

CMe3100

M-Bus Metering Gateway for fixed network

CMe3100 is a M-Bus Metering Gateway for fixed network that reads up to 512 meters, compiles meter data in customized reports and delivers it to a receiving system. It is compatible with all meters that use the M-Bus standard protocol and Elvaco's CMe/CMEx series. CMe3100 is easily configured and updated through its web interface and supports a wide range of integration protocols, such as ModBus, DLMS, JSON and REST.



Technical specification

Mechanics

Protection class	IP20
Dimensions (w x h x d)	72 x 90 x 65 mm (4 DIN modules)
Mounting	DIN-rail (DIN 50022) 35 mm
Weight	190 g

Electrical connections

Supply voltage	Screw terminal, cable 0-2,5 mm ²
M-Bus master port	Screw terminal, cable 0,25-1,5 mm ²
M-Bus slave port 1	Screw terminal, cable 0,25-1,5 mm ²
M-Bus slave port 2	Screw terminal, cable 0,25-1,5 mm ²
USB master port	Type A
USB slave port	Type mini B
Network	RJ45 (Ethernet)

Electrical characteristics

Nominal voltage	100-240 VAC (±10%)
Frequency	50/60 Hz
Power consumption (max)	<15 W
Power consumption (nom)	<5 W
Installation category	CAT 3

User interface

Green LED	Power
Red LED	Error
Yellow LED	Status ethernet
Push button	Factory reset
Configuration	Web interface (HTTP), Auto configuration (URL), Telnet, REST/JSON

Approvals

EMC	EN 61000-6-2, EN 61000-6-3, FCC 47 CFR
Safety	EN 62368-1:2018, UL 62368-1:2014 Ed.2], CSA C22.2#62368-1:2014 Ed.2]

M-Bus

Interfaces	IR, integrated M-Bus Master, M-Bus slave
M-Bus standard	EN 13757
Transparent M-Bus	TCP/IP and M-Bus 2-wire slave interface
Virtual M-Bus	TCP/IP and M-Bus 2-wire slave interface
Decryption	Yes

Integrated M-Bus Master

M-Bus baud rate	300 and 2400 bit/s
Nominal voltage	28 VDC
Maximum unit loads	32T/48 mA, can be extended with CMEx10-13S
Maximum numbers of M-Bus devices	Software licenses for 8, 32, 64, 128, 256 and 512 devices
Maximum cable length	1000 m (100 nF/m, maximum 90 Ω)

General

Real time clock accuracy	<2 s/day
Script engine	Intelligent script engine for active content generation
Software update	Web interface
Measurement reports	HTTP, FTP, SMTP (e-mail)
Addition	Modbus, REST, JSON-RPC, DLMS
Continuous Readout Mode	Modbus, REST
Real time clock backup	24 h

Datastorage (examples)

32 meters	15-minute values: ~4 years, Hourly values: >15 years
128 meters	15-minute values: ~1 year, Hourly values: ~4 years
512 meters	15-minute values: ~3 months, Hourly values: ~1 year