

The Series I-340N2 Btu transmitter is an economical, compact device for sub-metering applications using Johnson Controls Metasys® Network Companion™ and Facilitator™ Supervision System.

The I-340N2 calculates thermal energy by measuring liquid flow in a closed pipe system and measuring temperature at the inlet and outlet points. The I-340N2 requires two 10 kΩ thermistors for temperature input. The flow input may be provided by any sensor and many other pulse or sine wave signal flow sensors.

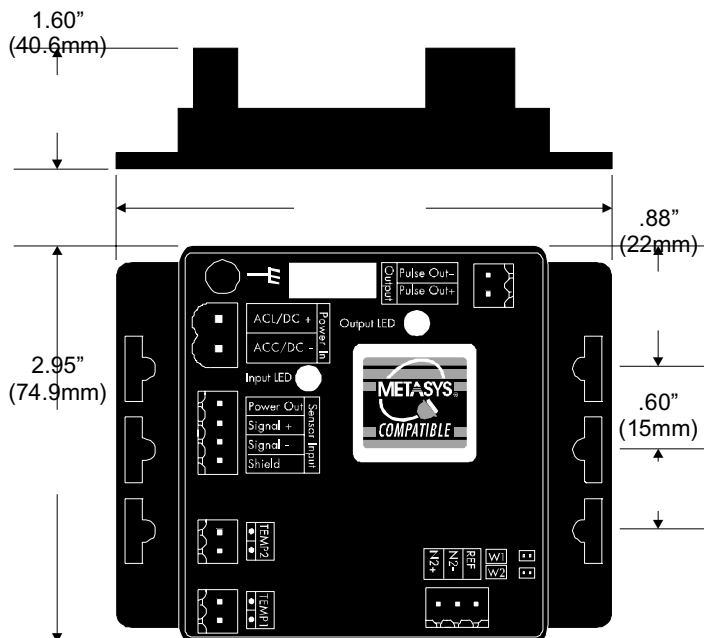
The onboard microcontroller and digital circuitry make precise measurements and produce accurate drift-free outputs. The I-340N2 is commissioned using Windows® based software and a I-A302 programming cable. Calibration information for the flow sensor, units of measurement and output scaling may be downloaded prior to installation or in the field. While the unit is connected to a PC or laptop computer, real-time flow rate, flow total, both temperature readings, energy rate and energy total are available.



Series I-340N2 Ordering Matrix

		EXAMPLE: I- 340N2 - xx	
SERIES	Btu Transmitter with N2 Output	I-340N2	xx
OPTIONS	Transmitter Only		00
	W / Metal Enclosure		02
	W / Plastic Enclosure		03
	W / DIN Rail Mounting Clips		04

Transmitter Only



The Series I-340N2 transmitter features two LED's to verify input and output signals.

The standard output for the Series I-340N2 is an isolated solid state switch closure that is user programmed for units of energy. The output pulse width is adjustable from 50 mS to 5 Sec.

The secondary output is an RS-485 compliant signal.

The Series 340 Btu transmitter operates on AC or DC power supplies ranging from 12 to 24 volts.

The compact cast epoxy body measures 3.65"(93mm) x 2.95"(75mm) and can be easily mounted on panels, DIN rails or in enclosures.

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SPECIFICATIONS

Power

Power supply options:
 12-35 VDC +/- 5%
 12-24 VAC +/- 10%
 Current Draw:
 60 mA @ 12 VDC

Flow Sensor Input

All sensors:
 Excitation voltage 3 wire sensors:
 7.9 – 11.4 VDC 270Ω source impedance
 Pulse type sensors:
 Signal amplitude:
 2.5 VDC threshold
 Signal limits:
 Vin < 35V (DC or AC peak)
 Frequency:
 0-10kHz
 Pull-up:
 2 kΩ
 Sine Wave Sensors:
 Signal amplitude:
 10 mV p-p threshold
 Signal limits:
 Vin < 35V (DC or AC peak)
 Frequency:
 0-10kHz

Temperature Sensor Input

2 required:
 10 kΩ thermistor, 2 wire, type II,
 10 kΩ @ 25°C

Pulse Output

Opto-isolated solid state switch
 Operating Voltage range:
 0 - ±60V (DC or AC peak)

Closed (on) state:
 Load Current - 700mA max. over operating temperature range
 On-resistance - 700mΩ max. over operating temperature range
 Open (off) state – leakage @ 70°C
 <1μA @ 60V (DC or AC peak)

N2 Output

RS-485 output compliant with EIA / TIA - 485 standards

Operating Temperature

-29° C to +70° C
 -20° F to +158° F

Storage Temperature

-40° C to +85° C
 -40° F to +185° F

Weight

4.8 oz. with headers installed

SENSOR CALIBRATION

Use “K” and “offset” provided in sensor owner’s manual

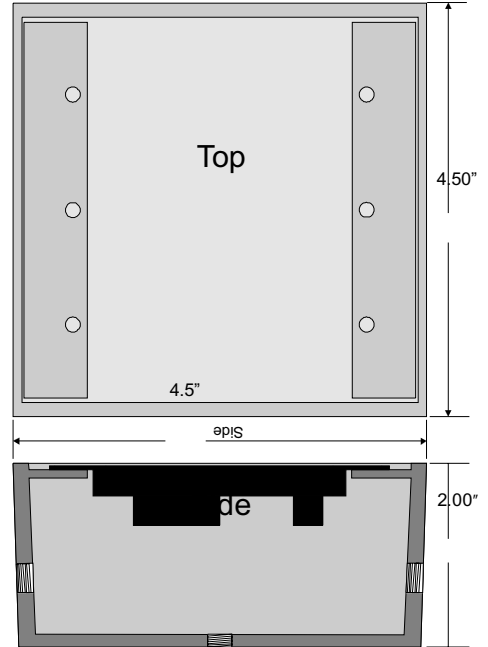
Other Sensors

Check with factory

UNITS OF MEASURE

Flow measurement

Rate:
 gpm, gph, l/sec, l/min, l/hr, ft3/sec, ft3/min, ft3/hr, m3/sec, m3/min, m3/hr
 Total:
 gallons, liters, cubic feet, cubic meters



Energy measurement

Rate
 kBtu/min, kBtu/hr, kW, MW, hp, tons
 Total
 Btu, kBtu, MBtu, kWh, MWh, kJ, MJ

Temperature Units

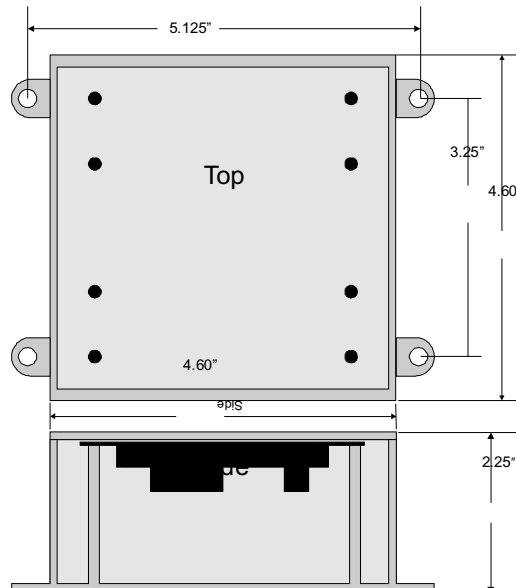
Fahrenheit, Centigrade

PROGRAMMING

Requires PC or laptop running Windows® 9x, ME, NT, 2000

I-A-340N2 programming kit containing software and I-A302 programming cable

Plastic Enclosure Dimensions



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