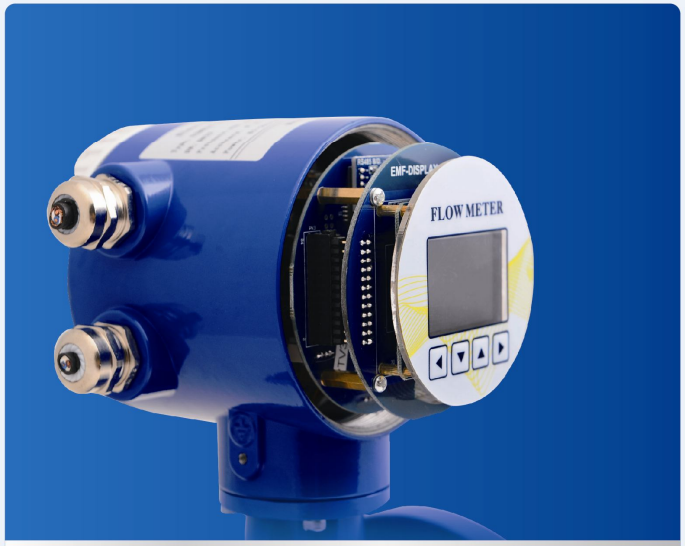


ELECTROMAGNETIC FLOW METER

Features:

- Highly intelligentized
- Multi-electrode structure
- High accuracy
- No moving parts
- Wide operating range
- AC.85V~265V,DC:18V~38V
- No obstruction to the flow
- Variety of flange types availiable
- Different exicitation frequencies to choose
- Able to detect two-way
- Capacitive empty and full pipe measurement technique
- Lighting protection and anti-jamming circuit design
- Have EPROM

Applications

- Water / waste water
- Chemical industry
- Food industry
- Popwer engineering
- Agriculture
- Effluent Industry

How To Select The Electrode Material

Electrode	Suitable	Not suitable for
316L	Domestic water, industrial water ,raw water ,city sewage, weak corrosion of acid , alkali, salt solution	Strong acid, alkali etc
Hastelloy alloy B	Concentration is less than 10% of non oxidizing acid, concentration of less than 50% sodium hydroxide, all concentrations of ammonium hydroxide allkaline solution; phosphoric acid and organic acid	Nitric acid
Hastelloy C	Mixed acid (such as chromic acid and sulfuric acid solution); oxidizing salts (such as seawater, including Cu+++,Fe+++	Hydrochloric acid
Titanium	Salts (such as sodium, potassium, chloride, ammonium salts ,sodium hypochlorite, still water), concentration of less than 50% potassium hydroxide , ammonium hydroxide, barium hydroxide alkaline solution	Hydrochloric acid, sulfuric acid , phosphoric acid, hydrofluoric acid and other reductive acid
Tantalum	Hydrochloric acid (concentrations of less than 40%), dilute sulfuric acid and concentrated sulfuric acid (not including oleum); chlorine dioxide , ferric chloride, hypochlorous acid, sodium chloride, lead acetate; nitric acid (including fuming nitric acid, an oxidizing acid)	Alkali, hydrofluoric acid
Platinum gold	Almost all of the sour alkali salt solution (including fuming sulfuric acid and fuming nitric acid	Aqua regia, ammonium salt

How to choose the lining material

According to the measured medium corrosion, wear and temperature, select lining material , as shown in the following table:

Lining	Symbol	Performance	Temperature	Usage occasions
Rubber	CR	Wear resistance of medium, high average concentrations of acid-base salt solution	≤70℃	Tap water , industrial water , sea water
PTFE	PTFE	The chemical properties of stability, high boiling hydrochloric acid , sulfuric acid , aqua regia, concentrated alkali corrosion	≤150℃	Corrosive acid, salt, solution
Fluorinated ethylene propylene	F46 or FEP	Chemical properties equivalent to F4, tensile strength is higher than that of F4	≤180℃	Corrosive acid salt solution, negative pressure
Polyurethane	PU	Excellent wear resistance, Not suitable for resistance to acid	≤70℃	Slurry, pulp and other abrasive

TEM82E Series

ELECTROMAGNETIC FLOW METER

Flow Measurement & Control Solutions

CE

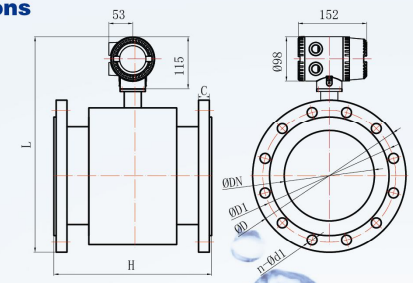
TEM82E Series

ELECTROMAGNETIC FLOW METER

Technical Specifications:

