

PMH **series**

Electromagnetic Energy Meter



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COMPANY INTRODUCTION

Hangzhou Pangu Automation System Co., Ltd. is a national high-tech enterprise, has been focusing on the electromagnetic flow meter, electromagnetic energy meter, electromagnetic water meter design, manufacturing.

After 20 years of accumulation, the company has a professional and efficient R & D, manufacturing team, is one of the influential companies in the field of domestic industrial automation.

The company has dozens of products related patents. Products have been widely used in petroleum, chemical industry, electric power, thermal power, metallurgy, building materials, food, pharmaceutical, environmental protection and municipal and other industries.

Hangzhou Pangu has been committed to providing customers with excellent products, so that Pangu manufactured products become synonymous with high quality.



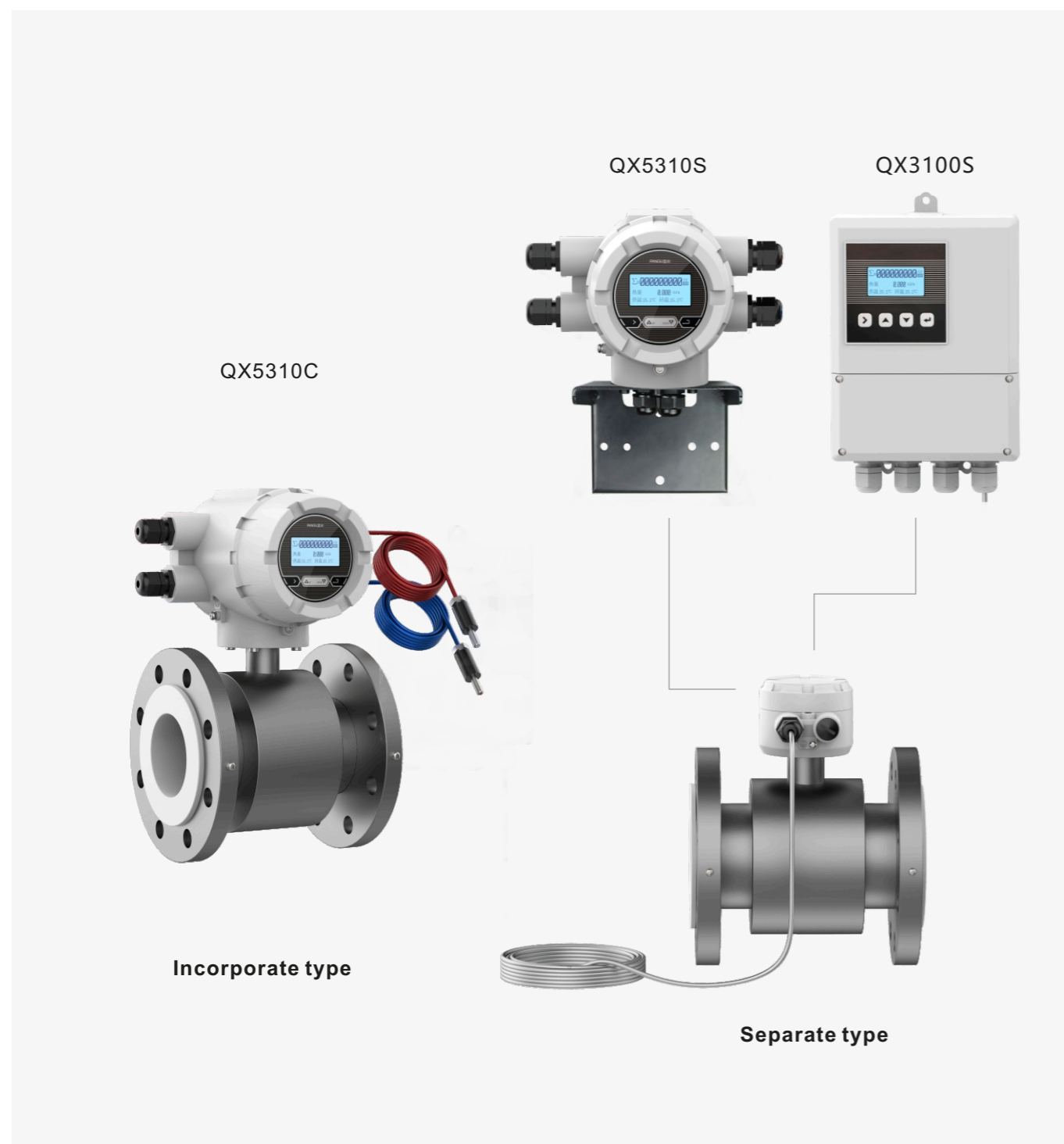
PANGU make 'Made in China' as a synonym of excellent quality.

