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PRODUCT CATALOG

Product Catalogue for 2026 - 08



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Electromagnetic Flow Meter



Overview

EDM electromagnetic flow meter does not contain any moving parts, rotating gears or turbines, or bearings. Instead, it relies on two electrodes to measure the density of the induced magnetic field that results from an electrically conductive fluid, such as water, flowing through a pipe. So there is no susceptibility to bearing wear or other mechanical wear-and-tear issues.

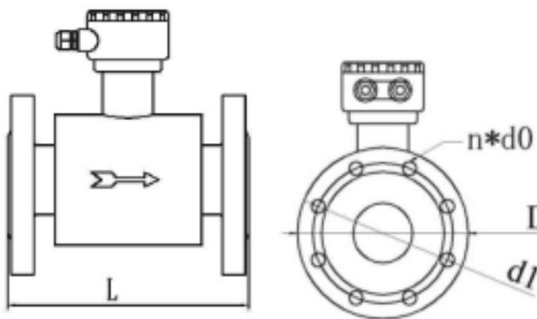
As for the electrodes and the liner used in electromagnetic flow meter, these components can be fabricated from a variety of materials to make the mag meter compatible with virtually various electrically conductive fluid, including aggressive acids.

We provides wide range of electromagnetic flow meters, all fulfilling the highest demands in terms of accuracy and reliability in industries such as water and waste water, food and beverage, mining, pulp and paper.

Features

- Applicable sizes 15~500mm
- Operating pressure: ≤1.6MPa(230psi)
- No moving parts, no pressure loss and require very less maintenance
- Electrode materials: SUS316L, Hastelloy B, Hastelloy C, Ta, Ti, etc.
- It can measure the flow of fluid in the forward and reverse directions.
- RS485 mod-bus communication or 4-20mA output
- 0.5%F.S measuring accuracy

Dimensions



DN	L(PTFE)	L(Rubber /PFA/F46)	D	d1	n*d0
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

Parameters

Measuring principle	Faraday's law of electromagnetic induction
Function	Real-time flow rate, flow velocity, mass flow (when the density is constant), real-time measurement and flow accumulation
Module configuration	Measurement system is made up of signal converter and measurement sensor
Converter	Compact / Integrated Type & Remote / SplitType
Measurement sensor	Nominal Diameter: DN10~DN300
Flange	In line with JB/T9248-2015 standard or BS EN 1092-1 standard carbon steel
Pressure rating High pressure can be customized)	DN15 - DN250, PN≤1.6MPa DN300, PN≤1.0MPa
Lining Material	Neoprene (CR), Polyurethane (PU), PTFE (F4), PFEP (F46), PFA
Electrode Material	316L Stainless Steel, Hastelloy C, Hastelloy B, Ti, Ta, Pt
Ingress protection	Compact / Integrated Type: Ip65 Remote / SplitType : IP65 for transmitter (IP65/IP68 for sensor)
Medium temperature	Neoprene:-10°C ~ 70°C ; Polyurethane:-10°C ~ 60°C PTFE/FEP:-10°C~ 120°C ; PFA:-10°C~ 180°C
Environment temperature	-20°C - 60°C
Storage temperature	-40°C - 65°C
Sensor housing	Carbon steel,stainless steel 304, stainless steel 316L
Power supply	220VAC or 24VDC or 12VDC (Low power consumption) Battery (optional)
Power consumption	Max 15W, minimum 3W (12VDC power supply, suitable for solar power supply occasions)
Graphic display	Monochrome LCD display with white or green backlight
Serial communications	Modbus RS-485
Output	Current (4~20 mA) , pulse , frequency
Function	Empty pipe recognition, electrode contamination,upper limit alarm, lower limit alarm

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Insertion Electromagnetic Flow Meter



Overview

The measuring principle of electromagnetic flow meter is based on Faraday's law of electromagnetic induction. Insertion electromagnetic flow meter is used to measure the flow of conductive liquids. It is available for use in pipes ranging in size from DN100 to DN3000. It can configure thread or flange ball valve to be hot-tapped, which allows sensor to be installed and retracted from process piping without shutting down the process. It's an economic alternative when installed in large pipeline no matter in cost and delivery compared with full bore magnetic flow meter. We provides wide range of electromagnetic flow meters, all fulfilling the highest demands in terms of accuracy and reliability in industries such as water and waste water, food and beverage, mining, pulp and paper.

Features

- Applicable sizes 150~3000mm
- Operating pressure: $\leq 1.6\text{MPa}$ (230psi)
- More economical option for large pipelines flow measurement
- No moving parts, no pressure loss and require very less maintenance
- Hot-tap sensor can be installed and retracted process piping
- conductivity of measured medium: $\geq 50\mu\text{S/cm}$
- Electrode materials: SUS316L, Hastelloy B, Hastelloy C, Ta, Ti, etc.
- The max. distance between sensor and converter: $\leq 50\text{m}$ (165feet)

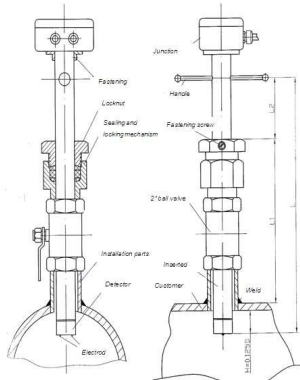
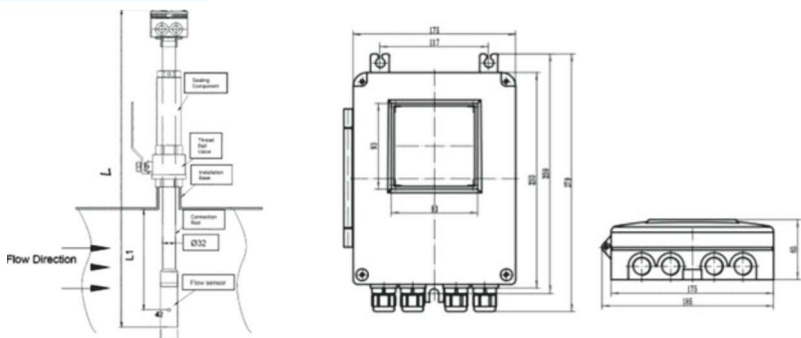


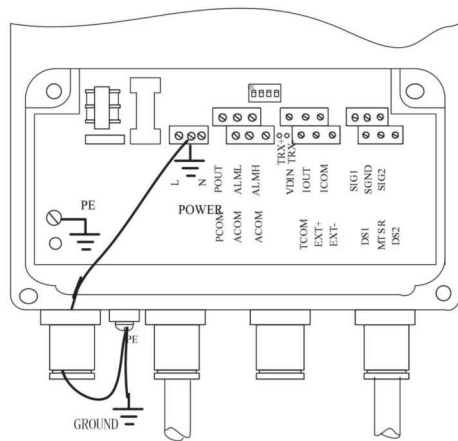
Fig1. The whole structure drawing of sensor with ball valve

Dimensions



Specifications		
Pipe Size	Length (L)	Insertion Length L1
DN $\leq$ 200	480 mm	1/2 DN
400 $\geq$ DN250	580 mm	
1200 $\geq$ DN>400	680 mm	1/4 DN
2000 $\geq$ DN>1400	880 mm	

Wiring



Parameters

Size	DN100-DN3000 (4"-120")	
Accuracy	$\pm 1.5\%$ of reading at flow velocity $\geq 0.5\text{m/s}$	
Velocity	0.1~15 m/s	
Repeatability	$\leq 0.17\%$	
Structure	Compact / remote, cable length 10m standard, 100m max	
Conductivity	$> 5\mu\text{S/cm}$, demineralized water $> 20\mu\text{S/cm}$	
Protection Grade	Transmitter: IP65 standard, IP67 optional	
	Sensor: IP65 standard, IP68 (submersible, only available for remote type)	
Electrode	SS316L, Hastelloy C, Hastelloy B, Titanium, Tantalum, Platinoiridium	
Power Supply	85~250 VAC (50/60 Hz), 8~36 VDC (Optional)	
Power Consumption	$< 20\text{W}$	
Signal Output	Analog	4~20mA (load resistor 0~750 Ω)
	Frequency	Forward & reverse flow output with a frequency range of 1~5000Hz
	Alarm	Two isolated open collector transistor (OCT)
Communication	RS485 MODBUS standard, HART, GPRS, PROFIBUS optional	
Display	LCD Display, 128X128mm, three lines, 4 buttons	
Ambient Temperature	$-20^{\circ}\text{C} \sim 60^{\circ}\text{C}$	
Fluid Temperature	$-20^{\circ}\text{C} \sim 80^{\circ}\text{C}$	
Process connection	G2" thread ball valve	
	DN50 flange ball valve	
Sensor material	Probe material: ABS standard, Polypropylene optional	
	Valve: Ss316	
	Pole: Ss304	
Transmitter Material	Aluminium alloy with epoxy painting	
Nominal Pressure	1.6 Mpa	
Display	Instantaneous flow, total flow, flow velocity	
Function	High and low alarm, empty pipe alarm, exciting alarm, self-diagnosis	
Totalizer	Three built-in totalizers: forward flow, reverse flow and net flow	
Display Unit	L/s, L/m, L/h, m3/s, m3/m, m3/h, UKG, USG, gal/s, gal/m, gal/h, kg/s, kg/m, kg/h, t/s, t/m, t/h	
Language	English, Chinese, Italian, Portuguese, French, Spanish, Korean	

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a Better Way

Digital Water Meter
Ultrasonic series
DN15 ~ Dn40



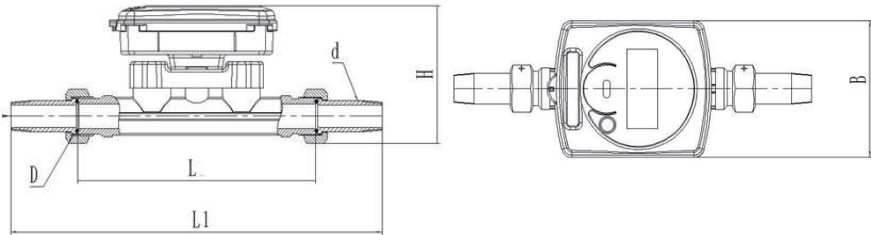
Overview

Ultrasonic water meter is a new type of water meter that measures and displays flow based on the principle of time difference between forward and backward flow when ultrasonic waves propagate in water. The instrument can be equipped with wired or wireless data communication interfaces to communicate with collectors, concentrators, or network servers, forming a remote meter reading management system. The management department can retrieve data from the meter as needed, facilitating the statistics and management of user water consumption. No Moving Parts, high accuracy for years' long. None moving components in flow sensor, avoid long term abrasion of mechanical parts which may result to inaccuracy measurement and failure of meter. Such design is also resistant to impurities, therefore no-inspections and maintenance cost-free.

Features

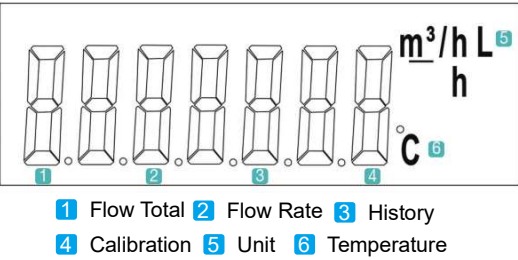
- Low starting rate (5L/h), able to accurate measure;
- No mechanical moving parts, no abrades and has a long serving lifetime;
- No measurement of air;
- Mounting in any installation position; Horizontal or Vertical;
- Support RS-485 - Modbus RTU Communication;
- Suitable for outdoor installation - IP68 waterproof level ;
- LCD Display, 8 digits with power source Battery - Lifetime up to 8 Years.

Dimensions



Nominal Diameter (mm)	Length L (mm)	Length L1 (mm)	Width B (mm)	Hight H (mm)
15	165	260	95	86
20	195	300	95	86
25	225	346	95	89
32	180	305	95	100
40	200	330	95	120

Meter Display Content



Parameters

Nominal Diameters	mm	15	20	25	32	40
Q3/Q1	R200 (R250 Optional)					
Overload Flow Rate (Q4)	m³/h	3.125	5	7.875	12.5	20
Permanent Flow Rate (Q3)	m³/h	2.5	4	6.3	10	16
Transitional Flow Rate (Q2)	l/h	20	32	50	80	128
Minimum Flow Rate (Q1)	l/h	12.5	20	31.5	50	80
Starting Flow Rate	l/h	5	5	8	10	15
Accuracy Class	Class 2					
Temperature Class	T30 / T50					
Max. Admissible Pressure	PN 16					
Pressure Loss Classes	0.04bar					
Electromagnetic Enviromental Class	E1					
Environmental Classification	B / O					
Protection Class	IP68					
Installation Direction	Any angle ; Horizontal and Vertical					
Flow Profile Sensitivity Class	U10/D5					
Battery Lifetime	> 8 years					
Display	LCD, 8 digits + additional characters					
Communication Interface	RS485/ LoRa/NB-IOT/LoRaWAN					

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Digital Water Meter
Ultrasonic series
DN50 ~ Dn300



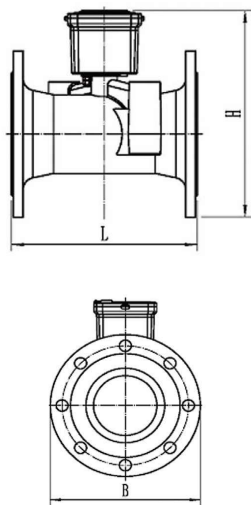
Overview

Ultrasonic water meter is a new type of water meter that measures and displays flow based on the principle of time difference between forward and backward flow when ultrasonic waves propagate in water. The instrument can be equipped with wired or wireless data communication interfaces to communicate with collectors, concentrators, or network servers, forming a remote meter reading management system. The management department can retrieve data from the meter as needed, facilitating the statistics and management of user water consumption. No Moving Parts, high accuracy for years' long. None moving components in flow sensor, avoid long term abrasion of mechanical parts which may result to inaccuracy measurement and failure of meter. Such design is also resistant to impurities, therefore no-inspections and maintenance cost-free.

Features

- Ultrasonic water meter's intelligent measuring instrument is consist by the temperature sensor , flow sensors and calculators;
- No mechanical moving parts, no abrades and has a long serving lifetime;
- Built in lithium battery power supply ensures over (6+1) years of us Built in flash memory 32KB, it can save the data more than 10 years;
- Support RS-485 - Modbus RTU Communication;
- Suitable for outdoor installation - IP68 waterproof level ;
- Countable reverse flow.

Dimensions



DN Size	L	W	H	Flange Connection		
	mm			flange Diameter	Bolt Diameter	Bolt Size-M
DN50	200	170	215	170	125	4-M16
DN65	200	185	220	185	145	4-M16
DN80	225	200	235	200	160	8-M16
DN100	250	220	255	220	180	8-M16
DN125	250	250	285	250	210	8-M16
DN150	300	285	335	285	240	8-M16
DN200	350	340	405	340	295	12-M20
DN250	450	405	470	405	355	12-M24
DN300	500	460	525	460	410	12-M24

Parameters

Nominal Diameter (mm)	50	65	80	100	125	150	200	250	300
Max Flow Q4 (m³/h)	31.25	50	78.75	125	200	312.5	500	787.5	1250
Nominal Flow Q3 (m³/h)	25	40	63	100	160	250	400	630	1000
Transitional Flow Q2 (m³/h)	0.16	0.256	0.4	0.64	1.024	1.6	2.56	4.03	6.4
Min Flow Q1 (m³/h)	0.1	0.16	0.252	0.4	0.64	1	1.6	2.52	4
Protection class	IP68								
Measuring range	Q3/Q1 R125/ R160/ R200/ R250 /R400								
Accuracy Class	Class 2, Class B								
Battery Life	≥8years								
Temperature Class	T30, T50								
Pressure loss Class	ΔP63								
Flow profile sensitivity Class	U10/D5								
Electromagnetic environment class	E1								
Working Pressure	1.6Mpa								
Pressure Loss Classes	0.04bar								
Flow Profile Sensitivity Class	U10/D5								
Installation Position	Horizontal or Vertical								
Customizable special features	Identification ad alarm of pipeline leakage, explosion, and scaling								
Display	LCD, 9 digits + additional characters								
Communication Interface	Rs485 - Modbus RTU/ Pulse output/GPRS/NB-IOT/LoRawan								

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Ultrasonic Water Meter Digital
EWM series



Overview

Reliable and accurate water measurement is crucial for various systems and industries. Unfortunately, the flowmeter industry faces some challenges, including high initial flow rates, inconvenient small flow measurement, inaccurate measurement due to scaling, and unstable or complex connections for remote transmission of flow and pressure.

