



SPECIFICATIONS:

POWER: 18 watts maximum.

Input Power:

AC Operation—120/240 VAC
(+ 10%, -20%) 50/60 Hz

DC Operation—11 to 16 VDC maximum current 1 amp

Output Power: 15 (+ 1, -2) VDC, .1 amp maximum. Available when input power is 120/240 VAC.

Memory: The control contains a Nonvolatile RAM memory. Program information and count value is stored in this memory and is unaffected by power loss.

PRESET:

Two levels — range 0 to 999999.

Batch or Count Total Preset—range 0 to 999999.

COUNT INPUTS:

Count Speed:

0 to 5 KHz

0 to 150 Hz (Low-speed jumper installed).

Count Modes:

"Add" and "Subtract" inputs with doubler. Count input with up/down direction input.

Count Input Type and Ratings: The count inputs are designed to work with current sinking sensors (NPN types), or contact closure to DC Common terminal. The voltages at the input terminals must change from a high to low state for a count to be entered.

High State—24.5 to 10.5 VDC at 120/240 VAC Input Power.

Low State—0 to 4.5 VDC at 120/240 VAC Input Power.

High State—24.5 to 7 VDC at 11 VDC Input Power.

Low State—0 to 3 VDC at 11 VDC Input Power.

Input Impedance:

6800 ohms to 15 VDC at 120/240 VAC Input Power.

6800 ohms to 10 VDC at 12 VDC Input Power.

High-Speed Operation:

Minimum 20 μ sec. at .1 VDC.

Minimum 110 μ sec at 15 VDC.

Low-Speed Operation:

Minimum 1 ms at .1 VDC.

Minimum 5.5 ms at 15 VDC.

Current: 20 mA peak and 3 mA steady state.

OPERATING MODES:

Reset Mode: Preset 1 outputs occur when count matches preset 1, preset 2 outputs occur when count matches preset 2. Counter can be reset to zero via front panel start switch or reset input.

Preset Mode: Preset 1 outputs occur when count matches preset 1, preset 2 outputs occur when count reaches zero. Counter can be reset to the value of preset 2 via front panel start switch or reset input.

Auto Recycle: Counter automatically recycles to zero or preset.

Reset Input Mode: Maintained or momentary.

Totalizer Counting Continuous: Totalizer counter cannot be reset except by setup instructions.

Totalizer Counting Resettable: Totalizer counter resets to zero via front panel reset switch or reset input.

CONTROL INPUTS:

Reset: A contact closure or NPN transistor connected from terminal 17 to DC Common will enter a reset input. The contact or transistor must be rated to handle:

Voltage: 15 V maximum.

Current: 10 mA peak and 3 mA steady state.

Minimum Closure or Turn-On Time: 10 ms.

Remote Stop:

The contact closure or NPN transistor connected from terminal 2 to DC Common will enter an unlatch input. The contact or transistor must be rated to handle:

Voltage: 15 V maximum.

Current: 10 mA peak and 3 mA steady state.

Minimum Closure or Turn-On Time: 5 ms.

Program Inhibit: A program inhibit input will prevent the following functions from being changed: Count Modes, Decimal Point, Operating Modes, Preset Values, Output Modes, Communications, Diagnostic Modes

OUTPUT RELAY AND TRANSISTORS:

Two transistor and relay output for preset 1. Two transistor and relay output for preset 2. One transistor output for totalizer preset (pulsed out).

Two relays which can be connected to any of the transistor outputs.

Relay Rating: One form C contacts (SPDT), rated 5 amps, 120/240 VAC, resistive of 1.5 amps, 120/240 VAC, 80% power factor.

Transistor Ratings: Open collector (NPN) transistor, maximum voltage — 30 VDC. Maximum Sink Current—300 milliamperes. The transistor is protected against transient over voltages via a zener diode.

OUTPUT MODES:

Time Out: Has independent timers for preset 1 and preset 2. Timer range is from .01 to 99.99 (-.5%, +.01) seconds.

Latch Until Reset Complete: Unlatch preset outputs with the completion of a reset input.

