

FT-4600 QUICK START GUIDE

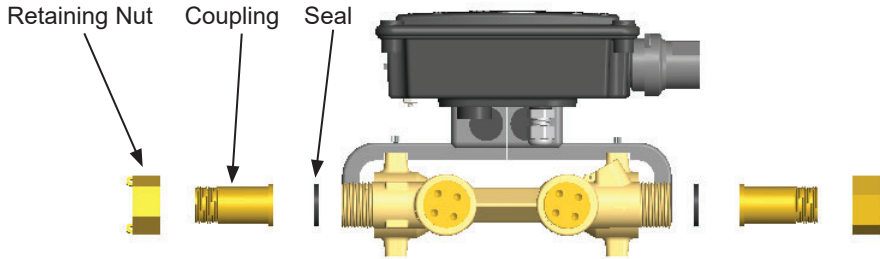


SECTION 1.0: UNPACKING

The FT-4600 is generally shipped in one package unless optional hardware or equipment is ordered. Notify the freight carrier and ONICON if any items are damaged in transit.

1.1 CHECKING THAT YOU HAVE RECEIVED EVERYTHING

The following items have been provided with your FT-4600 Flow Meter:



ISO 17025 Certificate of Calibration

Please notify ONICON if any of these items are missing. *NOTE: The 2½" version of the meter is provided with flanges

SECTION 2.0: INSTALLATION

2.1 SITE SELECTION

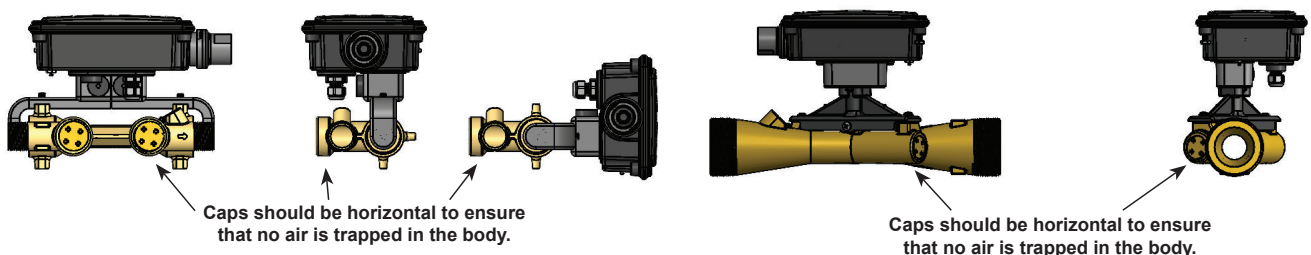
Before you install the meter, the entire piping system should be flushed and free of debris. Please refer to the diagrams below when selecting the installation location. Upstream straight unobstructed pipe requirements vary considerably based on the nature of the upstream obstructions. It is always recommended that the meter be located with as much straight pipe upstream as possible.

2.2 MINIMUM STRAIGHT-RUN REQUIREMENTS

Upstream Obstruction	Minimum Upstream Straight Run Required (Pipe Diameters)	
	Meter Size	
	0.5 - 1.0"	1.25 - 2.5"
Single Elbow	0	0
Expander / Reducer	0	0
Coil, Upstream	3	3
Isolation Valve, 2 Position	3	5
Control Valve	10	15
Notes:		
1	Straight run is based on use of manufacturer provided couplings	
2	Avoid the following obstructions where possible: Modulating valves, pump discharge, multiple elbows out of plane.	

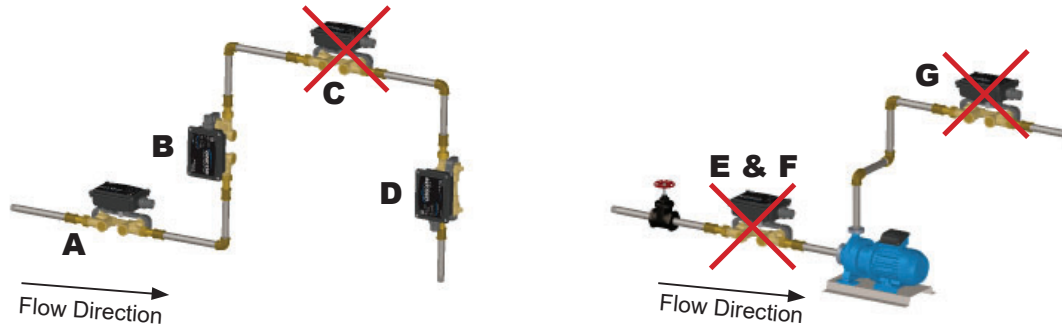
2.3 INSTALLATION DETAILS

- The flow meter **MUST** be correctly oriented as in the picture below to ensure proper function. Failure of installing the meter as shown below will result in erratic readings due to the accumulation of debris or air pockets in the meter body.