EDM has developed the latest generation of products: EWM volume intelligent ultrasonic water meter, which can integrate pressure function; High regulation ratio can consider the flow measurement of two types of ultrasonic water meters on the market, named full bore and reduced bore 304 stainless steel is used for one time stretching, colorless electrophoresis to prevent scaling This water meter has been approved by the national health inspection and quarantine department and meets the hydrogene standards for drinking water The protection level is IP68If you are looking for a solution without common problems with traditional flow meters, EWM Bulk intelligent ultrasonic water meters are your best choice. This product has integrated pressure function, excellent accuracy, and excellent remote transmission capability, making it an excellent choice for your next project

Features

- With Rectifier Function, Low Installation Requirement of Straight Pipe
- Suitable For Mass Flow And Tiny Flow Measurement
- The Integrated Design Of Flow, Pressure, Wireless Reading Meets Monitoring Pipeline Requirement
- Configured With Remote Data Collector, Remotely Connect To Smart Metering Platform
- IP68 Protection Class, To Ensure Long Term Underwater Working
- Low Consumption Design, Double D Size Batteries Can Continuously Work For 10 Years
- Bi-directional Measuring Forward And Reverse Flow
- Data Storage Function Can Save 10 Years' Data Including Day, Month And Year 9 Digits Multi-line LCD Display. Can Display Cumulative Flow, Instantaneous
- Flow, Flow, Pressure, Temperature, Error Alarm, Flow Direction etc. At The Same Time.
- Standard RS485(Modbus) And OCT Pulse, A Variety Of Options, NB-IOT, GPRS etc.
- Stainless Steel 304 Material For Drinking Water

Dimensions



n:Bolt Hole Numbers
K:Bole Hole Diameter

Model		EWM								
Nominal Size	(mm)	50	65	80	100	125	150	200	250	300
	(Inch)	2	2 ½	3	4	5	6	8	10	12
L-Standard Length (mm)		200	200	225	250	250	300	350	450	500
L-Custom Length (mm)		280	/	370	370	/	500	500	/	/
B-Width (mm)		162	185	200	220	255	285	340	406	489
H-Height (mm)		258	277	293	307	334	364	409	458	512
h-Height (mm)		74	89	96	106	120	138	169	189	216
D x n		18X4	18X4	18X8	18X8	18X8	22X8	22X8	22X12	22X12
K (mm)		125	145	160	180	210	240	295	350	400
Weight (kg)		9	11.5	13	15	17	32	45	68	96

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Parameters

Model		EWM								
Nominal Size	(mm)	50	65	80	100	125	150	200	250	300
	(Inch)	2	2 ½	3	4	5	6	8	10	12
Overload Flow Q4 (m³/h)		78.75	125	200	312.5	312.5	500	787.5	1250	2000
Permanent Flow Q3 (m³/h)		63	100	160	250	250	400	630	1000	1600
Transitional Flow Q2(m³/h)		0.403	0.640	1.024	1.600	1.600	2.560	4.032	6.400	10.240
Minimum Flow Q1(m³/h)		0.252	0.400	0.640	1.000	1.000	1.600	2.520	4.000	6.400
R=Q3/Q1		250								
Q2/Q1		1.6								
Max. Working Pressure		1.6MPa, 2.5MPa (DN50-DN150),1.0MPa (DN200-DN300)								
Temperature Class		T30, T50, T70, T90 (Default T30)								
Accuracy Class		ISO4064, Accuracy Class 2								
Body Material		Stainless Steel 304 (Opt. SS316L)								
Battery Life		10 Years (Consumption≤0.5mW)								
Protection Class		IP68								
Environmental		-40°C ~+70°C, ≤100%H								
Pressure Loss		ΔP10, ΔP16, ΔP25								
Climatic & Mechanical		Class O								
Electromagnetic Class		E2								
Flow Profile Sensitivity Class		U5/D3 or U3/D0								
Communication		RS485 (Baudrate is adjustable); Pulse, Optional NB-IoT, GPRS								
Display		9 digits multi-line LCD display. Can display cumulative flow, instantaneous flow, pressure, temperature, error alarm, flow direction etc. at the same time								
Connection		Flanges according to EN1092-1 (other customized)								
Frequency		1-4 times/second								
Data Storage		Store the data, including day, month, and year for 10 years. The data can be permanently saved even powered off								

a Better Way



Overview

Parameters

Vortex flowmeter work on the principle of generated vortex and relation between vortex and flow by theory of Karman and Strouhal.

Flange vortex flow meter is used in numerous branches of industry to measure the volume flow of liquids, gases and steam. Applications in the chemicals and petrochemicals industries, for example, in power generation and heat-supply systems involve widely differing fluids: saturated steam, superheated steam, compressed air, nitrogen, liquefied gases, flue gases, carbon dioxide, fully demineralized water, solvents, heat-transfer oils, boiler feedwaters, condensate, etc.

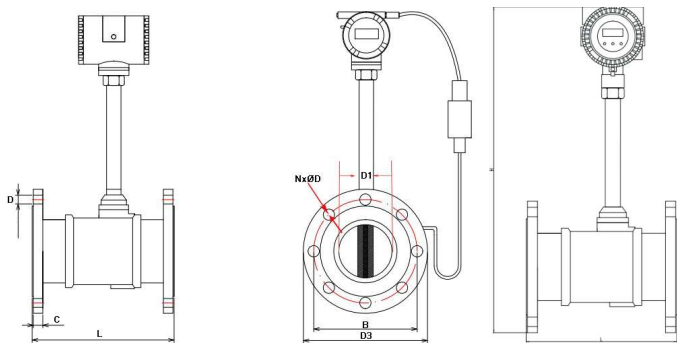
The change of pressure and temperature has great effect on the density of steam. Thus it is very important to implement T & P density compensation to get accurate measurement result of steam.

Features

- Vortex flow meter body is robust and universally applicable for liquids, gases and steam,optimized for steam applications;
- Vortex flow meter adopt Japan OVAL technology and design;
- There is no moving parts, no abrasion, non-wearing parts inside the vortex flow meter sensor, fully welded SS304 body (SS316 selectable);
- Requires very few power consumption: 24 VDC, 15 Watts max;
- With a variety of signals outputs and selection, such as 4-20mA, pulse with HART or pulse with RS485 are selectable;
- In the electronic device of measuring flow, vortex flow meter is the only one could resist wide temperature range up to highest temperature 350°C, digital flow meter highest process temperature.

Dimensions

Size (DN) mm	Size Inc	Length L (mm)	Flange Outer Ø D3(mm)	Central Ø of Bolts Hole B (mm)	Flange Thickness C(mm)	N-ØD (mm)	Height H(mm)	Weight (kg)
25	1	170	115	85	16	4-14	450	6
32	1 ¼	170	140	100	16	4-18	462	6
40	1 ½	190	150	110	16	4-18	465	6
50	2	190	165	125	18	4-18	473	6
65	2 ½	220	185	145	18	8-18	487	6.5
80	3	220	200	160	18	8-18	500	7
100	4	240	220	180	18	8-18	533	7.5
125	5	260	250	210	18	8-18	560	12
150	6	280	285	240	22	8-22	608	18
200	8	300	340	295	22	12-22	640	30
250	10	360	405	355	26	12-26	705	40
300	12	400	460	410	26	12-26	752	55

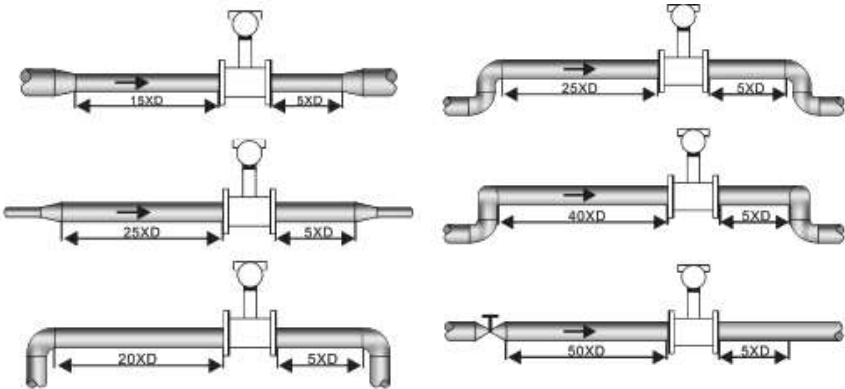
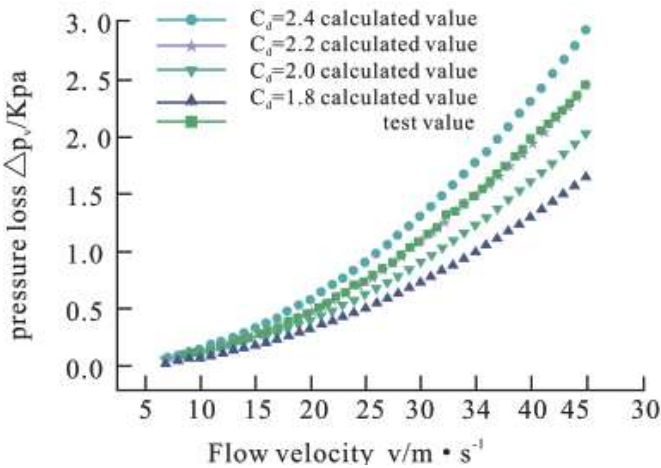


(Flange Connection: DIN2502 PN16)
Structure Drawing

Measured Medium	Liquid, Gas, Steam
Medium Temp.	-40°C ~ +250°C; -40°C ~ 350°C (high temperature type)
Nominal Pressure	0.6MPa, 1.0MPa, 1.6MPa, 2.5MPa, 4.0MPa, Other pressure optional
Accuracy	±1% (Flange type), ±1.5% (Insertion type)
Flow Range	Liquid:0.4-7.0m/s; Gas:4.0-60.0m/s; Steam:5.0-70.0m/s
Specifications Caliber	DN15-DN300(flange), DN80-DN2000(insertion type), DN15-DN100(thread)
Material	SS304 (standard) SS316 (optional)
Reynolds Number	Normal $2 \times 10^4 \sim 7 \times 10^6$
Resistance Coefficient	$C_d \leq 2.6$
Vibration Acceleration	$\leq 0.2g$
IEP ATEX	IIG Exia IICT5 Ga
Ambient Condition	Ambient Temp. : -40°C~65°C (Non ex-proof site), -20°C~55°C (Ex-proof site)
	Relative Humidity : $\leq 85\%$
Power Supply	DC 12-24V or 3.6V lithium battery powered
Signal Output	4-20mA, Pulse
Communication	Rs485 Modbus RTU

Pressure Loss

Straight Pipe Length Recommendation



(D: Nominal Diameter mm)
Horizontal or Vertical (The Flow direction should always be upwards while vertical installation)

Turbine Flow Meter



Overview

Parameters

EDM Turbine flow meter is a low cost liquid turbine flow meter. Turbine flow transducer is based on the principle of moment balance, belonging to the velocity type flow meter.

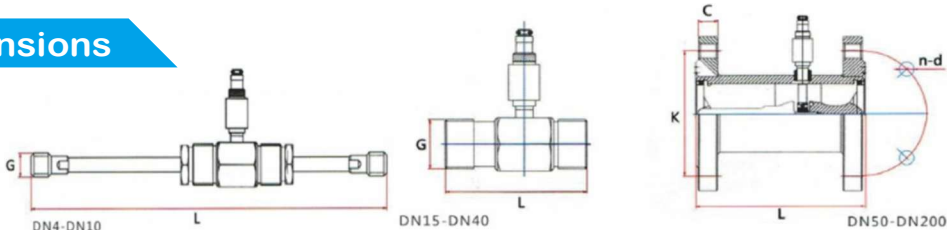
The transducer has a simple structure, lightweight, easy to install and maintain the use, widely used in petroleum, chemical, metallurgy, water supply, paper and other industries, is the flow measurement and energy-saving ideal instrument.

Transducer and display instrumentation used in conjunction, suitable for measuring closed pipeline with stainless steel 1Cr18Ni9Ti, 2Cr13 and corundum Al O23, cemented carbide does not corrode, and no fibers, particles and other impurities in the liquid. If with special functions of the display instrumentation, can also be quantitative control, over the amount of alarm.

Features

- The sensor is of hard alloy bearing thrust type, which may guarantee the precision and improve the wear resistance performance as well.
- Simple and firm structure, easy for installation and dismantling
- Wide range of measuring and extremely low flow rate lower limit
- Small loss of pressure, fine repeat ability and high precision
- High resistance to electromagnetic interference and vibration
- Widely used in petroleum, chemical, metallurgy, water supply, paper-making and other industries
- Can Measure liquid, water, oil and fuel with low viscosity and no impurities

Dimensions



Diameter (mm)	Flange Connection				Length L (mm)	Threaded Connection G	Clamp Type	
	K	d	n	C			D	L
4	Ø60	Ø14	4	14	225	G1/2	-	
6	Ø60	Ø14	4	14	225	G1/2		
10	Ø60	Ø14	4	14	345	G1/2		
15	Ø65	Ø14	4	14	75	G1	36	75
20	Ø75	Ø14	4	16	85	G1	44	75
25	Ø85	Ø14	4	16	100	G1 1/4	52	80
32	Ø100	Ø18	4	18	120	G1 1/2	65	90
40	Ø110	Ø18	4	18	140	G2	74	90
50	Ø125	Ø18	4	20	150	G2 1/2	93	120
65	Ø145	Ø18	4	20	175	G3	106	100
80	Ø160	Ø18	8	20	200	G3 1/2	128	100
100	Ø180	Ø18	8	22	220	G4 1/2	159	100
125	Ø210	Ø18	8	22	250	-		
150	Ø240	Ø22	8	24	300			
200	Ø295	Ø22	12	24	360			

Power Supply		24VDC power supply, current ≤10mA
Output		Pulse, + 4-20mA
Communication		RS485 Modbus
Accuracy		±0.5% or ±1% (for DN 4mm~DN15mm)
Medium temperature		-20 ~ + 100°C
Ambient temperature		-20 ~ + 50°C
Flow Range of Different Pipe Size	4mm	0.04-0.25m³/h
	6mm	0.1-0.6m³/h
	10mm	0.2-1.2m³/h
	12mm	0.4-2m³/h
	15mm	0.6-3.6m³/h
	20mm	0.7-7m³/h
	25mm	1-10m³/h
	32mm	1.5-15m³/h
	40mm	2-20m³/h
	50mm	4-40m³/h
	65mm	7-70m³/h
	80mm	10-100m³/h
	100mm	20-200m³/h
	125mm	25-250m³/h
	150mm	30-300m³/h
	200mm	80-800m³/h
Connection Method		Thread/Flange/Clamp connection
Material		SS304 (Optional: SS316)

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Overview

EDM Oval gear flowmeter is a volumetric meter for continuous or intermittent measurement and control of liquid flow in a pipeline. It has many advantages, such as large range, high accuracy, small pressure loss, strong viscosity adaptability, measurement of high temperature and high viscosity liquid, convenient calibration, installation suggestion and so on. It is suitable for flow measurement in petroleum, chemical, chemical fiber, transportation, commerce, food, medicine and health departments.

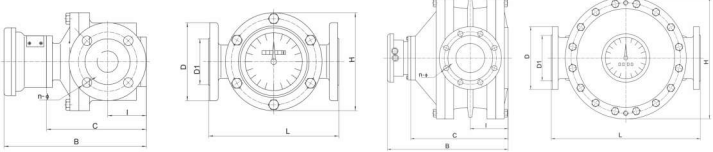
LC series oval gear flowmeter is equipped with a pointer and printing wheel accumulation device, and can directly display the liquid accumulation flow through the pipeline on the spot. The accumulative, quantitative and instantaneous flow remote transmission control can be realized by attaching the transmitter and the electric display instrument to the counting mechanism. High temperature and high viscosity liquid can be measured by adding radiator or ellipsoid under tooth. The flowmeter for different liquids (acids, bases, salts, organic solutions, etc.) can be made of different materials.

LC Series Oval Gear Flowmeter

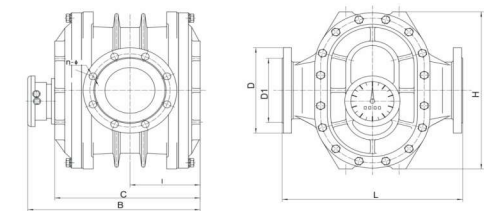


Dimensions

DN	L	H	A	B	D	D1	N	Ø
10	150	100	165	210	90	60	4	14
15	170	118	172	226	95	65	4	14
20	200	150	225	238	105	75	4	14
25	260	180	232	246	115	85	4	14
40	245	180	249	271	145	110	4	18
50	340	250	230	372	160	125	4	18
65	420	325	270	386	180	145	4	18
80	420	325	315	433	195	160	8	18
100	515	418	370	458	215	180	8	18
150	540	515	347	557	280	240	8	23
200	650	650	476	720	335	295	12	23



DN10~DN40 DN50~DN100



DN150, DN200

Above oval gear flow meter drawing is DIN PN16 flange, other standards can be provided on request.
(A) Cast iron type; Cast iron high viscosity type; High temperature cast iron type; Other cast iron type (Units:mm)

Parameters

Transmitter Type	Pointer with zero returning, Pointer display with Output, LCD display
Medium / Application	Oil, Light Palm Oil, Diesel Fuel, Kerone
Accuracy	±0.2%, ±0.5%
Nominal Diameter	DN8~DN200 (1"~4")
Nominal Pressure	1.6~6.3MPa
Medium Temperature	-20 °C~+250 °C
Medium Viscosity	2~10000mPa.s
Power Supply	12VDC, 24VDC
Output Signal	Pulse, 4~20mA, RS485
Display	Accumulative Flow, Single Measurement(Mechanical Dial) Remote transmission of total and instantaneous flow
Error Adjustment	Changing Gear Adjustment
Level Of Protection	IP65
Explosion Proof	Flame-proof Type, ExdIIBT4
Ambient Temperature	-20°C ~+55°C
Sensor Material	Cast Iron, Cast Steel, Stainless Steel
Sensor Connection	Flange, Thread, Tri-clamp



Overview

EDM coriolis mass flow meter is a new type of flow instrument developed by our company based on the Coriolis principle, incorporating leading international technology. It directly measures multiple parameters such as mass flow, density, temperature, and volume low of fluids, unaffected by temperature, pressure, or viscosity. With low pressure loss and no need for straight pipe sections before or after installation, it is ideal for applications involving gas-containing media and high-precision measurement scenarios.

In general, a typical mass flowmeter is made up of a flow sensor and a signal transmitter. The flow sensor is designed to equip two flow tubes for vibration which resulting in signals for pick off; The signal transmitter is employed with digital signal processor (DSP), and dynamic vibration balance (DVB) circuit to deliver fast response but accurate measurement performance. In addition, in situ node-configuration, diagnostics and data recording are easily handled via HART or Modbus RTU communication.

