

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

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

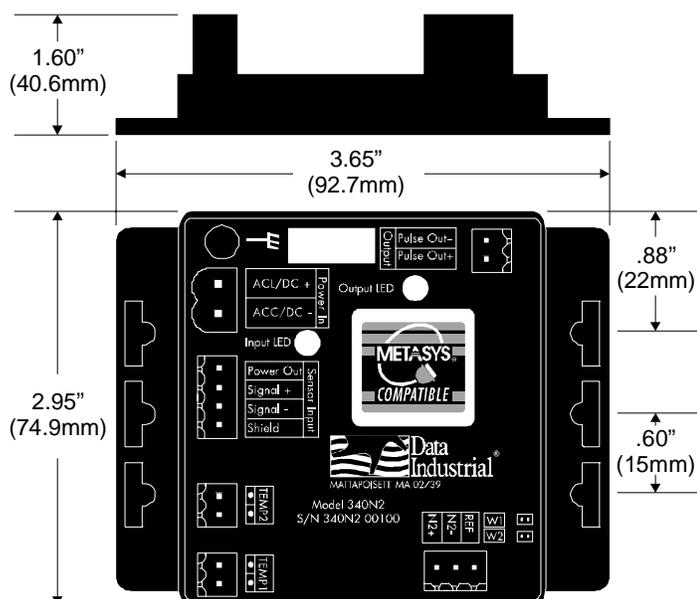
The onboard microcontroller and digital circuitry make precise measurements and produce accurate drift-free outputs. The 340N2 is commissioned using Data Industrial's Windows® based software and a Data Industrial A302 programming cable. Calibration information for the flow sensor, units of measurement 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 340N2 Ordering Matrix

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

Transmitter Only



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

The standard output for the Series 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.

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

Data Industrial

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

Other Sensors

Check with factory

UNITS OF MEASURE

Flow measurement

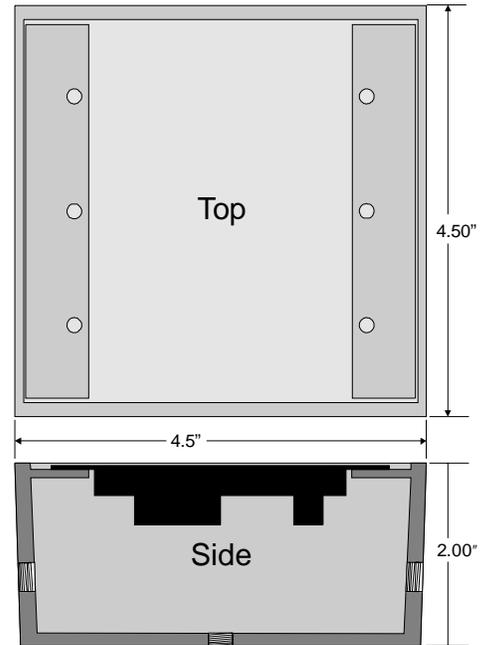
Rate:

- 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

Metal Box Dimensions



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

Data Industrial A-340N2 programming kit containing software and A302 programming cable

Plastic Enclosure Dimensions

