

Specification Sheet

Industrial Model R-420 Rate Indicator/Transmitter Totalizer with 4-20 mA Signal



Description

The model R420 microprocessor based rate indicator/transmitter totalizer, affords you the ability to display rate, total and (low/high) set points. The transmitter also supplies outputs for driving lights, alarms, totalization for remote and 4-20 mA signal for communication with recorders or like equipment.

A special mode gives you the capability of viewing two parameters such as rate and total at the same time. The R420 contains a set point lockout system to prevent unauthorized changes from the front panel.

The R420 is equipped with an easy to use menu system for programming. The transmitter features a 10-year memory back-up of all program settings, in case of power failure.

The R420 has RS-485 communications for interfacing with a computer.

Features

- * High visibility, 16 character, vacuum fluorescent display.
- * Single key access to display values or set points.
- * Simultaneous Display of two values.
- * Four electronic outputs for control and remote totalization.
- * Set points may be locked to prevent changes.
- * 5 control inputs for remote operation.
- * Easy menu for password-protected field programming.
- * Built-in power supply for transmitters.
- * 10 year memory.
- * RS-485 communications.

Specifications

(Flow) Input:

Pulse or Contact Closure. Internal 5.8K ohm pull-up resistor to 5 VDC.

Input A:

Flow input, frequency: 40, 400, or 7500 HZ. Averaging may be performed to smooth pulsating flow conditions (requires programming).

Control Inputs:

Pulse or contact closure. There are five wired control inputs that can be used for remote operations.

1. Unlatched totalizer set point output.
2. Reset totalizer count.
3. Unlatched rate Hi/Lo set point output.
4. Unlatched totalizer and rate set point outputs.
5. Reset totalizer count, unlatch totalizer and rate Hi/Lo set point outputs.

Current output:

4-20 mA. Loop power may be obtained from the internal 24 VDC supply.

Load impedance: 1000 Ohms at 24 VDC.

Response Time: 0.5 Sec. or (follows rate indicator).

Accuracy: + 0.1% of point at 70 °F.
+ 0.25% over temp. range.

Control Output:

Four electronic outputs may be used to drive electromechanical devices, lights, alarms, computer. Outputs are capable of controlling loads up to 150 mA max., 30 VDC max.

1. Scaled pulse output with designated pulse width.
2. Totalizer set point output.
3. Low rate set point output.
4. High rate set point output.

Note: Rate Hi/Lo Set point output operations may either: follow the flow; be latched; or be timed from 0.01 to 99.99 seconds. The totalizer set point output operation may be either: latched; or timed from .01 to 99.99 seconds.

Accuracy: + 0.05% of point.
 K Factor: 0.0001 to 99999
 Rate Update: 99 sec. max. to 0.5 sec. min.

Rate Smoothing: Designate 0.5 to 7.5 second dynamic averaging on 0.5 second increments appropriate to flow input speed to 2 HZ and above.

Temperature:

Operating: 32 to 131°F. (0 to 55°C.)
 Storage: -40 to 158°F. (-40 to 70°C.)

Power Supply:

115 VAC. When powered from AC source, the R420 will output 24 VDC at 100 milliamps max. The unit may also be powered by 18 to 27 VDC if AC power is not used.

Display:

Six digit flow rate indication.
 Three alphabetical character display flow rate units.
 Ten digit flow totalization.

Weight:

2 lbs.

Enclosure:

Panel Mount: Key Pad is NEMA 4x with gasket.

Communication:

Type: RS-485 multidrop wiring terminals.

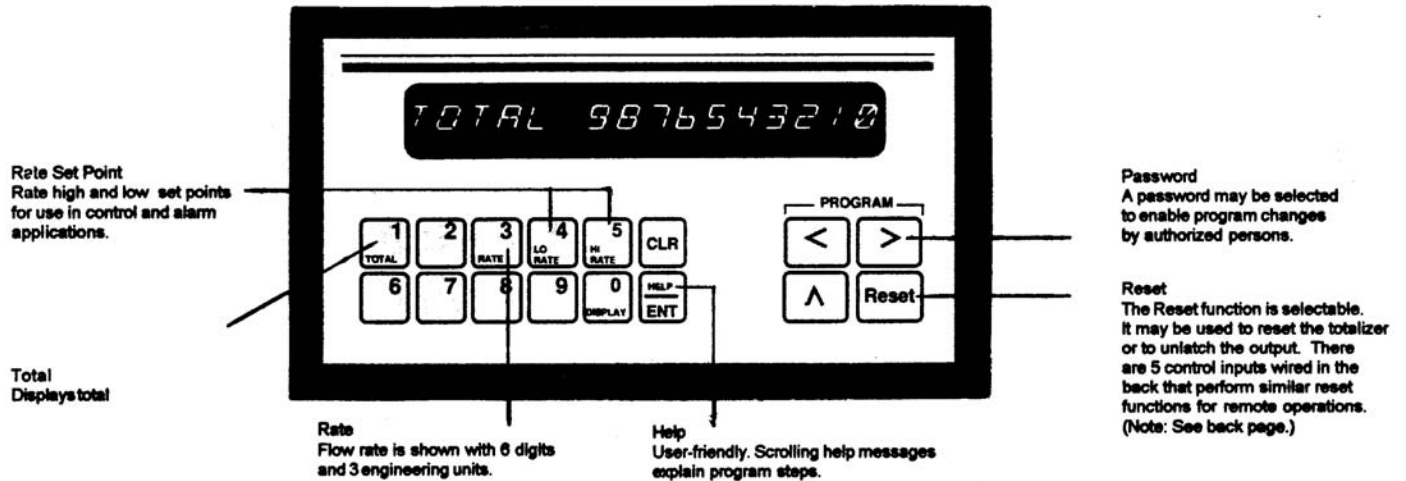
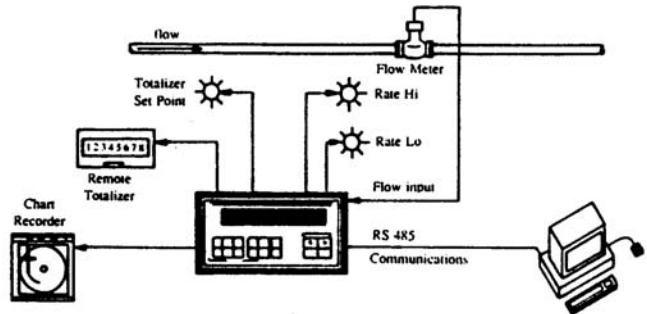
Wiring Terminals:

14 AWG max.; detachable.

Dimensions (panel mount)

Panel Cutout:	Front Panel:
Height: 2.62"	Height: 3.42"
Width: 5.38"	Width: 6.18"
Depth: 4.125"	

Typical Application



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