Features

- Robust, no moving parts for long life
- High measurement accuracy: Mass flow accuracy: 0.1% ~ 0.2%
- Excellent repeatability ($\pm 0.05\%$ of flow rate)
- Density measurement resolution: 0.001 g/cm^3
- Temperature measurement error: less than $0.5 \text{ }^\circ\text{C}$
- Flexible installation (no upstream and downstream straight pipe requirements); the sensor has no moving mechanical parts and is easy to maintain
- High stability and wide application range, suitable for measuring various media

Dimensions

Process Conn. Size	L in mm		L1, in mm	H, in mm	H1, in mm	H2, in mm	C max, in mm	Weight, lb kg	
	$\leq 300\#$ (4MPa)	$\geq 600\#$ (6.3MPa)						A.2.1	A.2.2
1/8" (DN3mm)	12.64	13.58	88.98	4.53	9.84	6.69	3.23	11.02	17.64
	321	345	2260	115	250	170	82	5	8
3/8" (DN10mm)	16.69	19.06	11.89	6.06	10.63	7.28	4.33	22.05	28.66
	424	484	302	154	270	185	110	10	13
(DN15mm)	15.75	16.30	11.02	7.52	11.73	8.39	4.53	24.25	30.86
	400	414	280	191	298	213	115	11	14
1" (DN25)	19.69	21.1	14.17	10.16	11.89	8.58	5.91	33.07	39.68
	500	536	360	258	302	218	150	15	18
1 1/2" (DN40mm)	23.62	24.96	18.11	12.05	12.4	9.06	6.5	61.73	68.34
	600	634	460	306	315	230	165	28	31
2" (DN50)	31.5	31.6	25.2	16.14	12.8	9.45	8.07	105.82	112.44
	800	828	640	410	325	240	205	48	51
3" (DN80)	35.43	36.54	27.56	19.49	13.78	10.43	16.38	213.85	220.46
	900	928	700	495	350	265	416	97	100
4" (DN100)	44.49	45.51	33.86	26.18	14.57	11.22	17.32	586.43	593.04
	1130	1156	860	665	370	285	440	266	269
6" (DN150)	57.09	58.66	47.24	35.63	15.75	12.44	21.06	1014.13	1020.74
	1450	1490	1200	905	400	316	535	460	463
8" (DN200)	70.87	72.64	57.09	46.25	16.77	13.46	22.83	1146.4	1153.02
	1800	1845	1450	1175	426	342	580	520	523
10" (DN250)	77.4	78.98	60.24	51.18	18.43	15.08	23.62	1278.68	1285.29
	1966	2006	1530	1300	468	383	600	580	583

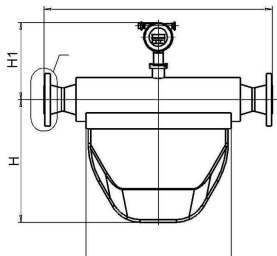


Figure A.2.1

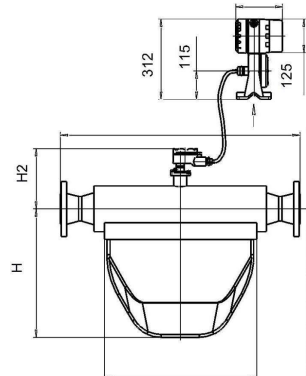


Figure A.2.2

Parameters

Size(Inch)	Flow range fo liquid ; Model: M series Micro bend sensor			Zero stability kg/hr
	Full flow range	Accuracy flow range kg/hr		
		±0.1%	±0.2% & ±0.5%	
1/8"	1.2–120	10–120	6–120	0.004
3/8"	10 – 1,000	100 – 1,000	50 – 1,000	0.045
1/2"	20 – 3,000	300 – 3,000	150 – 3,000	0.09
1"	80 – 8,000	600 – 8,000	300 – 8,000	0.25
1 ½"	240 – 32,000	2,400 – 32,000	1,000 – 32,000	1
2"	500 – 50,000	5,000 – 50,000	2,000 – 50,000	2
3"	800 – 120,000	10,000 – 120,000	6,000 – 120,000	3.5
4"	1,500 – 200,000	20,000 – 200,000	10,000 – 200,000	7
6"	5,000 – 500,000	50,000 – 500,000	30,000 – 500,000	23
8"	10,000 – 1,000,000	70,000 – 1,000,000	50,000 – 1,000,000	45
10"	15,000 – 1,500,000	150,000 – 1,500,000	75,000 – 1,500,000	70
ACCURACY (LIQUIDS)				
Basic Accuracy (Mass Flow) ²	±0.1%, ±0.2% or ±0.5%			
Mass Flow Repeatability	± 0.05% (for 0.1% accuracy), ± 0.1% (for 0.2% accuracy) or ±0.25% (for 0.5% accuracy)			
Basic Accuracy (Volume Flow) ²	±0.4 % (option: up to ±0.15 %) of flow rate			
Repeatability (Volume Flow)	±0.05 % of flow rate			
Zero Stability	±0.01 % of full scale			
ACCURACY (GASES)				
Basic Accuracy (Mass Flow) ²	±1% (option: up to ±0.5 %) of flow rate			
Mass Flow Repeatability	±0.25 % of flow rate			
DENSITY				
Density Range:	up to 2500 kg/m³, 2.5 g/cm³			
Density Accuracy	±1.0 kg/m³, ±0.001 g/cm³			
Density Repeatability	±0.5 kg/m³, ±0.0005 g/cm³			
TEMPERATURE				
Process Temperature Range	-50 °C ... +250 °C (-40 °F ... +212 °F)			
Option	-196 °C ... +55°C (-320.8...131°F)			
Temperature Accuracy	±1 °C ±0.5 % of reading (±1.8 °F ± 0.5% of reading)			
Temperature Repeatability	±0.2 °C (±0.36 °F)			
Ambient Temperature	40 to 131°F (-40 to +55□□			
Output	4-20 mA and Pulse/Frequency, Optional: HART or Modbus RS485			
	Pulse Output: 0 to 10 kHz, 0.001%F.S; Current Output: 4 to 20mA,			
Electronics & Graphic Display	Direct Mount or Remote Mount ; OLED			
Electromagnetic compatibility	Criteria A, complied with IEC 61000-4-2			
Power Supply & IP	85 to 265 VAC, 18 to 36 VDC ; Standard IP65, IP67 for options			

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Wall Mounted Ultrasonic Flow Meter



Overview

EDM Ultrasonic flow meters operate by alternately transmitting and receiving a frequency between two transducers and measuring the time that it takes for sound to travel between the two. The difference in the transit time is directly and accurately related to the velocity of the liquid in the pipe. This wall mount ultrasonic flow meter is designed for use in a closed conduit. The transducers are clamp-on types, which in turn makes for easy installation and operation.

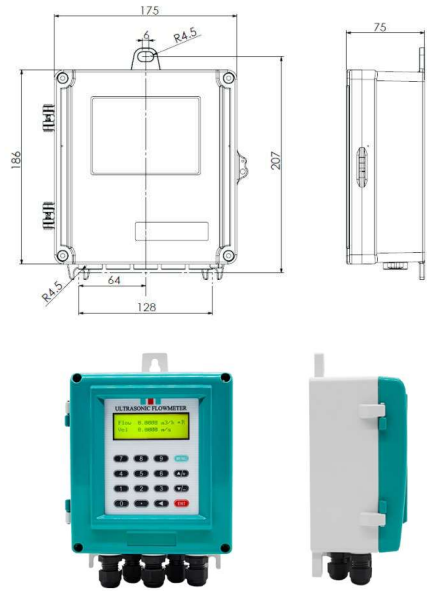
Ultrasonic flow meter, can be used for nearly any liquid from pure water, sewer water, petrol chemicals, metallurgy, electric power plant coolant flow, irrigation, city water, energy monitoring, the meter can indicate flow velocity, flow rate, total flow for nearly any fluid.

Wall mount type ultrasonic flow meter is high reliability of flow meter, widely used in petroleum, chemical industry, food ,electricity, water supply and drainage, etc.

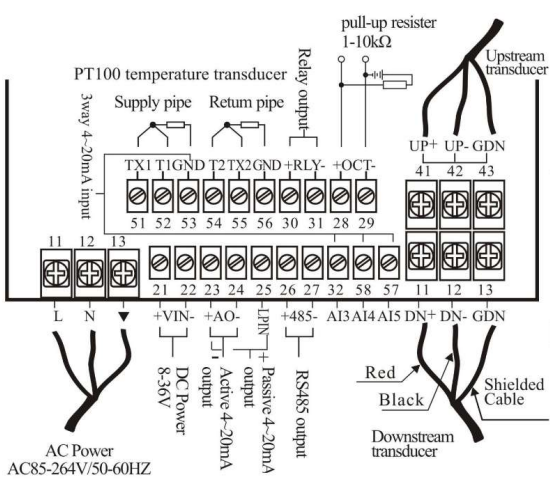
Features

- Pipelines from DN15mm up-to Dn6000mm
- Flow speeds as low as 0.01 m/s and as high as 32 m/s
- Ambient temperatures as low as -65 deg C and as high as +70 deg C and at 100% humidity
- Liquid temperatures in the range of -30 deg up-to 160 deg C
- Accuracy: $\pm 1\%$ of reading at rates >0.2 mps
- Non-contact and low-maintenance sensor
- Highest precision on the basis of individually calibrated ultrasonic transducers and transmitters

Dimensions

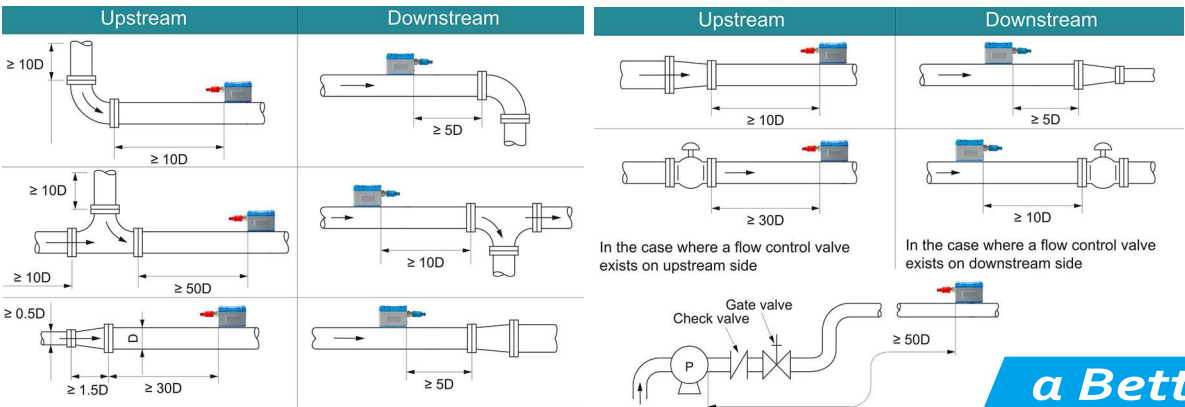


Wiring



Parameters

Measuring Principle	Transit time ultrasonic
Pipe Size	S2 transducer: DN15~DN100 (1/2" ~ 4") M2 transducer: DN50~DN700 (2"~ 28") L2 transducer: DN300~DN6000 (12"~ 240")
Pipe Material	Carbon Steel, Stainless Steel, Cast Iron, Ductile Iron, Copper, PVC, Aluminum, etc
Display	2 line LCD with green backlight
Engineering Units	Flow Unit: cubic Meter, Liter, US Gallon, Million US Gallon, Cubic feet, US liquid barrel, Imperial liquid barrel, Oil barrel Heat Unit: GJ, KC, KWh, BTU
Time units	Second, Minute, Hour, Day
Accuracy	± 1 of reading (0.5 ~ 5 m/s)
Data logger	SD card optional
Repeatability	$\pm 1\%$ of reading
Communication	RS485 - Modbus RTU / ASCII
Keypad	16 key with tactile action
Response Time	0-999 seconds,user chose
Flow Velocity	0.5-10 m/s
Temperature	Transmitter: -30°C~60°C Transducer: -30°C~90°C standard, -30°C~160°C optional
Max.Cable Length	100 meter
Power Consumption	Less than 5W
Power Supply	24VDC and -85 ~264VAC 50/60HZ
Data Storage	Operation parameters,totalization
Output	One way 4-20mA analog, electric resistance: 0~1k, accuracy: 0.1% One way OCT pulse One way Relay
Input	3 ways 4~20 mA analog, accuracy: 0.1%
Protection	Converter and Sensor: IP65; Sensor: IP68 optional



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Module Din Rail Ultrasonic Flow Meter



Overview

EDM Ultrasonic flow meters operate by alternately transmitting and receiving a frequency between two transducers and measuring the time that it takes for sound to travel between the two. The difference in the transit time is directly and accurately related to the velocity of the liquid in the pipe. This din rail ultrasonic flow meter is designed for use in a closed conduit. The transducers are clamp-on types, which in turn makes for easy installation and operation.

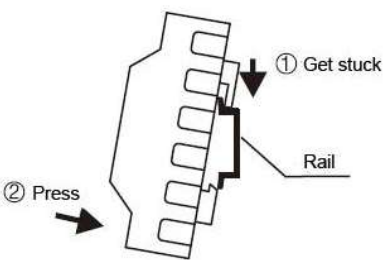
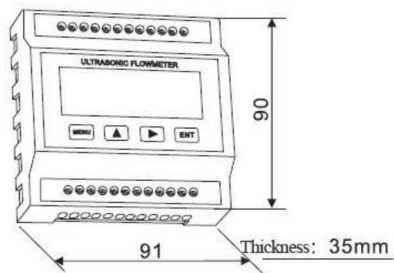
Ultrasonic flow meter, can be used for nearly any liquid from pure water, sewer water, petrol chemicals, metallurgy, electric power plant coolant flow, irrigation, city water, energy monitoring, the meter can indicate flow velocity, flow rate, total flow for nearly any fluid.

Din Rail type ultrasonic flow meter is high reliability of flow meter, widely used in petroleum, chemical industry, food ,electricity, water supply and drainage, etc.

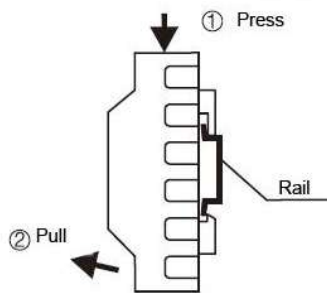
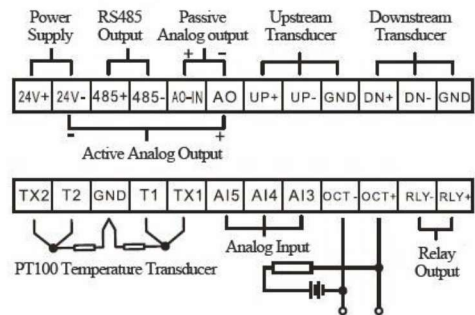
Features

- Pipelines from DN15mm up-to Dn6000mm
- Flow speeds as low as 0.01 m/s and as high as 32 m/s
- Ambient temperatures as low as -65 deg C and as high as +70 deg C and at 100% humidity
- Liquid temperatures in the range of -30 deg up-to 160 deg C
- Accuracy: $\pm 1\%$ of reading at rates >0.2 mps
- Non-contact and low-maintenance sensor
- Highest precision on the basis of individually calibrated ultrasonic transducers and transmitters

Dimensions



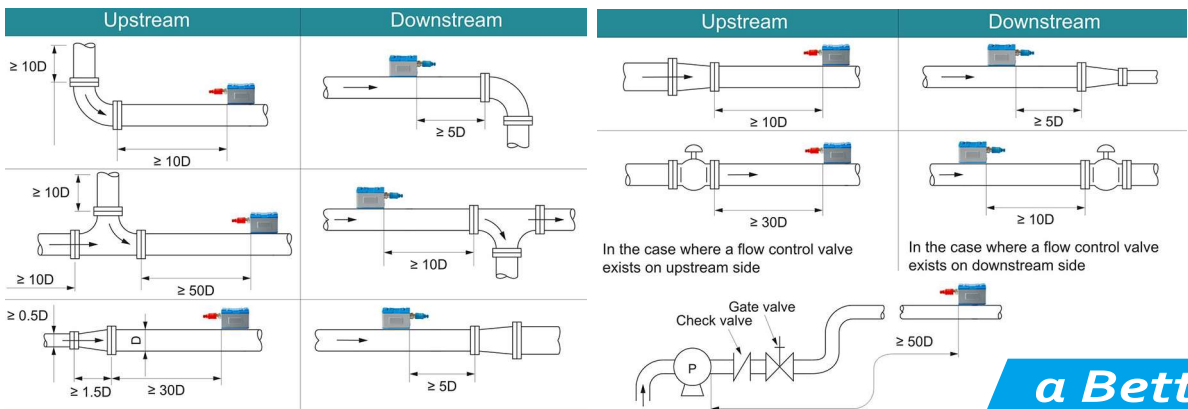
Wiring



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Parameters

Measuring Principle	Transit time ultrasonic
Pipe Size	S2 transducer: DN15~DN100 (1/2" ~ 4") M2 transducer: DN50~DN700 (2"~ 28") L2 transducer: DN300~DN6000 (12"~ 240")
Pipe Material	Carbon Steel, Stainless Steel, Cast Iron, Ductile Iron, Copper, PVC, Aluminum, etc
Display	2 line LCD with green backlight
Engineering Units	Flow Unit: cubic Meter, Liter, US Gallon, Million US Gallon, Cubic feet, US liquid barrel, Imperial liquid barrel, Oil barrel Heat Unit: GJ, KC, KWh, BTU
Time units	Second, Minute, Hour, Day
Accuracy	± 1 of reading (0.5 ~ 5 m/s)
Data logger	SD card optional
Repeatability	$\pm 1\%$ of reading
Communication	RS485 - Modbus RTU / ASCII
Keypad	16 key with tactile action
Response Time	0-999 seconds,user chose
Flow Velocity	0.5-10 m/s
Temperature	Transmitter: -30°C~60°C Transducer: -30°C~90°C standard, -30°C~160°C optional
Max.Cable Length	100 meter
Power Consumption	Less than 5W
Power Supply	24VDC and -85 ~264VAC 50/60HZ
Data Storage	Operation parameters,totalization
Output	One way 4-20mA analog, electric resistance: 0~1k, accuracy: 0.1% One way OCT pulse One way Relay
Input	3 ways 4~20 mA analog, accuracy: 0.1%
Protection	Converter and Sensor: IP65; Sensor: IP68 optional



Note:
D: Inside
diameter of pipe
(mm)

a Better Way

Ultrasonic Flow Meter for Small Pipe



Overview

Parameters

Easily and friendly for installation and operation. It only takes a few minutes, from the start of installation to using the flow meter.

EDM QT811 adopts a new external clamp design, which could get the flow rate without touch the measurement medium. Compared with other traditional flow meter, this could avoid pressure loss or media contamination problems. As the advantage of a clamp on flow meter, no need to cut off the pipe or long time stop the equipment, save the cost of time and labor costs.

A variety of modes are available for setting and flexibility. One set is universal for all pipe size in the measuring range, and suitable for many kinds of metal and resin pipes.

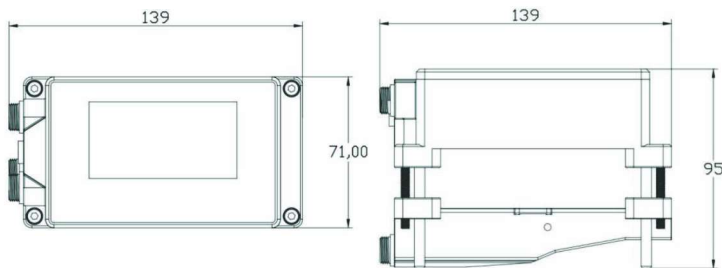
256*128 LCD display. Display a variety of information. It is optional to become an ultrasonic cooling (heat) meter/ btu meter/ energy meter to realize the monitoring and measurement of energy.

