# BATTERY-POWERED ELECTROMAGNETIC FLOW METER







CE





ATEX

ISO

#### **APPLICATIONS**

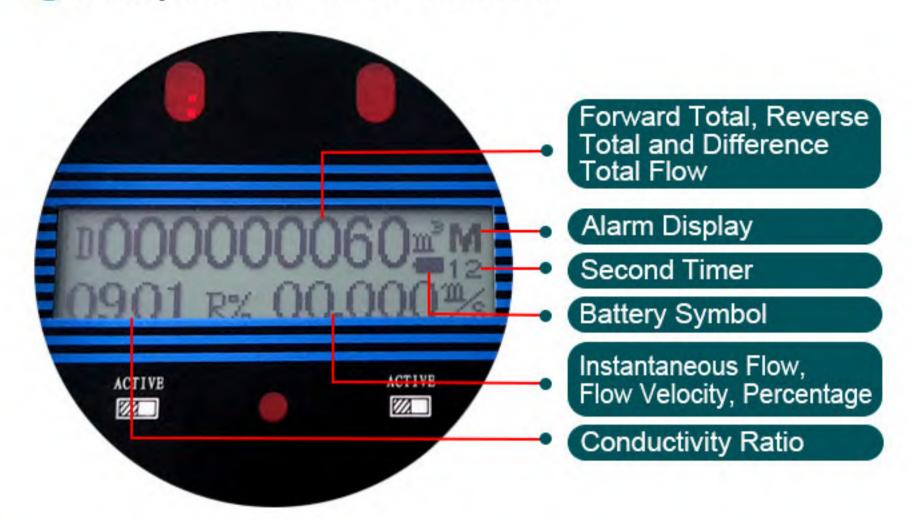
- Applicable to conductive liquids.
- Widely used in industries such as petroleum, chemical engineering, iron and steel, food, power, paper making, water treatment, petrochemical, medicine etc.



#### PRODUCT FEATURES

\_ LCD Display LCD backlight makes it easy to read day and night

Multiple Flow Units Selectable



#### Intelligent Converter, Digital PCB

Digital Signal Processing, Stable Measurement, High Accuracy, Strong Anti-interference Capability



- Automatic alarm functions for self-diagnosis.
- 10 years forward total flow (record per month), 10 years reverse flow( record per month), 10 years total heat (record per month), 24 lines heat meter mode error record
  - SS304 housing, IP68 Protection





# Micro-power consumption, embedded 3.6V Lithium battery Fully functional in remote areas with no electricity.





06 Optional Functions



NO.1	GPRS/GSM, wireless com	munication	
NO.2	RS485 output ( connect externa	al DC24V po	wer supply or 3.6V battery)
NO.3	4-20mA output (external D	C24V power	er supply)
NO.4	Temperature & Pressure	NO.5	External DC24V Power Supply



# VARIOUS CONNECTION MODES IN DIFFERENT WORKING CONDITIONS



Insertion Battery Powered



Remote Battery Powered

# **MORE PRODUCTS**













### **CALIBRATION**



Coriolis Mass Flowmeter Standard Meter

DN15-50 Gravimetric & Standard Meter Liquid Flow Meter Calibration Device



Coriolis Mass Flowmeter Standard Meter



DN65-DN300 Gravimetric & Standard Meter Liquid Flow Meter Calibration Device



DN350-DN700 &DN65-DN300

0.1 % Weighing and volumetric device to ensure accurate calibration



DN800 ~DN3000 Liquid Flow Meter Calibration Device

## **PRODUCT PARAMETER**

#### Main Performances Parameters

Size	DN10-DN2000
Nominal Pressure	0.6-1.6Mpa(2.5Mpa/4.0Mpa/6.4MpaMax 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
	-20~+60 degC(Integral type)
Medium Temperature	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 (Optional)
Communication	RS485(Optional), HART(Optional), GPRS/GSM (Optional)
Power Supply	Battery powered 3.6V + DC24V (Optional)
Power Consumption	0.5W(Standard), 1.5W (With DC24V)
Alarm	Upper Limit Alarm / Lower Limit Alarm
Self-diagnosis	Empty Pipe Alarm, Exciting Alarm
Explosion Proof	ATEX

#### Main Performances Of The Electrode Materials

Electrode Material	Application
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
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.

