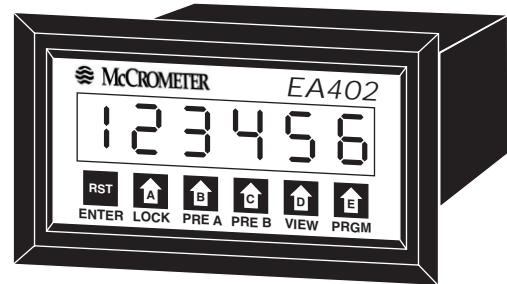


EA402-10

Rate Meter / Totalizer From Analog Inputs

Features

- Separate Units For Rate and Total
- 2 Set Points Assignable To Rate Or Total
- Display Rate and Integrated Total
- 4-20mA Analog Input
- 4-20mA Analog Output
- Batching Capability
- NEMA 4X/IP 65 Front Panel



Description:

Featuring 6 digits of bright, 7-segment LED displays, this unit is an integrating totalizer/ratemeter which accepts analog signal inputs. The unit can be field programmed to accept 0-20mA, 4-20mA, 0-5V, 0-10V or 1-5V signals. A 4-20mA output option is available to control strip recorders or other peripherals. Two assignable set points are standard for two stage shut off. The full scale setting is programmable from the front panel. By pressing the "view" button, the unit will display: integrated total, rate, peak or valley.

Specifications:

Display: 6 digit, .55" high, 7 segment, red orange, LED.

Input Power: 110 VAC \pm 15% or 12 to 24VDC.

Current: maximum 300 mA DC or 8.0 VA at rated AC voltage.

Output Power: (AC powered units only) +24VDC @ 50mA regulated \pm 5%

Temperature:

Operating: +41°F (5°C) to +130°F (+54°C).

Storage: -40°F (-40°C) to +200°F (93°C).

Memory: EEPROM stores data for ten years if power is lost.

Reset:

Front Panel: resets displayed values and control outputs.

Remote: 4-30VDC positive edge, resets totalizer and control outputs.

Control Outputs:

Standard: Open collector sinks 250mA from 30VDC when active. **Input:**

Standard: Linear 0-20mA, 4-20mA, 0-5V, 0-10V or 1-5V selectable from the front panel.

Input Impedance: Current: 100 Ω ; Voltage: 115K Ω

Calibration: The unit does all of the calibrations internally.

There are no potentiometers to adjust and the unit never needs to be removed from the case.

Set Points: Two control set points are provided. The set point outputs can be assigned to rate or total. The unit comes standard with two open collector control outputs. The outputs are programmable from 0.01 to 599.99 sec or latched until reset when assigned to the total and a hysteresis (alarm range) when assigned to the rate.

Rate Display: Updates 5 times per second, Accurate to 4.5 digits.

Totalizer: Integrates from the rate reading and accumulates up to 6 digits of total count. The time base (minutes, hours or days) and totalize conversion factor are field programmable from the front panel.

Analog Out: The full scale setting is programmable from the front panel. A sinking driver generates a corresponding linear current through the external devices. The output updates with each update of the rate. Accuracy is \pm 0.25% FS worst case. For rated accuracy, load must be connected to the analog output before unit is powered. Compliance voltage must be 3 to 30 VDC non inductive. (The unit can provide the DC source as long as the drop across the devices being driven does not exceed 21V).

Programming: Decimal points, Scaling from 0 to 59999 units per selected time base, set points, input type, security lock code, and assigning outputs are all programmable from the front panel.

Housing: Standard 1/8 DIN, high impact ABS plastic case (NEMA 4/IP65 front panel).

Shipping Weight: 2 lbs.

Overvoltage Protection:

50 V

Overcurrent Protection:

50 mA

Resolution: 14.5 Bits

Accuracy:

RANGE	% FS ERROR (worst case)	% FS ERROR (typical)
4-20 mA	0.1%	.05%
0-10 VDC	0.2%	0.1%
0-5 VDC	.25%	.15%
1-5 VDC	.25%	.15%

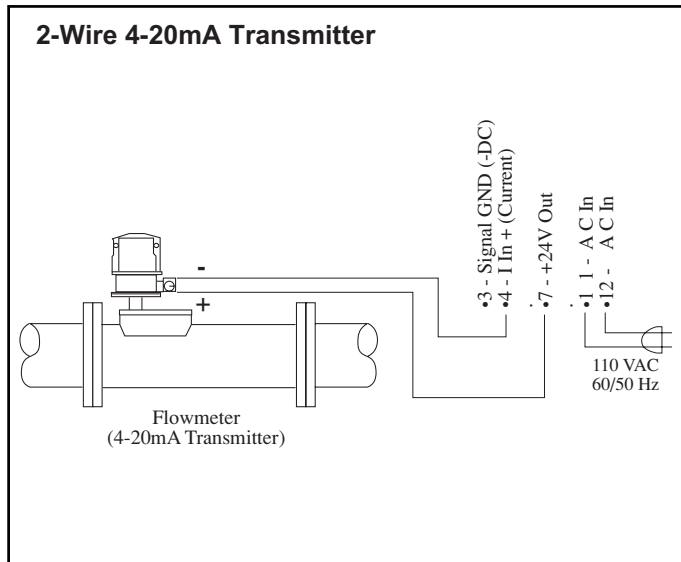
Square Law: (above 5% of bottom range) 0.1%
 (5V inputs .4%) Worst case over complete range: 2%

Temperature Stability: Will not drift more than 20 parts per million per °C from 5°C to 54°C

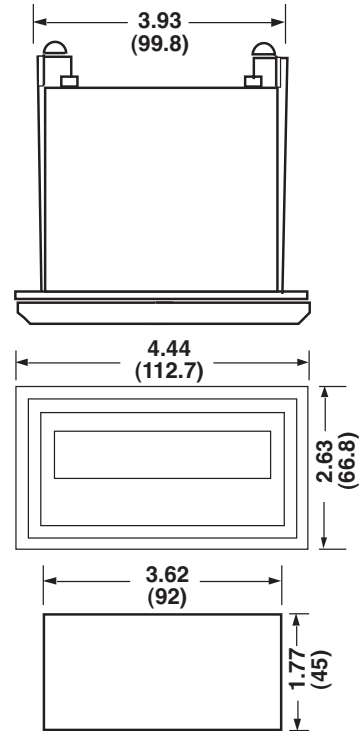
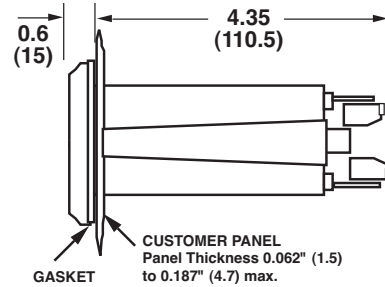
WIRING:

- 1•Reset In
- 2•Analog Out (Sink)
- 3•Signal GRD (-DC)
- 4•(Current) +I in
- 5•(Voltage) +V in
- 6•Not Used
- 7•+24V Out
- 8•Preset B Collector
- 9•Preset A Collector
- 10•+DC In
- 11•110 VAC
- 12•110 VAC

TYPICAL HOOKUP:



Dimensions:



Ordering Information

SERIES:

EA402-10 Totalizer/Ratemeter

Power Input : 110 VAC ± 15% or 12 to 24 VDC

Input: 4-20 mA Analog, Linear or Square Root (selectable)

Control Outputs:

2 - Open Collector Outputs

Analog Output: 4-20 mA