Totalizer Output: Totalizer output turns off when the totalizer count matches the totalizer preset.

Totalizer Latch Until Reset Complete: Totalizer output unlatches with the completion of a reset input.

Totalizer Unlatch: Totalizer output remains unlatched until instruction is keyed in to turn output off

DECIMAL POINT: Programmable.

DIAGNOSTIC MODES:

Self-diagnostics which test the ROM, RAM and nonvolatile RAM memories for faults. It also turns the LEDs on in a pattern sequence which permits visual examination of the displays.

COMMUNICATIONS:

Two-way communication via two 20-milliamperes current loop using ASCII code. The baud rate can be set to 110, 300 or 1200. Data is sent by print input or serial input of ASCII "?". Both the count value and preset values can be sent. The preset value can be programmed by the serial input. The counter will accept a new preset value when an ASCII "A" is received followed by the preset value followed by ASCII "=". The control can also send the totalizer count and preset values and receive new totalizer preset values.

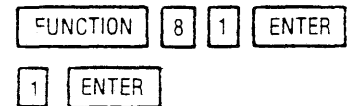
ENVIRONMENTAL:

Operating Temperature: (32° F to 130° F.)
0° C to +55° C.

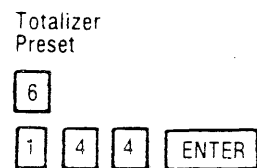
Storage Temperature: (-40° F to 160° F.)
-40° C to +70° C.

TYPICAL PROGRAMMING

Several coded functions are provided for convenient keyboard selection. To set the control to automatically recycle at the preset value, for example, the following keystrokes are used:



To set the totalizer preset values at 144, the following keystrokes are used:

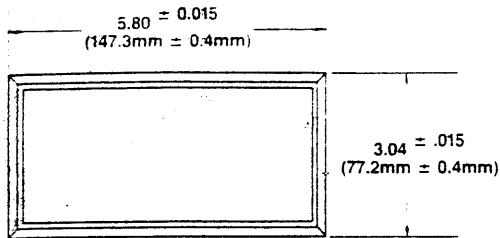


PRESCALING

Six digit prescaling is available. Range is from 9.99999 to 0.00001.

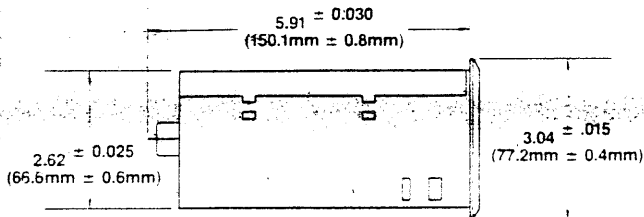
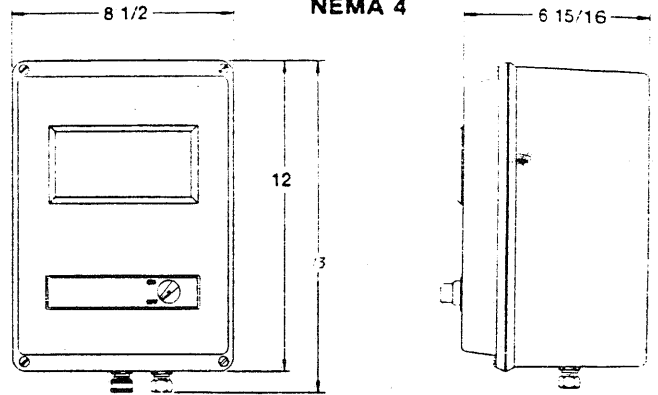
DIMENSIONS