Size			FI	ow Range 8	Velocity T	able		
(mm)	0.1m/s	0.2m/s	0.5m/s	1m/s	4m/s	10m/s	12m/s	15m/s
10	0.028	0.057	0.141	0.283	1.130	2.826	3.391	4.239
15	0.064	0.127	0.318	0.636	2.543	6.359	7.630	9.538
20	0.113	0.226	0.565	1.130	4.522	11.304	13.56	16.956
25	0.177	0.353	0.883	1.766	7.065	17.663	21.2	26.494
32	0.289	0.579	1.447	2.894	11.575	28.938	34.73	43.407
40	0.452	0.904	2.261	4.522	18.086	45.216	54.26	67.824
50	0.707	1.413	3.533	7.065	28.260	70.650	84.78	105.98
65	1.19	2.39	5.97	11.94	47.76	119.40	143.3	179.10
80	1.81	3.62	9.04	18.09	72.35	180.86	217.0	271.30
100	2.83	5.65	14.13	28.26	113.04	282.60	339.1	423.90
125	4.42	8.83	22.08	44.16	176.63	441.56	529.9	662.3
150	6.36	12.72	31.79	63.59	254.34	635.85	763.0	953.78
200	11.3	22.61	56.52	113.04	452.16	1130.40	1356	1696
250	17.66	35.33	88.31	176.53	706.50	1766.25	2120	2649
300	25.43	50.87	127.2	254.34	1017	2543.40	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	2077
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	10851
1800	916	1831	4578	9156	36625	91562	109875	13734

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

# **Model Select**

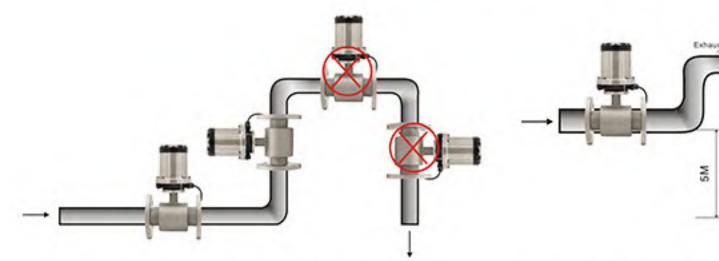
QTLD	>	XXX	X	X	X	X	X	X	X	X	)
Caliber	DN10-DN2000										
(mm)	Reference Code,										
	0.6Mpa		1								
	1.0Mpa		2								
Nominal	1.6Mpa		3								
Pressure	2.5Mpa		4								
	4.0Mpa		5								
	Others		6								
	Flange			1							
	Wafer			2							
Connection	Tri-clamp(Sanitary)			3							
	Thread			4							
	Others			5							
	PTFE				1						
	Neoprene				2						
Liner	Hard Rubber				3						
Material	PFA				4						
Material	FEP				5						
	Polyurethane				6						
	Others				7						
	SUS316L					1					
	Hastelloy B					2					
Electrode	Hastelloy C					3					
	Titanium					4					
Material	Tantalum					5					
	Platinum-iridium					6					
	Others					7					
Structure	Compact/Integral						1				
Type	Remote						2				
Power	DC24V + 3.6V Lithiur	n Bat	ttery					A			
Supply	3.6V Lithium Battery							В			
	4-20mA/Pulse,RS485	5							A		
	4-20mA,HART								В		
Output	Pulse								C		
Signal	4-20mA								D		
	RS485								E		
	Others								F		
Cummof	Without Ex-proof									0	
Ex-proof	With Ex-proof									1	
	DIN PN10										
	DIN PN16										
	DIN PN25										
	DIN PN40										-
D	ANSI150#										1
Process	ANS1300#										-
Connection	ANS1600#										(
	JIS 10K										1
	JIS 20K										
	JIS 40K										
											_

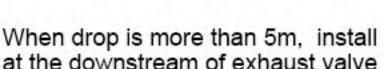
	Optional Selection
	X
1	Grounding Ring
2	Matched Flange
3	Entrance Protection Flange
4	Scraper Type Electrode
5	Others

Table 13	Caliber Code Table				
Caliber	Code				
10	100				
15	150				
20	200				
25	250				
32	320				
40	400				
50	500				
65	650				
80	800				
100	101				
125	125				
150	151				
200	201				
250	251				
300	301				
350	351				
400	401				
450	451				
500	501				
600	601				
700	701				
800	801				
900	901				
1000	102				
1100	112				
1200	122				
1400	142				
1500	152				
1600	162				
1800	182				
2000	202				



#### Installation





**BlueFlow** 

by Range

Install at the lowest point and vertical upward direction

Don't install at the highest point or vertical downward direction



Install at the lowest point when used in open drain pipe



Need 10D of upstream and 5D of downstream



Dont' install it at the entrance of pump, install it at the exit of pump



Install at the rising direction

#### CERTIFICATE





#### QTLD Series Electromagnetic Flow Meter ATEX

#### QTLD Series Electromagnetic Flow Meter CE





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