- ◆ First-class production facilities and production environment, strict product quality management throughout the process
- ◆ More than 20 years of industrial application experience and technical precipitation
- ◆ Rapid response of professional marketing services and technical support
- ◆ 100% product delivery inspection

COMPANY QUALIFICATION



Electromagnetic Energy Meter



Pangu PMH series electromagnetic heat meter is specially used to measure and display the water through the heat exchange system after the release or absorption of cold heat meter, according to the GB/T 32224-2015 national heat meter standard design, due to the measurement stability, high accuracy, intelligent and other characteristics, It is widely used in air conditioning metering, heating metering, building energy monitoring and other fields.

Touch key

No need to open the cover operation, the number of parameters is more convenient for repair and modification, and the spare space for installation is small (optional).

10mm tempered glass

Resistant to pressure and impact, and able to withstand a wider range of temperature changes.

Lining materials

Lining material selection of high quality neoprene rubber, seepage proof, wear resistance, aging resistance, corrosion resistance, more reliable, the measurement of the medium temperature range of 0 ~ 80°C, can also choose the high temperature resistance of polytetrafluoroethylene, the measuring medium temperature range -25~120°C.

Incorporate type design

Fully sealed shell, IP65 protection class, dust proof, waterproof, suitable for all kinds of harsh environment.

Full through tube design

There is no flow resistance part in the tube body, "zero" pressure loss, low loss and consumption, can consume more accurate monitoring, more energy saving.

Electrode material

Stainless steel 316 electrode, corrosion resistance, to ensure more accurate and stable measurement. Electrodes that use other materials can be selected too.

All metal construction

Carbon steel (stainless steel optional), Fran connected (GB/T 9119-2010 standard).

Performance parameter

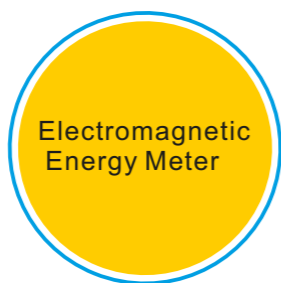
Working pressure	DC24V/AC220V	Communication methods	RS485 Modbus-RTU、BACnet、Bluetooth4.0
Accuracy class	2% (GB/T32224-2015)	Data storage	18 months report data
Medium temperature	-25~120°C	Adaptive temperature sensor	Pt1000 platinum resistance
Temperature range	3~70K	Temperature sensor matching error	±0.1°C
Maximum value of cooling heat reading	999999999.999	Installation position	Optional installation of inlet or backwater pipelines
Maximum value of flow reading	999999999.999	Protection grade	Incorporate type IP65. Separate type IP67/ IP68

Functions parameters

Can display the measured medium in real time
 Cumulative cooling capacity (KW·h, MW·h, GJ)
 Cumulative heat capacity (KW·h, MW·h, GJ)
 Cumulative flow (m³)、instantaneous flow (m³/h)
 inlet and return water temperature (°C)
 and other data information;

Fault-tolerant design: In case of reverse installation of water inlet and return pipes, reverse installation of temperature sensors, reverse installation of table body direction and other misinstallation and reverse installation, there is no need to disassemble and reinstall, only need to set by the key or the system software

Power failure data storage:
 It can save and query the data of 18 months.
 The historical data saved are the cooling capacity and heat value.



