YUA
Fast · Accurate · Managing

Excellent Anti-Corrosion Capability

Strong Anti-Interference Capability

The Explosion-proof Certification

Range Modifiable Online



F232x Series
Electromagnetic Flowmeter

New-generation Liquid Electromagnetic Flow Meter

ELECTRO-MAGNETIC FLOW METER

Product Overview

The F232x electromagnetic flowmeter measures flow based on Faraday's law of electromagnetic induction. It integrates intelligence, compact and lightweight design, multifunctionality, high accuracy, and high reliability into a single flow measurement instrument

With no moving parts and no flow obstruction components, it has almost no pressure loss and high reliability, providing long-term measurement accuracy. The excellent sensor materials give the product strong corrosion resistance, making it suitable for measuring almost any conductive liquid. As a result, it is widely used in industrial measurement applications.

Product Advantages



High-Precision Measurement

Class 0.5 accuracy, achieving precise flow measurement



Excellent Anti-Corrosion Capability

Excellent anti-corrosion capability, capable of measuring almost any conductive liquid



Strong Anti-Interference Capability

Excellent anti-interference capability, virtually unaffected by external disturbances

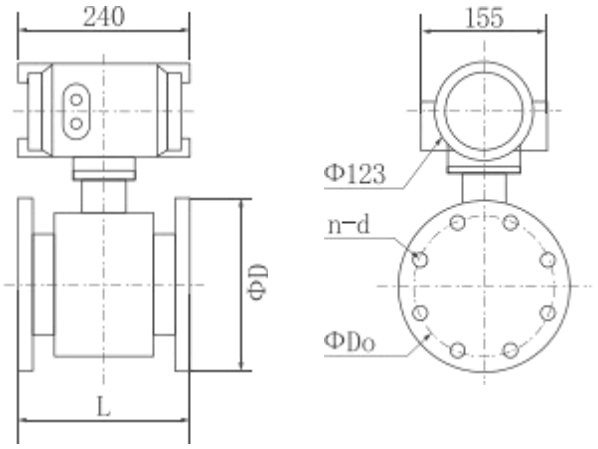


Range Modifiable Online

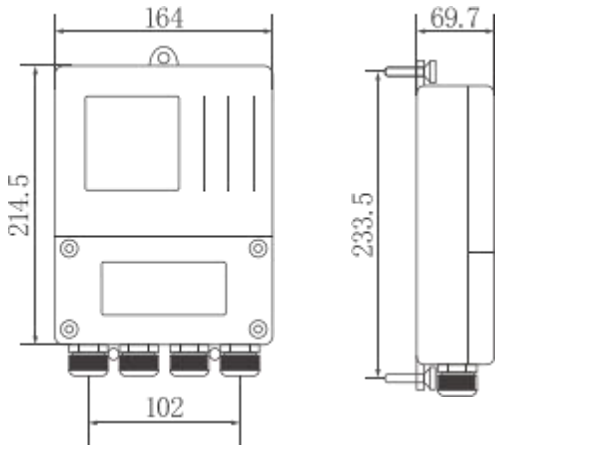
The range can be modified online on-site according to the user requirement

- Excellent anti-corrosion capability, capable of measuring almost any conductive liquid
- Stronge anti-interference capability, virtually unaffected by external disturbances
- Measurement is not influenced by changes in fluid density, viscosity, temperature, pressure and conductivity
- No obstruction components in the measuring tube, no pressure loss, and low straight pipe section requirements
- No moving parts inside the pipeline, no obstruction components, and almost no pressure loss
- Features self-check and self-diagnosis functions
- The range can be modified online on-site according to the user requirement
- Standard with Modbus RTU (RS485) interface and 4 … 20 mA current/pulse output
- Options for separate or integrated display, inertion or flange type, depending on actual working conditions
- Suitable for a wide range of pipe dia: DN10 ~ DN2000

Product Dimensions



F232A Integrated size diagram



F232C Split display size diagram

F232x Flange Type Body Detailed Dimensions（Flange Execution StandardsGB/T 9248-2015）

DN	Inch	D Pipe outer diameter (mm)	L Total length (mm)	n Number of flange holes	Do Screw hole center distance (mm)	d Screw hole diameter (mm)	Rated Pressure Class (High Pressure Customizable) (MPa)
10	3/8″	90	200	4	60	14	1.6
15	1/2″	95	200	4	65	14	1.6
20	3/4″	105	200	4	75	14	1.6
25	1″	115	200	4	85	14	1.6
32	1.2″	135	200	4	100	18	1.6
40	1.5″	145	200	4	110	18	1.6
50	2″	160	200	4	125	18	1.6
65	2.5″	180	200	4	145	18	1.6
80	3″	195	200	8	160	18	1.6
100	4″	215	250	8	180	18	1.6
125	5″	245	250	8	210	18	1.6
150	6″	280	300	8	240	23	1.6
200	8″	335	350	12	295	23	1.6
250	10″	405	450	12	355	25	1.6
300	12″	440	500	12	400	23	1.0
350	14″	500	550	16	460	23	1.0
400	16″	565	600	16	515	25	1.0
450	18″	615	600	20	565	25	1.0
500	20″	670	600	20	620	25	1.0
600	24″	780	600	20	725	30	1.0
700	28″	895	700	24	840	30	1.0
800	32″	1015	800	24	950	33	1.0
900	36″	1115	900	28	1050	33	1.0
1000	40″	1230	1000	28	1160	36	1.0

* The standard flange of this electromagnetic flowmeter is GB/T 9248-2015.
If you need to choose other standard flanges, please consult the sales staff.