Features

- Pipelines from DN15mm up-to DN40mm
- Suitable for various liquids (water, oil, **diesel fuel**, chemical and compatible with various pipeline materials (Metal /PVC, PP or PVDF rigid plastic pipe)
- Accuracy: $\pm 2\%$, (1% after calibration)
- Non-contact and low-maintenance sensor
- Highest precision on the basis of individually calibrated ultrasonic transducers and transmitters

Dimensions

Wiring



Unit: mm

DC +	Power Supply DC10~36V
DC -	
IOUT +	4 -20 mA Output
IOUT -	
A	RS485 Communication Modbus RTU
B	
In2 +	Temperature transducer Outlet
In2 -	
GND	

Parts



Ultrasonic Flowmeter Power Supply Cable Signal Cable Screw Couplant

Measuring Principle	Transit time ultrasonic
Pipe Size	DN15~DN40 (Inner diameter 12mm~ Inner diameter 40mm)
Pipe Material	Metal /PVC, PP or PVDF rigid plastic pipe
Liquid Type	Water, oil, chemical, diesel fuel or other liquid (Single liquid medium without solid particles or impurities)
Display	256*128, LCD
Accuracy	$\pm 2\%$, (1% after calibration)
Data Storage period	300ms
Memory for data backup	EEPROM (Data storage: over 10 years, data read/write frequency: over 1 million times)
Communication	RS485 - Modbus RTU / ASCII
Output	4-20mA
Response Time	0.5~60s
Low velocity cut off value	0.1m/s (default)
Temperature Range	0-75°C (No freezing on the surface)
Power and IO connection	M12 type aviation plug
Power Consumption	< 3W
Power Supply	10-24V VDC
Data Storage	Operation parameters,totalization
(Options for output)	OCT (pulse output)/ One relay alarm (please contact the factory)
Protective circuit	Power reverse connection protection, Power surge protection, Output short circuit protection, Output surge protection
Protection	IP65
Environment temperature	-10°C to 60°C (No freezing)
Relative humidity	35 to 85% RH (No condensation)
Vibration resistance	10~55Hz ; double amplitude 1.5 mm, 2 hours in each XYZ axis
Impact resistant	100 m/s 16 ms pulse, 1000 times each for X, Y and Z axis
Main material	Aluminum, Industrial Plastics
Cable length	2m(standard), PT1000 sensor standard cable length is 9m
Flow Range	DN15: 60 L/m, DN20: 100 L/m, DN25: 200 L/m, DN32: 300 L/m, DN40: 400 L/m

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Handheld Ultrasonic Flow Meter



Overview

EDM Hand Held Ultrasonic Flow Meter is a battery power ultrasonic flow meter, the capability of a full size flow meter. it is carefully designed for portability and easy for use. Wide flow measurement range, from 0 m/s to 32 m/s •Bi-directional measurement, totalizer for net, positive and negative flow

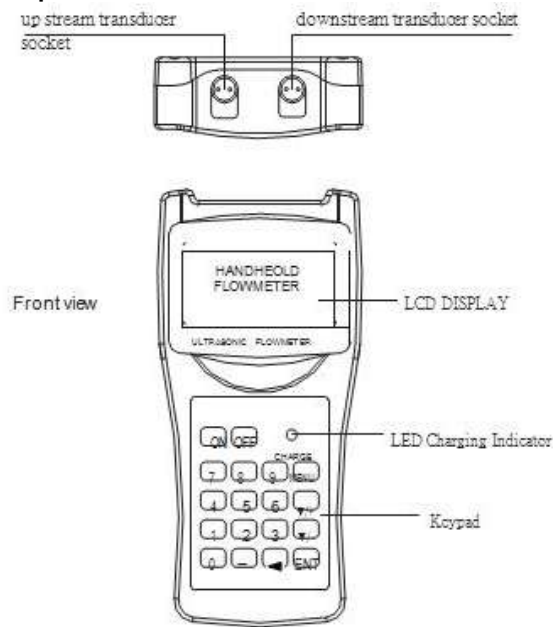
Ultrasonic flow meter, can be used for nearly any liquid from pure water, sewer water, petrol chemicals, metallurgy, electric power plant coolant flow, irrigation, city water, energy monitoring, the meter can indicate flow velocity, flow rate, total flow for nearly any fluid.

Features

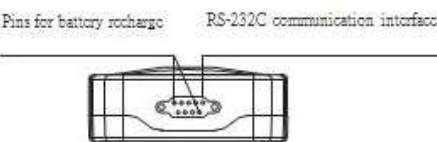
- Pipelines from DN20mm up-to DN6000mm
- Rechargeable battery with 10 hours of operation
- Compact and Portable, Economical and Pratical, can be used for pipeline monitoring, pipeline inspection and easy to carry.
- Easy to use, non-instrusive technology, no need to cut pipe, compatible with many material pipe, suitable for many kinds of pipe
- Accuracy: $\pm 1\%$ of reading at rates >0.2 mps
- Non-contact and low-maintenance sensor
- Highest precision on the basis of individually calibrated ultrasonic transducers and transmitters

Parts Identification Converter

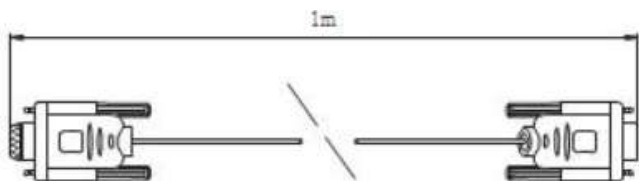
Top View



Bottom View

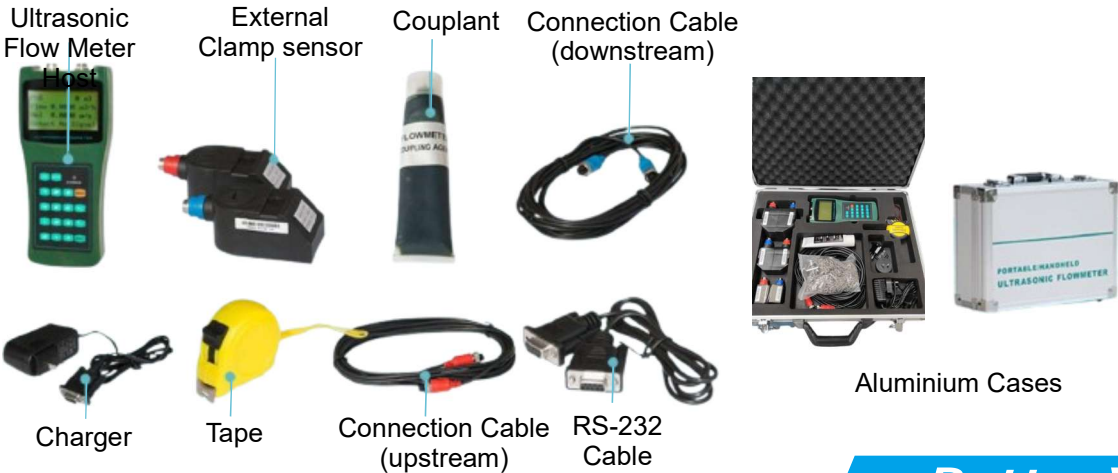


Cable of RS-232C Interface



Parameters

Measuring Principle	Transit time ultrasonic
Pipe Size	DN20~DN6000
Pipe Material	Carbon Steel, Stainless Steel, Cast Iron, Ductile Iron, Copper, PVC, Aluminum, etc
Display	4x8 Chinese Characters or 4x16 English letters
Rate Units	Flow Unit: cubic Meter, Liter, US Gallon, Million US Gallon, Cubic feet, US liquid barrel, Imperial liquid barrel, Oil barrel, User Configurable
Totalizer	7-digits totals for net, positive and negative flow respectively
Liquid Type	Virtually all Liquids
Transducers	Model M1 for standard, other 3 Models for optional
Accuracy	$\pm 1\%$ of reading at rates >0.2 mps
Linearity	0.5%
Repeatability	0.2%
Response Time	0-999 seconds, user-configurable
Security	Setup values modification Lockout, Access code need unlocking
Response Time	0-999 seconds, user-configurable
Velocity	± 32 m/s
Power Supply	3 AAA Ni-H built-in batteries. When fully recharged it will last over 10 hours of operation. 100-240VAC for the charger
Data Logger	Built-in data logger can store over 2000 lines of data
Communication Interface	RS232C, baud-rate from 75 to 57600. Protocol made by manufacturer and compatible with that of the FUJI ultrasonic flow meter. User protocols can be made on enquiry.
Housing Material	ABS
Case	100x66x20mm
Handset Weight	514g (1.2 lbs) with batteries



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a Better Way

Multi-Jet
Water Meter Analog
with RS485-Modbus RTU



Overview

EDM produces photoelectric direct-reading remote-transmitting water meter is a measuring device used to measure the total water volume of the water flowing through the pipeline. It is applicable for small-scale industrial water and household water. This water meter features by large measurement range and high precision. Its measuring properties and other functions are able to meet with the Level-2 accuracy standard and ISO4064 international standard.

MW-MB series photoelectric direct-reading remote-transmitting water meter reads the print-wheel data using the photoelectric direct-reading technology. Compared to traditional pulse meter, its metering error is reduced to zero. It is also an electronic remote-transmitting water meter that achieves zero electro-mechanical transformation error in the automatic meter reading system. Adopting a low-power-consumption design, apart from meter reading and valve operation, otherwise it requires no power supply.

Features

- Magnetic shield, for external magnetic field protection
- Sealed dry register ensures long time clear reading.
- 4 digit counters and 4 pointers for high accuracy measurement readout
- ISO4064 Class B, Accuracy: R=80
- Communication: RS485, Support Modbus-RTU Protocol; Modbus ID programmable
- Horizontal and Easy Installation
- Light Weight & Good Reliability

Dimensions

DN (mm)	15	20	25	32	40
Size (inch)	1/2"	3/4"	1"	1-1/4"	1-1/2"
Length (L)	165	195	225	230	245
Width (W)	99	99	104	104	125
Height (H)	115	115	120	120	160
Connecting Thread D	G3/4B	G1B	G11/4B	G11/2B	G2B

Wiring

RS485 Output:

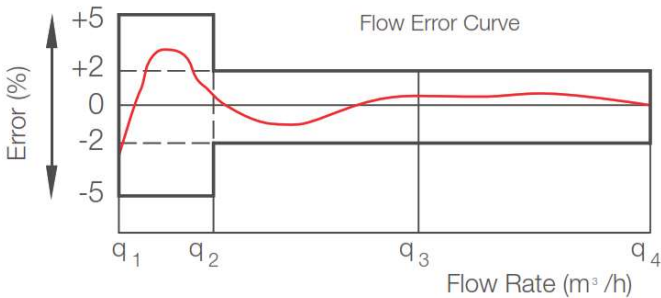
Red	Black	Yellow	Blue
12VDC+	12VDC-	485A	485B



Parameters

Nominal diameter (mm)	DN15	DN20	DN25	DN32	DN40
Overload flow Q_4 (m³/h)	3.125	5.0	7.875	12.5	20.0
Normal flow Q_3 (m³/h)	2.5	4	6.3	10	16
Divide flow Q_2 (m³/h)	0.05	0.08	0.126	0.2	0.32
Min flow Q_1 (m³/h)	0.03125	0.05	0.07875	0.125	0.2
$R Q_3 / Q_1$	80				
Q_2 / Q_1	4				
Maximum reading(m³)	99 999.9999				
Minimum reading(m³)	0.00001				
Accuracy level	Class 2				
Allowed working pressure (Mpa)	≤ 1.6MPa				
Water Temperature	0.1°C ~ +45°C				
Humidity	0 ~ 95%RH				
Temperature class	T30 / T50				
Pressure Level	MAP10				
Pressure Loss Level	ΔP63				
Climate and mechanical	Level B				
Electromagnetic	Level E1; unmeasurable reverse flow				
Shell material	Cast Iron, Brass, Plastic (optional)				
Installation mode	Horizontal installation				

Maximum Permissible Error:



Low Zone ($Q_1 \leq Q \leq Q_2$) Max. Permissible Error $\pm 5\%$
High Zone ($Q_2 \leq Q \leq Q_4$) Max. Permissible Error $\pm 2\%$

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a Better Way

Wolfman Water Meter Analog

with RS485-Modbus RTU



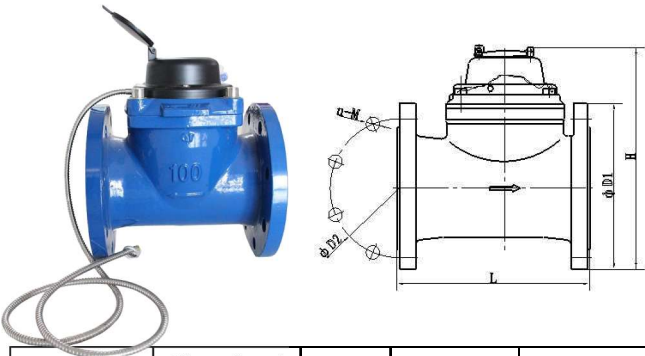
Overview

EDM Woltman water meter has a very wide flow range and is well-suited for use in industrial, waterworks, water distribution, water monitoring, and agricultural applications.

Features

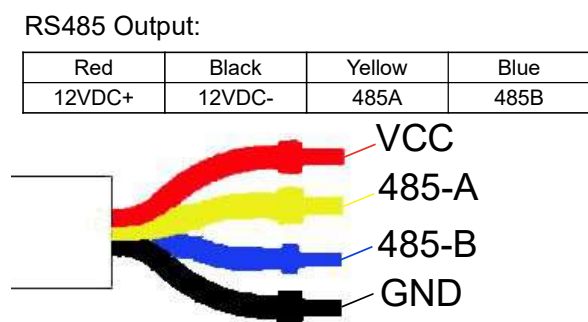
- Removable and interchangeable measuring element, easy to maintain
- Dry type register and vacuum-sealed to prevent water condensation inside and frost resistance
- Magnetic transmission keeps the register completely separate from water
- ISO4064 Class B, Accuracy: R=80 / R100
- Comunication: RS485, Support Modbus-RTU Protocol; Modbus ID programmable
- Large flow capacity and small pressure lose
- Epoxy coated cast iron body with metal protective lid

Dimensions



Type	Nominal Size (mm)	Size (inch)	Length	Width	Height	Outside diameter D	Bolt circle Dia D1	Connecting Bolt (n-Md)
LXLC-50	50	2"	200	170	270	165	125	4-M16
LXLC-65	65	2-1/2"	200	175	270	185	145	4-M16
LXLC-80	80	3"	230	200	285	200	160	8-M16
LXLC-100	100	4"	250	225	290	220	180	8-M16
LXLC-125	125	5"	250	250	300	250	210	8-M16
LXLC-150	150	6"	300	290	350	285	240	8-M20
LXLC-200	200	8"	360	340	385	340	295	8-M20
LXLC-250	250	10"	450	410	450	395	350	12-M20
LXLC-300	300	12"	500	460	500	445	400	12-M20

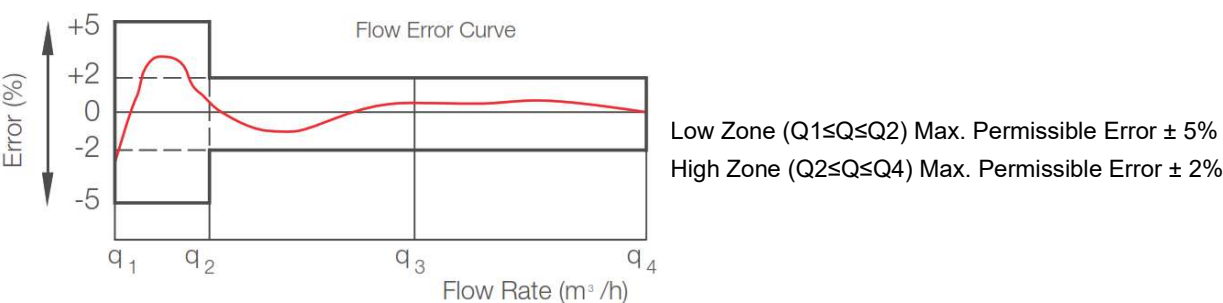
Wiring



Parameters

Nominal diameter (mm)	DN50	DN65	DN80	DN100	DN125	DN150	DN200
Overload flow Q_4 (m³/h)	30.0	50	125	200	312.5	500	787.5
Normal flow Q_3 (m³/h)	15	40	100	160	250	400	630
Divide flow Q_2 (m³/h)	3.0	0.256	2.0	3.2	5.0	8.0	12.48
Min flow Q_1 (m³/h)	0.45	0.16	1.25	2.0	3.125	5.0	7.8
Accuracy level	Class 2, Level B						
Allowed working pressure	≤ 1.6MPa						
Water Temperature	0.1°C ~ +45°C						
Humidity	0 ~ 95%RH						
Temperature class	T30						
Pressure Level	MAP10						
Pressure Loss Level	ΔP63						
Shell material	Cast Iron						
Installation mode	Horizontal Installation						
Protocol	Modbus RTU						
Shell material	Cast Iron						
Baudrate	1200bps, 2400bps, 4800bps, 9600bps						
Operational Voltage&Current	12VDC ±2V, 0.8 ± 0.1mA						

Maximum Permissible Error:



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Gas Meter
G series G1.6 ~ G16
with RS485 Modbus RTU



Overview

EDM meter supply Modbus Gas meter is a widely applicable to the measurement of natural gas, artificial gas, liquefied petroleum gas, etc.

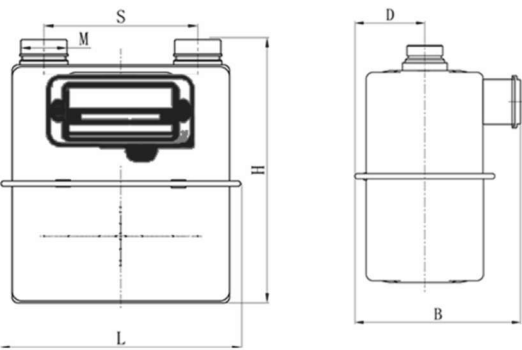
The meter support RS485 Modbus protocol, combined with the meter reading system to establish a remote automatic meter reading management system to truly realize meter reading automation.

The full line RS485 remote transmission gas meter produced by our company has a 485 communication bus interface, which can not only cooperate with the system master station or dedicated PLC equipment to read gas meter data, but also be used separately as a common mechanical gas meter.

Features

- The register displays the total gas consumption
- Protect against strong magnetic, tamper and disassembling
- Easy installation and construction
- Apply to Natural Gas, Biogas, LPG and all non corrosive gas for industrial use
- Body case made through die-casting of high-quality steel
- The outer casing is made of high-quality cold-rolled steel plate, which has excellent shell top coat performance, strong adhesion, and good resistance to deformation and corrosion
- Connected with the host computer, it has been equipped with remote automatic meter management system to achieve fully automatic meter reading.

