OCM III (Open Channel Meter)

The OCM III is designed to measure flow from simple open channel flow to complete system studies. In addition to monitoring flowrate in sewage works the OCM III can monitor industrial discharge, rainfall/storm water studies, inflow/infiltration studies, and sewer system evaluations. The programmable head versus flow curve (up to 16 points) accurately defines flow rate on unique or non-standard weirs and flumes.

The OCM III has data logging and is adjustable from once per minute to once a day. It records the average flow rate for that time period. Daily, it records min/max of temperature and flow rates, and the time they occurred, as well as the daily total. Advanced functions include variable rate logging. It can be pre-programmed to log at a higher rate when needed. Under steady conditions, the OCM III automatically logs less frequently to conserve data log space.

The OCM III has two way communication via RS-232 with a modem or a bi-polar current loop with a current to voltage communication converter. Data logs can be downloaded to a file that can be manipulated into a spreadsheet or ASCII format.

Product Features

- Simple programming
- BS 3680 calculations provide exceptional accuracy in measuring flow
- 1 to 24 months data log, subject to logging rate
- Extensive serial communication, including RS-232
- High accuracy on unique or non-standard weirs and flumes
- ac and dc operation. Automatically switches to battery operation for uninterrupted power.
- Flow Reporter software available for remote monitoring, configuration, and data retrieval

Technical Specifications

Power
- ac: 100/115/200/230 Vac ±15%, 50/60 Hz, 20 VA max
  and/or
- dc: 9 to 30 Vdc, 8W max

Environmental
- location: indoor/outdoor
- altitude: 2000 m max.
- ambient temperature: -20 to 50°C (-5 to 122°F)
- relative humidity: suitable for outdoor (Type 4X / NEMA 4X / IP65 enclosure)
- installation category: II
- pollution degree: 4

Range
- 0.3 to 1.2 m (1 to 4 ft)
- 0.6 to 3 m (2 to 10 ft)

Accuracy
- ±1 mm/m, calculated error less than 0.02%

Resolution
- 0.2 mm (0.007")

Memory
- 3V battery (NEDA 5003LC or equivalent), operating life 1 year, 'SuperCap' capacitor for back-up during battery replacement

Programming
- via removable programmer and communication link

Display
- LCD 5 x 7 dot matrix display with 2 lines of 40 characters each

Enclosure
- Type 4X / NEMA 4X / IP65
- polycarbonate

Communication
- RS-232 or ±20 mA bipolar current loop, 300, 600, 1200, 2400, 4800, 9600, 19200 baud
- data logs
- variable rate on 1, 5, 15, 30 or 60 min or 24 hr
- 31 days minimum/2 years maximum

Outputs

Transducer Drive
- 44 kHz, 400 V peak pulses of 0.1 msec typical duration at a 100 msec typical repetition rate.

Relays
- 3 alarm/control relays, 1 form 'C' SPDT contact per relay, rated 5 A at 250 Vac non-inductive or 30 Vdc

mA
- 0/4 to 20 mA, isolated, 1 KΩ max. load
- resolution: 5 uA
- isolation: 300 Vac continuous
- dc output: +24 Vdc, 20 mA average to 200 mA at 1/10 duty cycle max.

Transducer
- XRS-5

Cable
- transducer: co-axial to be RG62-A/U low capacitance
- mA output signal to be 2-3 copper conductors, twisted, with foil shield, drain wire, 300 V 0.5 to 0.75 mm^2 (22 to 18 AWG)
- relay/power to be copper conductors per local requirements to meet 250V 5A contact rating

Weight
- 2.3 kg (5.1 lbs)

Options

Temperature Sensor
- TS-2

Remote Monitoring
- Flow Reporter, a Windows® based configuration software and data extractor

Approvals
- CE**, FM, CSA $_{NRTL/C}$

** EMC performance available upon request.

Specifications are subject to change without notice.

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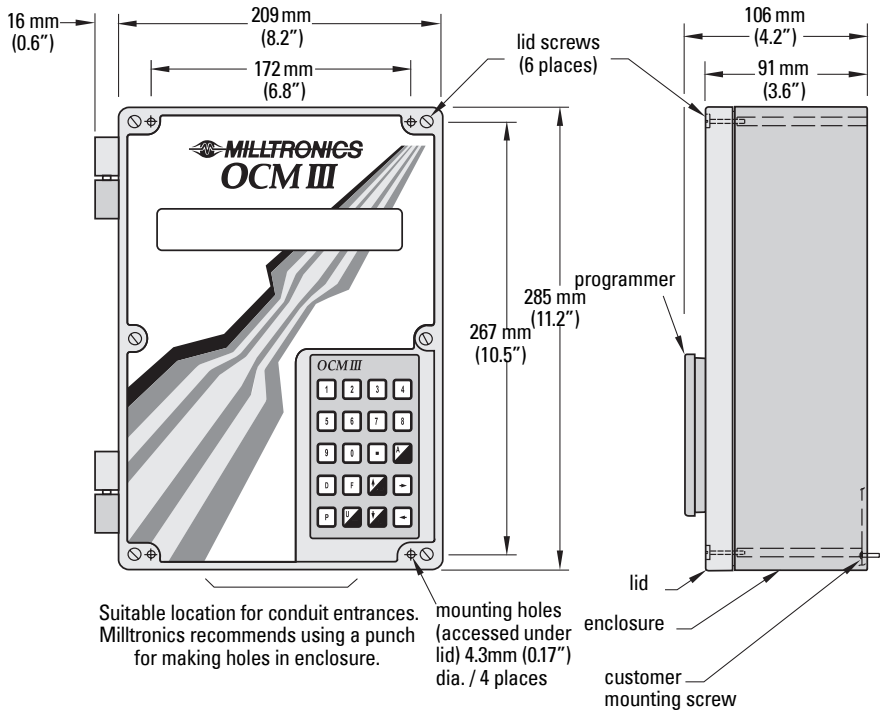
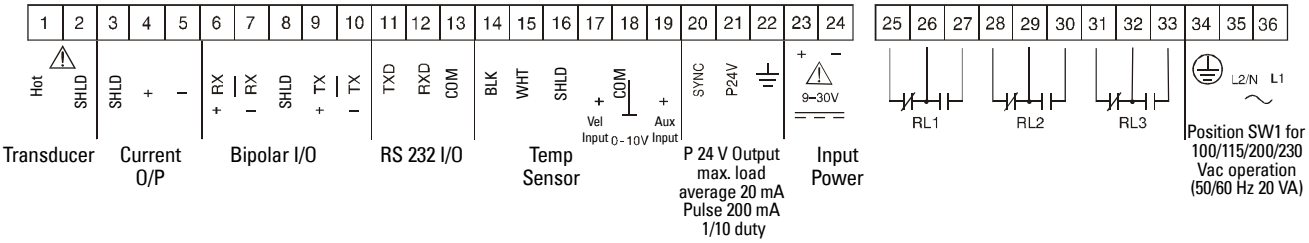
Dimensions



Wiring



Notes

1) *Use RG62-A/U Coaxial (or equivalent) for extensions up to 183 m (600 ft). Run in grounded metal conduit, separate from other wiring.*

2) *Each relay has 1 set of form 'C' (SPDT) contacts, relay rated at 5A 250 Vac, non-inductive, when equal or lower rated limiting fuses are installed. Relay de-energized when in alarm conditions and energized for pump control.*