



Impeller

Data Industrial®

Transmitters

Model 340LW Btu with LonWorks®

DESCRIPTION

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

The Model 340LW transmitter calculates thermal energy in a closed pipe hydronic system by integrating the flow and temperature inputs. The Model 340LW transmitter 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 onboard microcontroller and digital circuitry make precise measurements and produce accurate, drift-free outputs. The Model 340LW transmitter is commissioned using Badger Meter Windows® based software. Calibration information for the flow sensor, type and pipe size can 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.

A nonvolatile memory requiring no battery back up protects the data from power loss.



The Model 340LW transmitter features three LEDs to verify the sensor input “signal,” and LonWorks “service” and “wink.”

The Model 340LW transmitter 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 Model 340LW transmitter transmits using the International System of Units (SI) and Standard Network Variable Types (SNVTs).

The Model 340LW transmitter operates on AC or DC power supplies, ranging from 12 to 24 volts. The compact cast epoxy body measures and can be easily mounted on panels, DIN rails or enclosures.

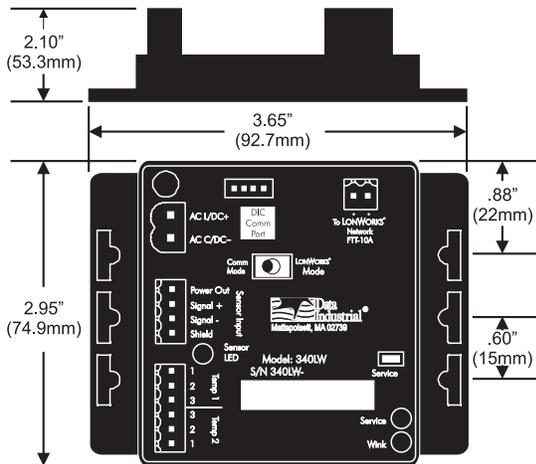


Figure 1: Transmitter only

ORDERING MATRIX

	EXAMPLE:	340LW	-	xx
Series	Btu Transmitter with LonWorks Output	340LW		
Options	Transmitter Only			00
	w/ Metal Enclosure			02
	w/ DIN Rail Mounting Clips			04



Badger Meter

XMT-DS-01633-EN-03 (September 2015)

SPECIFICATIONS

Flow Sensor Input		
All Sensors	Separate excitation voltage is provided for three-wire sensors 7.9...11.4V DC with 270 Ω source impedance	
Pulse Type Sensors		
Signal Amplitude	2.5V DC threshold	
Signal Limits	$V_{in} < 35V$ (DC or AC peak)	
Frequency	0...10 kHz	
Pull-up	To 9.1V DC with 2k Ω	
Sine Wave Sensors		
Signal Amplitude	10 mV p-p threshold	
Signal Limits	$V_{in} < 35V$ (DC or AC peak)	
Frequency	0...10 kHz	
Power		
Power Supply Options	12 to 24V DC	12 to 24V AC
Current Draw	60 mA at 12V DC	
Temperature Sensor Input	Two required: 10k Ω thermistor, 2 wire, type II, 10k Ω at 25°C	
Operating Temperature	-29...70°C	-20...158°F
Storage Temperature	-40...85°C	-40...185°F
Weight	4.8 oz with headers installed	
Sensor Calibration		
Data Industrial	Use K and offset values provided in sensor owners 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, XP or Vista and A301-20 programming kit	
Accessories	A301-20 programming kit	

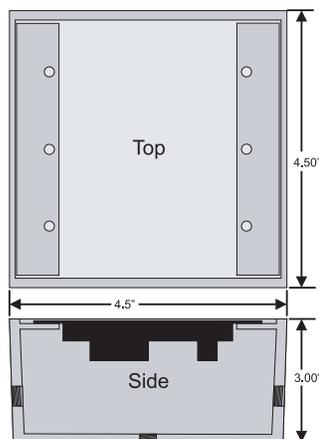


Figure 2: Metal box enclosure



LONMARK®

Figure 3: LonWorks symbol

Control. Manage. Optimize.

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