Dimensions



Model	M(mm)	Size Connector	L(mm)	B(mm)	D(mm)	H(mm)	S(mm)	Weight (kg)
G1.6	M30*2	DN15 DN20	195	166	65	225	130	2.05
G2.5	M30*2	DN15 DN20	195	166	65	225	130	2.05
G4	M30*2	DN15 DN20	195	166	65	225	130	2.05

Wiring



RS485 Output:

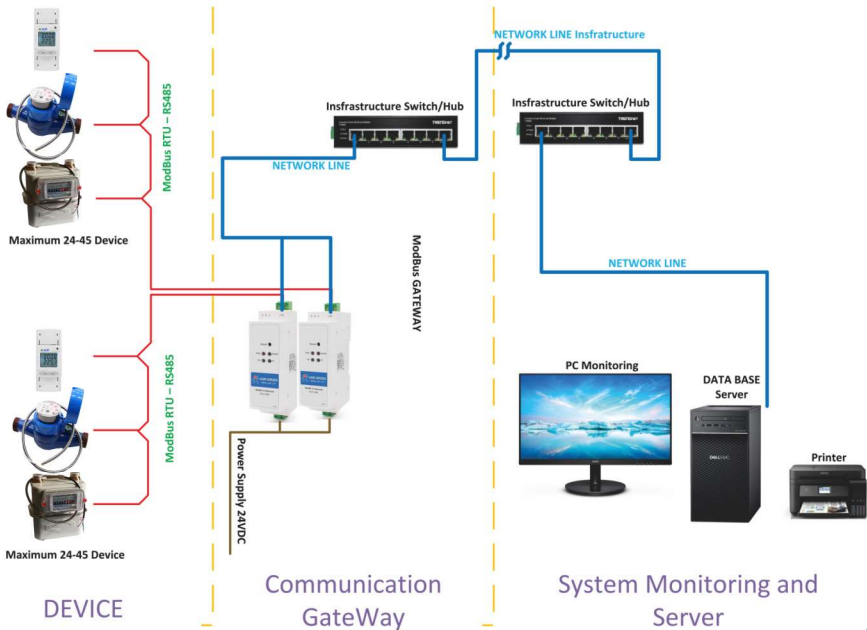
Red	Black	Green	Blue
12VDC+	12VDC-	485A	485B

Model	M(mm)	Size Connector	L(mm)	B(mm)	D(mm)	H(mm)	S(mm)	Weight (kg)
G6	M42*2	DN25	250	192	78	262	160	3.8
G10	M64*2	DN40	285	217	92	335	180	5.3
G16	M64*2	DN40	333	245	106	375	220	8.6

Parameters

The Technical parameters	Unit	G1.6	G2.5	G4	G6	G10	G16
Minimum flow	m³/h	0.016	0.025	0.04	0.06	0.1	0.16
Initial flow	dm³	≤3	≤5	≤5	≤8	≤12	≤12
Maximum flow	m³/h	2.5	4	6	10	16	25
Cyclotron volume (Vc)	dm³	1.2			2.6	5	8
Max. Recording reading	m³	99999.999				99999.99	
Accuracy Level		1.5					
Maximum allowable error	%	(0.1qmax≤q≤qmax)±1.5 (qmin≤q≤0.1qmax) ±3					
Maximum working pressure	kPa	≤75					
Total Pressure absorption	Pa	≤200				≤300	
Working Temperature	°C	-10°~ + 55°					
Storage Temperature	°C	-20°~ + 60°					
Explosion-proof grade	\	Exib II B T3 Gb					
Level of protection	\	IP65					
Communication	\	RS485 - Modbus RTU					

Topology



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a Better Way



Overview

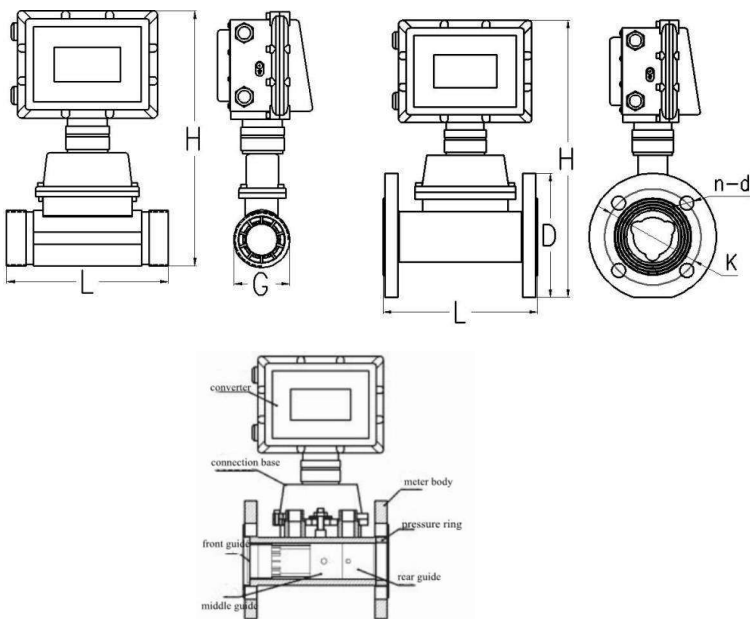
The temperature and pressure compensated gas turbine flowmeter integrates the gas turbine flow sensor and the flow converter, and the main performance indicators have reached the international advanced level. Ideal for metering and gas trade metering.

When the airflow enters the flowmeter, it first passes through the special structure of the rectifier and accelerates. Under the action of the fluid, the turbine overcomes the resistance torque and friction torque and starts to rotate. When the torque reaches equilibrium, the rotational speed is stable, the rotational speed of the turbine is proportional to the gas flow rate, and the magnetic field is periodically changed by the magnet on the rotating signal disk, so that the pulse generator outputs a pulse signal whose frequency is proportional to the flow rate. The microprocessor in the converter counts and calculates the pulse signal to obtain the working condition flow, and detects the temperature and pressure of the medium at the same time, converts the working condition volume flow into standard volume flow according to the volume correction model, and accumulates it to obtain the total standard volume.

Features

- Gas flow sensor High accuracy, standard accuracy:±1.5%R,option±1.0%.
- Gas turbine display can be rotated by 180 degree and easy for installation, it is a kind of digital natural gas flow meter
- Good repeatability, it can be 0.05R-0.2R in short time, so it is good choice for trade purpose measurement, such as for natural gas flow measurement with built-in temperature
- Independent electronics, can be easily replaced and convenient maintenance
- Different kinds outputs ,such as gas flow meter modbus,gas flow meter with Modbus RTU Protocol , gas flow meter with 4-20mA output or pulse output

Dimensions



Caliber (mm)	L (mm)	D (mm)	K (mm)	H (mm)	D (mm)	no (hole count)
25	200	115	85	330	14	4
40	200	150	110	335	18	4
50	200	165	125	370	18	4
65	200	185	145	390	18	4
80	240	200	160	400	18	8
100	300	220	180	425	18	8
125	350	250	210	455	18	8
150	350	285	240	485	22	8
200	400	340	295	545	22	12
250	400	405	355	605	26	12
300	400	460	410	670	26	12

Parameters

Caliber (mm)	Flow range (m³/h)		Max. Pressure Loss (kPa)	Max. Pressure Rating (MPa)
25	S	4 - 40	1.5	1.6
40	S	6 -65	1.5	
50	S	5 - 70	0.5	
	L	6 - 100	1.0	
80	S	8 - 160	1.0	
	L	20 - 400	2.5	
100	S	20 - 400	1.0	
	L	32 - 650	1.5	
150	S	50 - 1000	1.0	
	L	80 - 1600	2.0	
200	S	80 - 1600	0.5	
	L	125 - 2500	1.0	
250	S	125 - 2500	0.5	
	L	200 - 4000	1.5	
300	S	200 - 4000	1.0	
	L	325 - 6500	1.5	
Accuracy	Class 1.5 (Class 1.0 needs to be customized)			

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Micro Thermal Gas Mass Flow Meter



Overview

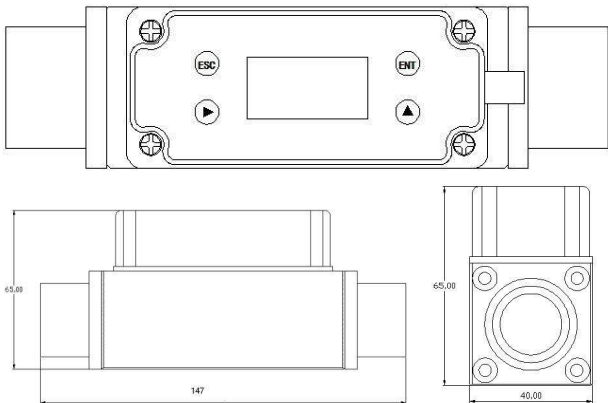
Micro gas mass flow meters is specially designed for the measurement and process control of various types of small flow gases. This series of sensors are made with advanced micro-electro-mechanical system (MEMS) flow sensing chips, and are suitable for all types of clean gases. The Unique packaging technology makes it suitable for a wide range of pipe sizes, low cost, easy installation, no temperature and pressure compensation, and can replace traditional volumetric or differential pressure flow meters.

Micro Gas Mass Flow Meter offers precise gas flow measurement with a compact design, supporting multiple outputs and real-time zero adjustment. Ideal for medical, oil, chemical, and energy sectors, it features a rotatable LCD display, broad rangeability, and robust connectivity options for easy integration and networked management.

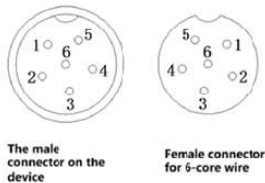
Features

- LCD display instantaneous flow and cumulative flow, clear and intuitive,easy to read
- The zero point stability of the sensor is greatly improved comparedwith the ordinary thermal flow meters.
- Full range high stability.
- Full range precision and excellent repeatability
- Combined with structural optimization, the flow meter can greatly reduce pressure loss and energy consumption compared with traditional mechanical instruments.
- 4~20mA standard signal output and second impulse output to choose.
- RS485 Modbus RTU output communications.

Dimensions



Wiring

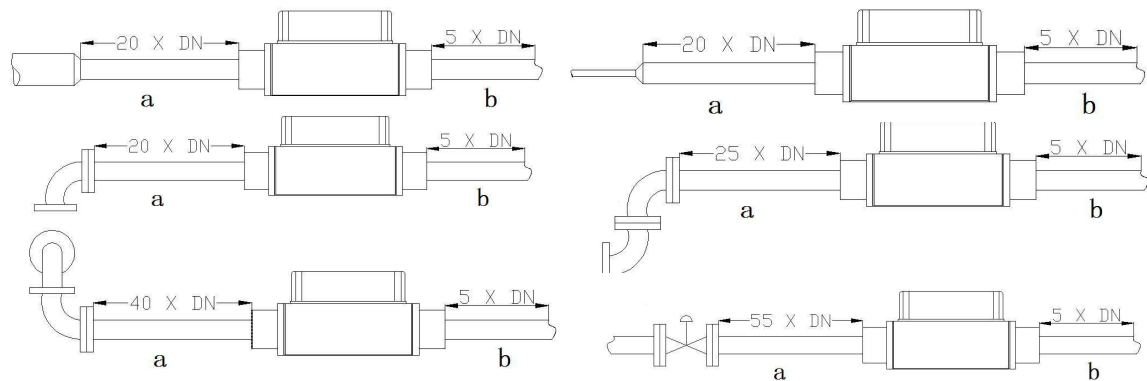


6-core aviation wiring instructions	
identification	meaning
1 -- Red	24V+
2 -- Green	PNP(optional)
3 -- Yellow	RS485 comm. output A
4 -- Black	24V-/ Current I-
5 -- Brown	Current I+
6 -- white	RS485 comm. output B

Parameters

Measurement Range	1.8-180L/min to 25-2500L/min (Various process connections available DN8~DN32 based on flow range)
Measurement Accuracy	±1.5, 0.2 FS %
Display Type	LCD display with 180° rotatable screen
Working power supply & Output	DC15-24V/100mA, 4-20mA, pulse, RS485 Modbus RTU Optional
Housing Material & Protection Class	Aluminum alloy housing, IP52 protection (Base 304SS)
Operating & Storage Temperature	- 10 ~ 55°C ; - 10 ~ 65°C
Operating humidity	<95%RH(no frost, no icing)
Working Pressure	1.6 MPa or less
Type of media	Measure the type of medium, AIR is air (default), N2, O2, CO2, AR, NO, NO2,C2H6, CH4 (LNG/CNG), C3H8 (LPG), MG is mixed gas
Calibration Medium	Air (25°C, 101.325kPa)

Installation Notes



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kWh Meter
STS - Single Phase
keypad Prepaid Energy Meter



Overview

EDM supply Prepaid watt-hour meter **STE18-B** single phase which is completely accord with technical specification of Standard Transfer Specification (STS) encryption protocol which comply to International Standard IEC 62055-31, IEC 62055-41, IEC 62052-11, IEC 62053-21, IEC 62056-21.

STE18-B is used for a wide range of applications, due to an improved dynamic range allowing a basic current of 5 Ampere while retaining a maximum current of 60 Ampere and extended functional features. It is a compact and keypad based design in a BS8565 standard housing and maintains the rugged RF immunity with stand of 30V/m and IP 54 rating, it to be installed in harsh environments. It can be top up by off-line vending software with 20 digital Token and communicate with AMI system via LORA-RF module.

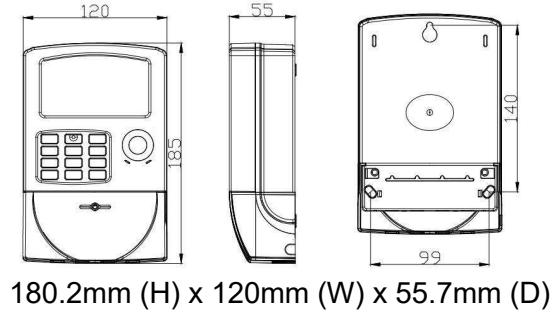
Features

- 20 digit (Standard Transfer Specification) STS encryption off the power supply.
- Detection of significant reverse energy (SRE)
- IEC62056-21 compliant port allowing for easy data interrogation
- Disconnects on overload and no credit
- Programmable load limit and low credit warning
- Detection and record tamper event such as opening cover, reverse connection, black-out
- Easy access to 12 months historical consumption data and last 5 token entered.
- LoRa - RF communication (optional)

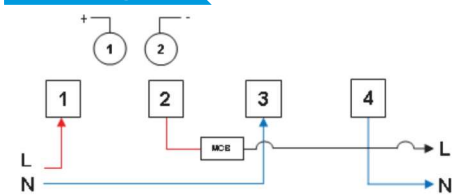
Parameters

Nominal Voltage	220V
Working Voltage Range	70%~120%Un
Nominal Frequency	50-60Hz
Basic Current (Ib)	5A
Maximum Current	60A
Starting Current (Ist)	20mA
Active Energy Constant	1000imp/kWh
Measurement Accuracy	Class 1.0
Power Consumption in	<2W or <8VA
Power Consumption in	<1VA
Operation Temperature	-25°C-70°C
Storage Temperature	-40°C-85°C

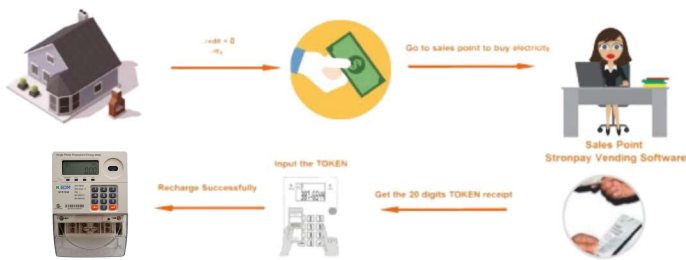
Dimensions



Wiring



System Operations



kWh Meter
STS - Three Phase
keypad Prepaid Energy Meter



Overview

EDM supply Prepaid watt-hour meter **STE38-A** three phase which is completely accord with technical specification of Standard Transfer Specification (STS) encryption protocol which comply to International Standard IEC 62055-31, IEC 62055-41, IEC 62052-11, IEC 62053-21, IEC 62056-21.

STE38-A is used for a wide range of applications, due to an improved dynamic range allowing a basic current of 10 Ampere while retaining a maximum current of 100 Ampere and extended functional features. It is a compact and keypad based design in a BS8565 standard housing and maintains the rugged RF immunity with stand of 30V/m and IP 54 rating, it to be installed in harsh environments. It can be top up by off-line vending software with 20 digital Token and communicate with AMI system via LORA-RF module.

Features

- 20 digit (Standard Transfer Specification) STS encryption off the power supply.
- Detection of significant reverse energy (SRE)
- IEC62056-21 compliant port allowing for easy data interrogation
- Disconnects on overload and no credit
- Programmable load limit and low credit warning
- Detection and record tamper event such as opening cover, reverse connection, black-out
- Easy access to 12 months historical consumption data and last 5 token entered.
- LoRa - RF communication (optional)

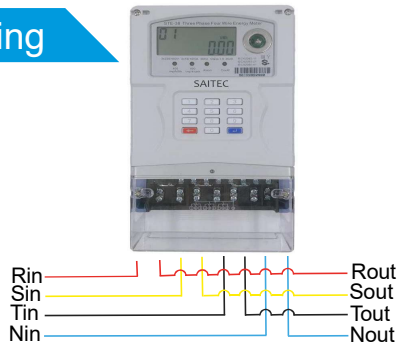
Parameters

Nominal Voltage	3x230V/400VAC
Working Voltage Range	70%~120%Un
Nominal Frequency	50-60Hz
Basic Current (Ib)	10A
Maximum Current (Imax)	100A
Starting Current (Ist)	30mA
Active Energy Constant	400imp/kWh
Measurement Accuracy	Class 1.0
Power Consumption in Voltage	<2W or <8VA
Power Consumption in Current	<1VA
Operation Temperature	-25°C-70°C
Storage Temperature	-40°C-85°C

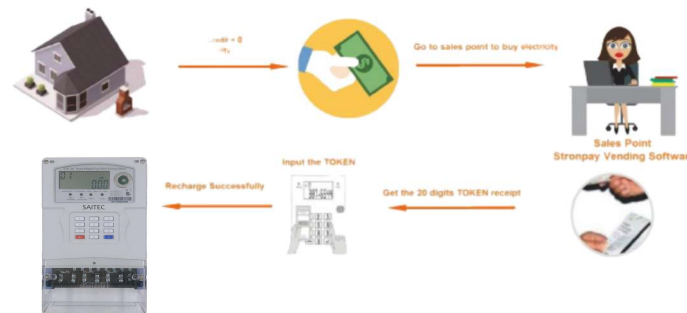
Dimensions

272mm (H) x 170mm (W) x 77.5mm (D)

Wiring



System Operations



Water Meter

STS - Multi Jet

keypad Prepaid Water Meter



Overview

EDM STW36-A is an STS Standard compliant,keypad type, automatically valve controlledMulti-jet prepaid water meter. It can be top up by vending software with 20 digital Token.

