

ELECTROMAGNETIC CONVERTER

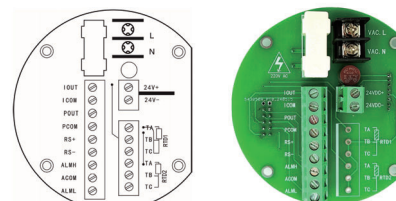
Specifications:

Model	FT8210H Integral type	FT8210R Remote type
Picture		
Power supply	230VAC; 24VDC; 230VAC&24VDC	
Velocity range	0.01 ~ 15 m / sec	
Velocity resolution	0.5 mm / sec	
Excitation frequency	6.25Hz(Default), 25Hz/12.5Hz/3.125Hz(Settable)	
Resistance	40~100Ω	
Communication	RS485 (Standard), Hart Communication Protocol (Optional)	
Output	4~20mA, Pulse output	
Protection class	IP65	
Display	Back light LCD display	

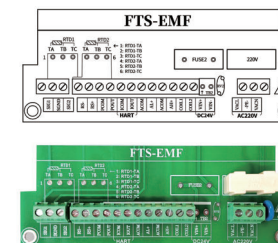
Features:

- With LCD, display flow rate, total flow, velocity etc.
- Three internal accumulator, record positive total flow and reverse total flow and net total
- Non-linear correction function: small flow rate signal compensation, adaptable to a variety of sensors
- Automatic zero calibration function
- Quick response, response time of 0.3 seconds electrode self-cleaning function
- Protection with lightning protection circuit design
- High efficiency anti interference circuit, suitable for all kinds of harsh
- Built-in internal storage function 16KB
- All the parameters and configurations stored in the transmitter be saved when lack of power supply

Integral Type Wiring Diagram (AC and DC Power Supply Type)



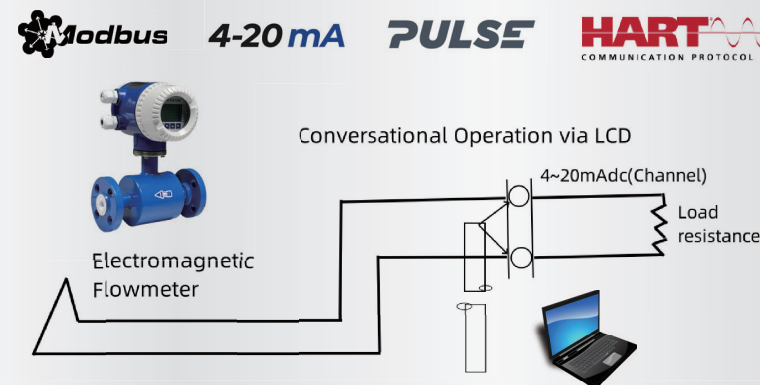
Remote Type Wiring Diagram (AC and DC Power Supply Type)



Communication Function

"Smart" transmission functions employ multiplexing of flow rate signals output(4 to 20 mA analog signal, RS485 Modbus, Pulse and Hart output) the Communicator of third party connected to line, they enable read-out of measurement data and flowmeter control from remote locations.

Note: HART communication protocol cannot be used with RS485/Modbus communication protocol.



OEM for converter

- Supports customized electromagnetic heat meter function
- Display logo customization
- Logo sticker

Flow Range (m3/h)			
Pipe Size	Flow range		
10	0.02827-0.25	0.3-1.6	2.0-3.3924
15	0.0636-0.6	0.8-3.0	4.0-7.632
20	0.131-1.0	1.2-5.0	6.0-13.64
25	0.176-1.6	2.0-8.2	10-21
32	0.2895-2.5	3.0-12	16-35
40	0.4524-4.0	5.0-20	25-45
50	0.707-6.0	8.0-40	50-85
65	1.195-10	12-60	80-143
80	1.81-16	20-120	160-217
100	2.83-25	30-160	200-339
125	4.42-40	50-250	300-530
150	6.36-60	80-400	500-763
200	11.3-100	120-600	800-1357
250	17.7-160	200-800	1000-2120
300	25.45-250	300-1200	1600-3054
350	34.6-300	400-1600	2000-4157
400	45.2-400	500-2000	2500-5429
450	57.3-500	600-2500	3000-6871
500	70.7-600	800-3000	4000-8782
600	102-800	1000-4000	5000-12216
700	139-1200	1600-5000	6000-16620
800	181-1600	2000-6000	8000-21720
900	229-1600	2000-8000	10000-27480
1000	283-2000	2500-10000	12000-33924
1200	407-2500	3000-12000	16000-48833
1400	554-3000	4000-16000	20000-66468
1600	723-4000	5000-20000	27000-86815

