SIEMENS

5657

Energy Monitoring and Controlling EMC

MeterProxy for M-Bus CSM30.001

Energy Monitoring & Controlling EMC is an easy-to-operate energy management solution allowing for effective monitoring and control of energy consumption.
In addition to manual meter reading, it is also possible to transmit energy consumption data to EMC acquired from the BACS.
The acquired data is transferred from OZW10 system to EMC via the MeterProxy and then processed, analyzed and compiled into powerful energy consumption reports in EMC.

Features

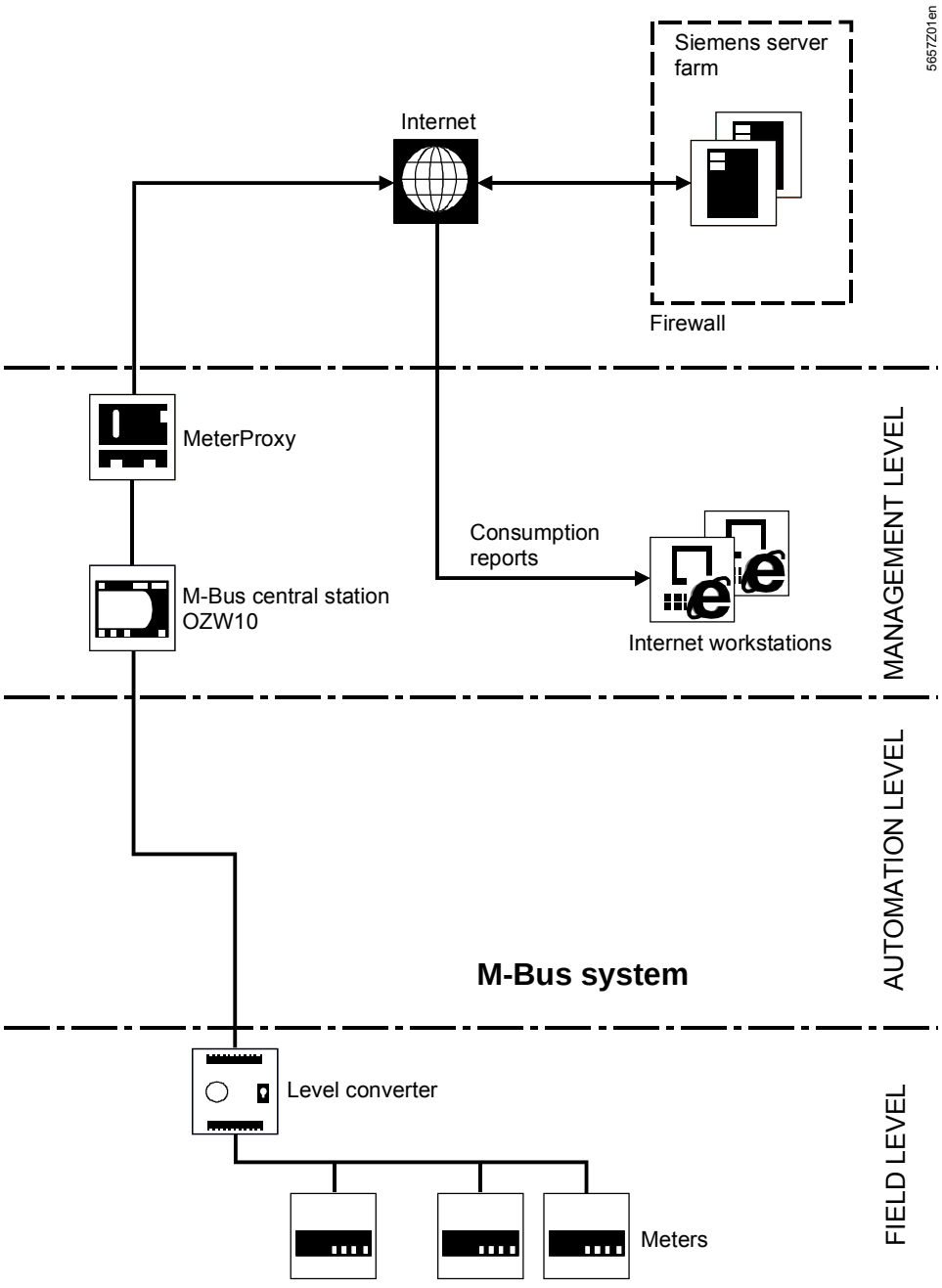
- Automated transfer of consumption or meter values from OZW10 control units (M-Bus) to EMC.
- Flexible Internet connection via modem or network (TCP/IP).
- Easy to mount and commission.

