MILLTRONICS

Open Channel Meter OCM III

OCM III

BS 3680 calculations provide exceptional

1 to 24 months data log, subject to logging rate

· High accuracy on unique or non-standard weirs

ac and dc operation. Automatically switches to

battery operation for uninterrupted power.

Extensive serial communication, including RS-232

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 nonstandard 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.

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
- Installation category: 1
 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 5x7 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

Product Features

and flumes

Simple programming

accuracy in measuring flow

 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 V dc

mA

- 0/4 to 20 mA, isolated, 1 K Ω 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

ST-25

Cable

- co-axial to be RG62-A/U low capacitance
- signal to be 2-3 copper conductors, twisted, with foil shield, drain
- wire, 300 V 0.5 to 0.75 mm² (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

Approvals

CE**, FM, CSA NRTL/C

**EMC performance available upon request.

Specifications are subject to change without notice.



Open Channel Meter OCM III

Dimensions



Vel

Sensor

Temp Input 0-10\Input

Aux

P 24 V Output

max. load

average 20 mA

Pulse 200 mA 1/10 duty

Notes:

Transducer

Current

O/P

1. Use RG-62 A/U Coaxial (or equivalent) for extensions up to 183 m (600 ft.). Run in grounded metal conduit, separate from other wiring.

Bipolar I/O

RS 232 I/O

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

MILLTRON

RL2

RL3

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RL1

Input

Power

Position SW1 for

100/115/200/230

Vac operation

(50/60 Hz 20 VA)

**EMC performance available upon request. Specifications are subject to change without notice.