

RHM

Remote Heat Measurement

Heat meter and modem.

The RHM is a combination of a heat meter and a modem. It can be used for remote heat measurements on solar hot water systems, heat pumps and other systems.

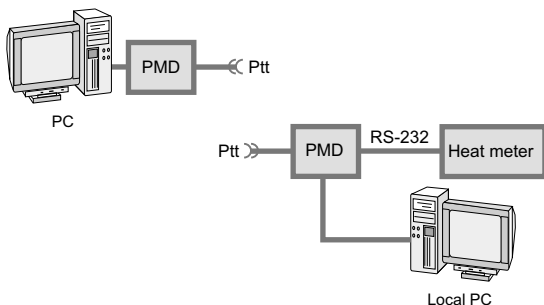
The heat meter has specific features for the measurement of small heat amounts. The heat amount is calculated for each 0.1l of water that passes through the meter.



The Pt-100 sensors are small. They have a very low thermal time constant. They are mounted directly in the fluid.

There is no minimal delta-T for the calculation of the heat amount.

The heat meter is connected to a modem. The modem can be called to establish a connection with the heat meter. The current temperatures, flow and total heat amount can be read-out.



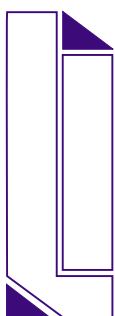
Heat calculator and modem for remote heat measurements.

Features

- accurate measurements of small heat amounts at a low delta-T
- measures heating and cooling
- no minimal delta-T
- flow resolution up to 0.1 liter
- can be adjusted to properties of medium
- very small, fast Pt-100 temperature sensors
- remote measuring through modem
- software for automatic read-out of a number of systems is available
- modem has extra port for optional local PC
- GSM modem optional

There is software available for the automatic read-out of installed systems. The software automatically calls the systems at a predetermined time, reads-out the data and stores it on disk. It is possible to process the data automatically with Microsoft Excel, generate reports and e-mail or fax the results.

Besides the regular analog modem, there is an optional GSM modem. The functionality is exactly the same. There is no need for a telephone line.



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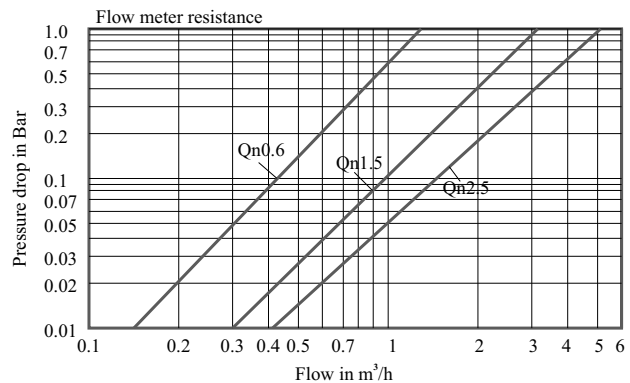
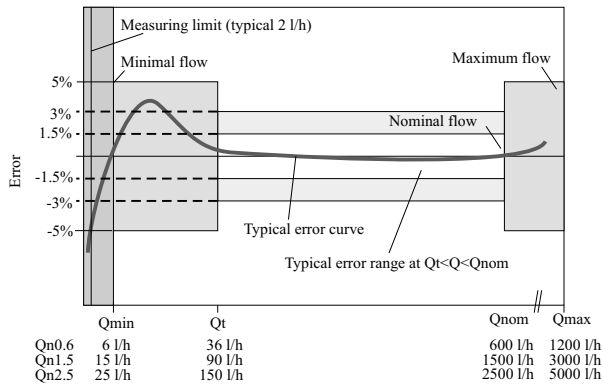
Technical specifications

Power supply:	+ 8...15 VDC, 40 mA (230 VAC mains adapter is supplied)
Sensors:	Inputs for 4 x Pt-100 sensor, 2 x flowmeter (open collector / relay contact)
Measuring range:	Delta T: -100...+100°C Absolute temperatures: -40..200°C Flow: 0...10 pulses per second
Accuracy*:	with supplied temperature and flow sensors: +/-2.5% (delta T > 10°C)
Pt-100 type:	class 1/10 DIN B
Read-out	- Temperatures [°C] - Momentary flow [l/h] - Volume [l] - Energy total [MJ] - Momentary power [W]
Ambient temperature range:	operating 0...+40°C storage -20...+70°C

*The accuracy depends on three factors:

- 1) The temperature measurement of the absolute temperatures and the temperature difference.
- 2) The flowmeter. The accuracy of this measurement is reflected directly in the energy total. The accuracy of the measurement depends strongly on the character of the flow (changing or constant, high or low in the measuring range, continuous or interrupted).
- 3) The heat calculation. With perfect measurements, the calculation is still an approximation of the actual value.

Flowmeter characteristics:



Ordering information:

Description:

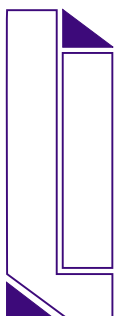
RHM set consisting of:

- heat meter, 2 x Pt-100 sensor + fittings, Qn 2.5 flow meter, PMD modem, software and manual on CD, all required cables and adapters

Ordering reference:

RHM

All parts can be ordered separate. Please contact us for special requirement such as other flowmeter ranges, special temperature sensor shapes or accuracies, calibrations, adjustments for specific heat transfer fluids, etc.



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