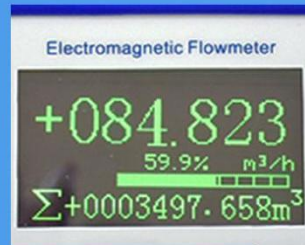


ELECTROMAGNETIC FLOWMETER



Split
electromagnetic flowmeter



Integrated
electromagnetic flowmeter

Electromagnetic Flowmeter

// Overview

Electromagnetic flow meter is a high-performance, high-reliability flow meter. Used to measure the volume flow of conductive liquid and slurry in closed pipes. Widely used in steel, electricity, petroleum, chemical industry, coal, metallurgy, papermaking, water supply and drainage, food, pharmaceutical industry, etc.



// Technical parameter

Main power:	AC220V 50HZ/DC24V/DC12V	
Power consumption:	<15W (Supporting power consumption with sensors)	
Display and buttons:	flow and alarm display (excitation open circuit alarm, empty pipe alarm, flow over limit alarm). Four membrane touch switches for data setting	
Counter:	Forward total, reverse total	
Output signal:	Analog output	Two-way two-way, fully isolated 0~10mA/4~20mA
	Frequency output	Load resistance: 0~1.5kΩ when 0~10mA; 0~750Ω when 4~20mA
	Alarm Output	frequency can be set within 1~5000Hz. Open collector bidirectional output of transistor with photoelectric isolation. The external power supply is not greater than 35V, and the maximum current of the collector when it is turned on is 50mA
	Pulse output	Two-way open collector alarm output with photoelectric isolation transistor. The external power supply is not greater than 35V, and the maximum current of the collector when it is turned on is 250mA. Alarm status: fluid empty pipe, excitation disconnection, flow overrun
Matching accuracy:	±0.5% of indicated value, optional ±0.3% or ±0.2% of indicated value	
Damping time constant:	Continuous variable from 0~100s (90%) time grading optional	
Protection class:	IP65	

// Features

- ✧ Measurements are not affected by fluid density, viscosity, temperature, pressure and conductivity.
- ✧ No obstacles in the measuring tube, no pressure loss, low requirements for straight pipe section.
- ✧ The OLED backlight type converter can be easily displayed and read in the sun or in a dark room.
- ✧ In harsh environments, parameters can be set via infrared touch buttons without opening the cover of the converter (need to be customized).
- ✧ Flow meter with bidirectional measurement system, built-in three totalizers: positive total, reverse total and total difference.
- ✧ It has various forms of output: current 4-20mA, pulse, frequency, rs-485.
- ✧ The converter has self-diagnosis alarm output, no-load detection alarm output, flow upper and lower limit alarm, batch control (need to be customized) and other alarm output functions.
- ✧ Not only for general processes, but also for the measurement of ore pulp, mud, coal slurry, paper pulp and paste liquid.
- ✧ High-pressure electromagnetic flow sensor with PFA lining technology, resistant to high pressure and negative pressure, especially suitable for petroleum, chemical and other industries.
- ✧ Explosion-proof instruments can be used in corresponding explosion-proof places.

// Converter

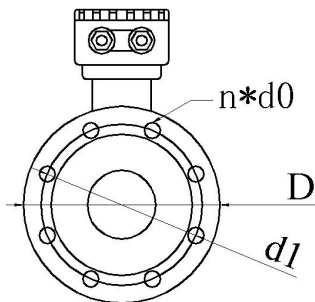
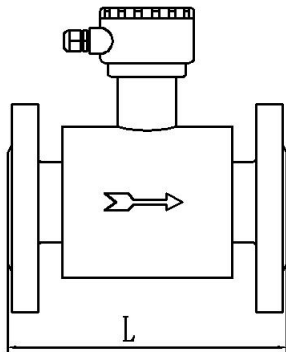


- Can be customized to display the company's LOGO and name
- The OLED screen can withstand high and low temperature, and the font will not be blurred and halo
- There are 220V and 24V power supply options
- Accumulated digits can reach 10 digits
- There are three font color options of white, yellow and green