“ The selection of an electromagnetic flow meter needs to be based on the flow range.

Note: The overall range indicates selectable options,
 zone data represents the flow values primarily recommended for use.

Conversion relationship between flow velocity and flow rate: $V=Q/S$ $S=\pi D^2/4$

Where:

V — Average velocity (m/s)

Q — Flow rate (m³/h)

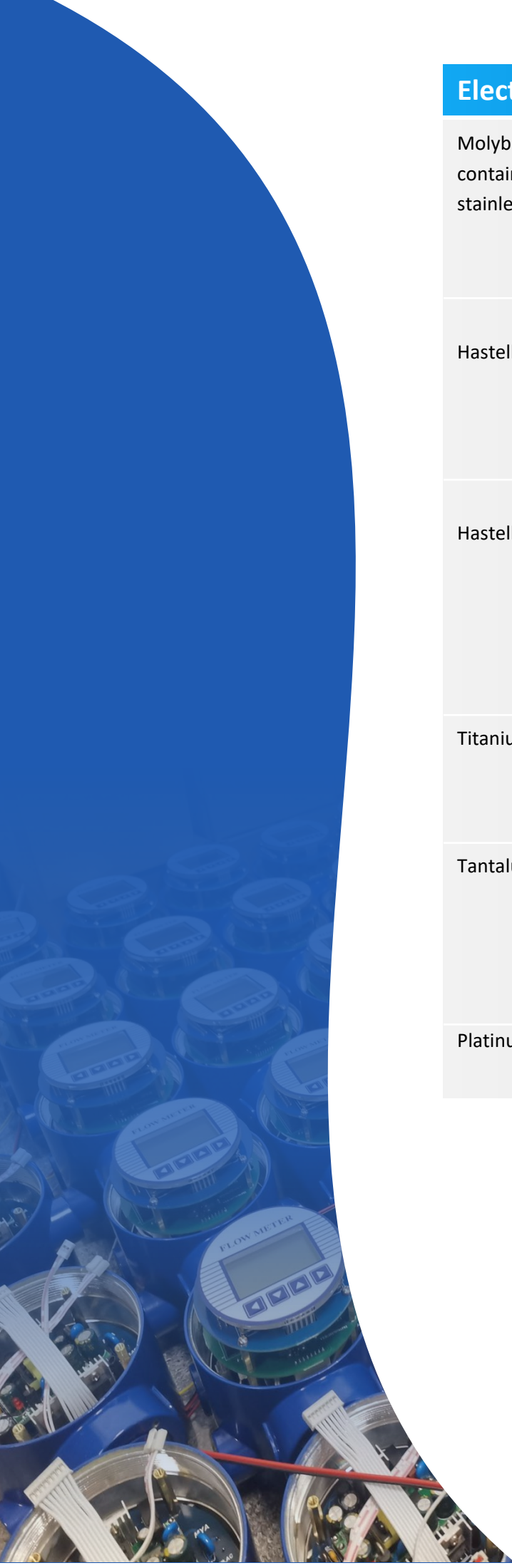
S — Pipe cross-sectional area (m²)

D — Nominal diameter (m)