Product Application

Electromagnetic flowmeters are widely used in various fields. Large-diameter instruments are often applied in water supply and drainage projects as well as central air conditioning systems. Medium and small diameters are commonly used in high-demand or challenging measurement scenarios, such as cooling water control at blast furnace tuyeres in the steel industry, measuring pulp and black liquor in the paper industry, strong corrosive liquids in the chemical industry, and slurry in the non-ferrous metallurgical industry. Small-diameter and micro-diameter flowmeters are typically used in industries with sanitary requirements, such as pharmaceuticals, food processing, and biochemistry.



Measuring Range

Flow (m^3/h) / Velocity (m/s) / Diameter DN/Inch		Lower Limit	1	2	3	4	Upper Limit
10	3/8″	0.14	0.28	0.57	0.85	1.1	1.4
15	1/2″	0.4	0.65	1.3	1.9	2.5	4
20	3/4″	0.8	1.1	2.3	3.4	4.5	8
25	1″	1.2	1.8	3.5	5.3	7.1	12
32	1.2″	2.0	2.9	5.8	8.7	12	20
40	1.5″	3.0	4.5	9.0	14	18	30
50	2″	5.0	7.1	14	21	28	50
65	2.5″	8.0	12	24	36	48	80
80	3″	12	18	36	54	72	120
100	4″	20	28	57	85	113	200
125	5″	22	44	88	132	177	221
150	6″	32	64	127	191	254	318
200	8″	57	113	226	339	452	565
250	10″	88	177	353	530	707	883
300	12″	127	254	509	763	1017	1272
350	14″	173	346	692	1039	1385	1731
400	16″	226	452	904	1356	1809	2261
450	18″	286	572	1145	1717	2289	2861
500	20″	353	707	1413	2120	2826	3533
550	22″	430	860	1720	2580	3400	4300
600	24″	503	1017	2035	3052	4069	5087
650	26″	600	1200	2400	3600	4800	6000
700	28″	692	1385	2769	4150	5539	6924
750	30″	800	1600	3200	4800	6400	8000
800	32″	904	1809	3617	5426	7235	9043
850	34″	1000	2000	4000	6000	8000	10000
900	36″	1145	2289	4578	6867	9156	11445
950	38″	1300	2600	5200	7800	10400	13000
1000	40″	1412	2826	5652	8478	11304	14130

* The above data represents the default upper and lower limits. For customized range, please consult sales

Technical Data

Measuring Medium

Medium	Water (conductivity > 30 μS/cm Others (conductivity > 30 μS/cm

Flow

Measuring Range	0.7 m/s ... 7 m/s (Customizable)
Accuracy	Class 0.5 (flange type) Class 1.5 (insertion type)
Repeatability	± 0.15% RD

Output

4~20mA(Standard)	Flow
Digital Output	Modbus RTU (RS485) HART (Optional)

Temperature

Measuring Range	-10 … +70 °C
Accuracy	±0.1 °C

Power

DC	22 … 26 VDC, 15W @ 24VDC
AC	100 … 240 VAC, 50/60 Hz, 15W @ 220VAC

Protection Code

Integrated type	IP65
Separated type	Housing IP65 Body IP65 / IP68

Display

Screen	Monochrome LCD screen with white backlight
Resolution	128 × 64 px

Operating Environment

Operating Temperature	Integrated type: -10 °C … 55 °C Separated type sensor part: -10 °C … 60 °C Separated type gateway part: -10 °C … 55 °C
Storage Temperature	-40 °C ... 65 °C
Rated Pressure Class (High Pressure Customizable)	DN10 ... DN250, PN <1.6 MPa DN300 ... DN1000, PN <1.0 MPa DN1200 ... DN2200, PN <0.6 MPa
Burying Capability	< 5m (only for separated type with IP68 casing)
Water Immersion Depth	< 3m (only for separated type with IP68 casing)

Other

Flange	Carbon steel (optional stainless steel / other types customizable)
Diameter	DN10 ... DN2000
Sensor Casing	Standard die-cast aluminum
Lining Material	Neoprene rubber (CR), Polytetra fluoroethylene PTFE (F4), Perfluoroalkoxy (FEP F46), Teflon (PFA)
Electrode	Stainless steel 316L, Hastelloy HB/HC, Titanium, Tantalum, Platinum (Optional)

Order Information

Model	Diameter	Cold/Heat Energy Measurement	HART Comm.	Pressure	Power	Description
F232A-P						Flange integrated type electromagnetic flow meter, with PTFE lining, 4 … 20 mA output, RS485 communication, class 0.5 accuracy
F232A-R						Flange integrated type electromagnetic flow meter, with rubber lining, 4 … 20 mA output, RS485 communication, class 0.5 accuracy
F232B-P						Flange separated type electromagnetic flow meter, with PTFE lining, 4 … 20 mA output, RS485 communication, class 0.5 accuracy
F232B-R						Flange separated type electromagnetic flow meter, with PTFE lining, 4 … 20 mA output, RS485 communication, class 0.5 accuracy
F232C						Insertion separated type electromagnetic flow meter, 4 … 20mA output, RS485 communication, class 1.5 accuracy
	DN10 - DN2000					Norminal Diameter
		V0013 0001				None (Default)
		V0214 0002				With cold/heart energy measurement
			V0013 0001			None (Default)
			V0208 0003			HART protocol output
				PN16		1.6 MPa
				PN25		2.5 MPa
				PN40		4.0 MPa
					V0215 0001	22 … 26 VDC, 15W @ 24VDC
					V0215 0002	100 … 240 VAC, 50/60 HZ, 15W @ 220VAC

* For more selection parameters, please consult sales
* F232C insertion separated type electromagnetic flow meter max operating pressure is 1.7 MPa

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