CMa10

Indoor M-Bus temperature and humidity sensor

The CMa10 is a 2-way M-Bus communicating temperature and humidity sensor for indoor use. CMa10 is the ideal product for comfort level billing. The message function is an efficient and cost effective way of distributing information to residents. The high accuracy sensor and user friendly handling makes the CMa10 the perfect choice for tenant owners.

TEMPERATURE AND HUMIDITY

The CMa10 has a high accuracy temperature and humidity sensor, which will provide precise and fast readings. The precision meets the standards for measuring indoor climate.

COMFORT LEVEL BILLING

There are many ways of billing residents for the energy used to heat the apartment/building. With the CMa10, it is possible to apply comfort level billing, which means that the resident pays for a certain indoor temperature. The buildings total energy cost for heating can easily be divided in parts (sq m). The main goal is to give the residents a fair energy cost.

MESSAGING

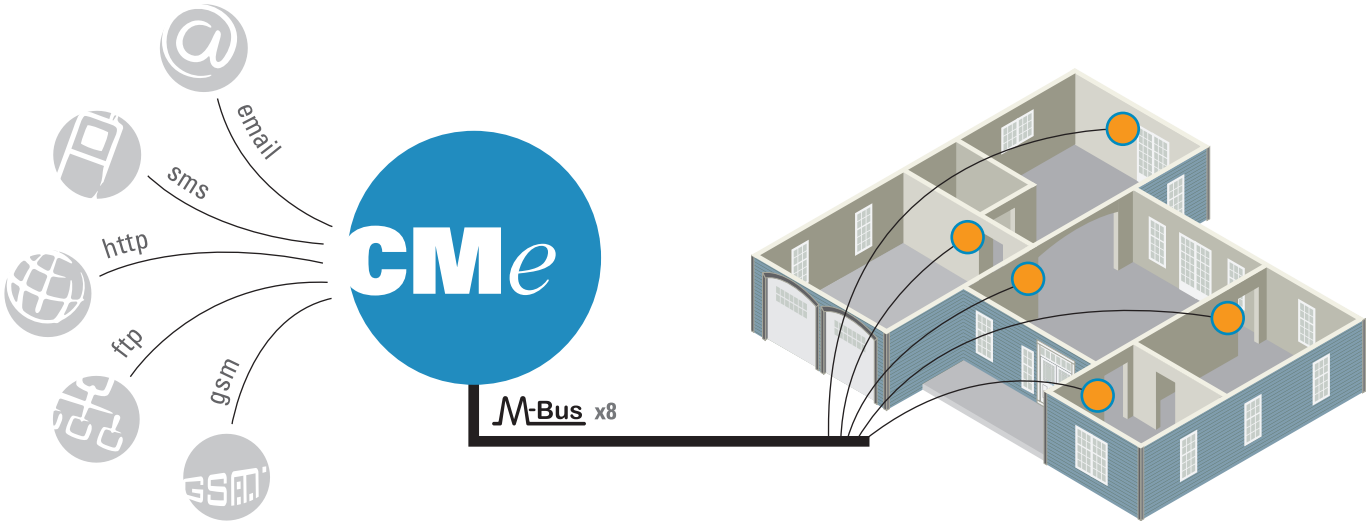
The message function in CMa10 makes it possible to send information to the user via M-Bus. The user will be informed by a LED indication when a new message is received. The CMa10 can receive multiple messages and the user can easily read and confirm that he/she has received a message via a push button.

THE DISPLAY

The display and the user-friendly menu system allows the user to effortlessly switch between different measurements and display messages.

M-BUS READOUT

The M-Bus readout consists of momentary values and the average values for the last hour and day. The telegram includes information about read messages and other customer information. The power used by CMa10 is only 1 T (1.5 mA) and both primary and secondary addressing mode can be used.



Mechanics

Casing material	ABS UL94-V0, white
Protection class	IP20
Dimensions	80 x 80 x 28 mm
Weight	75 g
Connection M-Bus	Screw terminal/Spring terminal solid wire 0.25-1.5 mm²
Mounting	Wall mounted

Electrical

Power supply	21-42 VDC Through M-Bus connection, independent of the wiring polarity
Power consumption	1.5 mA M-Bus 1T

Environmental

Operating temperature range	0 °C to +50 °C
Storage temperature range	-40 °C to +85 °C
Operating humidity max	0 to 95 % RH no condensation

Temperature sensor

Temperature range	0 °C to +50 °C
Temperature 10 to 30 °C	+/- 0.2 °C
Temperature 0 to 10 °C	+/- 0.4 °C
Temperature -10 to 0 °C	+/- 0.5 °C
Temperature -20 to +55 °C	+/- 1.5 °C

Humidity sensor

Range	0-100 % RH
Repeatability RH	+/- 0.1 % RH
Humidity 10 to 90 % RH	+/- 2 % RH
Humidity 0 to 100 % RH	+/- 4 % RH

User interface

LCD display	Yes
Button with LED	Yes. Configuration, message and confirmation

M-Bus

M-Bus standard	EN 13757
M-Bus baud rate	300, 2400 Bit/s
IR Interface	No
M-Bus commands	SND_UD, SND_NKE, REQ_UD2
Addressing modes	Secondary, Primary
Momentary values	Temperature, humidity, status
Historic values	Average values for last hour and last day

Approvals

EMC	EN 61000-6-2, EN 61000-6-3

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