

CMe 2100_{G3}

M-Bus Metering Gateway for Mobile Network

The CMe2100 (gen.3) is a flexible and cost-effective M-Bus Metering Gateway for Mobile Network. It is ready to use with all DIN mounted ABB electricity meters and all other meters following the M-Bus standard protocol. The product uses standard open protocol for fast and easy integration and is configurable by SMS over the air. It delivers customized reports with high precision meter data by any selected protocol and time schedule.

READY TO USE

CMe2100 is a ready to use DIN-mounted M-Bus Metering Gateway, completely configurable by the mobile network. This reduces both installation costs and the risk of handling errors. The CMe2100 provides immediate installation status and starts logging meter data directly after power up.

STANDARD OPEN PROTOCOLS

The standard open protocol design allows fast integration into existing billing and reporting systems. Transparent M-Bus communication with GSM and TCP works with any software supporting the M-Bus standard. The CMe2100 supports meter value reports using FTP, HTTP, SMS and e-mail. The e-mail report feature prevents firewall and IT-structure implementation problems.

FLEXIBLE

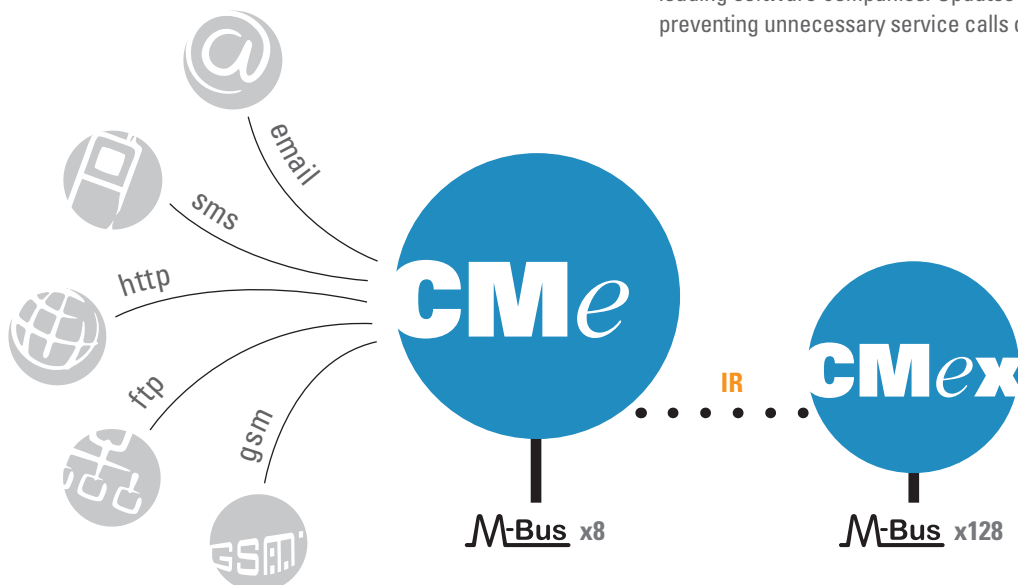
The product's IR interface makes it possible to add expansion modules on demand. For example, by using a CMeX10 Series M-Bus Master, up to 128 meters can be connected to the CMe2100. Elvaco are continuously developing new expansion modules to meet upcoming market demands.

COST EFFECTIVE

The CMe2100 allows for some of the most cost-effective solutions for DIN-mounted meter installations. The quality and the number of options available serve to minimize the overall cost of the product over the course of its life-cycle.

FUTURE PROOF

The CMe2100 is built on standard SUN Java™ platform technology, a worldwide standard. Core platform and libraries are designed and tested by leading software companies. Updates and patches are performed remotely, preventing unnecessary service calls or visits.



Mechanics

Casing material	Polyamide
Protection class	IP20
Dimensions (w x h x d)	35 x 100 x 65 mm (2 DIN modules)
Weight	120 g
Mounting	Mounted on DIN rail (DIN 50022) 35 mm
Antenna	SMA female
SIM card	Push-push type

Electrical connections

Supply voltage	Screw terminal. Cable 1.0-1.5 mm ² , 0.5 Nm tightening torque
M-Bus master port	Screw terminal. Cable 0.5-1.5 mm ² , 0.5 Nm tightening torque
USB master port	Type A
USB slave port	Type micro B
Network	Mobile (Radio)

Electrical characteristics

Nominal voltage	100-240 VAC (+/- 10%)
Frequency	50/60 Hz
Power consumption (max)	<6 W
Power consumption (nom)	<1 W
Installation category	CAT 3

Environmental specifications

Operating temperature	-20 °C to +55 °C
Operating humidity max	80 % RH at temperatures up to 31 °C, decreasing linearly to 50 % RH at 55 °C
Operating altitude	0-2000 m
Pollution degree	Degree 2
Usage environment	Indoors, can be extended with IP67 enclosure for outdoor use
Storage temperature	-40 °C to +85 °C

User interface

Green LED	Power
Red LED	Error
Yellow LED	GSM status
Blue LED	USB active
Push button	Factory reset
Configuration	SMS, HTTP, GSM CSD, Telnet

M-Bus

Interfaces	IR, integrated M-Bus Master
Maximum number of M-Bus devices (software limit)	128
Transparent M-Bus	GSM and TCP/IP (software limit does not apply to Transparent M-Bus mode)
Decryption	No

Integrated M-Bus Master

M-Bus standard	EN 13757, full M-Bus decoder implemented
M-Bus baud rate	2400 and 9600 Bit/s
Nominal voltage	28 VDC
Maximum unit loads	8T/12 mA (can be extended with CMeX10-13S Series)
M-Bus search modes	Primary, secondary
Maximum cable length	1000 m (100 nF/km, maximum 90 Ω)

General

Real time clock backup	12 h
Real time clock accuracy	<2 s/day
Script engine	Intelligent script engine for active content generation
Software/firmware update	HTTP
Measurement reports	HTTP, FTP, SMTP (e-mail), SMS

Data storage (examples)

Number of meters	15 minute values	Hourly values
1	~200 days	~800 days
32	~6 days	~25 days
64	~3 days	~12 days
128	~1 day	~6 days

Mobile network

GPRS class	Up to 12
Band	850/900/1800/1900 MHz

Approvals

EMC	EN 61000-6-2, EN 61000-6-3, EN 301489-1, EN 301489-7
Safety	EN 61010-1, CAT 3