

Description

A system consists of a microprocessor, flowmeter, and a pair of temperature sensors. They are used to measure the individual energy consumption in virtually any liquid heating/cooling system such as apartment complexes, office buildings, and condominiums. The systems allow allocation of charges to individual consumers. The microprocessor provides a readout of BTU, volume, high, low, and differential temperature, hours of operation, flow rate, battery life, service parameters and many more. The unit contains two temperature and one flow input, and one control output. A user-friendly menu system makes programming simple when changes are required. A 10-year memory backs up all program settings in case of a power failure. The unit can be factory programmed for your application. Use with Niagara's Nutating Disc, Oscillating Piston, or Turbine flowmeters.

Technical Information

Functional Specifications

Power Supply	12 to 24 VDC 1 phase 50/60 Hz 115 VAC +10% - 15% 1 phase 50 Hz 230 VAC +10% - 15%
Temperature	32° F to 122° F (0° C to 50° C) operating - 40° F to 158° F (- 40° C to 70° C) storage
Display Digits	8
Flow Input	Contact closure
Control Output Model 7431	
Qty	2
Type	Current sinking (contact closure or npn transistor to ground)
Rating	10 mA @ 40 VDC maximum
Response	Duration of 0.5 seconds
Control Output Model 7437	
Qty	3
Type	Reed Switch - Form A (SPST) Dry Contact
Resistive	500 mA max, not to exceed 50 VAC or 75 VDC
RTD Sensors (optional)	Type: 500Ω Platinum 3 or 7 inch lengths 2 wire Model 7431; 4 wire Model 7437



Figure 1. Model 7431 BTU Calculator

Physical Specifications

Display	LCD
Wall Mount	NEMA 4X enclosure
Wiring	14 AWG maximum
Weight	Model 7431: 0.9 lbs Model 7437: 2.0 lbs

Ordering Information

Model 7431-1 or Model 7437-1/115 VAC
 Model 7431-2 or Model 7437-2/230 VAC
 Model 7431-3 or Model 7437-3/12-24 VDC

To allow programming:

1. _____ pulse per _____ gallon
2. State if the application is heating or cooling
3. Time Zone
4. Engineering Units (BTU or KW)
5. Flowmeter location-supply or return line

Dimensions (inch)

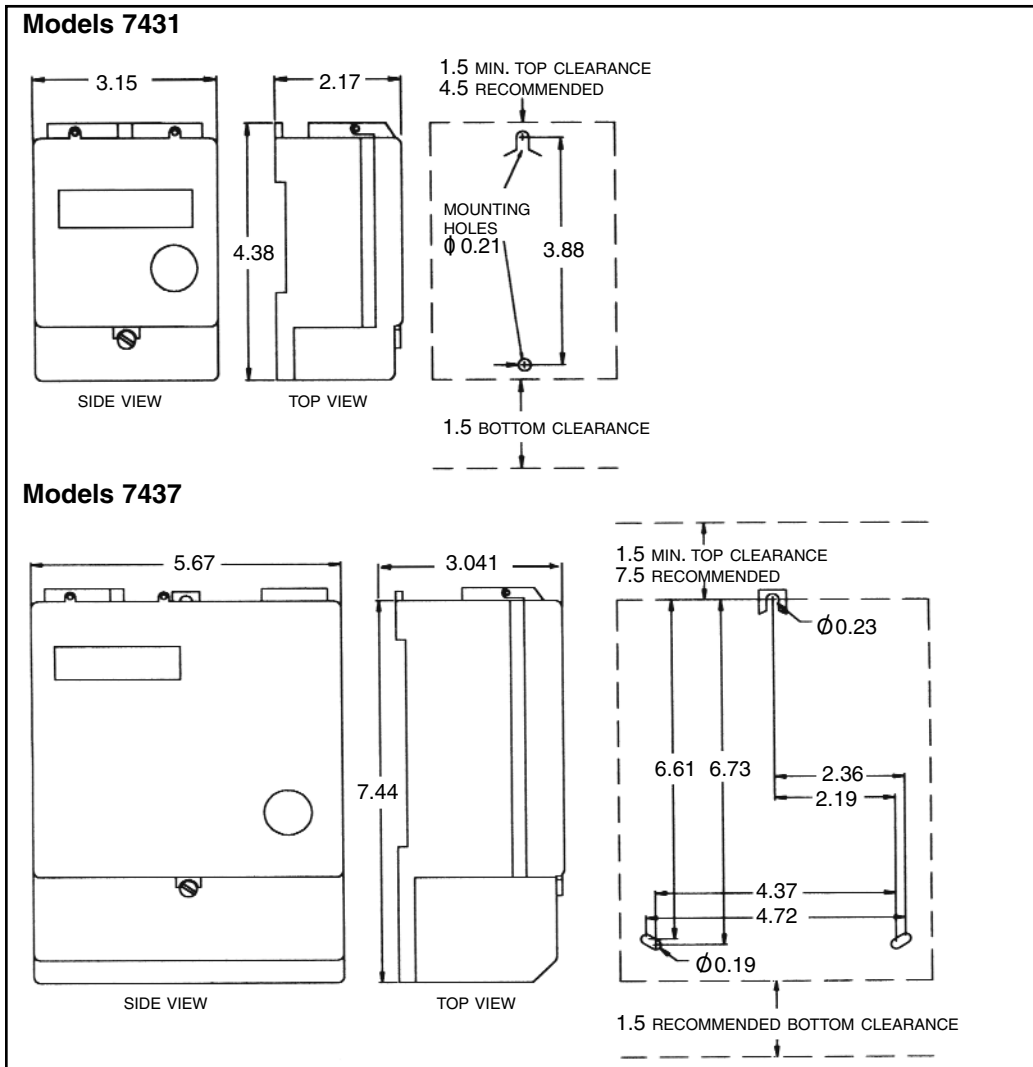


Figure 2