PANEL MOUNT

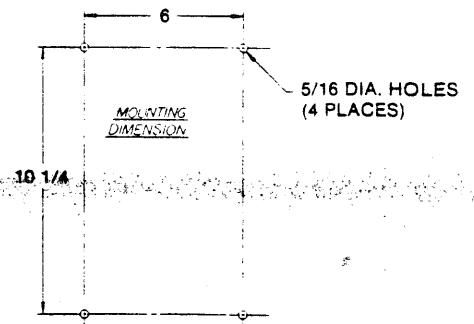


Front View

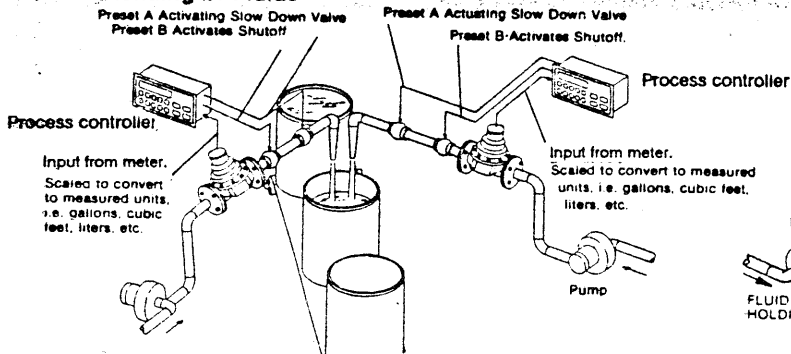
WALL MOUNT NEMA 4



Side View

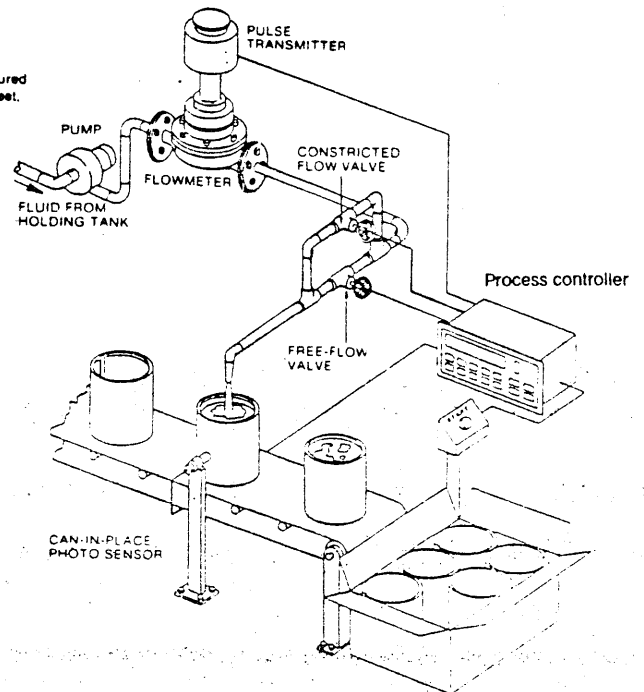


Blending of Fluids

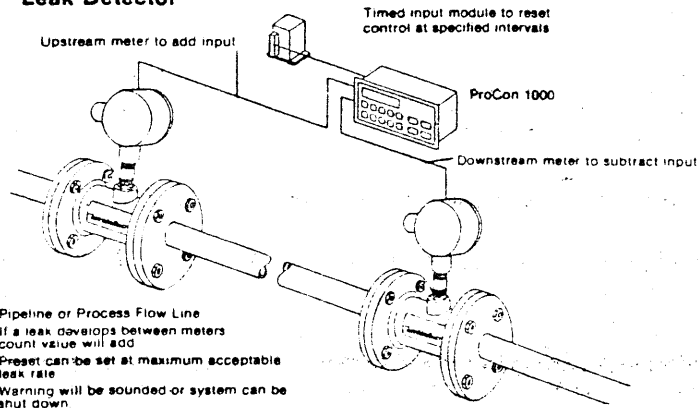


SYSTEMS APPLICATIONS

Fluid Dispensation and Batching



Leak Detector



SERFILCO, LTD.

1234 Depot St.
Glenview, IL 60025
Telex: 289557 SERFC UR

312/998-9300
800-323-5431
FAX No. 312-998-8929

EASTERN
717/656-2161
FAX No. 717-656-0477

WESTERN
213/588-0801
FAX No. 213-588-6826