Heat meter

Heat meter data calculator/ Temperature sensor

Precisely determine and easily read off heating consumption:
The classic S3 heat meter data calculator for advanced requirements.

Product description

Data calculator

The combination of data calculator, temperature sensors and volumetric flowmeter results in the complete heat meter for numerous application situations.
The classic S3 data calculator can be programmed for the due date and works with all volumetric flowmeters from the three different model series WZE, WZM and WZW. It is fitted with a multifunctional LCD to show, for example, energy, heat quantity value from previous year, due date, flow rate, feed and return temperature, temperature difference, power, volume, days of operation, device number, individual tariff functions, 24-month history memory, numerous diagnostic information, and much more.
In addition to the integrated optical interface for meter reading and service, it is ready for retrofitting with an additional interface module for pulse output or M-Bus, as well as a 230 V power supply.

Temperature sensor

The Pt 500 resistance thermometers are paired compliant with DIN IEC 751 and can be installed both directly immersed as well as in immersion sleeves.

Performance features

Data calculator

- High level of precision and exact calculation of the heat consumption
- Connection to building control and regulation systems by means of retrofittable interface modules (pulse output for energy and volume or M-Bus interface)
- Optionally as a combined heat/cold meter data calculator with two registers for heating and cooling energy
- Permanent self-control and diagnostics display in the LCD
- Maximum value memory for the maximum activity value in the current, last and penultimate months with date display can be reset
- Permanent data storage in EEPROM
- Pt 500 temperature sensor can be installed either in 2-wire or 4-wire technology (optional)
- MID approval

Temperature sensor

- Short response time
- High accuracy and long-term stability
- With type approval and calibration (please observe the installation regulations of the temperature sensors)

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Technical data **Data calculator**

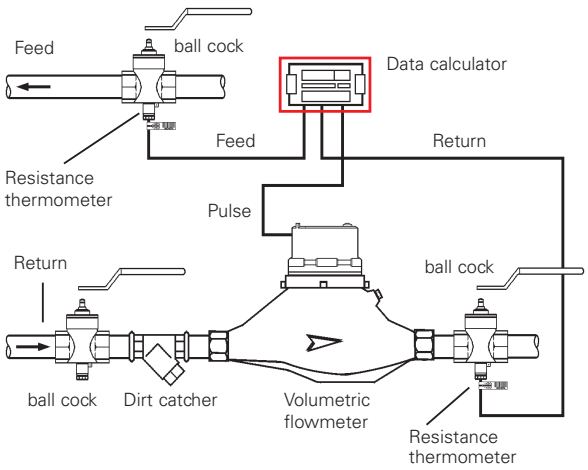
Pulse value:	(l/Imp)	1/10/100
Display unit:		0.001 MWh/0.01 MWh
Temperature range:	(°C)	1 to 180
Consumption calculation:	(K)	From ΔΘt = 0.125
Temperature difference:	(K)	3 to 177
Temperature sensor type:		Pt 500
Ambient temperature:	(°C)	-5 to +55
Storage temperature:	(°C)	-25 to +70
Display:		Liquid crystal, 8 digits with additional symbols
Power supply:		Battery (10 years + reserve), optionally retrofittable 230 V power supply
Housing protection:		IP 54
Housing dimensions (W x H x D):	(mm)	Approx.150 x 100 x 55
Interfaces:		Optical interface, ZVEI compatible, M-Bus protocol, 2400 baud

Accessories

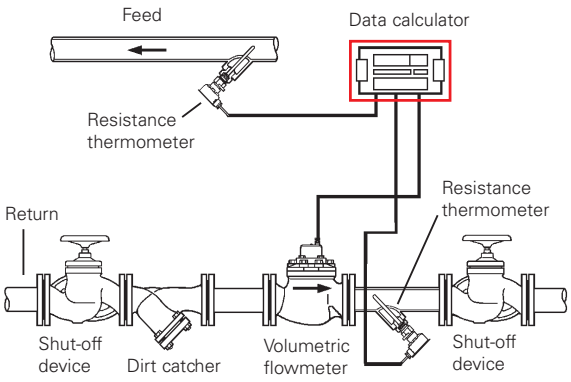
- Pulse interface module for retrofitting pulse outputs for energy and volume:
  - Pulse value accords to valency of the last unit, e.g. display 0.001 MWh = output pulse 1 kWh
  - External supply: V_{cc}= 3 – 30 V DC
  - Output current ≤ 20 mA, residual current of ≤ 0.5 V
  - Open collector (drain)
  - Galvanically separated
  - Output 1
    Frequency ≤ 4 Hz, pulse width 100 – 150 ms, pulse duration 125 ms +-10%, pulse pause ≤ 125 ms -10%
  - Output 2
    Frequency ≤ 100 Hz, ratio:
    Pulse duration/pulse pause approx. 1:1
- M-Bus interface module for retrofitting with M-Bus output, complies with EN 1434-3, 300 or 2400 baud (auto baud detect)
- 230 V AC power supply for retrofitting to mains operation: 230 V AC, +15%/-30%, 50/60 Hz

Technical data **Temperature sensor**

Resistance thermometer type	Pt 500
Temperature range: (°C)	0 to 150
Connection method:	2-wire and 4-wire technology
Installation:	ball cock, immersion sleeve
Cable length:	3 m



Example: Fresh installation in pipelines up to DN 25 (direct immersion)



Example: Fresh installation in pipelines larger than DN 25 (immersion sleeve)