Technical Bulletin: 52

Data Industrial®
A BadgerMeter, Inc. Company

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INSTALLATION GUIDELINES FOR IR FLOW SENSORS

PRODUCTS	
200	✓
4000	
310	
320	
600	
800	
1400	
1500	
2100	
2200	
2300	
HTT	
WSS	

Mechanical Installation

1. Use an **IR** Sensor. IR sensors are designed for underground service where standing water is possible. Use an Insert Style Sensor on pipes with diameter of 3” or larger and a Tee Style Sensor on pipe sizes smaller than 3”.

2. Pick a location on the pipe with at least **10 diameters** of straight pipe upstream and **5 diameters** downstream of the sensor location. A pipe 3” in diameter will require 30” upstream and 15” downstream to ensure accuracy.

3. Put the sensor in an adequately sized valve box or meter pit for ease of installation and service.
4. Use a saddle with the Insert Style Sensors. **DO NOT** use a tee with a threaded outlet. This will reduce accuracy.

5. Remove the sleeve assembly from the mounting adapter by removing the three nuts from the threaded roads and pulling the sleeve assembly out. Install the mounting adapter in the saddle using a pipe sealant.

6. Use the directions in the Owner’s Manuals and the Depth Gauge that comes with the sensor to accurately set the sleeve assembly to the correct depth of 1.5”.

7. Align the sensor, ensuring the direction of the sensor is correct.

Electrical Installation

1. **DO NOT** remove the plastic caps from the sensor leads until ready to splice.

2. Use a **twisted pair** cable suitable for direct burial to connect the sensor to the transmitter, monitor, or controller. Multi-pair telecommunication cable or direct burial cables manufactured by AEF, Anixter or Regency may be used.

3. Make a water tight splice. Use a two part epoxy type or a silicone grease filled splice waterproofing kit. Be sure to cover the ends of the cable jacket.

4. Make sure the epoxy is hardened before inverting the splice or dropping it in standing water.

5. **DO NOT** make underground splice unless absolutely necessary.