// Flow range table

Flow rate table							
mm \ m3/h \ m/s	0.5	1	2	3	4	5	15(maximum)
10	0.14	0.28	0.27	0.85	1.13	1.41	4.24
15	0.32	0.64	1.27	1.91	2.54	3.18	9.54
20	0.57	1.13	2.26	3.39	4.52	5.65	16.96
25	0.88	1.77	3.53	5.30	7.07	8.84	26.51
32	1.45	2.90	5.79	8.69	11.58	14.48	43.43
40	2.26	4.52	9.05	13.57	18.10	22.62	67.86
50	3.53	7.07	14.14	21.21	28.27	35.34	106.03
65	5.97	11.95	23.89	35.84	47.78	59.73	179.19
80	9.05	18.10	36.19	54.29	72.38	90.48	271.43
100	14.14	28.27	56.55	84.82	113.10	141.37	424.12
125	22.09	44.18	88.36	132.54	176.71	220.89	662.68
150	31.09	63.62	127.23	190.85	254.47	318.09	954.26
200	56.55	113.10	226.19	339.29	452.39	565.49	1696.46
250	88.36	176.71	363.43	530.14	706.86	883.57	2650.72
300	127.23	254.47	508.94	763.41	1017.88	1272.35	3817.04
350	173.18	346.36	692.72	1039.08	1385.44	1731.80	5195.41
400	226.19	452.39	904.78	1357.17	1809.56	2261.96	6785.84
450	286.28	572.56	1145.11	1717.67	2290.22	2862.78	8588.33
500	353.43	706.86	1413.72	2120.58	2827.43	3534.29	10602.88
600	508.94	1017.88	2035.75	3053.63	4071.50	5089.38	15268.14
700	692.72	1385.44	2770.88	4156.33	5541.77	6927.21	20781.64
800	904.78	1809.56	3619.11	5428.67	7238.23	9047.79	27143.36
900	1145.11	2290.22	4580.44	6870.66	9160.88	11451.11	34353.32
1000	1413.72	2827.43	5654.87	8482.30	11309.73	14137.13	42411.50
1200	2035.75	4071.50	8143.01	12214.51	16286.02	20357.52	61072.56
1400	2770.88	5541.77	11083.54	16625.31	22167.08	27708.85	83126.54
1600	3617.11	7238.23	14476.46	21714.69	28952.92	36191.15	108573.44
1800	4580.44	9160.88	18321.77	27482.65	36643.54	45804.42	137413.26
2000	5654.87	11309.73	22619.47	33929.20	45238.93	56548.67	169646.00
2200	6842.39	13684.78	27369.56	41054.33	54739.11	68423.89	205217.66
2400	8143.01	16286.02	32572.03	48858.05	65144.07	81430.08	244290.24
2600	9556.72	19113.43	38226.85	57340.71	76453.71	95567.13	206701.40
2800	11083.54	22167.90	44334.15	66501.23	88668.31	110835.39	332506.16
3000	12723.45	25446.90	50893.80	76340.70	101787.60	127234.50	381703.50

// Electromagnetic flow meter sensor dimension drawing



DN	L(PTFE)	L(Rubber/PFA/ F46)	D	d1	n*d0
10	193	/	90	60	4*14
15	193	/	95	65	4*14
20	193	/	105	75	4*14
25	193	/	115	85	4*14
32	193	/	135	100	4*18
40	193	200	145	110	4*18
50	193	200	160	125	4*18
65	243	250	180	145	4*18
80	244	250	195	160	8*18
100	244	250	215	180	8*18
125	244	250	245	210	8*18
150	290	300	280	240	8*23
200	341	350	335	295	12*23
250	441	450	405	355	12*26
300	490	500	460	400	12*26
350	490	500	500	460	16*23
400	490	500	565	515	16*26
450	540	550	615	565	20*26
500	540	550	670	620	20*26
600	590	600	755	705	20*25
700	690	700	860	810	24*25
800	790	800	975	920	24*30
900	890	900	1075	1020	24*30
1000	990	1000	1175	1120	28*30
1200	1190	1200	1400	1340	32*34
1400	1390	1400	1620	1560	36*34
1600	1590	1600	1820	1760	40*34
1800	1790	1800	2046	1970	44*41
2000	1990	2000	2265	2180	48*48
2200	2190	2200	2475	2390	52*48

// HBLD pipeline electromagnetic flow meter selection code

Electromagnetic flowmeter type	
Pipeline electromagnetic flowmeter	HBLD
Electromagnetic cold heat meter	HBLD/R
Sanitary electromagnetic flowmeter	HBLD/S

Nominal diameter			See Caliber code table		
Coding	Caliber	Coding	Caliber	Coding	Caliber
030	3	125	125	901	900
060	6	151	150	102	1000
100	10	201	200	122	1200
150	15	251	250	142	1400
200	20	301	300	162	1600
250	25	351	350	182	1800
320	32	401	400	202	2000
400	40	451	450	222	2200
500	50	501	500	242	2400
650	65	601	600	262	2600
800	80	701	700	282	2800
101	100	801	800	302	3000

Nominal pressure	0.6MPa	06
	1.0MPa	10
	1.6MPa	16
	Other pressures are compiled as above	X
Lining material	Neoprene	1
	PTFE	2
	F46	3
	PFA	4
	Polyurethane rubber	5
	Silicone rubber	6
	ceramics	7
Electrode material	Molybdenum-containing stainless steel	1
	Hastelloy B	2
	Hastelloy C	3
	titanium	4
	Tantalum	5
	Platinum-iridium alloy	6
	Stainless steel coated with tungsten carbide	7

	Monel	8
Connection method	Flange connection	A
	Clamping type	B
	Clamp connection	C
	Threaded connection	D
Body material	Standard	1
	304SS	2
	316L	3
Housing protection	IP65	1
	IP67	2
	IP68(Sensor IP68, sensor IP65)	3
Explosion-proof mark	None	1
	Exd ia[jia Ga] q IIC T6 Gb	2
Annex	None	0
	Matching flanges and fasteners	1
	Ground ring	2
	Ground electrode	3
Electrode form	Fixed	A
	Scraper	B
Structure	Integrated	EH
	Split type	ER
Power	85-265V AC 45-400Hz	1
	11-40V DC	2
	3.6V battery power supply	3
	Solar power supply	4
Output type	Frequency, pulse/4-20mA, process control type	MG
	Frequency, pulse/4-20mA/RS485, Modbus protocol	MA
	Frequency, pulse/4-20mA/HART protocol	MB
	Frequency, pulse/4-20mA/RS485, HART protocol	MC
	Frequency, pulse/4-20mA/RS485, Profibus DP	MD
	Frequency, pulse/4-20mA, RS232	ME
	GPRS wireless communication	MF