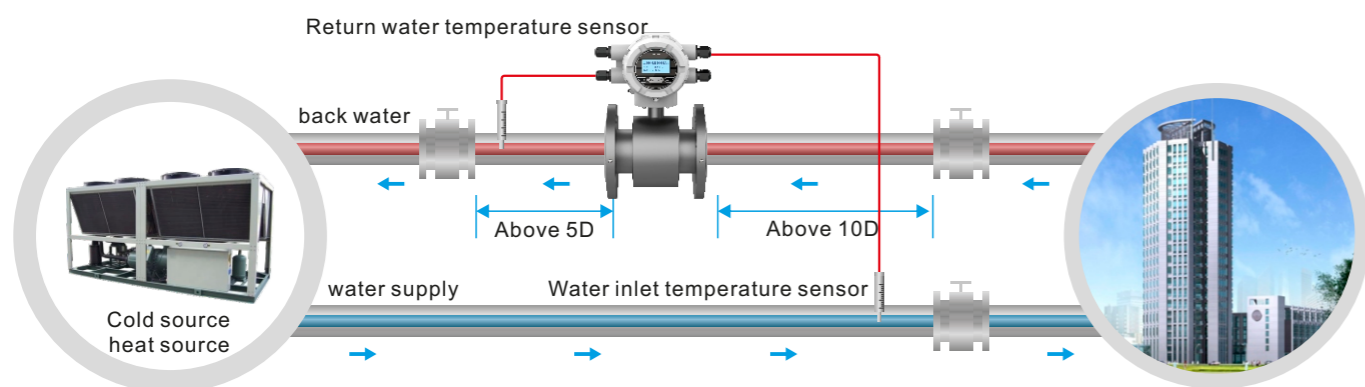
Can display the current time, date, fault alarm and other status information in time

Adopt Faraday electromagnetic induction law, not affected by water quality, there is no scaling problem, stable performance, long life.

Standard Modbus communication, BACnet communication, Bluetooth communication and other communication methods, easy to collect communication

At the same time, two wire system and four wire temperature sensor are supported, and the maximum length of four wire temperature sensor can be extended to 100 meters.

Industry Application



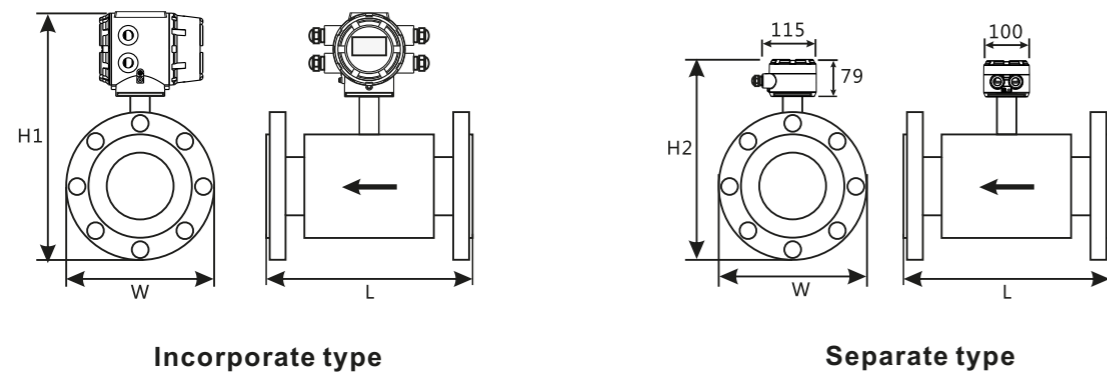
- 1.The minimum length of straight tube for the energy meter installation , at least 10D for upstream and 5D for downstream flow
- 2.The tube installation position of the energy meter should be selected as low as possible to avoid the accumulation of a large number of bubbles in the tube, which will affect the measurement accuracy. For example, when installing on the vertical tube, the fluid must be guaranteed to flow from bottom to top.
- 3.It is strictly prohibited to install the electromagnetic energy meter in the field with strong magnetic, strong electricity, strong wireless signal and other strong interference sources.
- 4.The IP65 protection grade of incorporate type electromagnetic energy meter should be installed indoors as far as possible, or equipped with rain protection device and avoid in the rain and under water for a long time.

PMH electromagnetic heat meter selection table

Series	Suffix Code	Optional	instructions
PMH-			Electromagnetic energy meter
Type	G-		Flange type
Pressure rating	PN6		National flange,0.6Mpa
	PN10		National flange,1.0Mpa
	PN16		National flange,1.6Mpa
	PN25		National flange,2.5Mpa
	PN40		National flange,4.0Mpa
	JIS10K		Japanese flange,JIS10K
	JIS20K		Japanese flange,JIS20K
	ANSI150		American flange,ANSI150
	ANSI300		American flange,ANSI300
Diameter of pipe	-20		Minimum diameter(mm)
	-400		Maximum diameter(mm)
Electrode material	K1		Stainless steel 316L
Lining material medium temperature	F1T0		Neoprene (CR) 0~80 °C
	F4T1		PTFE ,-25~ 120°C
Converter, installation method	QX5310C		QX5310Incorporate type
	QX5310S		QX5310Separate type
	QX3100S		QX3100Separate type
Additional Features	/TF1		Frequency/equivalent output
	/T1		4~20mA output 1 channel
	/C3		RS485
	/CB		BacNet
	/CT		Bluetooth
	/CR		Infrared
	/P1		24 VDC power supply

- 1 .the default length of the signal cable is 10 meters . If you need any other length , please contact the manufacturer.
- 2 .the default power supply is 220VAC .

