

FLOW METERS

PADDLEWHEEL

Calsense Flow Meters, model FM, are used with Calsense irrigation controllers to monitor real-time flow of potable or non-potable water making them important tools in detecting mainline and lateral breaks on an irrigation system. Real-time flows for each station are learned automatically at night when irrigation comes on so constant flow rates are measured in order to provide the most accurate and reliable monitoring of breaks and problems as they occur.

The Calsense Flow Meter features a proprietary, non-magnetic sensing mechanism and a six-bladed design. Its unique, forward-swept impeller design provides higher, more constant torque than less efficient four-blade designs, and is less prone to fouling by water-borne debris. The advanced design of the Calsense Flow Meter coupled with an absence of magnetic drag delivers improved operation and consistent repeatability at lower flow rates.

As water flow turns the Flow Meter impeller blades, a low impedance 9VDC signal is transmitted with a frequency proportional to the flow rate. The signal can travel up to 2,000' between the Flow Meter and the Calsense field controller. Controllers require no additional interface and supply the DC signal directly to the Flow Meter.

The Calsense Flow Meter is available in both PVC and Brass models. Available in PVC are sizes 1.5-inch, 2-inch and 3-inch. Available in Brass are 1-inch, 1.25-inch, 1.5-inch and 2-inch sizes.

The Calsense Insert-Type Flow Meter, model FMBX is designed to be used for mainline pipes ranging in size from 3- to 18-inches. It is mounted to the pipe using a pipe saddle or welded-on threaded fitting which are not included and supplied separately. It is constructed of brass and hardware and is provided with a brass 2-inch NPT externally-threaded hex adapter for mounting.

Specifications

Technical

FM-1B, FM-1.25B, FM-1.5B parameters

- Accuracy: +/- 1% of full scale
- Linearity: +/- 0.7%
- Repeatability: +/- 0.7%
- Flow Range: 0.5 to 15 feet/second
- Max. Pressure: 400 psi@150°F (65.5°C)

FM-2B parameters

- Accuracy: +/- 1% of full scale
- Linearity: +/- 1% Repeatability: +/- 1%
- Flow Range: 1 to 30 feet/second
- Max. Pressure: 200 psi@150°F (65.5°C)

FM-1.5, FM-2, FM-3 parameters:

- Accuracy: +/- 1% of full scale
- Linearity: +/- 0.5%
- Repeatability: +/- 0.5%
- Flow Range: 1 to 30 feet/second
- Max. Pressure: 100 psi@68°F (20°C)

body construction

- FM-B series: Brass
- FM series: Schedule 80 PVC

