Flow Meter Backside

Connector A

1	RS485 A/D+	RS485 Host
2	RS485 B/D–	
3		
4	Power V+	Power Supply 18 ~ 30 VDC ≥5 W
5	PowerV–	

Connector B

1	20 mA+	Ammeter [Max. Load: 500Ω]
2	20 mA–	
3	Pulse Output A	Pulse counter or Alarm output
4	Pulse Output B	
5		Shell Grounding

M12 Pin Definition

Electrical connector	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5
Connector A	RS485 A/D+	RS485 B/D–	N/A	Power V+	Power V–
Connector B	20 mA+	20 mA–	Pulse Output A	Pulse Output B	N/A
FixInst Cable Color	Brown	White	Blue	Black	Grey

⚠ After the flow meter is installed, the following key settings must be completed based on the actual site conditions:

Pipe size (inner diameter), gas type, reference conditions, unit settings, 4~20 mA scaling settings and pulse output settings (if analog signal is used), RS485 parameter settings (if Modbus is used)

FiXINST

F211x & F212x Series

QUICK GUIDE

| Thermal Gas Mass Flow Meter |

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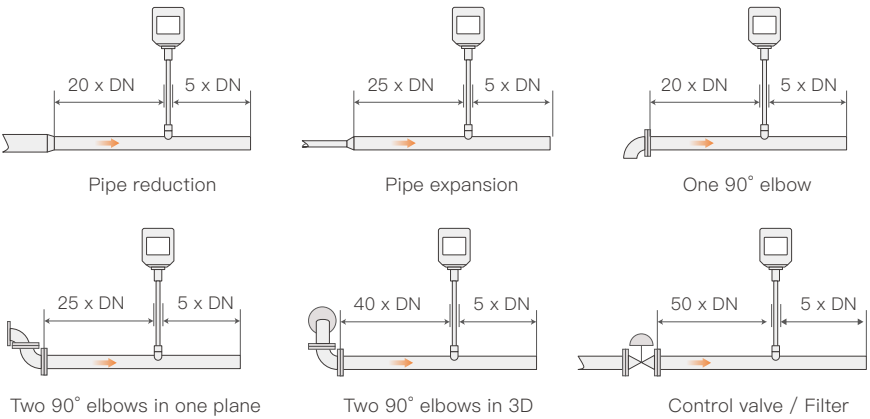Download the Bluetooth APP
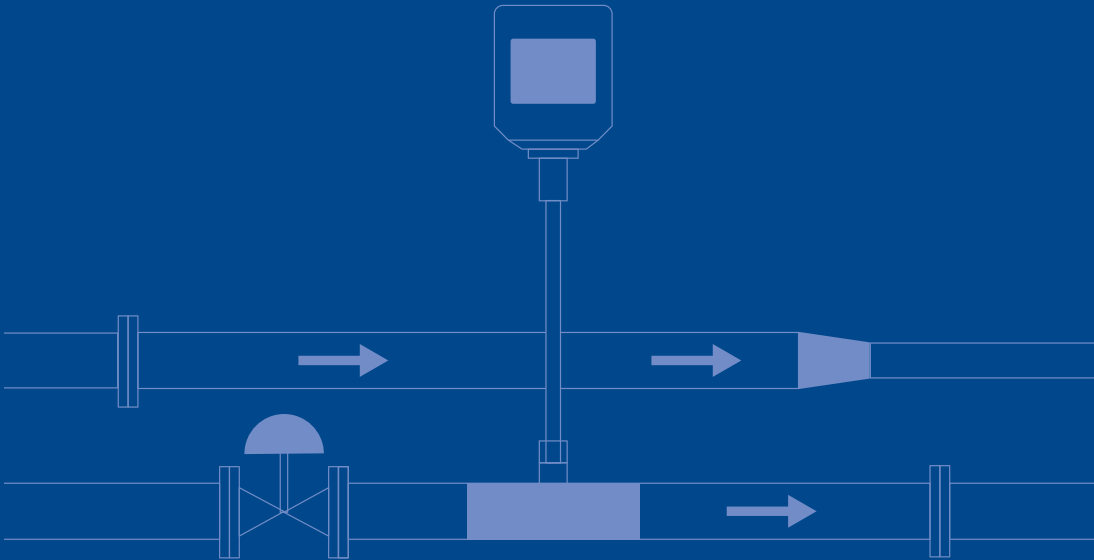
— Experts in Compressed Air & Fluid Measurement —