Size



Incorporate type

Separate type

caliber (mm)	Dimensions(mm)				Flow (m ³ /h)		
	L	W	H1	H2	Min flow q ₁	Com flow q _n	Max flow q _s
20	200	105	285	220	0.05	2.5	5
25	200	115	295	230	0.07	3.5	10
32	200	140	310	245	0.12	6	18
40	200	150	315	250	0.2	10	25
50	200	165	330	265	0.3	15	30
65	200	185	345	280	0.5	25	50
80	200	200	360	295	0.8	40	80
100	250	220	385	320	1.2	60	120
125	250	250	415	350	2	100	200
150	300	285	445	380	3	150	300
200	350	340	495	430	5	250	500
250	450	395	545	480	8	400	800
300	500	445	615	550	12	600	1200

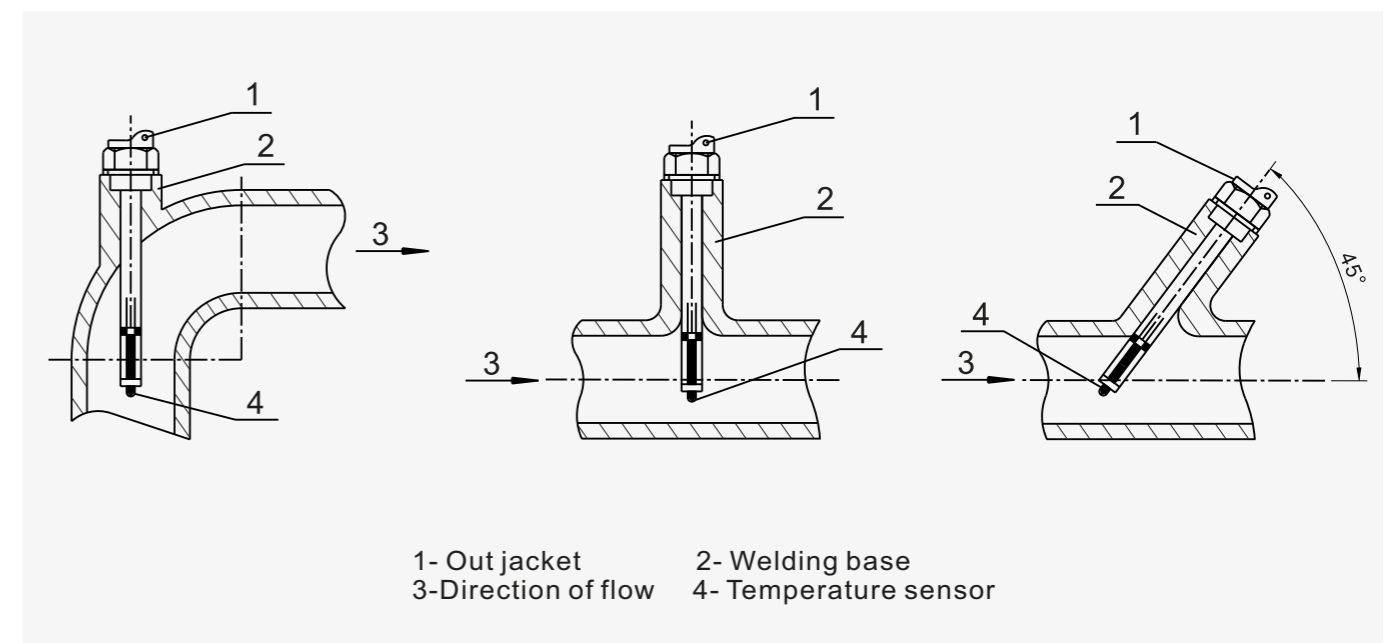
The above parameters are for reference only, subject to the actual product.

Accessories

The accessories of temperature sensor for electromagnetic. Energy meter mainly include : Pt 1000 temperature sensor , outer jacket and welding base .