Conversion between cubic meters and liters for flow rate: 1 m³/h = 1000 L/h

How to choose Lining material			
Lining Material		Performance	Application
Polyurethane rubber		1.Very good wear resistance 2.Poor acid and alkali resistance	<45℃ Measurement of neutral and strong abrasive coal slurry, mud and mineral slurry
Natural rubber (soft rubber)		1.Good elasticity and wear resistance 2. Resistant to corrosion by general weak acids and weak alkalis	<80℃ water, sewage
Acid-resistant rubber (hard rubber)		1.Resistant to corrosion by hydrochloric acid, acetic acid, oxalic acid, ammonia phosphoric acid, 50% sulfuric acid, sodium (potassium) hydroxide at room temperature 2. Not resistant to corrosion by strong oxidants	-25℃~+90℃ for measuring common acid, alkali and salt solutions
Chloroprene rubber		1.Good elasticity and wear resistance 2.Resistant to corrosion by low-concentration acid, alkali, and salt solutions, but not resistant to corrosion by oxidizing media	<80℃ for water, sewage, mud and slurry
Fluoroplastic	Polytetrafluoroethylene F-4 (PTFE)	1.Resistant to boiling hydrochloric acid, sulfuric acid, nitric acid, aqua regia, concentrated alkali and various organic solvents 2. Strong wear resistance, poor bonding performance	-40℃~+160℃ for measuring concentrated acid, concentrated alkali, strong corrosive solution and sanitary medium
	Perfluoroethylene propylene F-46 (PTFE)	1.Same medium as PTFE 2.Not resistant to fuming nitric acid and butyl lithium	Same as PTFE, can be used for higher negative pressure
	Polyperfluoroalkoxy (PFA)	Chemical resistance similar to FEP	Media that are incompatible with FEP



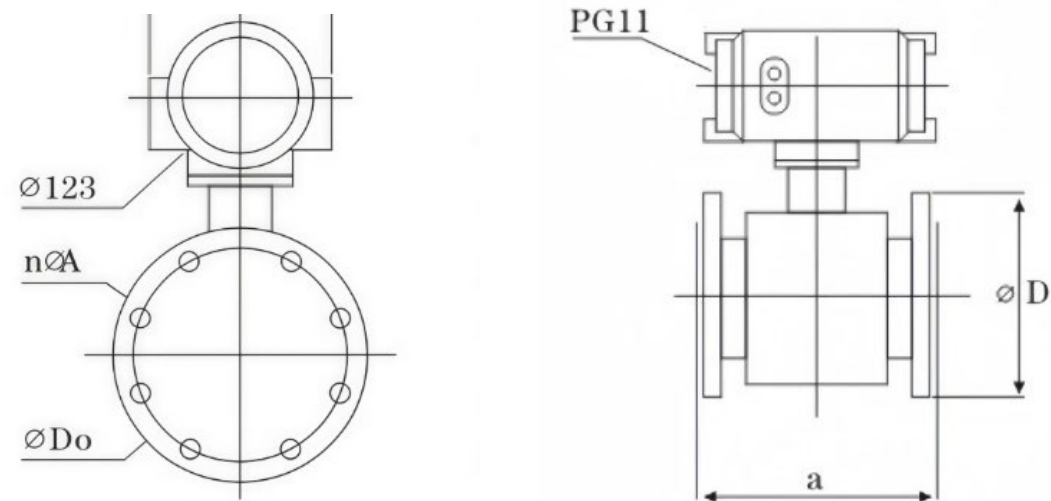


Electrode material selection reference

Molybdenum-containing stainless steel	• Applicable: domestic/industrial water, sewage, weak acid and alkali salt solution, concentrated acid at room temperature • Not applicable: hydrofluoric acid, hydrochloric acid, chlorine, bromine, iodine and other media
Hastelloy B	• Applicable to: non-oxidizing acids such as hydrochloric acid and hydrofluoric acid of a certain concentration, non-oxidizing hydrochloric acid, and alkaline waves such as sodium hydroxide with a concentration not less than 70% • Not applicable to: oxidizing acids such as nitric acid
Hastelloy C	• Applicable: corrosion by oxidizing acids, such as nitric acid, mixed acid, or mixed medium of sulfuric acid; also resistant to corrosion by oxidizing salts or environments containing other oxidants. Such as hypochlorite liquid above room temperature; very good corrosion resistance to seawater. • Not applicable: reducing acids such as hydrochloric acid and chlorides
Titanium (Ti)	• Applicable: Chloride, hypochlorite, seawater, oxidizing acid • Not applicable: Reducing acid such as hydrochloric acid and sulfuric acid
Tantalum (Ta)	• Applicable to: most acid solutions such as concentrated hydrochloric acid, nitric acid, sulfuric acid, including boiling hydrochloric acid, nitric acid and sulfuric acid below 175°C. • Not applicable to: alkali, hydrofluoric acid, fuming sulfuric acid
Platinum (PU)	• Various acids, bases, salts, excluding aqua regia