Use

Only continuous recording and evaluation of energy consumption opens the door to recognizing saving potential and assessing the success of optimization measures. Daily consumption figures are an absolute must to characterize a building and assess optimization measures.
MeterProxy M-Bus is the necessary link between the M-Bus system and EMC energy management solution; automatically transmitting meter and consumption data.

Functions

Topology



Connection to the Internet is possible through Internet provider dial-up (e.g. T-Online, Bluewin, etc…) using a modem or via existing network connections at the customer.

Workflow	When at meter setup in EMC an automated meter is added, the MeterProxy is able to establish the connection via the meter's data point address in the M-Bus system. Data transmission is time-controlled. At the time of transmission, all present values of setup meters are recorded and simultaneously booked in EMC.
Access protection	Multistage password protection prevents unwanted changes to parameters or system settings in the MeterProxy.

Type summary

Ordering	MeterProxy M-Bus Including serial connection cable OZW10.	ASN CSM30.001
	The following device variants are available to connect to other systems:	
	VISONIK	ASN CSV30.001
	UNIGYR	ASN CSU30.001
	DESIGO INSIGHT	ASN CSD30.001
	Other device variants will follow shortly.	

Version

	The MeterProxy consists of a double layered metal housing conforming to IP20. The status LEDs are visible on the front. A plug terminal is used to connect the housing to AC 24 V supply voltage. The serial interfaces are accessible via standard 9-pin DSUB plugs. The Ethernet interface consists of an off-the-shelf RJ45 connector with two LEDs.
Disposal	The device contains electrical and electronic components and may not be disposed of in standard household garbage. Boards and housing must be sent separately to the appropriate waste disposal collection center.
Note	**Observe all local and applicable laws.**

Notes

Mounting	Simply mount the device by snapping it in place on DIN rails. The housing is grounded via a 6.3 mm mounting block ≥ 4 mm² (CU wire) at the central ground.
Parameterization	A web browser (Microsoft Internet Explorer) is used to parameterize the MeterProxy. Parameterized data are protected against power outages.
M-Bus versions supported	MeterProxy M-Bus can be used with all OZW10 systems with firmware versions as of version 4. OZW10 only has a serial interface so that no modem or operator PC can be connected in parallel to the OZW10.
Network connection	The MeterProxy is based on a Windows CE communications platform that can be easily integrated into existing computer networks. The following framework requirements must be fulfilled when the MeterProxy is to be connected to the Internet via a network: • Automatic assignment of network addresses (DHCP) is preconfigured as the standard. • When automatic assignment is not possible within the network, the network address, the addresses for the naming resolution (DNS or WINS) and the gateway must be entered.

The network administrator must determine the type of addressing (e.g. IT department at the customer, system technician SBT).

Answer the following questions:

- Does the network have automated addressing (DHCP)?
- If not, which network address (TCP/IP) is available for the MeterProxy and what are the associated gateway, subnet and WINS/DNS server addresses?

Internet access

To book data from M-Bus systems to EMC, the MeterProxy requires Internet access. This can be set up as follows, depending on the circumstances:

- Network (TCP/IP) connected to the Internet, e.g. customer's company network.
- Dialup modem* for analog telephone connections.
- ISDN terminal adapter* for digital telephone addresses.
- GSM modem* for cases where phone/network connections are unavailable.