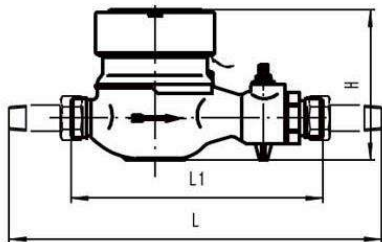
The keypad Prepaid Water Meters is an STS (Standard Transfer Specification) compliant, electronic valve controlled water meter. With STW series you are assured of continuously good metrology and revenue protection at the same time.

It is compatible with both velocity and volumetric type water meter, which comply with OIMLR49, ISO4064. And conforms to STS standard protocol.

Features

- Recharge by inputting 20 digits TOKEN with keypad
- Brass / plastic meter body on request
- Up to 8 years battery life
- Automatic valve controlling
- Wet dial / dry dial register construction on request
- Non- return valve preventing back-flow
- For cold water up to 50°C
- Anti-Tamper Magnetic Field protection
- LoRa - RF communication (optional)

Dimensions



SIZE	DN15 1/5"	DN20 3/4"	DN25 1"
Length (L)	165/190	190	225/260
Width (W)	99	99	103
Height (H)	104	106	114
Connecting Thread	G 3/4 B	G 1 B	G 1-1/4 B

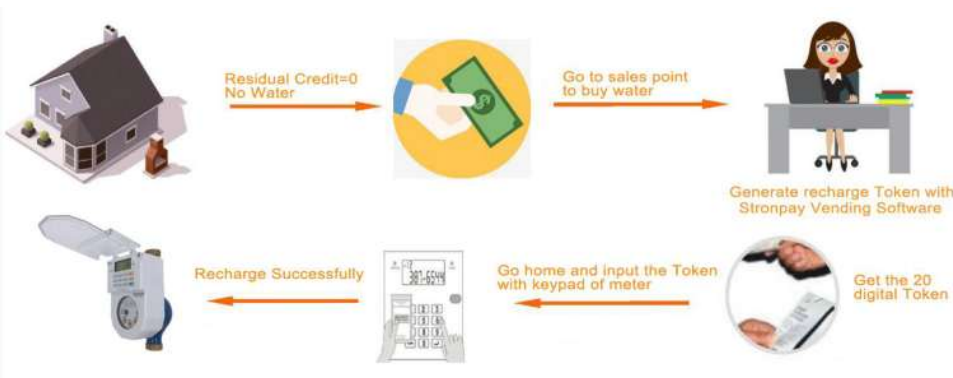
Parameters

SIZE	DN15 1/5"	DN20 3/4"	DN25 1"
Overload flow rate Q4	3.14	5	7.87
Permanent flow rate Q3	2.5	4	6.3
Transitional flow rate Q2	0.04	0.064	0.1
Minimum flow rate Q1	0.025	0.04	0.063
Ratio "R" Q3/Q1	100		
Accuracy Class	2		
Maximum working pressure	16 Bar		
Maximum pressure loss	0.6 Bar		
Maximum reading	99999		
Working temperature	<50°C		
Error	Q1≤Q≤Q2 5%		
	Q2≤Q < Q4 2%		
Temperature Class	T30/T50		
Shell Material	Brass or Plastic		

Liquid Crystal Display



System Operations



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kWh Meter
Single Phase
IC Card Prepaid Energy Meter



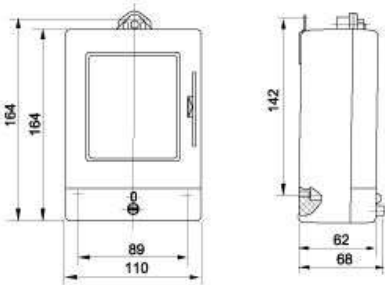
Overview

EDM Metering, supply Prepaid watt-hour meter **EDM MD200-PC** Single-phase Electronic Prepayment Watt-hour Meter is a new designed IC card prepaid meter originated from excellent single phase electronic watt-hour meter, which has many functions such as power metering, load control and users' information management. It's an ideal product to reform the power system, commercialize energy, solve charge problems and adjust the load state.

Features

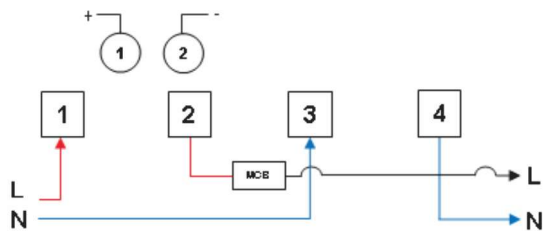
- Surface mounting or hang type
- One card only for one watt-hour meter
- Displayed Parameters : kWh, Voltage, Current, Frequency, Power Factor, Active Power
- Automatic power - cutting off to warn users to purchase power
- IC Card is with data encryption and anti-fake protection;
- When the residual electric quantity reaches the warning value, the kWh meter LED Alarm indicator will flickering, and would switch off automatically after a certain period of time delay;
- When the residual electric quantity in kWh meter remains zero, th kWh meter would trip automatically, and cut off the power supply;
- Programmable load limit and low credit warning;

Dimensions



180.2mm (H) x 120mm (W) x 55.7mm (D)

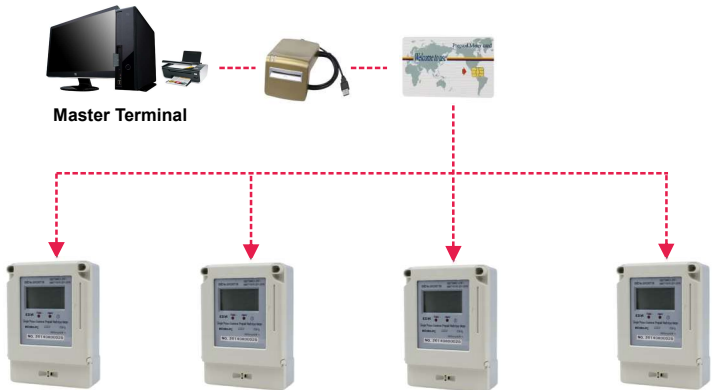
Wiring



Parameters

Nominal Voltage	220V
Working Voltage Range	70%~120%Un
Nominal Frequency	50-60Hz
Basic Current (Ib)	10A
Maximum Current (Imax)	40A
Starting Current (Ist)	0.04A
Active Energy Constant	1600imp/kWh
Measurement Accuracy	Class 1.0
Power Consumption in Voltage Circuit	<2W or <10VA
Power Consumption in Current Circuit	<4VA
Operation Temperature Range	-25°C-70°C
Storage Temperature Range	-40°C-85°C
AC Insulation Strength	4kV at 50Hz during 1min
Impulse voltage 1.2/50 us mains connection	8kV
Electrostatic Discharges	Contact discharge: 8kV; Air discharge: 16kV
Electromagnetic RF Field	27MHz-500MHz: 10V/m; 100KHz-1GHz: 30V/m
Fast transient burst test	4kV
Protection	Class II

System Operation:



- 1. New Customer Registration**
for new customer, the meter details and customer details are entered into the regional Master Terminal.
- 2. Purchasing Credit**
After complete registration at District Office, customer has to purchase credit and the credit value and metering data will be stored into smart card.
- 3. Meter Initialisation**
The customer insert the card into the meter, all information will be transferred to the meter automatically and meter is initialised.
- 4. Metering Data Updating**
The meter writes the metering data into smart card every time when customer charges the card into meter. When customer purchase credit from the district office, all the data will be updated to the system as well.
- 5. Data Storage**
The Server is care of the system which acts as a storage to keep all record prepaid meter customers.

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a Better Way

KWH METER

1 phase

DIGITAL - RS485 MODBUS



KWH METER

3 phase

DIGITAL - RS485



Overview

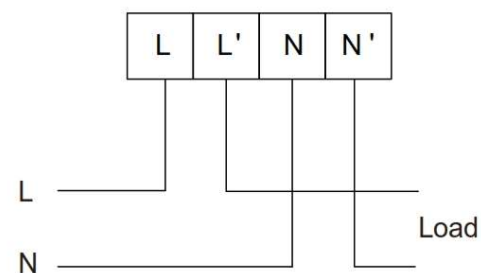
EDM MD200 single-phase electric meter is designed for single-phase energy measurement on low voltage system. The meter meet the related technical requirements of electronic meter in the IEC62053-21, IEC62053-22 standards.

MD200 single phase, which is din rail electronic watt-hour meter “with a blue back-lighted LCD screen for prefect reading” are used to measure single-phase like residential, utility and Industrial application. The unit measures and displays various important electrical parameters, and provide a communication port for remote reading and monitoring. The MD200 is an advanced three phase energy monitoring solution with built inconfiguration push button and LCD data displaying. Its bi - directional measurement make the meter suitable for active and reactive energy and power monitoring applications. With RS485 Modbus port, the meter is easily to remote communicate with other AMR/SCADA systems.

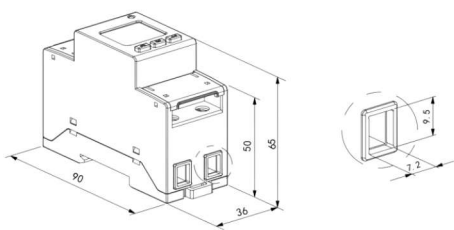
Features

Function	Description	Provide
Measurement of kWh	kWh (positive and negative)	
	kVarh (positive and negative)	
Measurement Electrical	V, I, P, Q, S, PF, Hz	
LCD Display	8 digits	
Key	3 keys	
LED alarm	Voltage loss and Over Voltage	
Pulse output	kWh	
Communication	Infrared	
	RS485, MODBUS-RTU	

Wiring



Dimensions

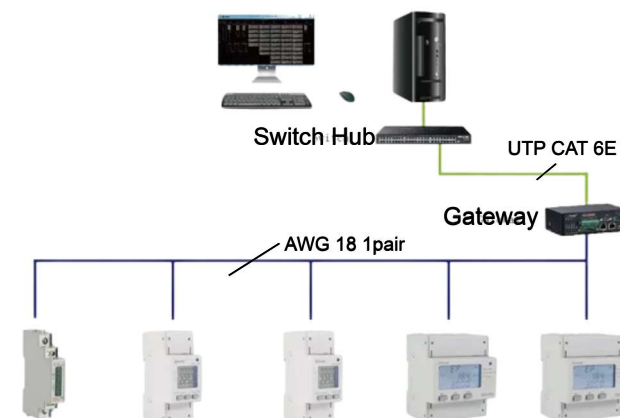


Parameters

Voltage	Reference Voltage	AC220
	Reference Frequency	50Hz
	Power Consumption	<10VA
Current	Basic Current	10A
	Maximum Current	80A
	Consumption	<4VA
energy accuracy	Active Energy	Class1
	clock	≤0.5s/d
active pulse	Width	80±20ms
	Constant	1000imp/kWh
Communication	Interface	RS485
	Protocol	Modbus RTU

Temperature	Working	-25 °C~55 °C
	Storing	-40°C~70 °C
Humidity	≤95%(No condensation)	
Altitude	<2000m	

Network



Overview

EDM MD400 three phase electric meter is designed for three phase energy measurement on low voltage system. The meter meet the related technical requirements of electronic meter in the IEC62053-21, IEC62053-22 standards.

MD400 three phase, which is din rail electronic watt-hour meter “with a blue back-lighted LCD screen for prefect reading” are used to measure single-phase like residential, utility and Industrial application. The unit measures and displays various important electrical parameters, and provide a communication port for remote reading and monitoring. The MD400 is an advanced three phase energy monitoring solution with built inconfiguration push button and LCD data displaying. Its bi - directional measurement make the meter suitable for active and reactive energy and power monitoring applications. With RS485 Modbus port, the meter is easily to remote communicate with other AMR/SCADA systems.

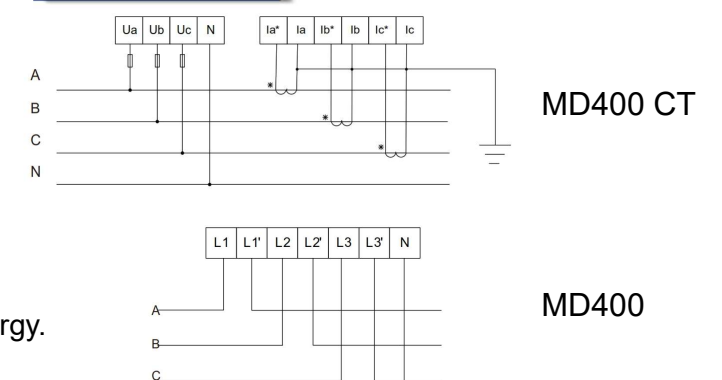
Features

- Max.80A Direct Connect
- Full parameters measured (kWh, kVarh, kVar, kVA, P, F, PF, Hz, V, A, etc)
- Provide RS485 port - Modbus RTU
- Energy Resettable
- Blue Back light LCD Display
- Din Rail Mounting 35mm
- Better than Class 1 or 0.5s accuracy for active energy.

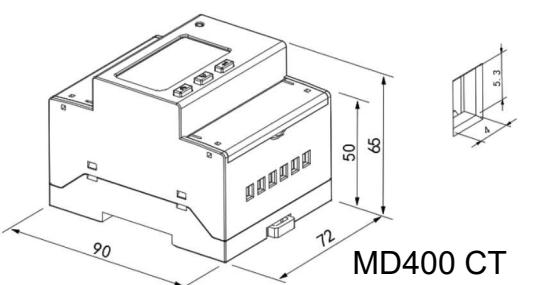
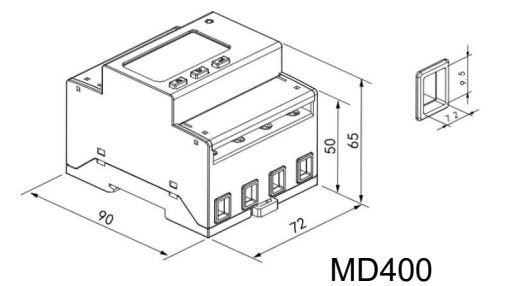
Parameters

Voltage	Nominal Voltage	3×380V, 3×220/380V
	Consumption	<10VA(Single phase)
	Impedance	>2MΩ
	Accuracy	±0.2%
Current	Maximum current	80A,100A , 5A/CT
	Consumption	<1VA
	Accuracy	±0.2%
Frequency	range	45 ~65Hz
	Accuracy	±0.2%
Energy accuracy	Active energy	Class 1 or 0.5s
	Reactive energy	Class 2
Clock	Accuracy	≤0.5s/d
Active Pulse	Width	80±20ms
	constant	1000imp/kWh,400imp/kWh
Communication	Interface	RS485
	Protocol	Modbus RTU

Wiring



Dimensions



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kWh Meter
Single Phase
DIGITAL - RS485 MODBUS
With Relay On-Off



Overview

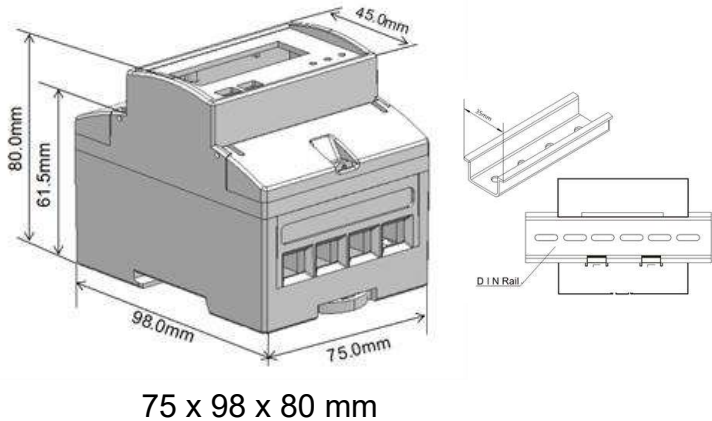
EDM MD200-R is a series of single-phase multifunctional fee-controlled energy meters for power parameter acquisition and analysis as well as remote pull-closing control. The series can support the measurement and analysis of various power parameters, such as voltage, current, four-quadrant power parameters, power factor, etc., and also provide the metering of a variety of power parameters, such as bi-directional active and reactive power, and monthly and daily power consumption statistics. This series of products can support the single-phase two-wire power grid environment to achieve the measurement and analysis of power parameters, and built-in relays, can be realized in the remote pull-closing control, prepaid management control and other functions. This series of products have RS485 communication interface, the highest baud rate support 9600bps, support Modbus and other communication protocols, it is convenient to realize the remote data reading function, and at the same time, it adopts a large LCD and key design, it is convenient to carry out the operation of local viewing and setting of various measurement parameters, the product has a password protection function, which ensures the data security of the product.

The product is a multifunctional fee-controlled power meter designed for campus and park power management, shopping mall power charge management, power system utilities, intelligent building power monitoring needs, and its complete communication function makes it very suitable for various control systems, SCADA systems and energy management systems.

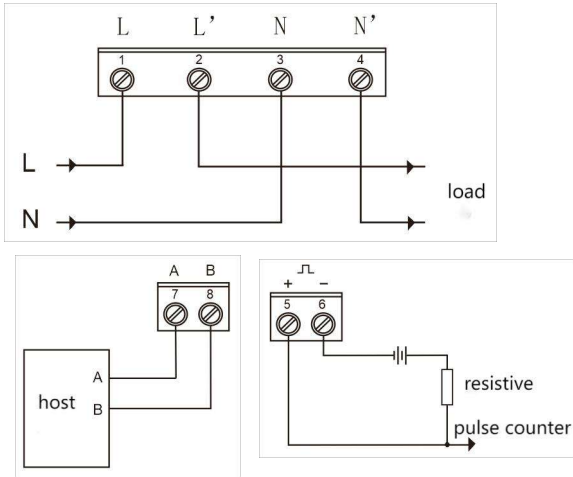
Features

- Standard 4-module width, type din rail mount
- Multi-functional parameter measurement
- Support 1-channel passive pulse output, 1-channel RS485 communication
- Large LCD display with white backlight and adjustable back light illumination time.
- LCD refresh time: 1 second, support manual page flip and automatic rotation display (can be set to switch).
- Built-in relays support remote pull-close control, as well as prepaid management control.

