



DURA MAG ELECTROMAGNETIC FLOW METER

150 PSI FLANGED TUBE METER, SIZES 4" TO 12"
150 PSI WAFER STYLE METER, SIZES 2" & 3"

METER shall be a velocity sensing electromagnetic type tube meter of one of the following types:

- Flanged tube meter, size 4" to 12", with sealed housing for 150 PSI working pressure
- Wafer style tube meter, size 2" and 3", with sealed housing for 150 PSI working pressure

The meter shall be a _____ inch Dura Mag with a digital indicator having a range of 0 to _____ and shall be equipped with a 9 digit digital totalizer reading in units of _____ and shall be accurate within $\pm 1\%$ of actual flow.

METER TUBE (SENSOR) shall be fabricated stainless steel pipe and use flanges as follows:

- 4"-12" models: AWWA Class "D" flat face steel flanges
- 2" & 3" Wafer style meters do not use flanges.

The internal and external of the meter tube shall be blasted and lined with a NSF approved fusion bonded epoxy coating, applied by the fluidized bed method. Meter tubes shall have a constant nominal inside diameter offering no obstruction to the flow. Electrodes shall be 316 stainless steel.

MAG SHIELD shall be welded to the tube providing a completely sealed environment for all coils, electrode connections and wiring harness capable of NEMA 6P/IP68 operation.

SIGNAL CONVERTER shall be as follows:

Converter shall be pulsed DC coil excitation type with auto zeroing. It shall indicate direction of flow and provide a flow rate indication and a totalization of flow volume. Totalizer shall be electronically resettable.

Converter shall be microprocessor based with a 2-line LCD display (no backlight), 16 characters per line, and shall display the following:

- Non-volatile memory
- Anti-reverse totalizer (standard)
- Total (to 9 digits of precision)
- Flow Rate and Velocity (to 5 digits of precision)
- Two alarms: low battery and empty pipe (optional)

The converter display shall be non-configurable, with all sensor parameters set at the factory.

Two separate fully programmable alarm outputs shall be provided to indicate empty pipe, forward/reverse polarity (normally open/close), analog over-range, fault conditions. The converter shall periodically perform self-diagnostics and display the resulting error messages.

The converter shall power the flow sensing element and provide 4-20mA output (not galvanically separated from the power supply).

The converter shall be integrally mounted and shall be supplied in a sealed IP67 rated enclosure.

Calibration will be completed at the manufacturer's location in accordance with customer supplied application-based requirements.



Dura Mag Suggested Specifications

GROUNDING RINGS shall be 316 stainless steel and shall be supplied with the meter tube if they are required for an electrically noisy environment. The meter shall have a grounding lug, to which a ground wire can be attached to establish connection to earth ground.

POWER AND SIGNAL ISOLATION: The power supplied between the converter and the meter tube (sensor) and signal between the meter tube and the converter shall be isolated.

SERVICE & SUPPORT: Supplier must have flow calibration laboratories and personnel to perform testing and certify calibration. Personnel must also provide instruction or training as required assuring meters are supported and maintained throughout the guarantee period.

VOLUMETRIC TESTING of all meters must be performed and approved prior to shipment. The complete meter assembly and signal converter must be wet accuracy tested and calibrated. The test facility must be rigorously traceable to an accuracy of $\pm 0.15\%$ with the National Institute of Standards and Technology. If desired, the test shall be witnessed by the customer or their selected agent. A copy of the certified accuracy test record must be furnished at no charge to the customer.

ONE MANUFACTURER shall make all meter sizes and styles required for this contract. The meters shall be manufactured and tested in the U.S.A.

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