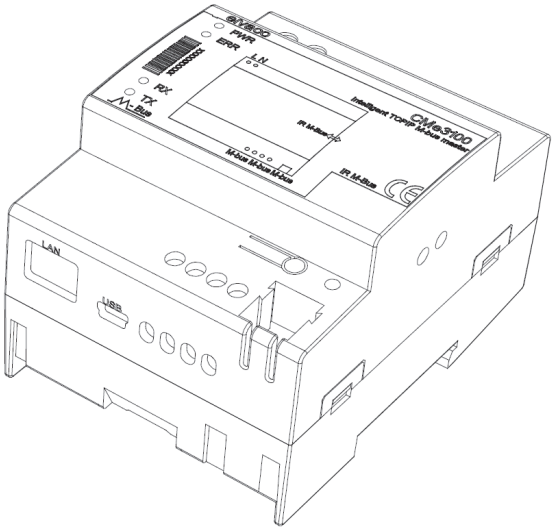
CMe 3100

DIN-Mounted intelligent TCP/IP M-Bus Master



The CMe3100 is an intelligent TCP/IP M-Bus master with logging functionality. It is ready to use with all ABB DIN-mounted electricity meters and any M-Bus meter following the M-Bus standard protocol. The CMe3100 uses standard open protocol for fast and easy integration. The CMe3100 is configurable by SMS and can receive software updates over the air. Its flexible and versatile design makes it simply the most powerful TCP/IP M-Bus master on the market.

READY TO USE

CMe3100 is a ready to use DIN-mounted TCP/IP M-Bus master with no configuration required in the field. The usability reduces both installation costs and the risk of handling errors. The CMe3100 delivers 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 TCP works with any software supporting the M-Bus standard. The CMe3100 can send meter values using FTP, HTTP and email. The email report feature prevents firewall and IT-structure implementation problems. The CMe3100 has an internal web server for configuration via JSON.

FLEXIBLE

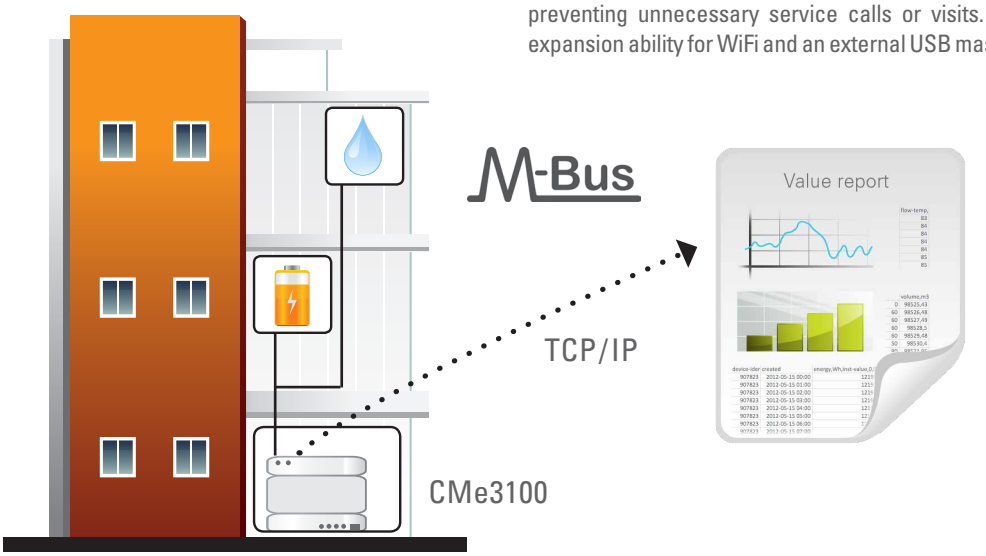
The flexible design with the IR optical port makes it possible to add expansion modules on demand. For example, add a CMeX10 Series M-Bus Extender to connect up to 256 extra meters. New expansion modules are constantly developed to meet new market demands. CMe3100 has two M-Bus slave ports making it possible to share information to different systems.

COST EFFECTIVE

The CMe3100 provides 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 use.

FUTURE PROOF

The CMe3100 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. CMe3100 has an internal expansion ability for WiFi and an external USB master port for future features.



Mechanics

Casing material	Polyamide
Protection class	IP20
Dimensions	100 x 65 x 36 mm
Weight	120 g
Connection M-Bus	Pin terminal. Solid wire 0.6-0.8 Ø mm
Power supply	Screw terminal. Cable 0-2.5 mm², 0.5 Nm tightening torque

Electrical connections

USB master port	Type A
USB slave port	Type mini B
M-Bus master port	Screw terminal. Cable 0.25-1.5 mm²
M-Bus slave port 1	Screw terminal. Cable 0.25-1.5 mm²
M-Bus slave port 2	Screw terminal. Cable 0.25-1.5 mm²
Ethernet	RJ45
RS232	2.5 mm stereo plug

Electrical

Nominal voltage	100-240 VAC
Voltage range	-10 % to +10 % of nominal voltage
Frequency	50/60 Hz
Power consumption (max)	<10 W
Power consumption (nom)	<5 W
Installation category	CAT 3

Ethernet

Speed and duplex	Auto 10/100 MBit Half/Full duplex
Connector	RJ45

Environmental

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

User interface

Green LED	Power
Red LED	Error
Yellow LED	Status
Blue LED	Status
Push button	Factory reset
Web interface	For configuration/meter value management

M-Bus

M-Bus standard	EN 13757 Full M-Bus decoder implemented
M-Bus baud rate	300 and 2400 Bit/s
Transparent M-Bus	Listening server on TCP data
Internal M-Bus master	32 (can be extended using CMeX10 Series)
Maximum connected M-Bus meters	Handles up to 256 slaves in software
Maximum cable length	1000 m
IR Interface	Yes
Pass Through	No
Compatibility	All standard M-Bus meters, all ABB meters with IR interface, CMeX Series products

General

Data storage	2 GB
Real time clock backup	7 days
Real time clock accuracy	<2 s/day
Script engine	Intelligent script engine for active content generation
Software update	Using HTTP

Integration

Transparent M-Bus	TCP
Metering reports	HTTP, FTP, e-mail
E-mail	SMTP
FTP	Standard FTP client
HTTP	Standard HTTP and HTTPS client, POST & GET
Configuration	HTTP, FTP, Telnet, JSON

Approvals

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

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