

EngyCal RH33

BTU meter

Custody transfer BTU meter for recording heat quantities of water



Thông tin thêm và mức tính giá hiện tại:

www.apsc.endress.com/RH33

Lợi ích:

- Transparent energy consumption helps you save on energy costs
- Calibrated, electronically paired temperature sensors ensure the highest accuracy and enable replacement of individual temperature sensors even for certified devices in the field (without reapproval!)
- Tariff counter for requirements-based billing
- Detailed data logging of current and counter values and of error messages, off-limit conditions and changes to operating parameters
- Standard models are suitable for connecting and supplying all common volume flow transmitters and temperature measuring points
- Remote readout via Ethernet and fieldbuses
- Verified and certified reliability and accuracy

Tổng quan về thông số kỹ thuật

- **Input** 1x Puls/Analog 2x RTD/Analog Loop power supply 24V DC (+/-16%)
- **Output** 1x 4...20mA 2x digital (Open Collector)
- **Display** 160 x 80 Dot-Matrix LCD with white backlit colour change in case of alarm event active display area 70 x 34 mm
- **Calculations** heat quantity and heat quantity difference

Phạm vi ứng dụng: The BTU meter RH33 is used in applications with liquid energy carriers. It calculates the thermal energy of water acc. to EN1434, glycol/water mixtures or other fluids such as thermal oils. Temperature sensor matching using calibrated temperature sensors is done in the device. Potential for cost savings can be shown by using the software available as an accessory. The device has a custody transfer approval and allows bi-directional measurement, e.g. charging/discharging of a heat accumulator.

Tín năng và thông số kỹ thuật

Thermal Energy Measurement **Measuring principle**

Energy manager

Function

Monitoring and billing of energy in heating and cooling applications as well as combined heating-and cooling circles.

Typical applications can be found in industries, district heating and building automation.

Certification

CE, UL listed, CSA GP, MID 004 (custody transfer) according EN1434 (water/other liquids) and OIML R75

Input

1x Puls/Analog,

2x RTD/Analog,

Loop power supply 24V DC (+/-16%)

Output

1x 4...20mA,

2x digital (Open Collector)

Relay output

2x

Auxiliary power supply

Low voltage power supply: 100 bis 230 V AC (-15% / +10%); Small voltage power supply: 24 V DC (-50% / +75%), 24 V AC (\pm 50%)

Thermal Energy Measurement **Dimensions (wxhxd)**
144 x 144 x 103.1 mm

(5.67" x 5.67" x 4.06")

Software

Calculated Values:

Energy, volume, density, enthalpy & enthalpy difference,

DP-Flow-Compensation,

mass,

temperature difference;

Counters: volume, mass, energy, counter in case of failure

Optional: tariff 1, tariff 2 or seperated heating energy, cooling energy, balance energy

Operation

3 button on site or via FieldCare; read out of historical / logged data via Field Data Manager Software (SQL database and visualization interface), selectable language

Display

160 x 80 Dot-Matrix LCD with white backlit, colour change in case of alarm event, active display area 70 x 34 mm

Others

electronic temperature sensor matching via CvD coefficients, logbook measured values, custody transfer logbook, event logbook, limit monitoring

Calculations

IAPWS-IF97

Energy & Application Manager**Measuring principle**Energy manager

Measuring principleEnergy manager

Function

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Typical applications can be found in industries, district heating and building automation.

Calculationsheat quantity and heat quantity difference

Number of applications1

Data storageyes

Calculation standardsIAPWS-97

Communication

web server

USB

Ethernet

Modbus RTU/TCP Slave

M-Bus

Power supplyNot defined

Energy & Application Manager Loop power supply

Low voltage power supply:

100 bis 230 V AC (-15% / +10%)

Small voltage power supply:

24 V DC (-50% / +75%)

24 V AC ($\pm 50\%$)

Protection class

IP65

Input

1x Puls/Analog

2x RTD/Analog

Loop power supply 24V DC (+/-16%)

Output

1x 4...20mA

2x digital (Open Collector)

Dimensions (WxHxD)

144 x 144 x 103.1 mm (5.67" x 5.67" x 4.06")

Operation

3 button on site or via FieldCare

read out of historical / logged data via Field Data Manager Software
(SQL database and visualization interface)

selectable language

Energy & Application Manager

Display

160 x 80 Dot-Matrix LCD with white backlit

colour change in case of alarm event

active display area 70 x 34 mm

Software functions

Calculated Values:

Energy, volume, density, enthalpy & enthalpy difference, DP-Flow-Compensation, mass, temperature difference

Counters:

Volume, mass, energy, counter in case of failure

Optional:

tariff 1, tariff 2 or seperated heating energy, cooling energy, bilance energy

Certificates

CE

CSA GP

MID 004 (custody transfer) according EN1434 (water/other liquids)

OIML R75

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