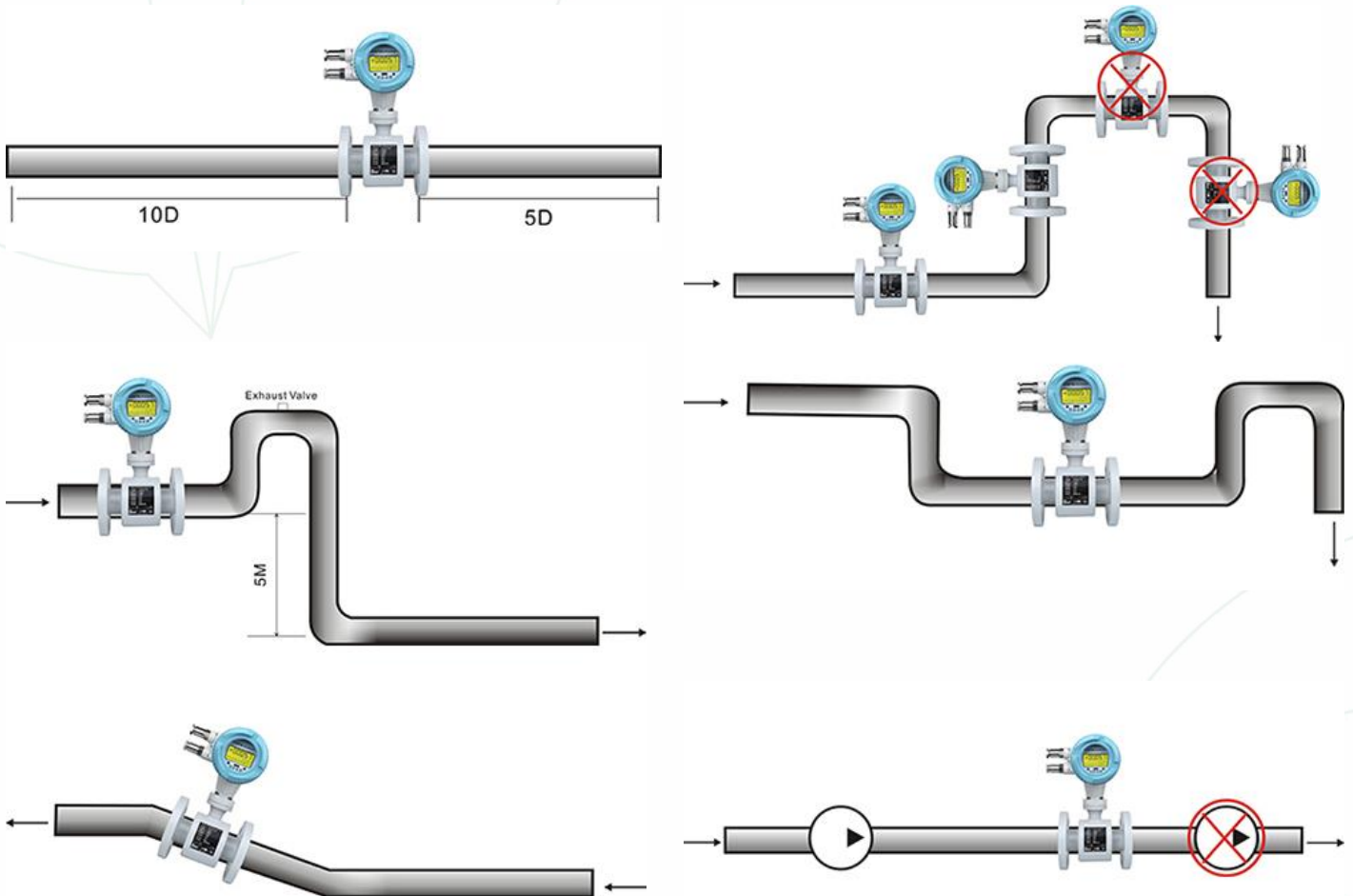
In order to obtain a stable and accurate flow measurement, it is very important that the flow meter is installed correctly in the pipe system.

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.





### 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 <sup>+++</sup> , Cu <sup>++</sup> , Nitric acids, mixed acids
Titanium	Titanium can withstand corrosive mediums such as seawater, chloride salt solutions, hypochlorite salts, oxidable acids(including fuming nitric acids), organic acids, and alkali. Not resistant to high purity reducing acids such as sulphuric acids, hydrochloric acids.
Tantalum	Highly resistant to corrosive mediums. Applicable to all chemical mediums except Hydrofluoric Acids, Oleum and Alkali.
Platinum-iridium	Applicable to all chemical mediums except for Ammonium salts and Fortis