* These devices are not delivered with the MeterProxy.

Security

The MeterProxy is an integration unit based on Microsoft Windows CE. Communications occur exclusively over the following network ports:

• Port 80	http	Regular data transmission to EMC.
• Port 21	ftp	Only local, no Internet communication.
• Port 443	https	Regular data transmission to EMC.
• Port 445	smb	Only local, no Internet communication.

Web services take care of regular data transmission. This type of communication is possible for most networks without additional modifications to firewalls, etc.

Technical data

General device data	Operating voltage	AC 24 V +/−10 %
	Frequency	47..63 Hz
	Power consumption	max. 0.4 A
	Power consumption	max. 7VA
	Internal fuse	Fusible links
	Buffer battery	3 V Lithium battery (CR2477N, exchangeable), buffer period ca. 3 years
Functional data	Main processor	Intel StrongArm 200 MHz
	Data storage	6 MB (for import only 2.3 MB available)
	Operating system	Windows CE.NET 4.2
LED displays	ON (green)	Ready
	COM (orange)	Activity
	RUN/ERROR (green/red)	No function
	READY (orange)	No function
COM2 interface	Data bits	8
	Parity	None
	Stop bits	1
	Baud rate	Adjustable to 9600/19200/38400
Modem interface	Data bits	8
	Parity	None
	Stop bits	1
	Baud rate	Auto sensing

Network interface	Network	Ethernet 10 Mbps, RJ45
	Status display	LED with link display and connection activity
Additional interfaces	COM1	No function
	X4	No function
	X6	No function
Mounting variants	DIN tophat rail assembly	
Housing type	Protection as per EN 60529	IP20
Environmental conditions	Operating	Class 3K5 as per IEC 721
	Temperature	0 … 50 °C
	Humidity	< 85 % rH
	Transportation	Class as per IEC 721
	Temperature	-25 … 65 °C
	Humidity	< 95 % rH
Standards	Product safety	Pursuant to EN60950 (safety of information technology equipment)
	Electromagnetic compatibility	
	Immunity	EN6000-6-2 (industrial)
	Emissions	EN50081-1 (residential)
	CE conformity	
	Electromagnetic compatibility	89/336/EEC
	Low-voltage directive	73/23/EEC
Dimensions	Refer to dimensions.	

Interfaces

COM2 interface (OZW10)

