

BTU-2

The BTU-2 module is a stand-alone microprocessor based controller for monitoring BTUs and electrical consumption. The application would include metering and data logging.

Overview

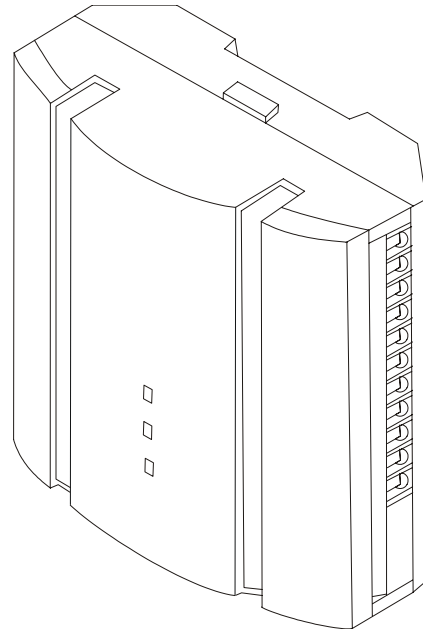
Analog inputs are provided for supply water temperature, return water temperature and flow.

For energy monitoring, digital inputs are provided

The controller is based on the LONWORKS® networking technology. The controller can be networked to a higher-level control system for monitoring and control applications.

Features

- Supply water temperature measurement
- Return water temperature measurement
- Flow measurement
- Calculation of momentary Energy Rate, Flow Rate
- Accumulation of BTU's per day and in total
- Accumulation of Volume per day and in total
- Logs for Energy consumption and Flow (previous 30 days)
- Energy meter digital input for pulse counting
- Energy monitoring "end of period" digital input
- Current energy measurement
- Current daily energy consumption measurement
- Log of daily energy consumption (previous 30 days)
- Log of interval energy usage (previous 30 days)
- Pipe sizes of 1/4", 1/2", 3/4" and 1 1/4" (up to 55GPM)
- Configurable for different Flow Meter sizes
- Configurable for different Water-Glycol ratios
- "LONWORKS interface to building automation systems.
- Automatic configuration with the LCI



Innovex Technologies
511 Braddock Avenue
Turtle Creek, PA 15145
www.innovextechnologies.com

iWorX is a trademark of Innovex Technologies
LON, LONWORKS, & LONMARK are trademarks of Echelon Corporation

Specifications

Electrical

Inputs

- Cabling: twisted shielded pair, 18 AWG recommended—500 feet max. (152 meters)
- Resolution: 10 bit

Supply Water Temperature, Flow

- 0-10 Volts DC

Return Water Temperature

- Precon Type III 10K thermistor

Energy Monitor, End of Interval

- Normally open
- 5 Volts DC Max

FTT-10A Network

- Speed: 78 KBPS
- Cabling: Maximum node-to-node distance: 1312 feet (400 meters)
- Maximum total distance: 1640 feet (500 meters)

For detailed specifications, refer to the FTT-10A Free-Topology Transceiver User's Guide published by Echelon Corporation. For information on ordering Connect Air items, contact Connect Air International; 4240 B Street; Auburn, WA 98001 <www.connect-air.com>.

Table 1: Network Wire Specifications

Cable Type	Pairs	Details	Connect Air Catalog No.
Level 4 22AWG (0.65mm)	1	Unshielded, Plenum, U.L. Type CMP	W221P-2001
Level 4 22AWG (0.65mm)	1	Unshielded, Non-Plenum, U.L. Type CM	W221P-1002

Power

Power Requirements

- 24 VAC nominal (requires an external supply)

Power Consumption

- 15 VA

Mechanical

Housing

- Dimensions: 4 3/8" high, 4 5/16" wide, 2" deep (111 mm high, 110 mm wide, 51 mm deep)
- ABS Polycarbonate

Weight

- Controller Weight: 0.45 pounds (0.22 kilograms)
- Shipping Weight: 0.60 pounds (0.28 kilograms)

Electronics

- Processor: 3150 Neuron 10 MHz
- Flash: 48 Kilobytes
- SRAM: 8 Kilobytes
- Termination: 0.197" (5.0 mm) Pluggable Terminal Blocks, 14-22 AWG

Environmental

- Temperature: -40 °F to 185 °F (-40 °C to 85 °C)
- Humidity: 0 to 90%, non-condensing

Agency Listings

- UL916

Agency Compliances

- FCC Part 15 Class A
- CE