



CMe3000

M-Bus Gateway TCP/IP



Your benefits

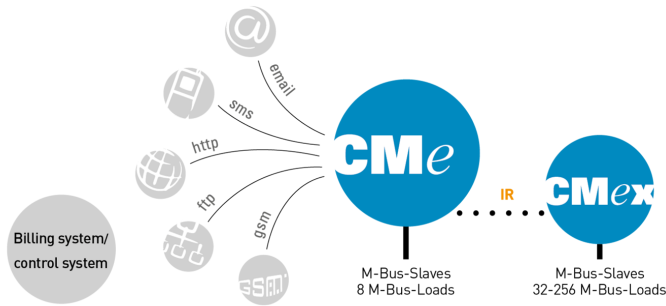
- Transparent mode of operation:
Unchanged transfer of read-out data to the communication device
- TCP/IP interface for communication with readout infrastructure:
Ease of installation, especially when M-Bus measuring instruments are distributed over several floors or buildings
- IR interface for modular extension:
No need to replace the M-Bus TCP/IP Master when connecting additional measuring points, investment protection
- 100-240 V AC mains power required:
No extra power supply necessary
- Operating status display via LED:
Easy on-site analysis and troubleshooting

Applications

- Remote supply and remote reading of M-Bus end devices over Ethernet

Properties

- Signal converter from M-Bus to TCP/IP
- DIN mounted, modular and expandable - future proof solution
- Several extension modules (additional M-Bus loads) which are mounted to the right (IR interface) of the module are available
- Intelligent Watchdog functionality to enable stable operation during a long time
- Supports static IP addressing as well as dynamic IP addressing (DHCP)
- Internal HTTP web server for configuration with any web browser – no additional software required
- Readout via virtual COM ports - existing PC software can be used
- M-Bus protocol according to EN 13757-3
- Transfer rates M-Bus: 300, 2400 Bit/s
- M-Bus short-circuit protection
- 100-240 V AC power supply
- Operating indicator with LED



Technical Data

	M-Bus TCP/IP MASTER	Extension modules for CMe3000			
	CMe3000	CMeX10	CMeX11	CMeX12S	CMeX13S

Mechanics

Dimensions (HxWxD)	90x36x65mm (2 DIN-Modules)	90x36x65mm (2 DIN-Modules)	90x108x65mm (6 DIN-Modules)		
Weight	app. 100g	app. 100g	app. 220g		
Installation	Hat rail TS35 (EN 50022) /DIN mounted	Hat rail TS35 (EN 50022) / DIN mounted	Hat rail TS35 (EN 50022) / DIN mounted		
Casing material	Polyamid	Polyamid	Polyamid		
Protection class	IP20	IP20	IP20		

Terminals

Power supply	L, N Screw terminal cable 0,75 - 2,5 mm ² 0,5 Nm tightening torque	L, N Screw terminal cable 0,75 - 2,5 mm ² 0,5 Nm tightening torque	L, N, earth Screw terminal cable 0,75 - 2,5 mm ² 0,5 Nm tightening torque		
M-Bus	Pin terminal solid wire Ø 0,6 - 0,8 mm	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 mm ² 0,5 Nm tightening torque		
Ethernet	RJ-45	Not available	Not available		
RS232	Not available	Not available	RJ-45		

	CMe3000	CMeX10	CMeX11	CMeX12S	CMeX13S
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Electrical

Nominal Voltage	100...240VAC / ± 10% / (50/60Hz)	100...240VAC / ± 10% / (50/60Hz)	100...240VAC / ± 10% / (50/60Hz)	100...240VAC / ± 10% / (50/60Hz)	100...240VAC / ± 10% / (50/60Hz)
Power consumption (max.)	2,5 W	3 W	3 W	25 W	25 W
Power consumption (nom.)	1 W	1,5 mA x M-Bus-Loads + 1 W	1,5 mA x M-Bus-Loads + 1 W	1,5 mA x M-Bus-Loads + 1 W	1,5 mA x M-Bus-Loads + 1 W
Installation category	CAT 3	CAT 3	CAT 3	CAT 3	CAT 3

Ethernet specifications

Speed	Auto 10/100 MBit	Not available	Not available	Not available	Not available
Duplex	Half/Full duplex				
Configuration	Via internal HTTP web server with any web browser				
Readout	Virtual COM port or IP address				

M-Bus specifications

M-Bus standard	EN 13757	EN 13757	EN 13757	EN 13757	EN 13757
M-Bus baud rate	300, 2400 Bit/s	300, 2400 Bit/s	300, 2400 Bit/s	300, 2400 Bit/s	300, 2400 Bit/s
Maximum connected M-BusLoads (each 1.5 mA)	8	32	64	128	256
Maximum cable length	1000 m ¹⁾	1000 m ¹⁾	1000 m ¹⁾	1000 m ¹⁾	1000 m ¹⁾
Maximum load capacitance	1.5 µF	1.5 µF	1.5 µF	1.5 µF	1.5 µF
Bus voltage (nom.)	28 V DC	28 V DC	28 V DC	42 V DC	42 V DC
IR Interface for extension modules	Yes	Yes	Yes	Yes	Yes
Extension possibilities (Additional M-Bus Loads)	Yes. Maximum of 4 CMe-modules side by side	Yes Maximum of 4 CMe-modules side by side	Yes Maximum of 4 CMe-modules side by side	Yes Maximum of 4 CMe-modules side by side	Yes Maximum of 4 CMe-modules side by side

Ambient conditions

Operating temperature range	-20 to +55 °C	-30 to +55 °C
Storage temperature range	-40 to +85 °C	-40 to +85 °C
Humidity	80% at temperatures up to 31 °C, decreasing linearly to 50% at 40 °C	80% at temperatures up to 31 °C, decreasing linearly to 50% at 40 °C
Pollution Degree	2	2

Approvals

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

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.