



BTU METER

Net Heat Meter - Complete System for Commercial Complexes and Residential Tenant Billing

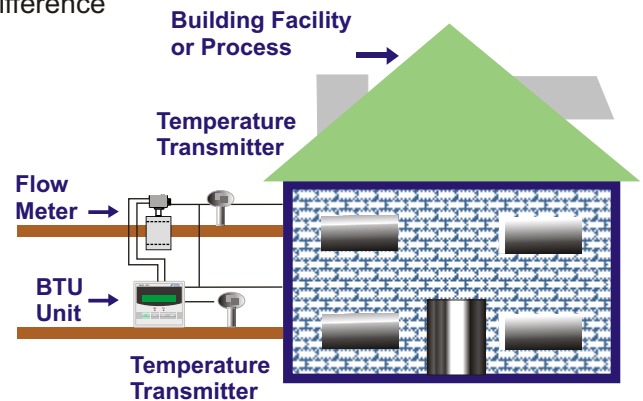
- Complete system comprising of Electromagnetic Flowmeter, Matched pair of Temperature transmitters and BTU computing unit
- Accuracy better than $\pm 1\%$ of (Optional $\pm 0.5\%$) of measured value
- Accurately calibrated flowmeters
- Microprocessor based signal converters ensure high accurate results over period of times

What is Net Heat Metering?

In almost all Cooling applications chilled water is used. One is interested in knowing the amount of energy extracted from the cooling media and not the flow rate. This involves the measurement of flow of the cooling medium, the inlet and outlet temperature and then using temperature difference to calculate the Net Heat transferred.

Krohne Net Heat Meters (NHM) / British Thermal Unit (BTU) meters use accurately calibrated Electromagnetic Flowmeter, Matched pair of temperature sensors and computing unit to calculate Net Heat consumed.

$$\text{Net Heat} = Q_m \times \text{Enthalpy Difference (HT1 - HT2)}$$



Advantages over Conventional BTU metering systems:

In the conventional systems billing is done based on the area acquired by each tenant. This leads to heavy losses to the service provider or the tenant as the tenant pays according to the area acquired and actual consumption of energy is not calculated.

The Krohne BTU meters offer the billing based on the actual consumption of energy by each tenant. Thus each tenant pays only for the usage of the energy. This provides accurate billing solution.

Special Features

- Single source for flowmeters, temperature sensors and net heat computing unit
- The NHM system uses most accurate type of electromagnetic flowmeters for the measurement of flow
- All the flowmeters factory calibrated to ascertain highest accuracy over longer period of time
- Matched pair of accurately calibrated Temperature transmitters
- User defined flow units for the flowmeter
- Flowmeters display instantaneous and totalized flow
- User defined (Factory set) units for the Net Heat computing units
- Non volatile memory stores the data in case of power failures

Krohne BTU meters comprise of

- Accurately calibrated Electromagnetic Flowmeter
- Matched pair of temperature transmitters
- Panel or wall mounted BTU computing unit

Technical Specifications

Flowmeter – Primary head

Meter size	: DN 10 – DN 3000 / 3/8" – 120"
Design	: Sandwich version: DN 25 – DN 150 / 1" – 6" : Flanged version : DN 10 – DN 3000 / 3/8" – 120"
Sandwich version	: Suitable to install between ANSI 150 flanges
Measuring Tube	: SS 304
Electrodes	: SS 316, flat elliptical and surface polished
Liner	: Hard Rubber
Housing	: SS 316 (Sheet steel for sizes above DN 150 / 6")
Protection class	: IP 65 / IP 67
Signal converter	
Power supply	: 115 / 230 VAC, 50 Hz
Accuracy	: $\pm 0.5\%$ of measured value
Output	: 0 – 20mA or 4 – 20mA
Load	: 500 Ohm
Forward/reverse measurement	: Direction identified via status output
Local display	: 8 digit seven segment LED display 2 Line back lit LC display available optionally
Flow units	: User defined (m ³ /hr, LPM, LPH or USGPM)
Housing	: Die cast aluminium
Protection class	: IP 65 / IP 67
Temperature sensors	
RTD	: Matched pair of PT 1000
Net Heat Meter	
Mounting	: Panel or wall mounted
Power supply	: 230 VAC
Inputs transmitters	: 3 x 4 – 20mA from flowmeter and temperature
Power supply for transmitters	: 24 VDC
Display	: LCD / LED display
Output	: RS485 / RS232 Modbus

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