

CMa20

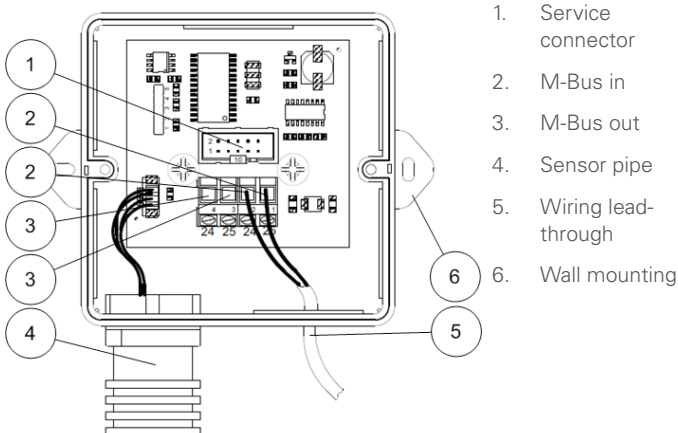
Outdoor M-Bus temperature and humidity sensor

INTRODUCTION

The CMa20 is an M-Bus communicating temperature and humidity sensor for outdoor use.

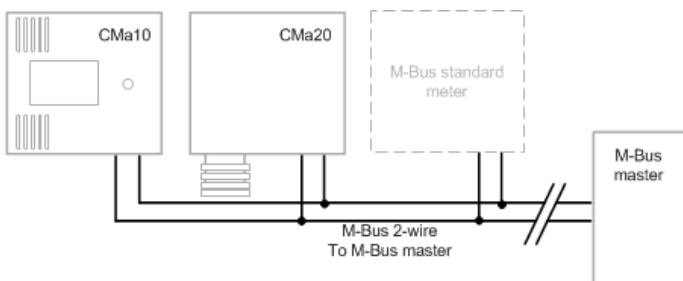
For a complete description of the product or for information in Swedish, visit the Elvaco AB website, www.elvaco.com.

OVERVIEW



MOUNTING

Mount the product in a weatherproof location to avoid that direct sunlight or rain affects the sensors. The product should be mounted straight vertically and horizontally with the sensor pipe (4) downwards. Use the holes (6) when mounting on wall.



M-BUS 2-WIRE BUS

M-Bus is a multi-drop 2-wire bus with no polarity. Use a cable of area 0.25-1.5 mm², e.g. a standard telephone cable (EKKX 2x2x0.5 mm). Connect the incoming wiring to the screw connector (2) and use the screw connector (3) for further M-Bus 2-wire bus connection.

IMPORTANT

- All connected M-Bus slave devices must have unique M-Bus secondary or primary addresses depending on addressing mode.
- Measure voltage over M-Bus slave connection to verify M-Bus master connection. Voltage should be between 21-42 VDC.

RESET TO FACTORY DEFAULT

Reset to factory default by issuing the M-Bus command "Application reset", see CMa20 Users Manual.

TROUBLESHOOTING

Product does not respond to M-Bus master commands

Please verify your M-Bus slave configuration and connection:

- Voltage over M-Bus connection should be between 21-42 VDC.
- All M-Bus slaves connected to the M-Bus master must have unique primary or secondary addresses depending on which addressing mode is used.
- Verify M-Bus slave baud rate used by M-Bus master. M-Bus master baud rate must be identical to the M-Bus slave baud rate.

Temperature value is inaccurate

The temperature sensor is very accurate, but incorrect positioning of the product may result in unintended temperature variations. Please take the following in consideration when mounting the product:

- Do not mount the product close to heat sources (front and rear).
- Do not mount the product in direct sunlight.

SAFETY

The warranty does not cover damage to the product caused by usage in any other way than described in this manual. Elvaco AB can not be liable for personal injury or property damage caused by usage in any other way than described in this manual.



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TECHNICAL SPECIFICATIONS

Mechanics	
Protection class	IP65
Dimensions	110x100x52 mm
Weight	140 g
Connection M-Bus	Screw terminal 1.5 mm ²
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	-40 °C to +55 °C
Storage temperature range	-40 °C to +85 °C
Sensor accuracy	
Temperature 10 to 30 °C	+/- 0.2 °C
Humidity 10 to 90 % RH	+/- 2 % RH
M-Bus	
M-Bus standard	EN 13757
M-Bus baud rate	300, 2400 Bit/s
M-Bus commands	SND_UD, SND_NKE, REQ_UD2
Addressing modes	Secondary, primary
Approvals	
EMC	EN 61000-6-2, EN 61000-6-3
Factory defaults	
M-Bus baud rate	2400 Bit/s
M-Bus primary address	0
M-Bus secondary address	Serial number

ORDERING INFORMATION

Product	Part number	Description
CMa20	1050025	M-Bus communicating temperature and humidity sensor for outdoor use.

CONTACT INFORMATION

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EU DECLARATION OF CONFORMITY	
This declaration of conformity is issued under the sole responsibility of the manufacturer: Elvaco AB, Kabelgatan 2T, S-43437 Kungälv, Sweden	
Product	Year of CE-marking
CMa10	2016
CMa11	2016
CMa20	2016
The object(s) of the declaration listed above is in conformity with the relevant Community harmonization legislation: EMC Directive 2014/30/EU RoHS 2011/65/EU	
And are in conformity with the following harmonization standards or other normative documents: EN55022 (Radiated emission) EN 61000-4-6 (Immunity to HF-injection) EN 61000-4-3 (Immunity to RF-field) EN 61000-4-2 (Immunity to ESD)	
Kungälv, Sweden, 2016-04-16	
 David Vonasek, CEO	