- Size: DN10~DN2800
- Medium: Conductive liquid, slurry
- Medium Temperature: E grade∠60°C.H grade∠180°C
- Conductivity:≥5 u S/cm
- Accuracy:±0.25% . ±0.5%
- Repeatability: ±0.1% . ±0.17%
- Rated Pressure: 0.6, 1.0, 1.6, 2.5, 4.0, 6.4 MPa (or specified by customer)
- Display : flow rate,totalizer,velocity,flow rate ratio
- Signal Output: 4-20mA current output, pulse output, RS-485, Hart.
- Power Supply: AC:85V~265V. DC:18V~38V
- Converter Type: Integral, remote
- Protection Grade: IP65/IP68
- Explosion Proof: Ex deibmb IIC T3~6
- Velocity:0.05~12m/s (0.1~15m/s as required)
- Liner: CR/ F4(PTFE) / F46(FEP) / PFA
- Flowing Direction: Forward, Reverse
- Electrode Material: 316L, Pt, Ta, Ti, HB, HC, WC
- Electrode Number: 3~6 pcs
- Flange Material: SS/CS
- Alarm (normal open): Empty, excitation, upper/lower limit
- Ambient: Temperature: -30~+60°C, Humidity: <90%
- Protocol: RS-485/ Hart

Dimensions



DN	H	L	D1	D	n-¢d1	C	Pressure
10	160	260	60	90	4-∁14	14	PN4.0
15		265	65	95	4-∁14	14	
20		272	75	105	4-∁14	16	
25		280	85	115	4-∁14	16	
32		290	100	140	4-∁18	18	
40	200	305	110	150	4-∁18	18	
50		320	125	165	4-∁18	20	
65		335	145	185	4-∁18	20	PN1.6
80		350	160	200	8-∁18	20	
100	250	370	180	220	8-∁18	22	
125		405	210	250	8-∁18	22	
150	300	435	240	285	8-∁22	24	
200	350	495	295	340	12-∁22	24	
250	400	545	350	395	12-∁22	26	PN1.0
300	500	595	400	445	12-∁22	26	
350		630	460	505	16-∁22	26	
400	600	685	515	565	16-∁26	26	
450		735	565	615	20-∁26	28	
500		790	620	670	20-∁26	28	
600		900	725	780	20-∁30	34	
700	700	1035	840	895	24-∁30	30	
800	800	1140	950	1015	24-∁33	32	
900	900	1245	1050	1115	28-∁33	34	
1000	1000	135	1160	1230	28-∁36	34	
25	160	280	100	140	4-∁18	24	PN6.4
32		290	110	155	4-∁22	24	
40	200	305	125	170	4-∁22	26	
50		320	135	180	4-∁22	26	
65		340	160	205	8-∁22	26	
80		350	170	215	8-∁22	28	
100	250	375	200	250	8-∁26	30	
125		415	240	295	8-∁30	34	
150	300	485	280	345	8-∁30	36	
200	350	520	345	415	12-∁36	42	
250	400	570	400	470	12-∁36	46	
300	500	625	460	530	16-∁36	52	
350		680	525	600	16-∁39	56	

Flow Rate (m^3/h)

DN (mm)	Flow range	Accuracy range	DN (mm)	Flow range	Accuracy range
DN 10	0.014~3.39	0.08~2.82	DN 300	12.7~3052	76~2543
DN 15	0.03~7.63	0.19~6.35	DN 350	17.3~4154	103~3461
DN 20	0.06~13.56	0.33~11.34	DN 400	22.6~5425	1355~4521
DN 25	0.09~21.19	0.52~17.66	DN 450	28.6~6867	171~5722
DN 32	0.14~34.72	0.86~29.93	DN 500	35.3~8478	211~7065
DN 40	0.23~54.25	1.35~45.21	DN 600	51~12208	305~10173
DN 50	0.35~84.78	2.12~70.65	DN 700	69~16616	415~13847
DN 65	0.6~143	3.58~119	DN 800	90~21703	542~18086
DN 80	0.90~217	5.43~180	DN 900	114~27468	686~22890
DN 100	1.41~339	8.48~282	DN 1000	141~33912	847~28260
DN 125	2.21~529	13.25~441	DN 1200	203~48833	1221~40694
DN 150	3.18~763	19.08~635	DN 1400	277~66467	1662~55389
DN 200	5.65~1356	33.91~1130	DN 1600	361~86814	2171~72345
DN 250	8.83~2119	52.99~1766	DN 1800	457~109874	2747~91562