Installation of the flow meter requires a ball valve and a male threaded nipple

Inner diameter ≥ 13 mm

Inner diameter ≥ 13 mm

Ball valve should be full–pass type with G1/2" female thread

The nipple should be vertically welded to the pipeline, and the inner diameter of the ball valve and nipple should be ≥ 13 mm
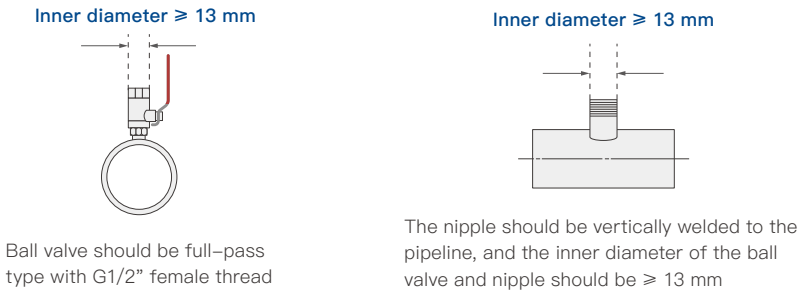
Recommended inlet and outlet straight section (*DN: Nominal Diameter)

20 x DN   5 x DN

Pipe reduction

25 x DN   5 x DN

Pipe expansion

20 x DN   5 x DN

One 90° elbow

25 x DN   5 x DN

Two 90° elbows in one plane

40 x DN   5 x DN

Two 90° elbows in 3D

50 x DN   5 x DN

Control valve / Filter

Installation direction and attention

❶ ✓

A: For outdoor installation, the flow meter needs rain proof protection
B: The measured medium should be free of liquid water, oil and etc

❹ ✗

❷ ✓   ❸ ✗
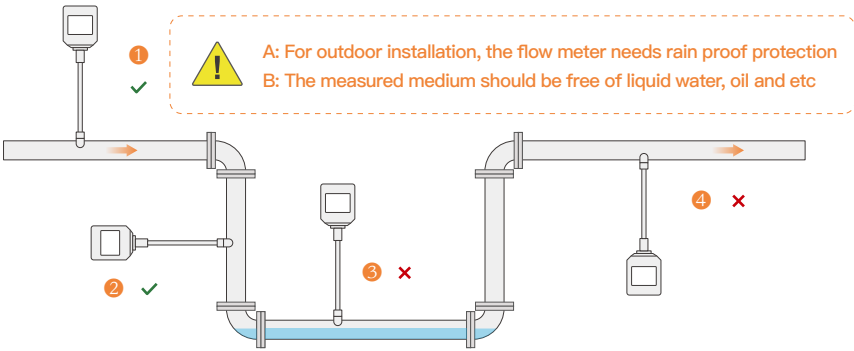
F211x Insert type

Wrap–around sealing tape

Adjust the fastening nut to the end of the rod, wrap the sealing tape (at least 20 turns), leaving 5mm above the sealing tape to prevent the tape from entering the pipe

