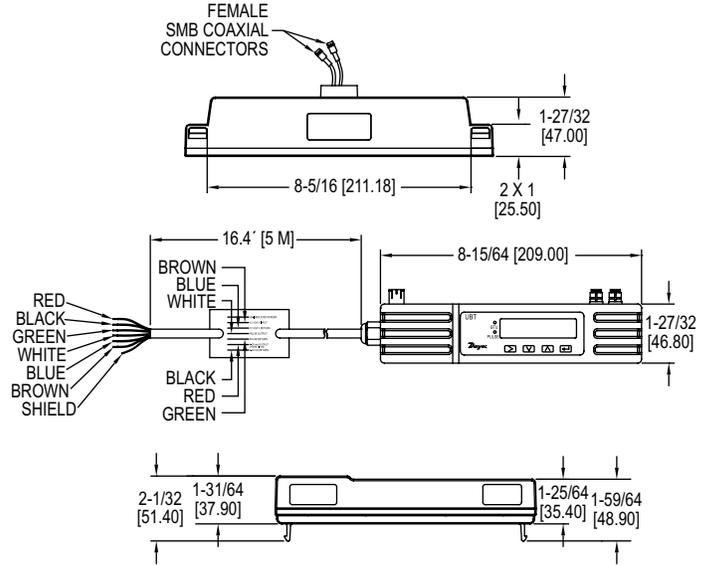


# CLAMP-ON ULTRASONIC THERMAL ENERGY METER

## NEMA 4 Enclosure with Integral Mounting Bracket



The **Series UBT Clamp-On Ultrasonic Thermal Energy Meter** is an economical clamp-on ultrasonic heat meter. It is an ultrasonic alternative to the traditional inline thermal energy meters. The series uses temperature sensors for energy measurement and ultrasonic waves with time differentials for flow measurement.

**FEATURES/BENEFITS**

- Non-invasive energy measurement
- Easy installation: Simply connect power and enter the pipe inside diameter, adjust the sensors and clamp the meter on the pipe
- Compact and lightweight design, featuring an easily installed, all-in-one clamp-on unit intended for homogeneous liquids that contain no air
- Screen displays energy rate and totalized energy with pulse output and communication options

**APPLICATIONS**

- Building services
- Energy management
- Heat/energy metering for energy management or building services utilizing chilled water circuits

MODEL CHART	
Model	Description
UBT-14	Clamp-on ultrasonic thermal energy meter, 3/4 to 4" (25 to 115 mm) pipe size
UBT-16	Clamp-on ultrasonic thermal energy meter, 5 to 7" (125 to 180 mm) pipe size
UBT-24	Clamp-on ultrasonic thermal energy meter with pulse and Modbus® communication output, 3/4 to 4" (25 to 115 mm) pipe size
UBT-26	Clamp-on ultrasonic thermal energy meter with pulse and Modbus® communication output, 5 to 7" (125 to 180 mm) pipe size

**SPECIFICATIONS**

**Service:** Clean water with <3% by volume of particulate content, or up to 30% ethylene glycol.  
**Range:** 0.3 ft/s to 32 ft/s (0.1 m/s to 10 m/s).  
**Display:** Backlit: 2.28" x 0.43" (58 mm x 11 mm), 2 line x 16 characters.  
**Accuracy:** ±3% of flow reading for velocity rate >1 ft/s (0.3 m/s).  
**Power Requirements:** 12 V to 24 V ±10% AC/DC at 7 watts per unit. Optional plug-in 12 V power supply.  
**Power Consumption:** 7 W (DC) or 7 VA (AC) max.  
**Temperature Limits:** Process: 32 to 185°F (0 to 85°C); Ambient: 32 to 122°F (0 to 50°C).  
**Outputs:** Pulse: 1 optoisolated MOSFET relay, 500 mA max, 166 pps max, 200 Hz max.  
**Humidity Limit:** 90% RH at 122°F (50°C) max.  
**Communication:** Pulse, Optional Modbus® communication.  
**Enclosure Rating:** IP54.  
**Enclosure Material:** Plastic polycarbonate.  
**Repeatability:** ±0.15% of measured value.  
**Electrical Connections:** 16.4' (5 m) cable.  
**Flow Direction:** Any.  
**Mounting Orientations:** Any.  
**Weight:** 1.10 lb (0.5 kg).  
**Agency Approvals:** CE.

**ADDITIONAL SPECIFICATIONS**

**Applicable Pipe Material:** Steel, SS, copper, or plastic.  
**Pipe Outside Diameter:** 3/4 to 4" (25 to 115 mm); 5 to 7" (125 to 180 mm).\*  
**Applicable Pipe Lining:** None.  
**Pipe Wall Thickness:** 0.02 to 0.36" (0.5 to 10 mm).

\*Pipe size is dependent on pipe material and internal diameter.