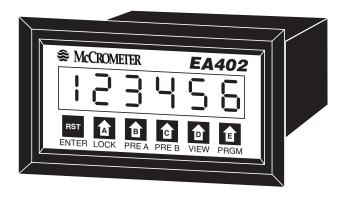
# EA402

# **Features**

- High/Low Scaling From Front Panel
- 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

# Ratemeter / Totalizer From Analog Inputs



**Description:** 

Featuring 6 digits of bright, 7-segment LED displays, the EA402 is an integrating totalizer/ratemeter which accepts a 4-20mA analog signal input. A 4-20mA analog signal output is available to control chart recorders or to transmit a linear signal to other peripherals. Two assignable setpoints are standard. The high and low scaling settings are programmable from the front panel. The unit will display: integrated total, rate, peak or valley. Pressing the "lock" key can be used to freeze the display.

#### **Specifications:**

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

Input Power: 110 VAC  $\pm$  15% or 12 to 24VDC. Current: max. 10.0 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).

Humidity: 0-90% Noncondensing

**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.

# Input:

Standard: Linear or Square Root (selectable) 4-20mA Input Impedance: Current:  $100\Omega$ Overvoltage Protection: 50 V Overcurrent Protection: 50 mA

Overcurrent Protection: 50 m

Resolution: 14.5 Bits

Listing: CE Approved, CSA (File No. LR91109), NRTL Pending

**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.

#### **Control Outputs:**

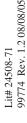
Open collector sinks 250mA from 30VDC when active. 2 each Form C SPDT 5 Amp @ 120/240 VAC or 28 VDC.

**Set Points:** The two control set points can be set at any number from 0 to 59999. The set point outputs can be assigned to rate or total. The unit comes standard with two open collector control outputs. Two 5 Amp, Form C relay outputs are programmable from .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 4 times per second, Accurate to 4.5 digits. Set "low" greater than "high" for inverted display (LINEAR ONLY). A user programmable low cutoff inhibits indications at low flow rates.

**Totalizer:** Integrates from the rate reading and accumulates up to 6 digits of total count. A totalizer divider allows the total to be divided by 1, 10, 100 or 1000. This feature is especially useful for users who deal with high total volumes.

**Analog Output:** The 4-20mA output is proportional to the rate display. The high and low settings are programmable from the front panel. Set "low" greater than "high" for inverted output. A sinking driver generates a corresponding linear current through the external devices. The output updates with each update of the rate. Accuracy is  $\pm$ .25% FS worst case. Compliance voltage must be 3 to 30 VDC non-inductive. (The AC unit can provide the DC source as long as the drop across the devices being driven does not exceed 21V).



States McCrometer

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**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.

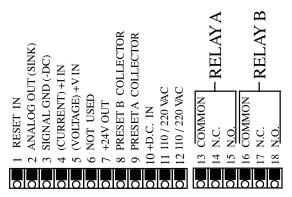
**Housing:** Standard 1/8 DIN, high impact ABS plastic case (NEMA 4X/IP65 front panel).

#### Shipping Weight: 2 lbs.

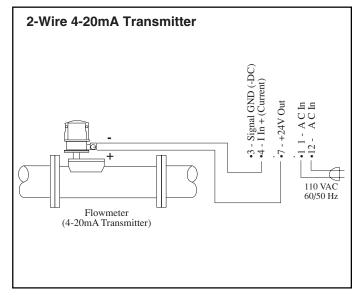
Accuracy:	<u>% FS ERROR</u>	<u>% FS ERROR</u>
RANGE	(worst case)	(typical)
4-20 mA	0.1%	.05%

**Temperature Stability:** Will not drift more than 20 parts per million per  $^{\circ}C$  from  $5^{\circ}C$  to  $54^{\circ}C$ 

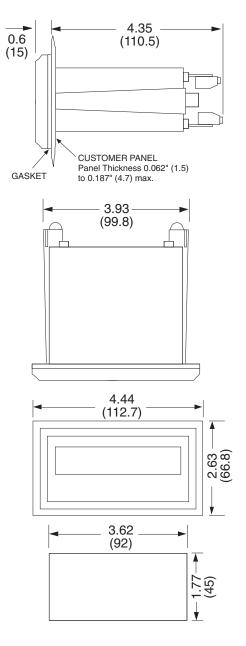
#### WIRING:



#### **TYPICAL HOOKUP:**



#### **Dimensions:**



# **Ordering Information**

#### SERIES:

**EA402-00** 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 10 Amp Form C Relays
- 2 Open Collector Outputs

Analog Output: 4-20 mA