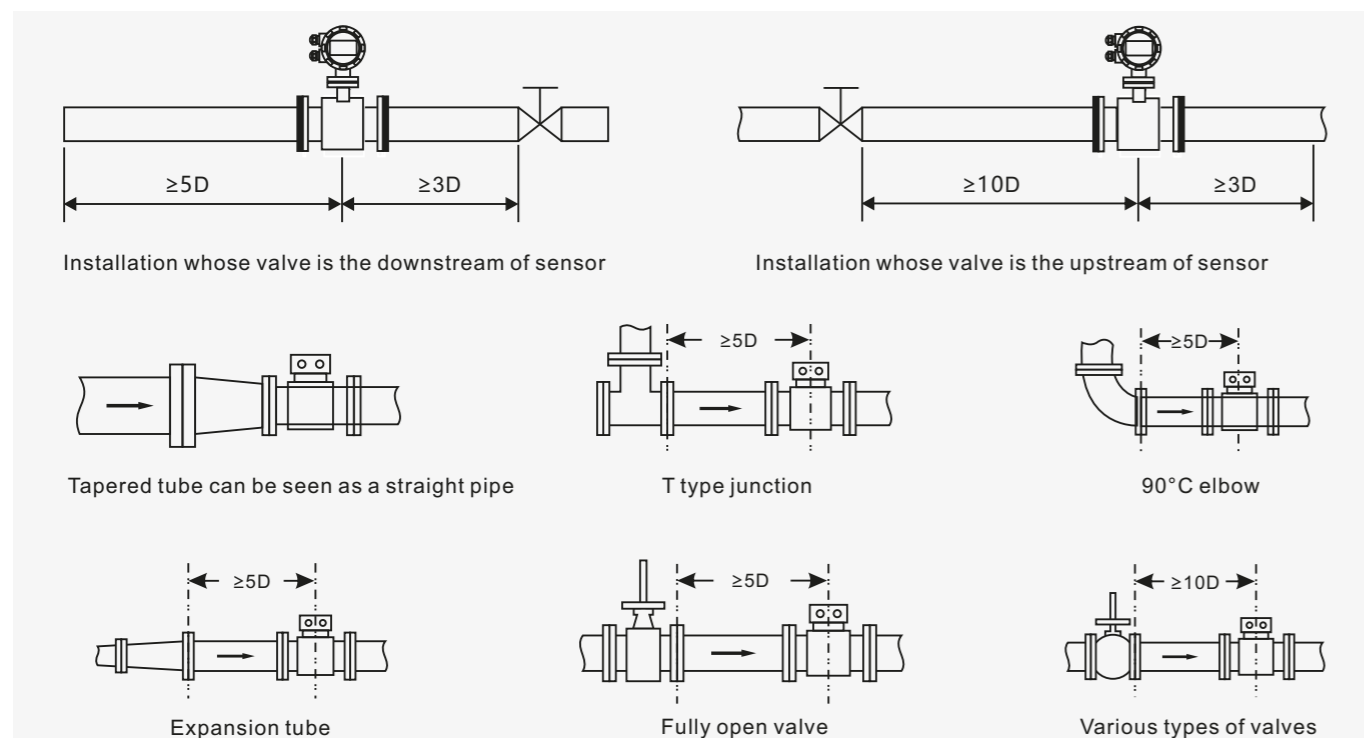
Recommended install position for temperature sensor