Dimensions



Wiring



Parameters

Access type	Direct access	
Rated voltage	230V	
Voltage range	176~275V AC	
Current rating	5A	
Maximum current	80A / 100A	
Minimum current	0.25A	
Starting current	0.4% times of the rated current	
Power consumption	<2W/10VA	
Frequency	50/60Hz	
Pressure-resistant	4KV/1 min	
Pulse withstand voltage	6KV-1.2us	
Overload	30 times maximum current for 0.01 sec	
Total Active Power	Scope: 0 ~ 999999.999 kWh	
Display	LCD	
Pulse indicator on the panel	Pulse constant is 1000 imp/kWh	
Accuracy	Voltage, Current	±0.5%
	Frequency	±0.2%
	Power Factor	±1%
	Active, Reactive power	±1%
	Apparent power	±1%
	Active energy	±0.5%
	Reactive energy	±2%
	IP Protection Rating	
Instrument housing material fire rating		Display panel part: IP51; Instrument body: IP30
Operating Temperature		UL 94 V-0
Storage Temperature		-25°C~+55°C
Relative Humidity		-40 ~ +80%
Communication		0~90%RH, no condensation
Baud rate		RS485 - Modbus RTU
Communication Response Time		1200, 2400, 4800, 9600 bps (default
Transfer mode		<100ms
Transmission distance		half-duplex
Electromagnetic compatibility		1000 m max.
		Reference standard IEC 61000-4

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SUP-P260
Submersible Level Transmitter



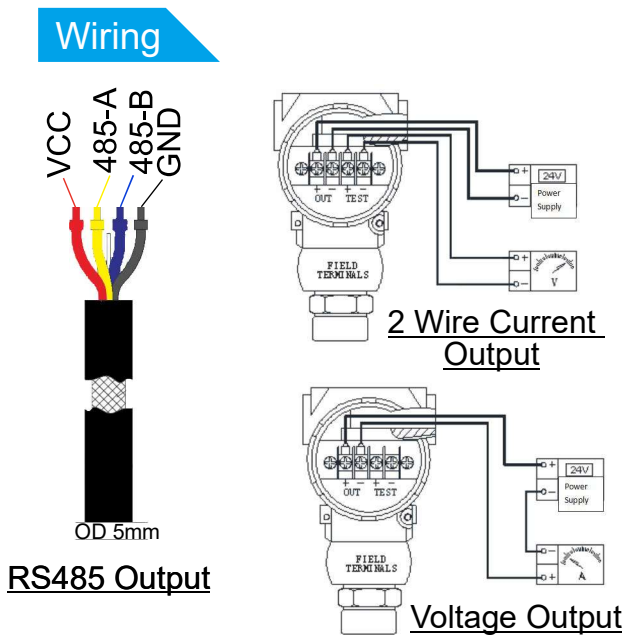
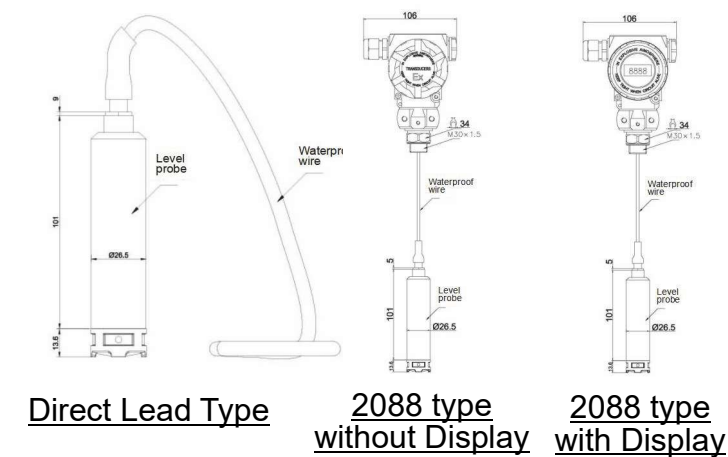
Overview

SUP-P260 submersible liquid level transmitter is based on the principle that the hydrostatic pressure is directly proportional to the height of the liquid, and uses the piezoresistive effect of diffusion silicon to transform pressure into electrical signal. After temperature compensation and linear correction, it is converted to 4-20mA DC standard current signal and output R485 Modbus RTU Communication. It is easy to install and measures accurately. It is widely used in liquid level measurement of various medium in petrochemical, metallurgy, power, pharmaceutical, water supply and drainage, environmental protection and other industries.

Features

- Easy installation, easy to use, strong interchangeability
- Corrosion resistance, power supply is not required
- Good sealing performance, high reliability, safe use
- The high quality sensor with high sensitivity and fast response
- Wide measurement range, free from the limit of height of storage tank
- Strong anti-interference capability
- The anti blocking design can realize the measurement of the level of paste medium
- Various measured medium, not affected by the foaming or deposition of the medium

Dimensions



Parameters

Model	SUP-P260
RANGE	0~0.5M - 200M
Output	RS485,(4~20)mA,(1~5)V,(0~5)V,(0~10)V
Accuracy	0,5%
Supply	(4~20)mA Output, (10~32)V;
Pressure Type	Gage Pressure
Compensation Temperature	(-10~70)°C
Operating Temperature	(-10~65)°C
Storage Temperature	(-40~85)°C
Zero Temperature Drift	±3%FS/10°C
Sensitivity Temperature Drift	±3%FS/10°C
Overload Pressure	150%FS
Mechanical Vibration	20g (20-5000Hz)
Impact	100g (11ms)
Stability	±0.2%FS/Year
Response Time	Current and Voltage Output
Insulation	20MΩ/250VDC
Material	Junction box with low copper aluminum alloy; All stainless steel
Medium compatibility	Various medium compatible
Ingress Protection	IP68(sensor)

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Modulation Wave Radar Level Meter



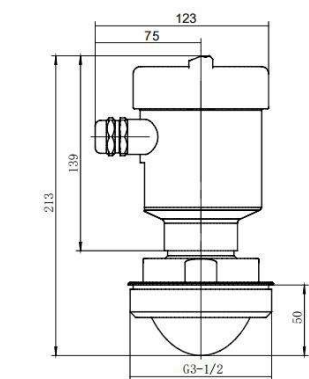
Overview

The 76-81GHz radar level sensor is a radar product using the principle of frequency modulated continuous wave (FMCW), which can be widely used to measure the distance, material height, volume, weight and open channel flow of liquids, slurries and viscous, and can also be used to measure solid media such as powders, granules and blocks. It measures reliably even in dusty, agitated applications. Supports 2-wire and 4-wire applications. The maximum range of the product can reach 120m, and the minimum blind area can reach 0.08m. Due to its higher operating frequency and shorter wavelength, it is particularly suitable for solid-state applications, and the way in which electromagnetic waves are transmitted and received through a lens antenna has unique advantages in high dust, harsh temperature environments (+200°C).

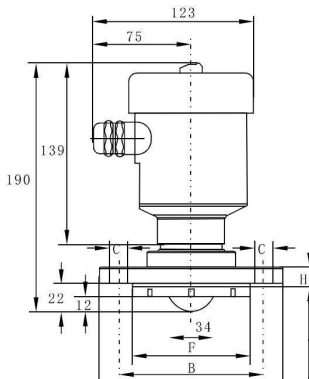
Features

- Millimeter-wave radar, with a measurement accuracy of up to $\pm 1\text{mm}$, and a minimum blind area of 0.1m
- Transmit frequencies up to 76-81GHz enable a more compact RF architecture with a higher signal-to-noise ratio
- Sensitive measurement, fast refresh speed, small antenna size, easy installation, rugged and maintenance-free.
- Non-contact measurement, no wear, no contamination, can measure liquid and solid media.
- The dynamic signal range is larger, and the measurement of low dielectric constant medium is more stable.
- A variety of measurement modes, the radar reaction time in the fast measurement mode is less than 1S.
- The transmitting power is very low, and it can be installed in various metal and non-metal containers, and there is no harm to the human environment.
- The display with buttons makes it easy to set the parameters of the instrument.

Dimensions

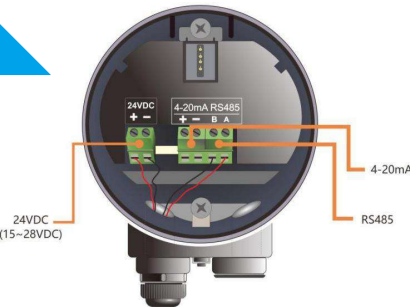


Threaded Connection Type
G1.5-DN40



Flange Connection Type
DN50

Wiring

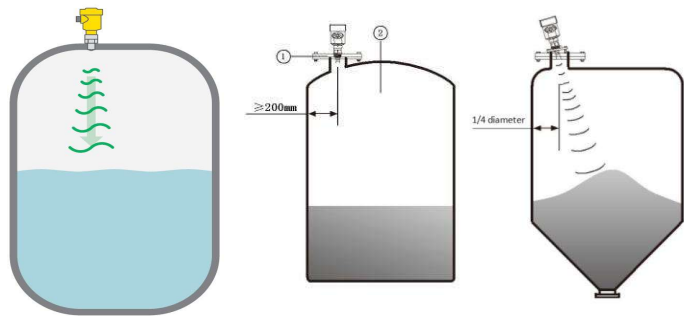


	A	B	C	F	H
D50	165	125	4 - $\phi 14$	90	16

Parameters

Transmit frequency	76-81GHz, FM sweep frequency width 5GHz
Measuring Range	(0.08~120) m
Applications	Liquid and solid powder measure, Chemical industry, Acids, bases or other corrosive media, Mining industry, Sewage treatment, Paper and Pulp Industry, Boiler Engineering, Solids level measurement
Measurement Accuracy	$\pm 1\text{mm}$
Beam Angle	3° ; 8°
Constant Range of Used Dielectric	≥ 2
Power Supply Range	(15~28) VDC; (< 1W), 220VAC
Signal Output	4~20mA, HART bus, RS485 Modbus RTU
Fault Output	3.6mA, 22mA, hold
Interface Operation/Programming	128x64 dot matrix display/four buttons Configurable host computer setting software
Ambient, Temperature/Humidity	(-40~85) $^\circ\text{C}$ / $\leq 95\%\text{RH}$
Housing Material	Aluminum alloy or stainless steel are
Antenna Type	Lens antenna, can be equipped with lens antenna shield/anti-corrosion antenna/antenna heat sink/quartzisolation flange
Process Pressure	(-0.1~4)MPa
Product Dimension	$\phi 100 \times 270\text{mm}$
Cable Entry	M20*1.5 / NPT1/2 "
Recommended Cables	AWG18 / 0.75mm ²
Protection Level	IP68
Install Method	Threads or Flanges
Net/Gross Weight	2.480Kg/2.995Kg

Recommended Installation Location



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Radar Level Transmitter



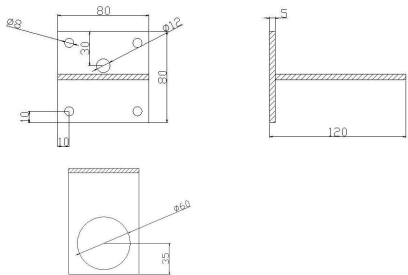
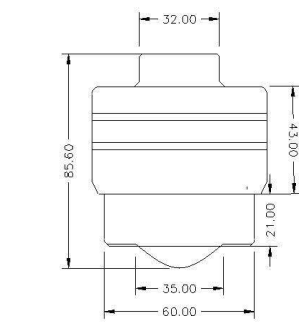
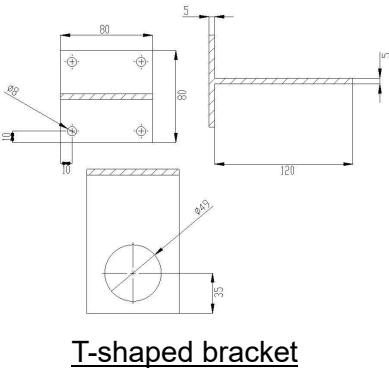
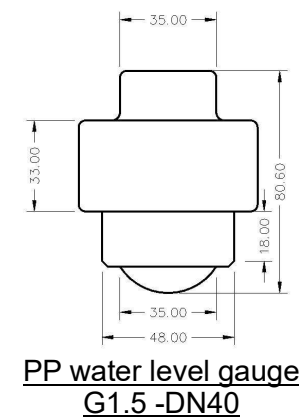
Overview

The radar water level gauge series products refer to frequency modulated continuous wave (FMCW) radar products that operate at 76-81GHz. The maximum quantity of the product can reach 65m, with a blind spot of 10cm. Due to its higher operating frequency, larger bandwidth, and higher measurement accuracy. The product provides a fixing method for the bracket, without the need for on-site wiring, making installation convenient and simple.

Features

- Millimeter wave RF chips achieve a more compact RF architecture, higher signal-to-noise ratio, and smaller blind spots
- The 5GHz working bandwidth enables the product to have higher measurement resolution and accuracy.
- The narrowest 8° antenna beam angle minimizes the impact of interference in the installation environment on the instrument, making installation more convenient.
- Integrated lens design with compact volume.
- Low power operation and long service life.

Dimensions



PP water level gauge G1.5-DN40

T-shaped bracket

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Wiring



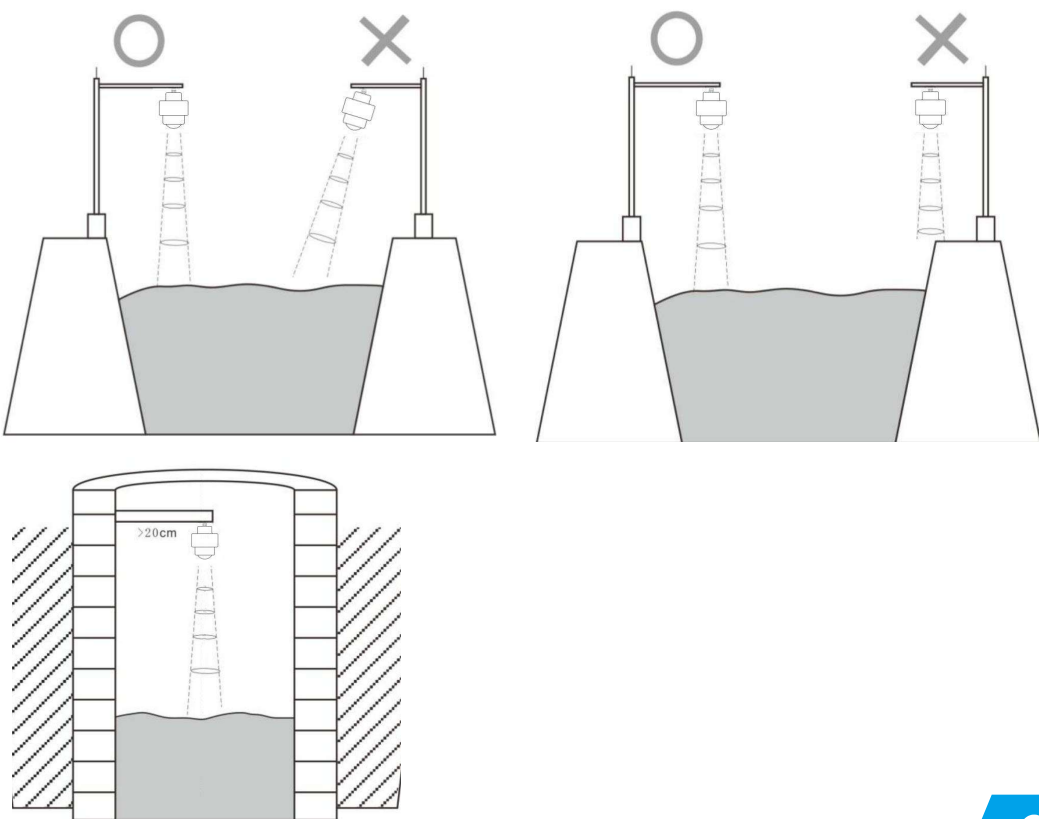
Color	Note
Green	RS485 A
Yellow	RS485 B
Red	Power Input +
Blue	Power Input -

Color	Note
Green	RS485A
Yellow	RS485B
Red	Power input +
Blue	Power input -

Parameters

Transmit frequency	76-81GHz, FM sweep frequency width 5GHz
Measuring Range	0.1 m ~65m
Measurement Accuracy	±1mm
Beam Angle	6°
Working temperature	30~75°C
Power Supply Range	12-24VDC
Signal Output	4~20mA or RS485 Modbus RTU
Shell material	SS /PP
Antenna type	lens antenna
Recommended cables	0.5mm ²
Protection level	IP67
Installation method	Bracket/Thread
Protection level	PG9

Recommended Installation Location



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Pressure Transmitter



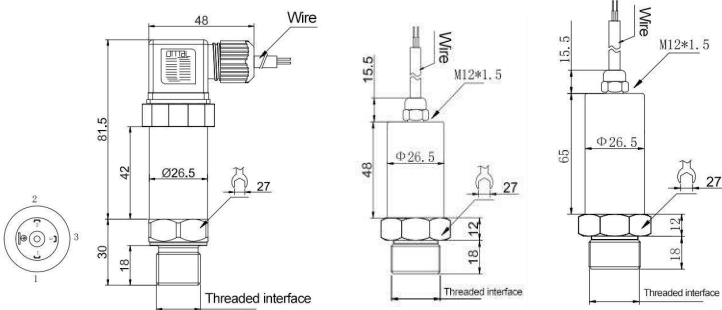
Overview

Pressure transmitter is kind of device based on pressure layer, which inside expert integrate circuit can transform sensor milli-volt signal to standard far distance transmission current signal, and it can be directly joined with computer joint clip, control instrument ,aptitude instrument or PLC etc. conveniently. The series' product is applied extensively in the professions, such as the industry process control, petroleum, chemical engineering and metallurgy etc. Carry the distance delivers and can adopt electric current exportation method. Pressure Transmitter are devices that convert the mechanical force of applied pressure into electrical energy. This electrical energy becomes a signal output that is linear and proportional to the applied pressure.

