Badger Meter

Data Industrial® Series 340LW

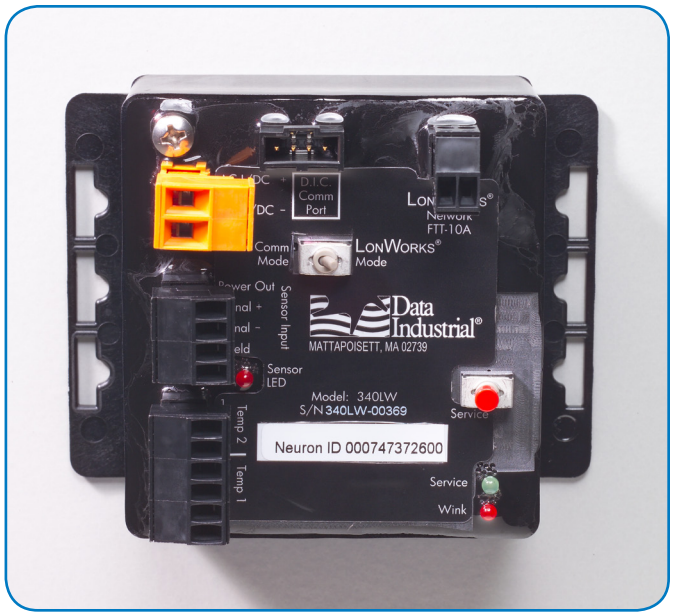
Btu Transmitter with LonWorks® Communication

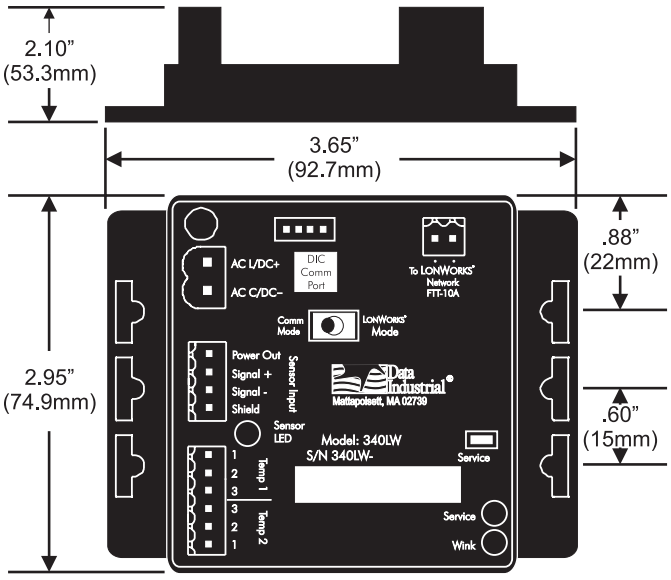
OVERVIEW

The Data Industrial Series 340LW Btu Transmitter from Badger Meter is an economical, compact device for sub-metering applications that communicate via a LonWorks® network.

The Series 340LW calculates thermal energy in a closed pipe hydronic system by integrating the flow and temperature inputs. The Series 340LW can accept the signal from any Data Industrial raw pulse flow sensor, as well as many other pulse and sine wave devices. Temperature inputs are accepted from standard 10K Ω (Type II) thermistors.

The on-board microcontroller and digital circuitry make precise measurements and produce accurate, drift-free outputs. The Series 340LW is commissioned using Badger Meter Windows® based software. Calibration information for the flow sensor, type and pipe size may be pre-selected or entered in the field. When a PC or laptop computer is connected, the same data that is transmitted across the Modbus network is shown in real time. This includes flow rate, flow total, energy rate, energy total, supply and return temperatures and Delta T.





Transmitter Only

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

Series 340LW Ordering Matrix

The Series 340LW features three LEDs to verify the sensor input "signal," and LonWorks "service" and "wink."

The Series 340LW communicates on a two-wire RS-485 network to transmit flow rate, flow total, energy rate, energy total, supply and return temperatures and Delta T. As with most LonWorks devices, the Series 340LW transmits using the International System of Units (SI) and Standard Network Variable Types (SNVTs).

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

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

Technical Brief

SPECIFICATIONS

Flow Sensor Input

All Sensors

Separate excitation voltage is provided for three wire sensors 7.9 to 11.4 VDC with 270 Ω source impedance

Pulse Type Sensors

Signal amplitude

2.5 VDC threshold

Signal limits

Vin < 35V (DC or AC peak)

Frequency

0 to 10 kHz

Pull-up

To 9.1 VDC with 2k Ω

Sine Wave Sensors

Signal amplitude

10 mV p-p threshold

Signal limits

Vin < 35V (DC or AC peak)

Frequency

0 to 10 kHz

Power

Power Supply Options

12 to 24 VDC

12 to 24 VAC

Current Draw

60 mA at 12 VDC

Temperature Sensor Input

Two required

10k Ω thermistor, 2 wire, type II, 10k Ω at 25ºC

Operating Temperature

-29ºC to 70ºC

-20ºF to 158ºF

Storage Temperature

-40ºC to 85ºC

-40ºF to 185ºF

Weight

4.8 oz with headers installed

Sensor Calibration

Data Industrial

Use K and offset values provided in sensor owner's manual

Other Sensors

Check with factory

Measurement Outputs

Transmitted in SI units

Flow

Rate and total

Energy

Rate and total

Temperature

Temperature 1

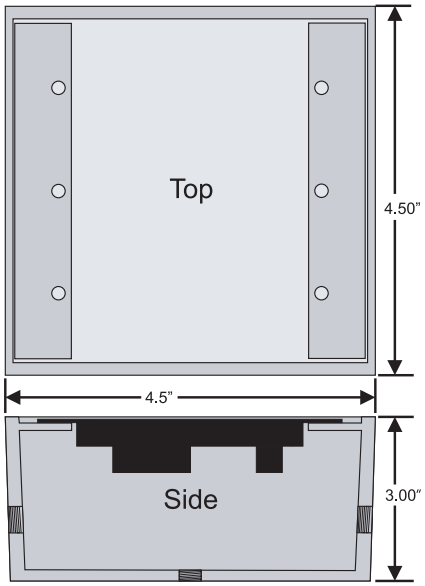
Temperature 2

Programming

Requires PC or laptop running Windows® 7, 9x, ME, NT, or 2000 and Data Industrial A301-20 Programming Kit

Accessories

Data Industrial A301-20 Programming Kit



Metal Box Dimensions

LONMARK®

Data Industrial®

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