# **Electromagnetic flow meter**



### **INTRODUCTION:**

Shengda specialized in producing electromagnetic flow meter, the electromagnetic flow meter types contains: stainless steel electromagnetic flow meter, carbon steel electromagnetic flow meter, smart electromagnetic flow meter, plug in electromagnetic flow meter, battery operated electromagnetic flow meter and sanitary flow meter.



### **FUNCTION:**

- Measure instantaneous flow and cumulative flow.
   two way measurement system, measure forward total amount, reverse total amount.
- Lower limit of flow alarm, flow limit alarm, pipeline empty pipe alarm, instrument failure alarm.
- ◆ Flow limit setting and flow Range setting
- ◆ Anti radio interference function
- ♦ Total flow is recorded in hours/minutes/seconds
- ♦ Output: pulse signal, output current signal.
- Automatic control system through communication cable or wireless mode LoRa, LoRaWAN, NB-IoT, GPRS, 4G.

## APPLICATION

- Water supply and drainage projects
- Paper pulp and black liquor in the paper industry
- Ore pulp in the non-ferrous metallurgical industry
- Coal slurry in the coal preparation plant
- Strong corrosive liquid in the chemical industry
- → Iron and steel industry
- Pharmaceutical industry
- Food industry
- Bioengineering and other places.

#### **SPECIFICATION:**

Nominal Dia (mm)	DN 15~DN 3000
Accuracy	± 0.2%, ± 0.3%,±0.5%(flowrate<1m/s) .(Optional)
Measuring Range	0.5m/s~10m/s
Conductivity of medium	more than 5µS/cm
Display Unit	Standard Unit in M3, Litre
Process Temperature	-20°C~160°C
Process Pressure	0.6MPa~4.0MPa,(Optional)
Sensor Protection Class	IP65,IP67,IP68.(Optional)
Flow Tube Material	SS316,SS304(Optional)
Material of Construction	MS/SS304/SS316/SS316L
Electrode Material	SS316L, Hastelloy B/C, Tantalum,Ti,Stainless steel coated tungsten carbide,Platinum iridium alloy.etc.
Liner material	Neoprene, Polyurethane rubber, natural rubber, Teflon(PFA), Polytetrafluoroethylene (PTFE),ceramics.etc
Flange Standard	ANSI/DIN/GB/JIS
End Connection	Flange/ Plug in /Clamp On
Power Supply	AC220 V/DC24 V/DC3.6V
Output	Std. 4 – 20 mA,0Hz~5kHz
Cable Length	Std 10 meters(Customizable)
Installation	Inline Flange Type.
Communication	Std RS485,RS485 Modbus RTU (RS232,MODBUS,HART,PROFIBUS-DP,Optional)
Display	LCD Display
Version	Smart /Remote

## **ELECTRODE MATERIALS:**

Electrode	Application
SS316L	Nitric acid, sulfuric acid with concentration <5% at room temperature, weak acid, alkali solution, sulfite under certain pressure, sea water, acetic acid and other media have strong corrosion resistance.
Hastelloy B Hastelloy C	It can resist the corrosion of oxidizing acids, such as nitric acid, mixed acid, or mixed medium of chromic acid and sulfuric acid, and also can resist the corrosion of oxidizing salts, such as fe++, cu++. Or hypochloric acid and alkali, seawater
Titanium	It is resistant to the corrosion of seawater, various chlorides, hypochlorites, chlorinated acids, organic acids, alkalis, etc., and is not resistant to the corrosion of relatively pure reducing acids (such as sulfuric acid and hydrochloric acid)
Tantalum	Excellent corrosion resistance. Except hydrofluoric acid, fuming sulfuric acid and alkali, it can resist the corrosion of almost all chemical media (including hydrochloric acid, nitric acid with boiling,oint and sulfuric acid below 175 °C), but it is not resistant to corrosion in alkali.
Platinum-iridium	Good corrosion resistance to acid, alkali and various salts, But not resistant to nitromurlatic acid corrosion
Stainless steel coated with tungsten carbide	For non corrosive and strong abrasive media

## **LINER MATERIALS:**

Liner materials	Application							
Soft rubber (DN50~DN3000) Hard rubber(DN50~ DN3000)	0 °C $\sim$ 80 °C non strong acid, strong alkali and strong oxidizing medium Masurable sewage and mud							
PTFE (≪DN1000)	125°C~140°C 2. Strong corrosive media such as concentrated acid and alkali 3. Sanitary media							
Polyurethane (≤DN300)	125°C~60°C 2. Neutral strong wear mineral slurry, coal slurry and slurry							
PFA(≪DN250)	125 °C ~ 140°C non strong wear medium 2. sanitary media							
P46(≤DN250)	125 °C ~ 100°C non strong wear medium 2. sanitary media							

## **SELECTION TABLE:**

Model	SDLD-F													
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Caliber	DN15-DN3000	eg:015 means DN15	(=)	(0)	( )	(0)	(0)		(5)	(7)	(10)	(11)	(12)	(,
Flang	0.25Mpa		02											
	0.6MPa		06	1										
	1.0MPa 10			1										
	1.6MPa		16	1										
	ANSI 150		20	1										
standard /	4.0MPa		40	1										
Stariuaru /	ANSI 300		50	1										
	JIS 10K		91	1										
	JIS 20K		92	1										
	Customization		XX	1										
	Soft rubber (DN50-	~DN3000)		1	1									
	Hard rubber(DN50~ DN3000)			2	1									
Liner	PTFE (≤DN1000)			3	1									
materials	Polyurethane (≤DN	1300)		4	1									
	PFA(≤DN250)			5	1									
	F46(≤DN250)			6	1									
	Ceramics(DN50~ D	DN150)		7	1									
	Stainless steel 316				1	1								
	Hastelloy C				2	1								
	Hastelloy B				3	1								
Electrode	Titanium				4	1								
Material	Tantalum				5	1								
	Platinum-iridium				6	1								
	Stainless steel coa	ted with tung	sten carb	ide	7	1								
	Conductive cerami	cs			8	1								
Grounding	Grounding screws					0	]							
and lining	Grounding rings					1	1							
protection	Grounding electrod	les				2	1							
protection	Inlet protection flan	ige				3	1							
Materials	≤80°C					•	Α	1						
temperature	≤120°C						В	1						
temperature	≤180°C							1						
	IP65							1						
Protection	IP67						•	2						
Grade	IP68							3						
	IP65+Ex d ib mb IIC T4 Gb							4						
Structure	Integrated								С	]				
Otractare	Seperated								R					
Power Supply	85~265VAC/45~63	Hz								Α				
		16~36VDC								D				
Сарріу	3.6VDC									В				
Dionless	LCD										1			
Display	OLED										2		]	
	4~20 mA+ Pulse+a	larm (stand	ards)									0	]	
0:10	4~20 mA+ Pulse+a	larm+RS232										2		
Signal Output	4~20 mA+ Pulse+a	larm+RS485										4	]	
And	4~20 mA+ Pulse+a	larm+MODB	US									М	1	
Communication	4~20 mA+ Pulse+alarm+HART											Н	]	
	4~20 mA+ Pulse+alarm+Profibus+DP										Р			
0 17 17	±0.5% three flow										•	1	1	
	±0.2% five flow												2	1
Calibration	±0.5% five flow												3	1
	Standard												X	1
Shell	Carbon steel													0
Material	Stainless steel 304													1





