



The model IT200N industrial remote rate indicator is a battery-powered device that provides flow rate in most engineering units. Rate is displayed via an eight digit Liquid crystal display. Selection of the reset function is accomplished

externally by a magnetic field. This particular feature retains the unit integrity permitting complete operational control in hazardous environments. Negatives previously associated with LCDs-poor cold-temperature performances, condensation (the result of LCD heaters), and display ghosting have all been eradicated by incorporating a low-temperature coefficient LCD (-35 C). All monolithic and discrete devices of the IT200N have temperature specifications of 40-125 C. In addition, the IT200N provides a pulse output. The scaled pulse output is an open drain configuration in which the pulse amplitude assumes the level of the host device.

## Theory of Operation

The IT200N amplifies and shapes the incoming pulses generated by the turbine flowmeters' response to flow. The amplified pulse train is then divided, factored by a phase locked loop(PLL), and combined with a crystal timebase circuit for absolute accuracy.

## Calibration

Field calibration is accomplished by incorporating a calibration factor based on the K-factor. Divider switches provide divisional increments of 1-99,999. The calibration factor is entered via 5 BCD switches for the rate function.

## Model IT200N Specifications

### Display:

8-digit LCD 0.3"  
Rate: 5-digit

### Power input:

Internal AA Lithium battery  
Battery life: typically 3yr @24hr./day and max flowrate

### Flowmeter input:

Frequency: 0-10KHz  
Sensitivity: 50mV-36V sine or square wave. (field adjustable)  
Impedance: 10Kohms

### Digital pulse output:

Factored pulse output via open drain @1A

### Accuracy:

Rate indicator  $\pm 1\%$

### Engineering units:

Any engineering unit is available.  
Input factoring: 1-99,999

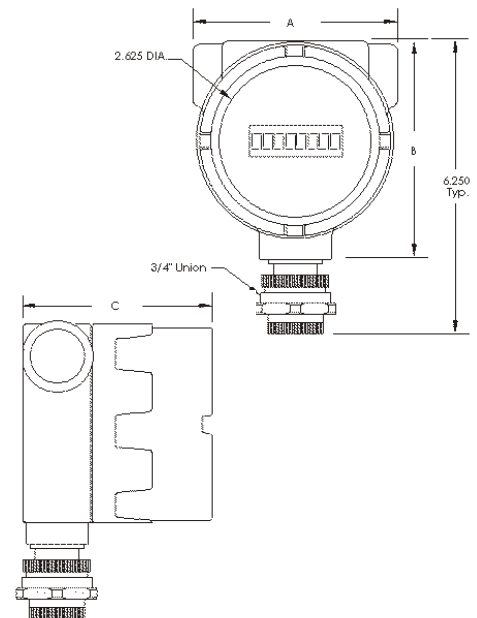
### Temperature:

Operating: 40-121°F(40-85°C)  
Storage: 85-257°F(65-125°C)

### Enclosure:

FM Approved, CSA Certified  
Class I, Division1, Groups B, C, & D  
Class II, Division 1, Groups E, F, & G  
NEMA 4  
Weight: 2.5lbs.  
Mounts directly on flowmeter  
Magnetic Reset

## Dimensions



Unit	A	B	C
IT150N	4.500	4.500	3.500
IT200N	4.500	4.500	3.500
IT275N	4.500	4.500	3.500
IT300N*	5.000	5.000	4.750

Dimensions in inches

\*Note. The IT300N is provided with two holes in the body not shown in the above figure which allow panel mounting. The holes are 5.25" apart and approx. 2.5" from the top of the unit.