

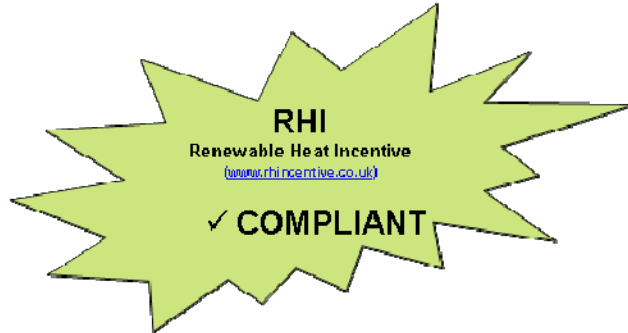
meters uk Ltd TM

Utility Meter Manufacturers

ELECTRICITY – GAS – HEAT – WATER METERS



HCM4009 Thermal Energy Calculating Meter For The 'Digital' Age
The only product on the market specifically designed 'Secondary Refrigerants' (Anti Freeze)



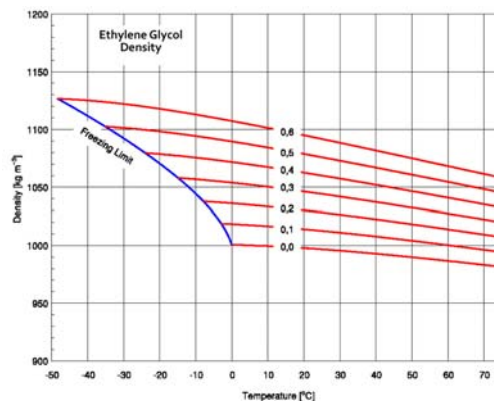
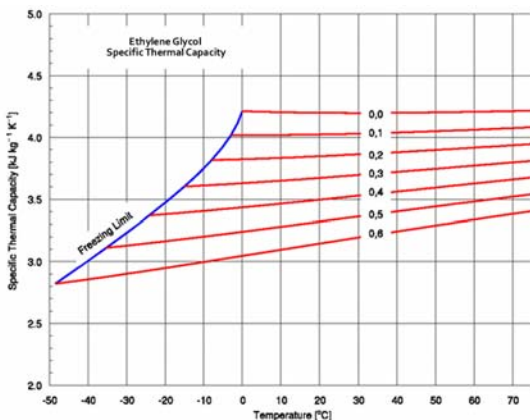
www.hcm4.com

- 1 - The Worlds **ONLY** Digital Heat Calculating Meter.
- 2 - The **ONLY** product of its kind designed and developed for a **MINIMUM 20 year** life
- 3 - The **ONLY** Heating Calculating product to provide a 'Prepayment' option

Data Sheet

HCM4009 – For use with secondary refrigerants (brines) Ethylene Glycol or Propylene Glycol. The two most common in refrigeration, heat pump, air conditioning and solar thermal applications

The HCM4009 Is designed to give the thermal energy value of either Ethylene Glycol Or Propylene Glycol..Calculation of the heat transfer values include Density – Specific Thermal Capacity – Thermal Conductivity – Viscosity – Prandtl Number
The HCM4009 works on a shorter Delta T range than other HCM versions, the temperature range required is only half a degree centigrade



Package Comprises Of : - HCM4009 – Flow Meter – DHAS Temperature Sensors

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Case -- Heavy Duty Nylon Case with perspex front viewing panel, two programming buttons located on the front panel

Case Size -- 124mm wide 170 mm high 95 mm deep

Mounting -- Wall mounted

Case Weight 0.9kg

Voltages – 230 volts (standard) 110 volts (export only) 24 volts

LCD Display -- 16 Characters including spaces

Display Visual Size -- 65mm wide 13 mm high with dots per character 5 x 7

Environmental Class -- Confirms to the operational requirements of both Class B (Domestic Outdoor Installations) and Class C (Industrial Installations)

Temperature Operating Range 0c to 90c

Accuracy Class -- Complete Unit = Calculating Module & DHAS = Accuracy Class 1

Temperature Sensors – DHAS – Digital High Accuracy Sensors

Long Distance Sensors (LD Version) – Perfect data accuracy transferable up to 100metres cable lengths manufactured in 50,100,metres



Sensor Mounting/Fixing –Strap on sensors (standard) - brass pockets into pipe work optional

Sensor Accuracy -- Conforms to within the ISOEN 1434 Parts 1 to 6 - Class 1 requirements (Standard Version)

Low Flow Error Compensation – Software compensation to greatly improve accuracy at low flows

Power Consumption – Idle 0.03amps Operational 0.1amp

CE Conformity -- Conforms to Low Voltage Directive 73/23/EEC

Conformity – Conforms to both RoHS & WEEE directives

Pulse Output - Open collector --with grab circuit – band width 200ms – 10 pulses per KWh/MWh

Wiring -- 21 way (max) Terminal block on PCB -- Removal of case cover is required -- sealable terminals on completion of wiring

Operational Error Codes

- ERROR 1 No sensors connected or shorted to 5volts
- ERROR 2 Data shorted to 0 volts
- ERROR 3 Data transmission error
- ERROR 4 Only 1 sensor connected
- ERROR 5 Not a pair (either 2 hot or two cold connected)

Product List

- HCM 4000 Pulsed Output (Standard Product)
- HCM 4001 2 Pulse Outputs
- HCM 4002 2 Pulse Inputs + 2 Pulse Outputs
- HCM 4003 Pulsed Out + Variable Flow Input
- HCM 4004 Pulsed Output + 4 - 20 mAmp
- HCM 4005 Pulsed Output + VAV Hot & Chilled Split System
- HCM 4006 M Bus
- HCM 4007 RS485
- HCM 4008 Modbus
- HCM 4009 Heat Pumps (HCM4009/EG – Ethylene Glycol) HCM4009/PG (Propylene Glycol)
- HCM 4010 Automated Prepayment
- HCM TOM Thermal Oil Meter



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