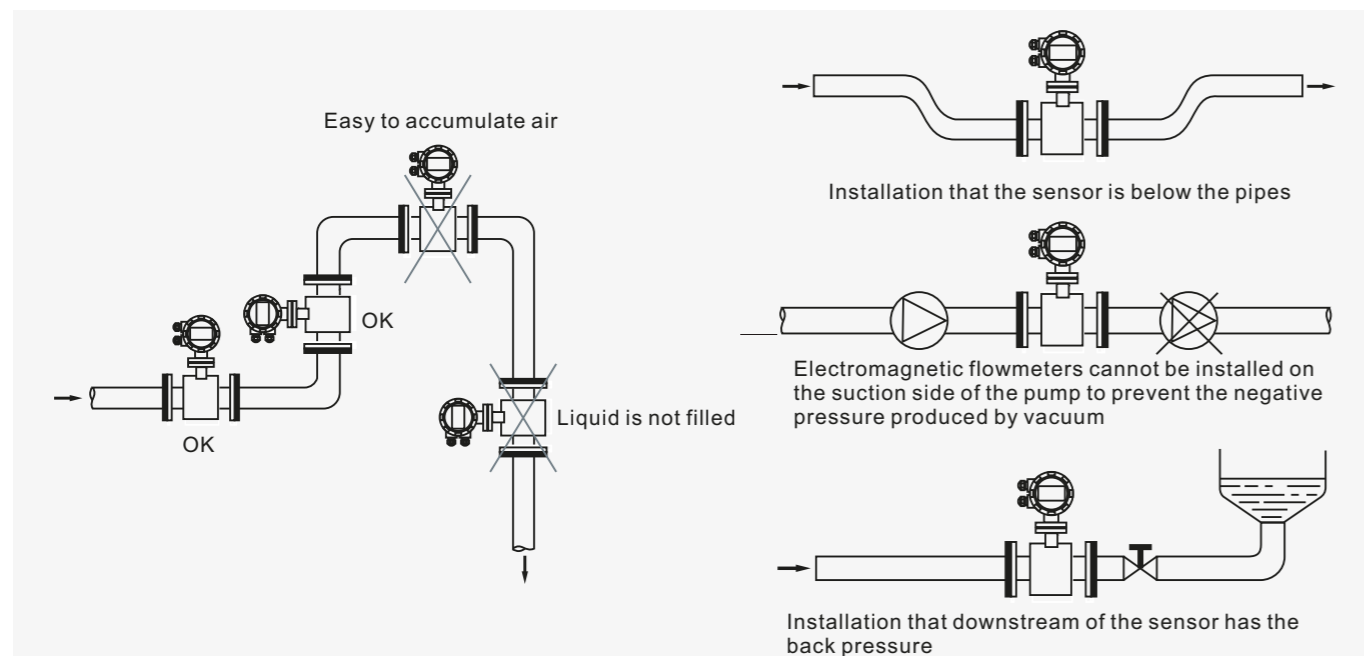
1- Out jacket 2- Welding base
3-Direction of flow 4- Temperature sensor

