Meter-Master

Model 60 Flow Sensor

DESCRIPTION

The submersible, loop-powered METER-MASTER MODEL 60 Flow Sensor uses a magnetic sensor to digitize a meter's magnetic drive signal and then converts the signal into a 4-20ma current output. The linear output is proportional to the meter's flow rate. The Model 60 is small enough to fit inside any meter box, easy to set up, and suitable for permanent or portable applications. The 20ma flow rate is calibrated at the factory to equal any flow rate desired for any meter.

Meter-Master set-up in the field is simple, requiring only velcro straps to secure the sensor in position. No electrical or mechanical connection to the meter is required. Typically, the sensor is placed on the side of the water meter's register with the sensor cable going straight up or down.

An LED continually flashes with the magnetic pulses generated by the meter, which allows the user both to check the sensor location during installation and to verify that the Model 60 is working properly. Each LED flash equals one North-South pole combination on the meter's drive magnets.

FEATURES

- *Quick/Easy Setup*
- *4-20ma Output*
- *Linear Output*
- *Low Power*
- *High Resolution*
- *Submersible*
- *Rugged*
- *Portable*
- *LED Signal Verification*
- *Universal Compatibility*

APPLICATIONS

- *SCADA*
- *Telemetry*
- *Data Logging*
- *Resource Management*
- *Demand Monitoring*
- *Flow Profiling*
- *Hydraulic Modeling*

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MODEL 60 SPECIFICATIONS

The Model 60 provides a linear 4-20ma output in proportion to a meter's flow rate. Although 4ma is typically set to equal a flow rate of zero, it can equal any flow rate desired. The 20ma flow rate is set based on the specified meter type and the specified maximum flow rate. Accordingly, any order should be accompanied by these 2 pieces of information. If we do not receive the required information, we request it upon receipt of an order. For meters outside of North America, we would simply need to know the number of drive magnet revolutions per unit of measure and the number of magnet poles (North and South) on each drive magnet (for example, 4-pole magnets and each magnet revolution equals 1.294 litres).

The Model 60 power/signal cable has 2 wires (see chart below). In all cases, the blue wire is for the 24vdc power source, and the brown wire is the 4-20ma signal output. When connecting to external equipment, assume a 270 ohm load. After applying power to the Model 60, wait 3 minutes for the signal to begin.

Wiring Instructions

Power In: 24 volts DC	**Blue wire**
Return (Common): 4–20ma output proportional to flow rate. 4ma = 0 flow; 20ma = flow rate specified by customer.	**Brown wire**

- **Size:** 7.0" x 4.3" x 1.5" (178mm x 108mm x 38mm).
- **Weight:** 1.6 lbs. (.7 kg).
- **Case:** Submersible, ABS/polycarbonate blend.
- **Integral Handle:** May be used to chain unit for security and/or suspend unit above the ground.
- **Integral Sensor And Signal/Power Cables.**
- **Electrical Output:** 4ma = 0 flow rate; 20ma = max flow rate per factory setting. Linear output proportional to flow rate.
- **Two Year Warranty**.
- **Loop Powered:** 24 volts DC in; 4-20 ma output signal return. Assume 270 ohm load.
- **Logger/Power Connection:** Flying wire with tinned leads. (Customer specified connectors may be factory installed.)
- **Magnetic Pulse Input Verification:** LED in faceplate continuously flashes with each magnetic pulse generated by the meter's internal drive magnets.
- **Strap-On Magnetic Sensor:** Fastens to outside of meter with velcro straps provided.

METER-MASTER®

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