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

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 ± 15% or 12 to 24VDC.
Current: max. 10.0 VA at rated AC voltage.

Output Power: (AC powered units only) + 24VDC @ 50mA regulated ±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: 100Ω
Overvoltage Protection: 50 V
Overcurrent Protection: 50 mA
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 ±.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).
**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**:

<table>
<thead>
<tr>
<th>RANGE</th>
<th>% FS ERROR (worst case)</th>
<th>% FS ERROR (typical)</th>
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<tr>
<td>4-20 mA</td>
<td>0.1%</td>
<td>.05%</td>
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**Temperature Stability**: Will not drift more than 20 parts per million per °C from 5°C to 54°C

**WIRING**:

2-Wire 4-20mA Transmitter

**Dimensions**:

- CUSTOMER PANEL
  - Panel Thickness 0.062" (1.5) to 0.187" (4.7) max.

**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