Installation

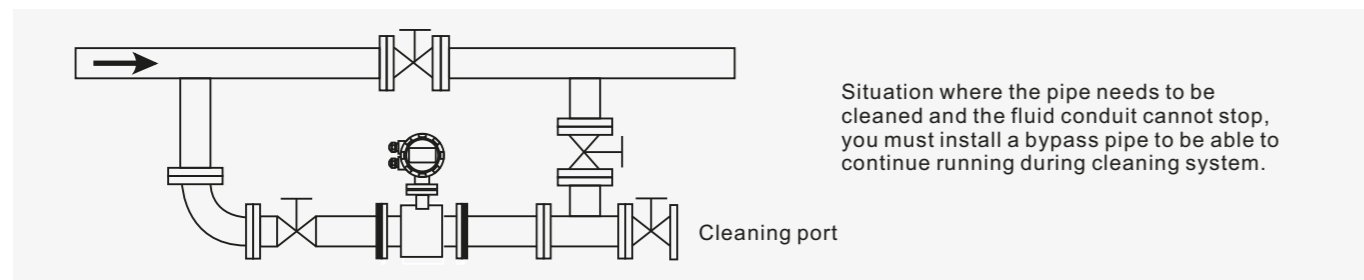
Straight pipe length requirements



Recommended mounting position



The connection which is easy to clean pipe

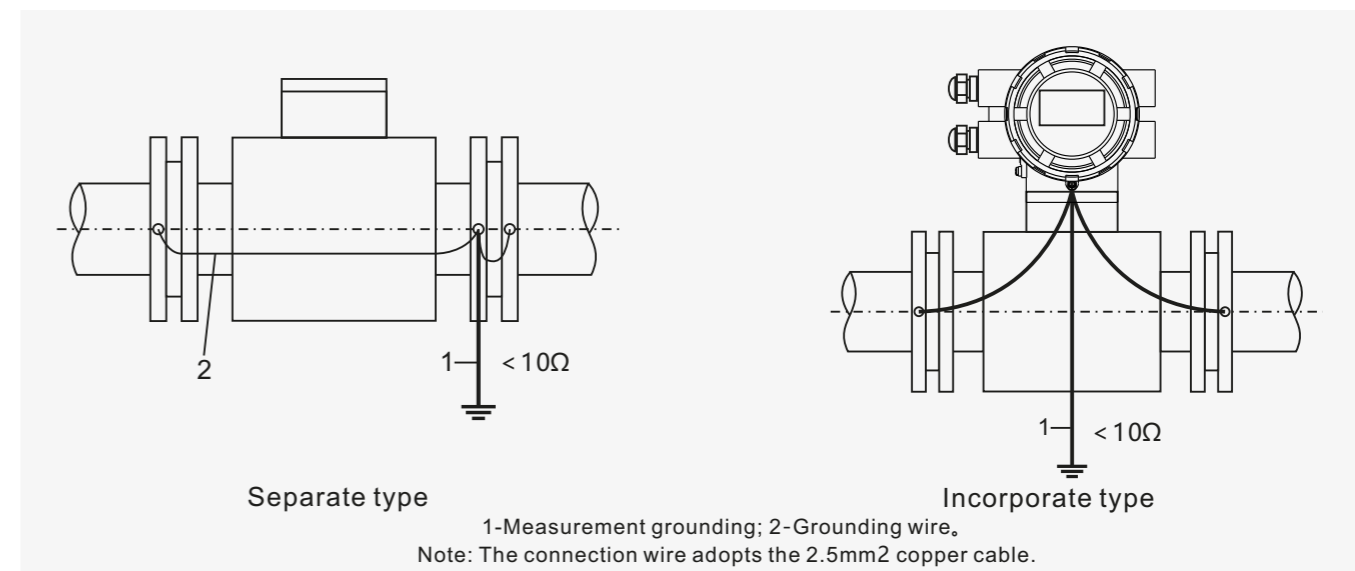


Grounding

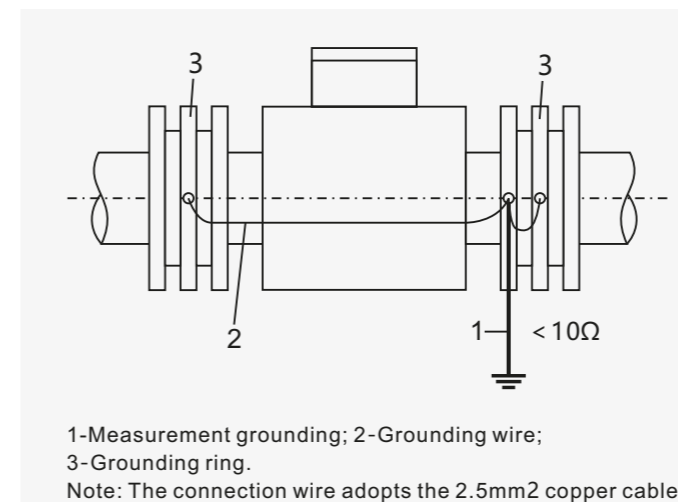
Electromagnetic Flowmeter sensor should be well grounded, the measuring accuracy of flowmeter depends on the grounding effect in a considerable extent.

Sensor grounding at different installation situation

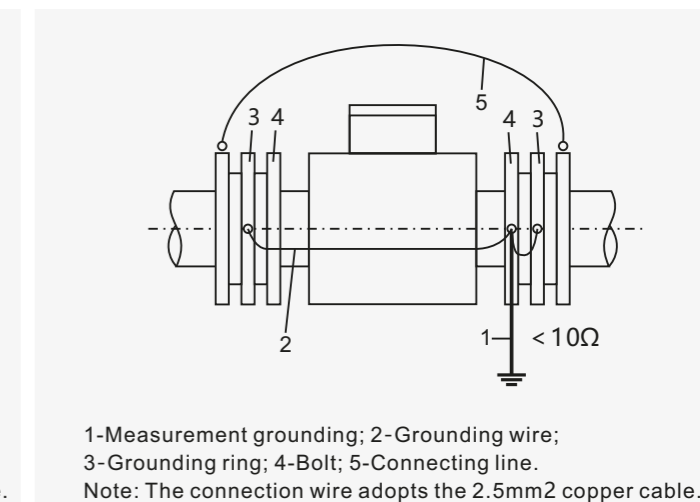
1. Grounding that sensor mounted on metal pipe.



2. Grounding that the sensor mounted on the insulating pipes.



3. Grounding that the sensor installed on the cathodic protection pipe



4. The sensor is installed in the pipeline stray strong current place

