

PolluCom M

Compact Heat - / Chill meter
Completely wired and ready
for installation



Application

The compact meter PolluCom M is used for measuring energy consumption in heating or cooling circuits. On account of its high-precision flow sensor the application range reaches from district heating transfer stations to user group metering in apartment and office blocks. An available option of the PolluCom M is the combined heat / chill meter. The switch-over point between heat and chill metering is programmable, so that corrections conforming to special plant specifications are also possible for already installed meters (e.g. in case of concrete core activation).

For remote meter reading and data communication the following optional modules are available:

- M-Bus acc. to EN 13757
- Local-Bus acc. to EN 13757, such as plug & play interface for radio reading systems, and others
- M-Bus or Local-Bus acc. to EN 13757 including two inputs for consumption meters with remote reading pulse output
- Potential- and bounce-free remote reading pulses (10 kWh per pulse)
- Integrated data logger

Particular Features

- "Unpack and Install":
All metrological components (temperature sensors, electronic integrator, flow sensor) have been wired in the factory and are ready for installation.
- Approval in class 2 acc. to EN 1434, measuring range (minimum to maximum flow) of 1 : 200
- Short measuring intervals: temperature measuring every 2 seconds, recalculation of flow and heat power every 4 seconds
- Temperature range of flow sensor from 5 to 130°C
- Standard removable integrator including ca. 1.2 m connection cable towards the flow sensor, including wall adapter
- Standard optical interface
- Tariff function for differentiated consumption metering (e.g. in dependency on the heat power or return flow temperature)
- Password-protected parameter selections right on the meter itself without additional peripheral equipment

Electronic integrator

The integrator is equipped with an easy to read LC display showing eight figures in the main reading line and six figures in the subordinate reading line. Moreover 12 additional characters support the reading.



Segment test

One of many useful features of this concept is the simultaneous display of stored consumption values and corresponding dates – an important contribution to avoiding read-out errors:



Example: monthly tariff consumption

Where it is appropriate, the display uses the six-figure subordinate line to show additional words, in order to increase the read-out comfort:



Example: M-Bus secondary address

The available display items are clearly structured and include essentially:

L 1: User menu

- Accumulated consumptions
- Segment test
- Instantaneous values (power, flowrate, temperatures)
- Customer's reference number

L 2: Target day menu

Consumption values on a programmable annual target day

L 3: Archive menu

Rolling monthly storage of below values for the last 16 months:

- Consumptions
- Volumes of heat and/or cooling liquid
- Maxima for power and flowrate
- Failure hours, if any

L 4: Service menu

- Maximum values as from operation start
- Date and time
- Next target day
- Operation days
- M-Bus addresses

L 5: Control menu

- Set tariff parameters
- Switch-over point between heat and chill metering
- Correction factor in case of using water-antifreeze mixtures

L 6: Parameter menu

This is the menu, where, among other possibilities, the following items can be set right on the meter itself (protected by password):

- M-Bus addresses
- Customer's reference number
- Date and time
- Next target date
- Reset of maximum values

The Optional Modules

For electronic reading and connection to building automation systems a variety of factory-fittable optional modules are available for PolluCom M:

M-Bus according to EN 13757

This option allows a read-out of the meter via its primary or secondary address by means of a M-Bus level converter as often as might be required (300 and 2400 Baud, automatic recognition). The secondary address is preset to the eight-digit meter serial number in the factory. If required the two M-Bus addresses can be changed right on the meter itself. On account of the quick updating of the measured values (2 seconds for temperatures and 4 seconds for power and flowrate) the PolluCom M is an excellent choice for connection to district heating control stations.

Suitable read-out software:

DOKOM CS (leaflet LS 1300)

Suitable read-out hardware:

See leaflet LS 1100

Local-Bus according to EN 13757

This option allows a connection to an inductive read-out point (MiniPad, order number: 182079), the distance can be as far as 50 metres. Typical applications are meters, which are installed at sites with difficult access as well as in properties where no one is present during the day.

Suitable read-out systems:

MiniReader (leaflet LS 3200)

DOKOM Mobil (leaflet LS 3400)

M-Bus or Local-Bus including two inputs for external consumption meters

This option allows an additional connection to up to two external consumption meters equipped with remote reading pulse outputs, e.g. a cold and a warm water meter. The consumptions of those meters can then be read by PolluCom M via the M-Bus and/or Mini-Bus interface.

Required pulse duration: > 62,5 ms

Pulse input frequency: < 3 Hz

Terminal voltage: 3 V

Remote reading pulses

This option provides potential- and bounce-free remote reading pulses, which can be summed up by means of a telecounter:

Pulse value: 10 kWh

Closing time: 125 ms

Bounce time: none

Max. voltage: 28 V DC or AC

Max. current: 0.1 A

Integrated data logger

By this option the following values are stored in a selectable time interval (3 to 1440 minutes):

- Consumption (incl. tariff consumption and, if applicable, consumptions of the two external meters)
- Volume of the heating and/or cooling liquid
- Flowrate of the heating and/or cooling liquid
- Heat and/or chill power
- Temperature in the warmer line
- Temperature in the colder line
- Temperature difference
- Failure hours, if any



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