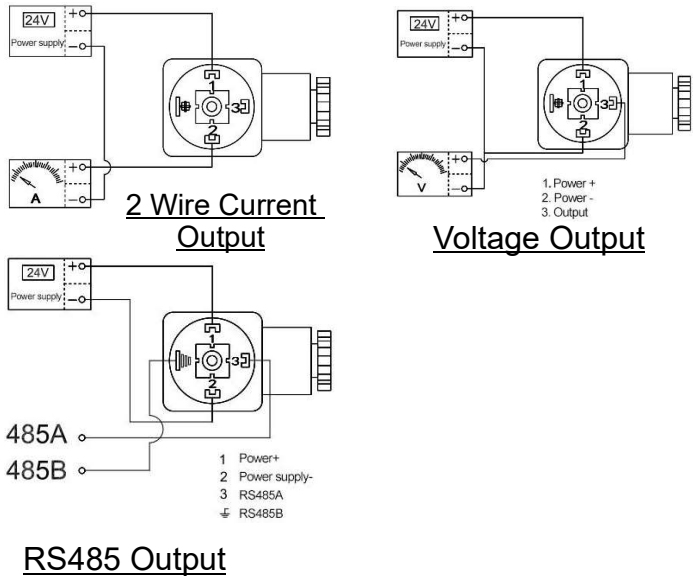
Features

- Compact structure and easy installation
- Advanced Diaphragm/Oil Filled Isolation Technology
- High stability, high reliability
- Anti-vibration, anti-radio frequency interference
- 316L stainless steel isolation diaphragm structure
- High precision, all stainless steel structure.
- Micro amplifier, voltage, current, RS485 signal output
- Wide range with multiple pressure measurement
- Vibration and shock resistance.

Dimensions



Wiring



Parameters

Applications	Dyeing Industry, Air tightness test, HVAC, Water Supply, Agricultural irrigation, Food industry, Mud measurement, Vacuum equipment, Medical equipment
OutPut And Power Supply	(4~20)mA Output (10~32)V (0~10)V Output (12~32)V (0~5)V, (1~5)V, RS485 Output (8~23)V (4~20)mA Output With LCD 4-Digit display meter (17~32)V
Accuracy	0.2%F.S, 0.25%F.S, 0.5%F.S(Optional)
Measuring Range	-0.1MPa...0~10kPa...60MPa
Pressure Type	Gauge pressure, Absolute pressure, Sealing pressure
Thread Type	M20X1.5, G1/2, G1/4, NPT1/4, NPT1/2, M27X2, M14X1.5, other
Temperature compensation	-10~70°C
Operating temperature	-20~85°C
Medium temperature	-20~85°C
Storage temperature	-40~85°C
Ingress Protection	IP65, (option:IP68)
Overloading pressure	0.035~10MPa(150%FS), 10~60MPa(125%FS)
Zero output temperature	±0.3%FS/10°C
Full-Scale output	±0.3%FS/10°C
Long-term stability:	±0.2%FS/year
Response time	Current and voltage output type pressure≤10ms (up to 90%FS);
Insulation resistance	20MΩ/250VDC
Dielectric strength	50Hz, 500VAC
Load Resistance	4~20mA output: $\leq (U-10V)/0.02A$, U is the power supply voltage

Turbidity Sensor



Overview

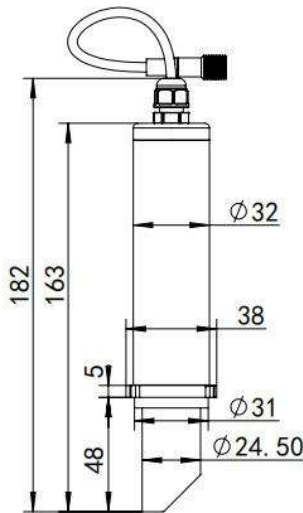
Turbidity Sensor is an instrument that measures water turbidity based on optical principles. Turbidity is caused by suspended particles in the water, which scatter incident light. Typically, scattered light at a 90° angle is used as the measurement signal, and the unit of measurement is NTU (Nephelometric Turbidity Units).

Offering high sensitivity, and incorporates fiber-optic technology to achieve excellent repeatability and stability. An internal filtering algorithm is applied to ensure that measurements are not affected by ambient light. To enable reliable operation across different environments, the sensor also features temperature compensation, minimizing the influence of ambient temperature on measurement results. Our turbidity sensor is available with either a plastic housing or a stainless-steel housing, supports RS485 signal output, and has a smooth exterior design that helps prevent entanglement with aquatic plants.

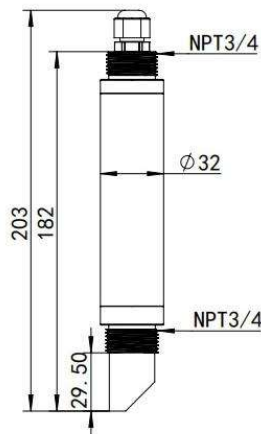
Features

- Compact size, convenient for system integration;
- Uses an advanced optical filtering algorithm to effectively resist interference from ambient light. It operates stably in bright daylight as well as in complex industrial lighting environments.
- Simple structure, easy to clean and maintain;
- Inclined light window, not easy to adhere to air bubbles;
- Sealed structure, resistant to deep water or high pressure;
- IP68 protection, portable installation.

Dimensions

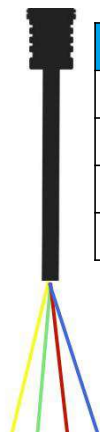


Dimensional Drawing of Snap
Medium range Turbidity Sensor (in mm)



Dimensional Drawing of NPT 3/4 Thread
Medium range Turbidity Sensor(in mm)

Wiring

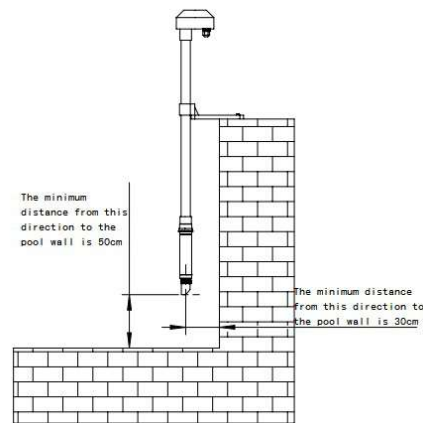
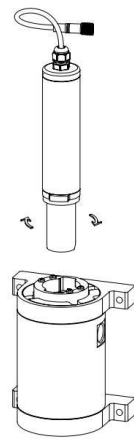
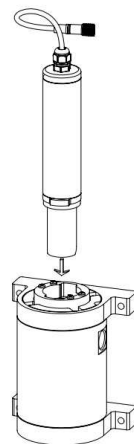


Color	Note
Green	RS485 A
Yellow	RS485 B
Red	Power Input +
Black/blu	Power Input -

Parameters

Power Supply	DC 9-28V
Peak Power	5W
Light Source	860nm laser
Protection Class	IP68
Range	0 ~ 1000NTU
Resolutions	0.01NTU
Lower Measurement	0.05NTU
Zero Drift & Stability	≤ 1.5%
Accuracy	5% or±0.5 NTU (whichever is greater); (based on Formazin primary standard at 25°C)
Repeatability	≤ 1%
Response Time (T90)	≤ 120 seconds
Operating Temperature	-5 ~ 45 °C
Calibration Method	Factory calibrated, use default calibration curve; single point calibration, Formazin two point calibration, 2 to 6 point custom calibration
Withstanding Pressure	0.6MPa
Inlet Flow	100 ~ 1000mL/min (500mL/min recommended)
Dimension	182mm*Φ32
Housing Material	ABS and POM plastic
Connector / Communication	RS485 + 4-20mA interface

Recommended Installation



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MD111C
Gateway Serial Device
RS232/485/422 - Ethernet



Overview

MD111C gateway serial port server provides a solution for protocol conversion between RS232/RS485/RS422 and TCP/IP, meeting the channel requirements for industrial product serial port to Ethernet data transmission. This product integrates Ethernet hardware protocols such as MAC, TCP/IP protocol stack, memory management, 10/100M Ethernet transceiver, high-speed serial port, RS232, RS485, RS422 and other rich hardware interfaces. Based on the FreeRTOS operating system, the product includes a web page for convenient remote configuration, monitoring and debugging. The hardware interface meets the national standard requirements, and ESD supports air discharge $\pm 15\text{KV}$ and contact discharge $\pm 8\text{KV}$. **MD111C** serial server adopts a highly integrated hardware and software platform, which has been optimized for industrial applications, smart grids, personal health and medical applications. Only adding one MD111C product can meet the needs of device data monitoring and transmission.

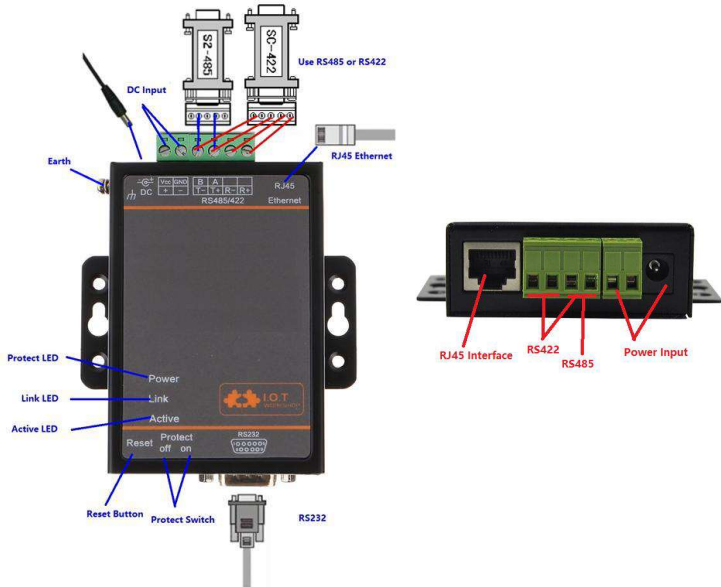
Features

- Adopting Cortex-M3 MCU (128KB SRAM) and 2MB Flash
- Supports TCP/IP/Telnet/Modbus TCP protocols
- Supports serial port to 10/100M Ethernet data transmission, with a maximum serial port speed of 460800bps
- Support web page mode and easy configuration of IOTService PC software
- Support SSL/AES/DES3 secure encryption configuration for data
- Supporting industrial grade working temperature: -40 to $+85^{\circ}\text{C}$
- Wide voltage supply of 5-36VDC (9-50VDC optional)

Dimensions



Pins Definition



Parameters

System Information	
Processor/Frequency	Cortex-M3/96MHz
Flash/SDRAM	2MB/128KB
Operating System	FreeRTOS
Ethernet Port	
Port Number	1 RJ45
Interface Standard	10/100 Base-T Auto-Negotiation
Protection	8KV Isolation
Transformer	Integrated
Network Protocol	IP, TCP, UDP, DHCP, DNS, HTTP Server/Client, ARP, BOOTP, AutoIP, ICMP, Web socket, Telnet, uPNP, NTP, Modbus TCP
Security	TLS v1.2, AES 128Bit, DES3
Serial Port	
Port Number	1 RS232/RS485/RS422
Interface Standard	RS232: DB9, RS485/RS422: 5.08mm connector
Data Bits	5,6,7,8
Stop Bit	1, 2
Check Bit	None,Even,Odd
Baud Rate	TTL: 600 bps~460800 bps
Flow Control	No Flow control, Hardware RTS/CTS, DSR/DTR, Software Xon/ Xoff flow control
Software	
Web Pages	Http Web Configuration, Customization of HTTP Web Pages
Configuration	Web, CLI, XML import, Telnet, IOTService PC Software
Firmware Upgrade	Web, IOTService Tools
Basic Parameter	
Input Voltage	5~36VDC
Working Current	100mA
Power	<400mW
Operating Temp.	-45 ~ 85°C

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MD2211

Gateway Wi-Fi Serial Device Server

RS232/485/422 - Wi-Fi



Overview

MD2211 provides RS232/RS485/RS422 interface to Ethernet/Wi-Fi connectivity to web enable any device. The MD2211 integrate TCP/IP controller, memory, 10/100M Ethernet transceiver, high- speed serial port and integrates a fully developed TCP/IP network stack and ECos OS.The MD2211 also includes an embedded web server used to remotely configure, monitor, or troubleshoot the attached device.

The **MD2211** using highly integrated hardware and software platform. It has been optimized for all kinds of applications in the industrial control, smart grid, personal medical application and remote control that have lower data rates, and transmit or receive data on an infrequent basis

Features

- MIPS MCU with 4MB Flash and 8MB SRAM. Run on eCos
- Supports TCP/IP/Telnet/Modbus TCP protocols
- Support RS232/RS422/RS485 to Ethernet/Wi-Fi Conversion, Serial Speed Up To 230400 bps
- Support STA/AP/AP+STA Mode
- Support Router or Bridge Network Working Mode.
- Support 10/100M Ethernet Auto-Negotiation
- Support Easy Configuration Through a Web Interface or PC IOT Manager Tool
- Support Security Protocol Such As SSL/AES/DES3

Dimensions



Network Structure



Parameters

System Information	
Processor/Frequency	MIPS/320MHz
Flash/SDRAM	4MB/8MB
Operating System	eCos
Ethernet Port	
Port Number	1 RJ45, 1 WAN/LAN switchable
Interface Standard	10/100 Base-T Auto-Negotiation
Protection	8KV Isolation
Transformer	Integrated
Network Protocol	IP, TCP, UDP, DHCP, DNS, HTTP Server/Client, ARP, BOOTP, AutoIP, ICMP, Web socket, Telnet, uPNP, NTP,
Security	TLS v1.2, AES 128Bit, DES3
Serial Port	
Port Number	1 RS232/RS485/RS422
Interface Standard	RS232: DB9, RS485/RS422: 5.08mm connector
Data Bits	8
Stop Bit	1, 2
Check Bit	None, Even, Odd
Baud Rate	TTL: 2400 bps~230400 bps
Flow Control	No Flow control, Hardware RTS/CTS, DSR/DTR, Software Xon/ Xoff flow control
Wi-Fi Interface	
Standard	802.11 b/g/n
Frequency	2.412GHz-2.484GHz
Network Mode	STA/AP/STA+AP ;
Security	WEP/WPA/PSK/WPA2/PSK
Encryption	WEP64/WEP128/TKIP/ AES
Antenna	3dBi Stick Antenna
Basic Parameter	
Input Voltage	5~36VDC
Working Current	200mA
Power	<700mW
Operating Temp.	-25 ~ 85°C

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MD1122

Gateway Serial Device

2 RS232/485/422 - 2 Ethernet



Overview

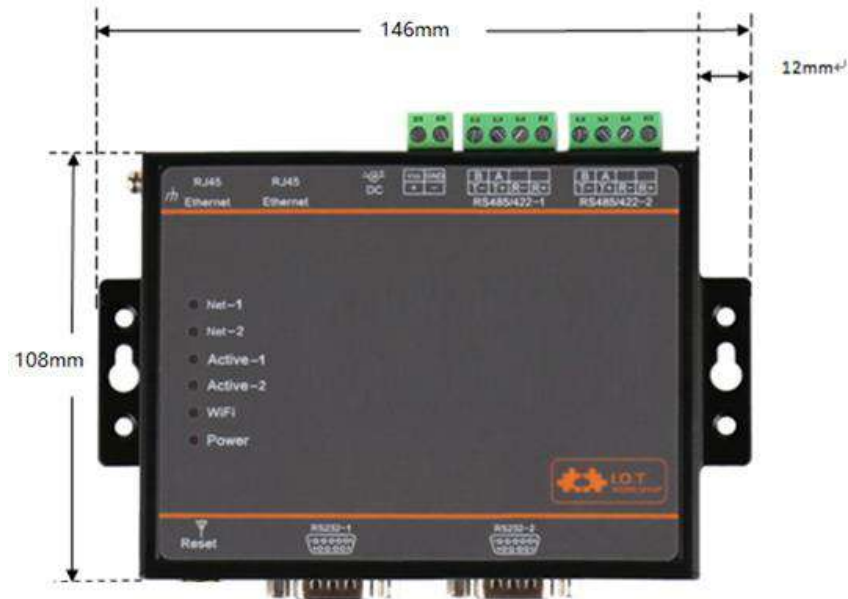
MD1122 gateway serial port server provides a solution for protocol conversion between two RS232/RS485/RS422 and Ethernet channels, meeting the needs of industrial product serial port to Ethernet data transmission channels. This product integrates Ethernet hardware protocols such as MAC, TCP/IP protocol stack, memory management, 10/100M Ethernet transceiver, high-speed serial port, RS232, RS485, RS422 and other rich hardware interfaces. Based on the eCos operating system, the product includes a web page for convenient remote configuration, monitoring and debugging.

MD1122 serial server adopts a highly integrated hardware and software platform, which has been optimized for industrial applications, smart grids, personal health and medical applications. Only adding one MD1122 product can meet the needs of device data monitoring and transmission.

Features

- Using MIPS MCU (8MB SRAM) and 4MB Flash, based on eCos operating system
- Supports TCP/IP/Telnet/Modbus TCP protocols
- Supports 2-channel RS232/RS422/RS485 to Ethernet data transmission, with a maximum serial port speed of 230400 bps
- Supports 2 Ethernet interfaces
- Support web page mode and easy configuration of IOTService PC software
- Support TLS/AES/DES3 secure encryption configuration for data
- Support web OTA wireless upgrade

Dimensions



Size: 108 x 146 x 25mm (L x W x H)

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Perubahan DATA TEKNIS dapat dilakukan tanpa pemberitahuan.

Parameters

System Information	
Processor/Frequency	MIPS/320MHz
Flash/SDRAM	4MB/8MB
Operating System	eCos
Ethernet Port	
Port Number	2 RJ45; 1 WAN/LAN switchable, 1 LAN
Interface Standard	10/100 Base-T Auto-Negotiation
Protection	8KV Isolation
Transformer	Integrated
Network Protocol	IP, TCP, UDP, DHCP, DNS, HTTP Server/Client, ARP, BOOTP, AutoIP, ICMP, Web socket, Telnet, uPNP, NTP, Modbus TCP
Security	TLS v1.2, AES 128Bit, DES3
Serial Port	
Port Number	2 RS232/RS485/RS422
Interface Standard	RS232: DB9, RS485/RS422: 5.08mm connector, Support one channel of RS232/RS422/RS
Data Bits	8
Stop Bit	1, 2
Check Bit	None, Even, Odd
Baud Rate	TTL: 2400 bps~230400 bps
Flow Control	No Flow control, Hardware RTS/CTS, DSR/DTR, Software Xon/ Xoff flow control
Software	
Web Pages	Http Web Configuration, Customization of HTTP Web Pages
Configuration	Web, CLI, XML import, Telnet, IOTService PC Software
Firmware Upgrade	Web, IOTService Tools
Basic Parameter	
Input Voltage	5~36VDC
Working Current	~200mA
Power	<700mW
Operating Temp.	-25 ~ 85°C

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