Pin	Signal name
1	
2	RXD
3	TXD
4	
5	GND
6	
7	
8	
9	

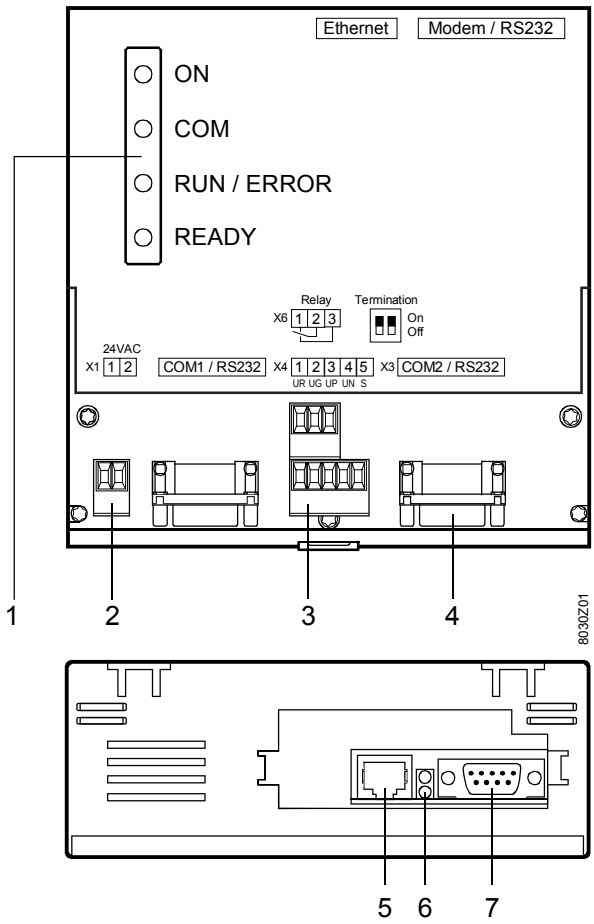
Modem interface

Pin	Signal name
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

Voltage supply: X1

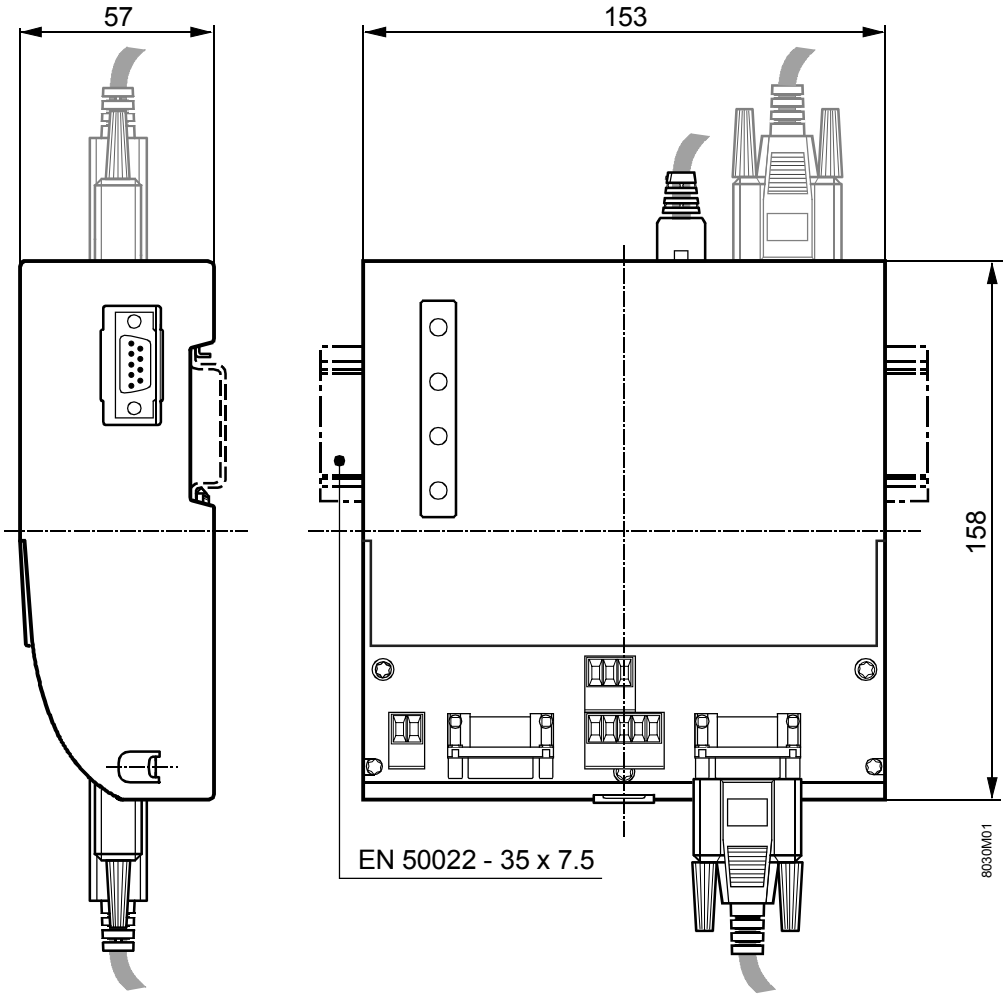
Pin	Signal name
1	L
2	N

Connection terminals



1 Status LED
2 Voltage supply X1
3 Not used
4 COM2 interface
5 Ethernet (RJ45)
6 Modem

Dimensions



Note 70 mm free space must be available for connection plugs.