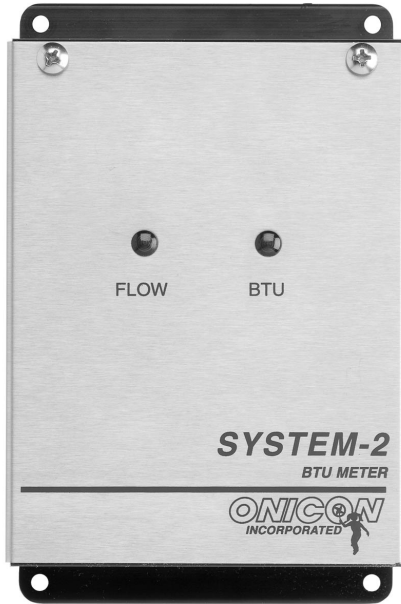


**SYSTEM-2 BTU METER
MODEL 210
TWO PIPE HEATING AND COOLING**



Made in the USA

GENERAL SPECIFICATIONS

CALIBRATION

Flow meter and temperature sensors are individually calibrated, followed by a complete system calibration. Field commissioning is also available.

ACCURACY

Differential temperature accuracy $\pm 0.15^\circ$ F over calibrated range
Computing nonlinearity within $\pm 0.05\%$

TEMPERATURE RANGE

Liquid temperature range: 32° to 200° F
Ambient temperature range: 40° to 120° F

TEMPERATURE SENSORS

Solid state sensors are custom matched by ONICON

INDICATOR(S)

Standard: Diagnostic LEDs corresponding to liquid flow rate and energy rate
Optional: Integral LCD for energy total
Remote register for energy total

OUTPUT SIGNALS

Two isolated solid state dry contacts for energy total AND mode indication
Contact rating: 100 mA, 50 V

LIQUID FLOW SIGNAL INPUT

Input: 0-15 V pulse output from any of ONICON's insertion or inline flow meters.

DESCRIPTION

The System-2, Model 210 BTU Meter provides highly accurate thermal energy measurement based on signal inputs from two matched temperature sensors (included) and any of ONICON's insertion or inline flow meters (ordered separately). The Model 210 is designed for combined two-pipe heating and cooling systems in residential and light commercial buildings.

FEATURES

Single Source Responsibility - One manufacturer responsible for the manufacture, component compatibility and calibration of the entire BTU measurement system.

NIST Traceable Calibration with Certification - Complete system-wide calibration for the entire BTU measurement system for each specific application with certification of calibration.

Precision Solid State Temperature Sensors - Custom calibrated and matched to an accuracy better than $\pm 0.15^\circ$ F over calibrated range.

Highly Accurate Flow Meters - Insertion turbine and inline turbine flow meters which are accurate to within $\pm 0.5\%$ at calibrated typical flow rate and will not exceed $\pm 2\%$ of actual reading over an extended 50:1 turndown range (0.4 - 20 ft/s).

Complete Installation Package - All mechanical installation hardware, color coded interconnecting cabling, and installation instructions are provided to insure error-free installation and accurate system performance.

APPLICATIONS

- Residential tenant billing
- Commercial office tenant billing

MODEL 210 SPECIFICATIONS cont.

MECHANICAL

ELECTRONICS ENCLOSURE:

Compact metal enclosure can be wall mounted or installed in a larger panel

TEMPERATURE THERMOWELLS:

Standard: 1/2" NPT brass thermowells (length varies with pipe size)

Note: 6" pipes and larger lines require SS thermowell option

Optional: 1/2" NPT stainless steel thermowells

Hot tap thermowells with isolation valves are available in plated brass or stainless steel

ELECTRICAL

SUPPLY VOLTAGE:

AC: 24 VAC ± 10%, up to 10 VA per system

DC: 22-28 VDC, up to 200 mA per system

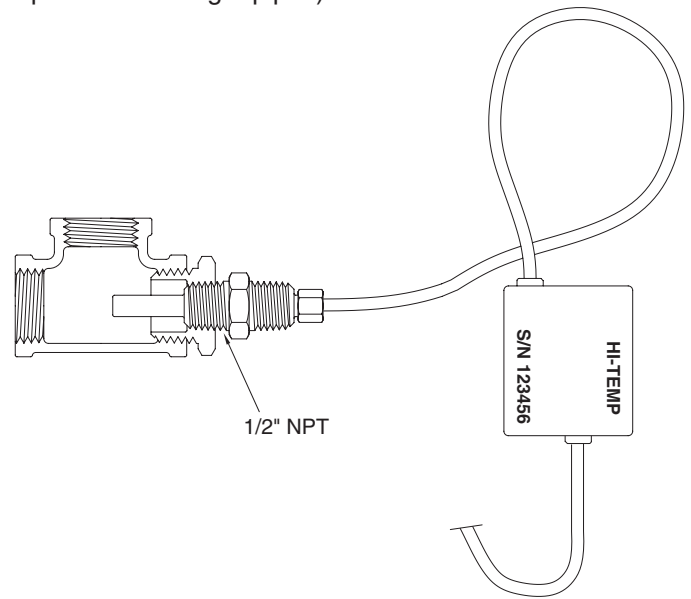
WIRING:

Standard pre-wired 10' plenum rated signal cables

Optional: 25ft, 50ft, 100 ft cables

STANDARD THERMOWELL DETAIL

(Shown in 1" threaded pipe; longer thermowells provided for larger pipes)



TYPICAL SYSTEM-2 INSTALLATION

(Cooling application shown)

