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Utility Meter Manufacturers

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HCM4 – Thermal Energy Calculating Meter For The 'Digital' Age Suitable for Heating or Chilled Circuits



Data Sheet

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 200metres cable lengths manufactured in 50,100,200 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

High Precision Version --HCM4 DHAS sensors have a software error compensation which provides a error compensation of up to factor 10. By compensating for the known offset and curvature of the device characteristics. This method is successful due to the simple second order error curve and the repeatable nature of the output over temperature for band gap – based sensors. An accuracy factor of up to 0.02% is possible.

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 50ms – 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

CAT Terminal – (Optional) Calculator Alarm Terminal – despatches voltage alarm at error code points.

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)

4 - 20 mA Outputs -- Control signal with 2 test points at 4 mA & 20 mA -- Programmable for either Active(standard)or passive signals (0 to 10mA available as an alternative)

Total no of graduations 800 = Value of each graduation 20 micro amps Supply Voltage 15 volts Maximum Voltage 30 volts. High Refresh Rate 1 Sec



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