CMe3100

M-Bus Gateway TCP/IP

Your benefits

- Intelligent link between system and M-Bus devices:
  The CMe3100 M-Bus metering gateway fulfils all requirements in terms of flexibility and versatility and makes data integration easier than ever before.
- Flexible meter reading:
  Reading of the measured values by the time-saving online query via the web platform or on site.
- Unique capabilities:
  Whereas previously it was difficult to connect an M-Bus system via Modbus TCP, JSON-RPC or REST, the CMe3100 enables integration into peripheral systems, e.g. a building management system, without additional devices.
- Preferred M-Bus splitter:
  The CMe3100 supports the complete M-Bus standard, and splitting all bus participants to two further systems via wired M-Bus is easy.
- Infrared interface for modular extensions:
  Metering gateway can be used for the connection of additional measuring points (–-> investment protection).

Applications

- Fast and simple measurement data acquisition incl. integrated statistical functions
- Integration of measurement data in (building) management systems or other peripheral systems
- Complete gateway integration based on e.g. DLMS or REST

Properties

- Data can be sent to FTP and https server
- Different executions with support for 8, 32, 64, 128, 256 or 512 devices available
- Various templates available for sending meter data
- Integration of wireless M-Bus participants (T & C mode) with CMi-Box
- DIN mounted, modular and expandable – future-proof solution
- Various extension modules (infrared interface) available
- Supports static and dynamic IP addressing
- Configuration changes and ad hoc read-out can be carried out remotely
- M-Bus protocol according to EN 13757-3
- Two M-Bus slave outputs for splitting the system to further systems
- Flexible extension system TCP, JSON-RPC, DLMS/REST

GWF AG
Obergrundstrasse 119
6005 Lucerne, Switzerland

T +41 41 319 50 50
info@gwf.ch, www.gwf.ch

Technical support:
T +41 41 319 52 00, support@gwf.ch

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Integration M-Bus Gateway

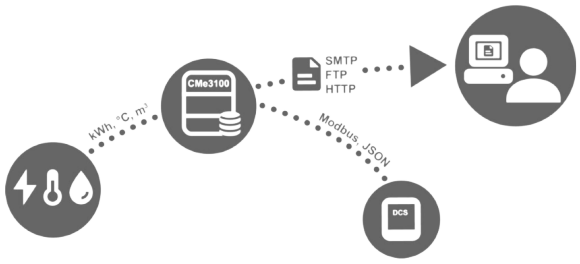

Fig. 1: Measurement data acquisition and integration in SCADA system

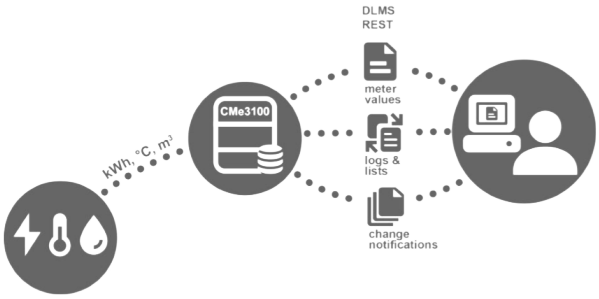

Fig. 2: Gateway integration via DLMS / REST server

Technical Data

	CMe3100	CMeX10			
Mechanics	**CMe3100**	**CMeX10**	**CMeX11**	**CMeX12S**	**CMeX13S**
Dimensions (HxBxD)	90x70x64 mm (4 DIN modules)	90x36x65 mm (2 DIN modules)		90x108x65 mm (6 DIN modules)	
Weight	190 g	approx. 100 g		approx. 220 g	
Installation	Hat rail (EN 50022), 35 mm	Hat rail (EN 50022), 35 mm			
Casing material	Polyamide	Polyamide			
Protection class	IP20	IP20			

	CMe3100	CMeX10			
Terminals	**CMe3100**	**CMeX10**	**CMeX11**	**CMeX12S**	**CMeX13S**
Power supply	L, N Screw terminal cable 0 - 2.5 mm^2 0.5 Nm tightening torque L, N	L, N Screw terminal cable 0.75 - 2.5 mm^2 0.5 Nm tightening torque		L, N, Erde Screw terminal cable 0,75 - 2,5 mm^2 0,5 Nm tightening torque	
M-Bus	Screw terminal, 0,25 - 1.5 mm^2	Pin terminal solid wire Ø 0.6 - 0.8 mm		Pin terminal solid wire Ø 0.6 - 0.8 mm and Screw terminal cable 0.25 - 2.5 mm2 0.5 Nm tightening torque	
Ethernet	RJ45	Not available			
RS232	Not available	Not available		RJ45	
USB	Typ A (Master Port) / Typ mini B (Slave Port)	Not available			

	CMe3100	CMeX10			
Electrical	**CMe3100**	**CMeX10**	**CMeX11**	**CMeX12S**	**CMeX13S**
Nominal Voltage	100...240 V AC / ± 10% / (50/60 Hz)	100...240 V AC / ± 10% / (50/60 Hz)			
Power consumption (max.)	<15 W	<3 W		<25 W	

	CMe3100	CMeX10			
Electrical	**CMe3100**	**CMeX10**	**CMeX11**	**CMeX12S**	**CMeX13S**
Power consumption (nom.)	<5 W	M-Bus loads x 0,07 W + 1.5 W			
Installation category	CAT 3	CAT 2			

	CMe3100	CMeX10			
Ethernet-Specifications	**CMe3100**	**CMeX10**	**CMeX11**	**CMeX12S**	**CMeX13S**
Velocity	Auto 10/100 MBit	not avaiable			
Duplex	half/full Duplex	not avaiable			
Configuration	Web-Browser	not avaiable			

	CMe3100	CMeX10			
M-Bus-Specifications	**CMe3100**	**CMeX10**	**CMeX11**	**CMeX12S**	**CMeX13S**
M-Bus standard	EN 13757	EN 13757			
M-Bus baud rate	300, 2400 Bit/s	300, 2400 Bit/s			
Maximum connected M-Bus loads (each 1.5 mA)	32 (modularly expandable up to 1056)	32	64	128	256
Maximum cable length	1000 m[1)]	1000 m[1)]			
Max load capacitance	100 nF/km, max. 90 ohm	100 nF/km, max. 90 ohm			
Bus voltage (nom.)	28 V DC	28 V DC		42 V DC	
IR interface for extension modules	Yes	Yes			
Extension possibilities (Additional M-Bus loads)	32, 64, 128, 256	Yes Maximum of 5 CMe modules side by side			

	CMe3100	CMeX10			
Ambient conditions	**CMe3100**	**CMeX10**	**CMeX11**	**CMeX12S**	**CMeX13S**
Temperatur Betrieb	-25 bis +55 °C	-30 bis +55 °C			
Temperatur Lagerung	-40 bis +85 °C	-40 bis +85 °C			
Luftfeuchtigkeit	5% - 90% (nicht kondensierend)	5% - 90% (nicht kondensierend)			
Montageort	Indoor (optional mit IP67 Gehäuse für Outdoor)	Indoor (optional mit IP67 Gehäuse für Outdoor)			

	CMe3100	CMeX10			
Approvals	**CMe3100**	**CMeX10**	**CMeX11**	**CMeX12S**	**CMeX13S**
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]				

1] The maximum possible network reach (entire cable length) as well as the distance to the M-Bus end devices depends greatly on the network topology, the number of connected devices, the cross-section of the used cables and the transfer rate.