

MODEL IN-60

TOTALIZER / RATEMETER

Features

- Analog Input
- Display Total, Rate or Grand Total
- Two Alarm Outputs, User Selectable for Total, Rate or Grand Total
- K-Factor Programmable to 8 Places
- Two Stage Security Lockout
- NEMA 4X/IP 65 Front Panel



Description:

Featuring 8 digits of bright, .55", alpha-numeric display, the IN-60 accepts analog inputs of 4 to 20mA. The standard IN-60 has two separate, 8 digit, floating decimal, "K" factors to convert the inputs to meaningful total and rate data. The user, with the push of a button, can toggle back and forth to view the total of the batch, the rate of flow and the grand total count. Two control outputs can be assigned independently by the user to activate at preset batch total, rate or grand total for .1 to 9.9 seconds or until reset.

Specifications:

Display:

8 Digit, .55" High, 15 Segment, Red Orange, LED.

Input Power (Internally Fused)

110 VAC $\pm 15\%$ or 12 to 27 VDC

Current: Maximum:

3.2 VA at rated AC voltage.

Output Power:

+12 VDC at 100mA. Separate Isolated 12 VDC at 100mA to allow +12 VDC or +24 VDC regulated $\pm 5\%$ worst case.

DC Outputs are supplied with resettable fuses.

Memory:

EEPROM stores all program and total data for minimum of 10 years if power is lost.

Analog Inputs:

The current loop input is converted to a highly linear 0 to 10 kHz frequency. This frequency can then be scaled by the 8 digit K-Factors to total or display rate in separate engineering units.

Accuracy over full temperature range:

Zero error: +0.175% full scale max.

Overall error: +0.5% full scale max.

Input: 4-20mA, 250 Ohm impedance

Reset:

Front push button: "Clear" resets displayed number and control output. Remote: 3 to 30 VDC positive edge resets the totalizer and control output.

Impedance: 10K to ground (-DC)

Minimum pulse: 5 msec.

Temperature:

Operating: +32°F (0°C) to +130°F (+54°C).

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

Humidity:

0-90% Noncondensing

Listing:

CE Approved, UL/CSA Pending

Totalizer:

Each of the total and grand total counters have 8 digits. In the set-up mode choose "R0" (reset to zero) for adding operation or "SP" (set to preset) for subtracting operation. While viewing the total, the display can be made to flash the grand total by pressing "ENT". Activating "CLR" while the grand total is flashing, resets the grand total counter.

Lit#30115-23
99800 09/04



3255 W. Stetson Avenue • Hemet, CA 92545 USA • Phone: (951) 652-6811 • Fax: (951) 652-3078
email: info@mccrometer.com • web: www.mccrometer.com

Ratemeter:

The rate meter can be programmed to accept almost any number of pulses per unit of measurement, sample from 2 to 24 seconds maximum, and autorange up to 6 digits of significant information. The rate meter with a "K" factor of 1 displays the rate of pulses per second. Simply dial in the proper "K" factor to display in minutes, hours or other units of measurement. Press the "C" button while the unit is displaying the total to display the rate; "R" is displayed on the left side of the display.

Lockout:

Two stage lockout available for allowing change of presets only or total lockout of front panel parameter changes. Unauthorized front panel changes can be prevented by entering a user selected four digit code.

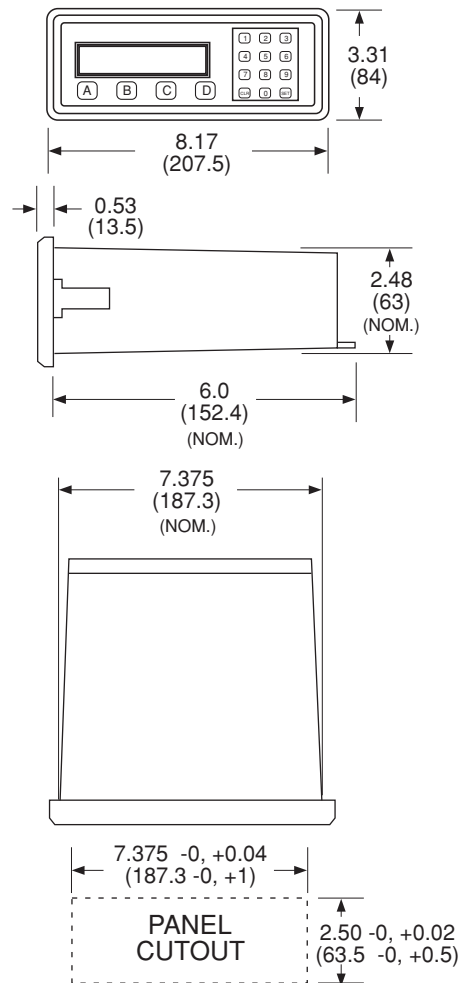
Control Outputs:

2 SPDT Relays: 10A 120/240 VAC or 28 VDC (Standard).

K-Factor:

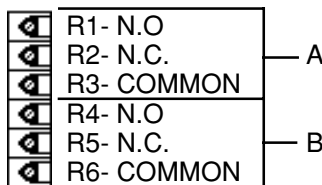
In the standard unit a fixed K-Factor is used to convert the frequency generated internally by the analog input to engineering units. The 8 digit K-Factor dividers, with decimal keyed into any position, allow easy direct entry of any K-Factor greater than 0.0001 to 99999999. Separate K-Factors may be entered for the total and rate section. Thus, you may batch and total in gallons and display rate in liters per hour. The maximum factored count speed is 20,000 Hz. The maximum factored rate is 7 digits.

Dimensions:



Termination:

- 1- NOT USED
- 2- SCALED OUTPUT O.C.
- 3- ANALOG OUTPUT (SINK)
- 4- INPUT A (PULSE/ANALOG)
- 5- RESET INPUT
- 6- NOT USED
- 7- NOT USED
- 8- NOT USED
- 9- NOT USED
- 10- NOT USED
- 11- GROUND (-DC)
- 12- GROUND (-DC) INPUT COMMON
- 13- +12 VDC OUT
- 14- +DC POWER IN
- 15- ISOLATED -12VDC
- 16- ISOLATED +12VDC
- 17- AC IN
- 18- AC IN
- 19- NOT USED
- 20- NOT USED



Ordering Information

Part#	Description
IN-60	4-20 mA Analog Input, 110 VAC or 12-27 VDC, 2 Control Relays