Wrapping area

Leave about 5 mm
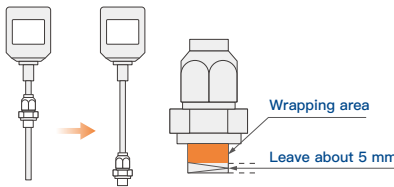
Check gas cleanliness

After confirming that the direct discharge of gas from the pipeline does not pose a safety risk, slightly open the ball valve to check whether the gas is clean, after confirming that it is clean, close the ball valve, clean the inner wall of the ball valve and ready for installation
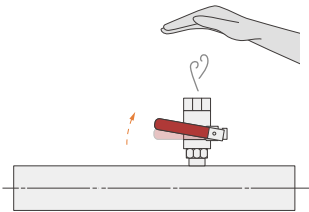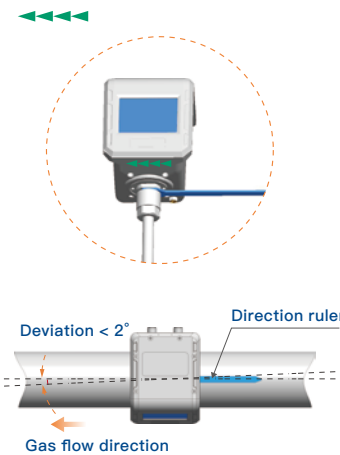
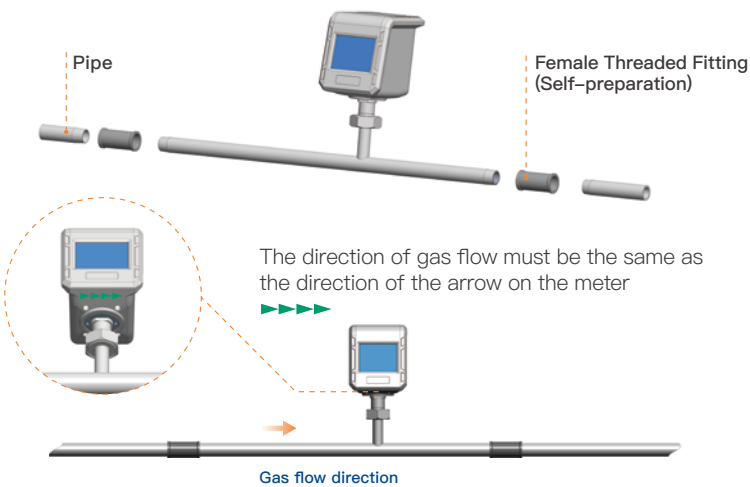### Flow Meter Insertion Depth = X + OD/2

The seam of ball valve and flow meter

* Reading scale

X

OD (Outside Diameter)
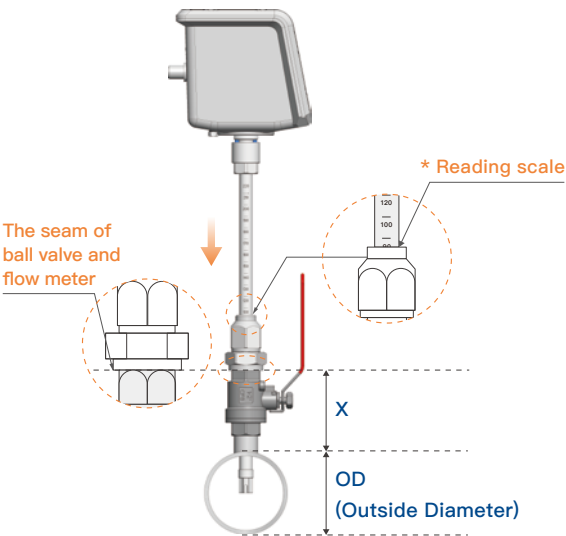
Horizontal calibration of the flow meter

The direction of gas flow must be the same as the direction of the arrow on the meter

Deviation < 2°   Direction ruler

Gas flow direction

F212x thread type

Pipe

Female Threaded Fitting (Self–preparation)

The direction of gas flow must be the same as the direction of the arrow on the meter

Gas flow direction

F212x flang type

Sealing Gasket (Self–preparation)

Matching Bolt (Self–preparation)

Matching Nut (Self–preparation)

Note: All flange holes must be properly aligned

The direction of gas flow must be the same as the direction of the arrow on the meter

Gas flow direction