2.3 INSTALLATION DETAILS (cont.)

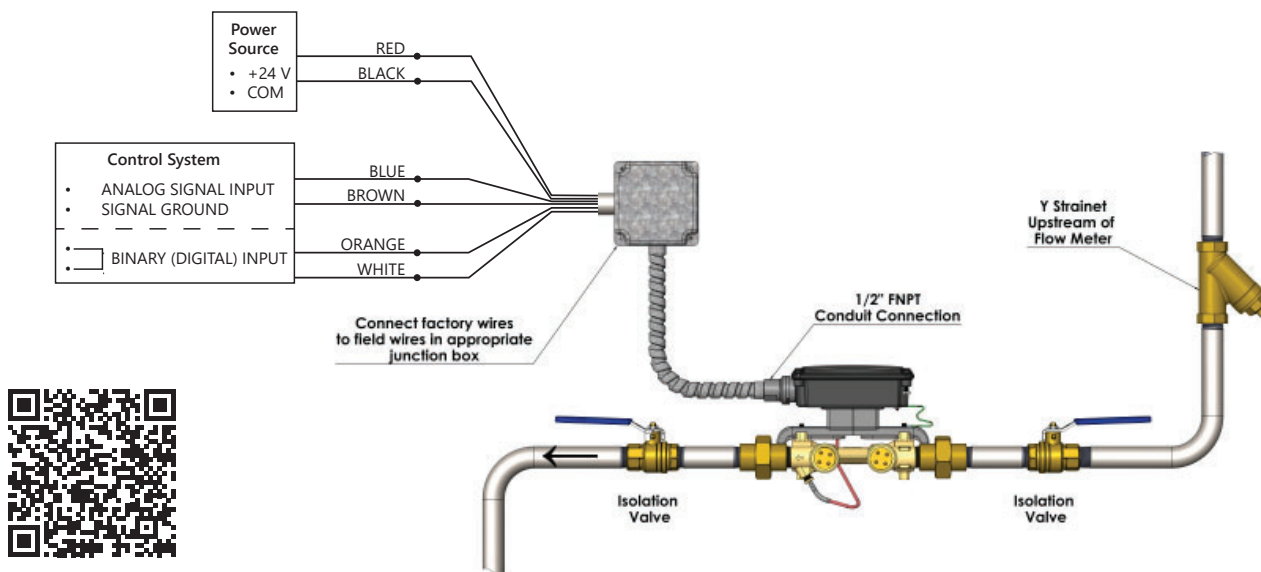
- The maximum operating pressure for the flow meter is 400 psi.
- The operating ambient air temperature range is -13°F to 131°F.
- Do not install the meter in close proximity to strong sources of electromagnetic interference (e.g. electric motors, VFD's, fluorescent light fixtures, etc.)



- This is a recommended position for the flow sensor.
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- Avoid installation locations where air can become trapped in the piping system.
- This is an acceptable installation location for closed-loop pressurized systems.
- Do not install the sensor downstream of modulating valves or partially open valves. Fully open isolation (e.g. ball valves) are OK.
- Do not install the flow sensor at the inlet of a pump. To prevent cavitation, the minimum operating pressure at the inlet of the meter must always exceed the pressure drop across the meter. Refer to Appendix A-3 of the manual for calculating pressure drops at different flow rates.
- Avoid installing the meter downstream of multiple bends out of plane with each other where there are less than 10 diameters of straight unobstructed pipe between bends.

SECTION 3.0: POWER AND SIGNAL WIRING CONNECTIONS

The FT-4600 is provided with an unterminated 10 foot PVC jacketed cable for power and signal connections. Do not attempt to remove this cable. Doing so will damage the weather-tight seal and may void the product warranty. Use 18-22 shielded cables for power and signal connections. The analog signal is active. **Do not connect external voltage to the blue & brown wires.**



SECTION 4.0: LED LIGHT STATUS AND SIMULATION

The FT-4600 will have a steady LED light on the front cover when it is operating properly. Refer to the QR code and manual if the LED light is blinking. For flow simulation, press and hold the SW2 button. The flow meter will enter on simulation mode. The meter will simulate 20mA and it will pulse accordingly. Press the RST button to exit simulation mode.