Flange Structure and Dimensions

Pipe Size	a	D	Do	nφA
10	200	90	60	4φ14
15		95	65	4φ14
20		105	75	4φ14
25		115	85	4φ14
32		140	100	4φ18
40		150	110	4φ18
50		165	125	4φ18
65	250	185	145	8φ18
80		200	160	8φ18
100		220	180	8φ18
125		250	210	8φ18
150	300	285	240	8φ22
200	350	340	295	8φ22
250	450	395	350	12φ22
300	500	445	400	12φ22
350	550	505	460	16φ22
400	600	565	515	16φ26
450		615	565	20φ26
500		670	620	20φ26
600		780	725	20φ30
700	700	895	840	24φ30
800	800	1015	950	24φ33
900	900	1115	1050	28φ33
1000	1000	1230	1160	28φ36
1200	1200	1405	1340	32φ33
1400	1400	1630		36φ36
1600	1600	1830	1760	40φ36
1800	1800	2045	1970	44φ39
2000	2000	2265	2180	48φ42
2200	2200	2405	2315	52φ45





PRODUCT OEM

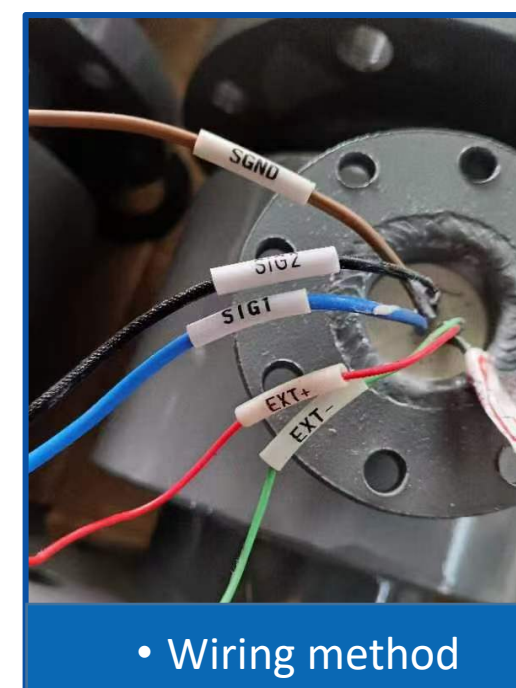
Electromagnetic Flow Meter

CONVERTER OEM



- Color customized
- OEM boot display name
- OEM front panel sticker

SENSOR OEM



- Wiring method



- Color

TEM82E

Various Connection Methods



THREADED

- Standard: NPT/G threaded
- Advantages: Compact and lightweight, suitable for space-constrained scenarios (such as laboratories, equipment integration).
- Application: Low-pressure, small-diameter (DN10~DN50) occasions such as small chemical plants.



INSERTION

- Without cutting off the process flow.
- Advantages: Easy to install, supports online maintenance, suitable for ultra-large pipe diameters (DN200+).
- Application: Renovation projects that cannot be shut down, such as municipal water supply networks and sewage treatment plants. Economical price for large diameters.



SMS UNION

- Sanitary connection
- Advantages: No dead angle, easy to disassemble and clean, made of 316L stainless steel or PTFE lining.
- Application: Aseptic processes such as food and beverage, biopharmaceuticals (such as milk and injection liquid transmission), scenarios that require CIP/SIP cleaning.



Flange

- Standard: DN/DIN/ANSI/JIS
- Advantages: Strong sealing, high pressure resistance (up to 16MPa+), suitable for large pipe diameters, which is the most commonly used in industrial scenarios.
- Application: High pressure, large flow environments such as petrochemicals and large water treatment plants, which require long-term stable operation.