SIEMENS

Climatix™

POL907_Q3936

POL907.00/xxx



Communication module to connect a Climatix POL6xx controller to a M-Bus network

- In the M-Bus network the M-Bus module acts as M-Bus master and periodically requests data points from the M-Bus devices.
- Up to 6 M-Bus devices, such as heat, water or electricity meters, can be directly connected to the M-Bus module (up to 64 M-Bus devices with M-Bus repeater).
- Up to 200 data points (bindings) can be defined in the M-Bus mapping of the M-bus master module.
- Connection of the M-Bus module to the M-Bus network is galvanically seperated via optocoupler. The bus power supply is short-circuit-proof.
- The POL907.00/xxx communication module is part of the Climatix product range. Refer also to Data sheet Q3900 and Mounting instructions M3910

Technology

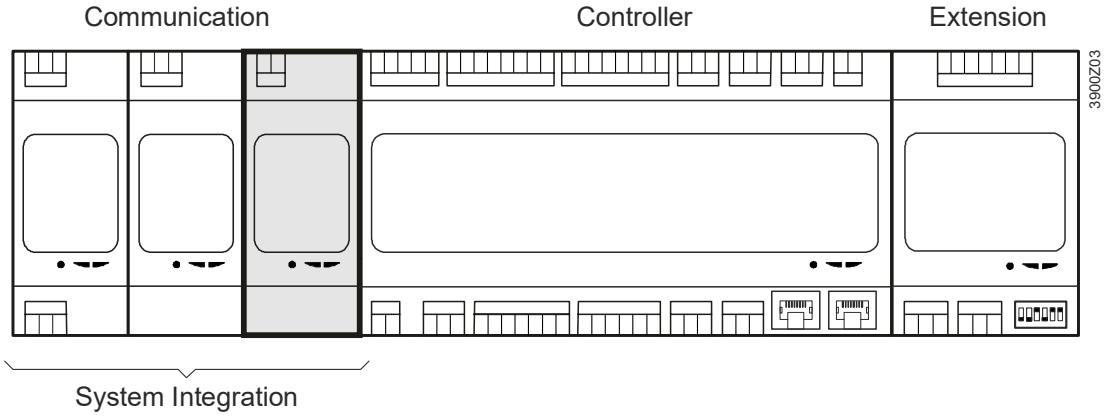
M-Bus protocol

The M-Bus (meter bus) is a European standard for remote readout of heat meters.

It is also suited for use with all other types of consumption meters plus various sensors and actuators.

With its standardization as a galvanic interface for remote readout of heat meters, this bus will become more and more important for the energy industry.
For more information about the M-Bus, visit www.m-bus.com.

Installation concept



Technical data

General Data	
Dimensions (w x h x d)	45 x 110 x 75 mm
Materials and Colors	● Base: Plastic, pigeon-blue RAL 5014 ● Housing: Plastic, light-grey RAL 7035
Weight excl. packaging	134 g

Power supply	
Power supply	Via system interface from controller DC 5 V (± 5 %), max. 400 mA

M-Bus interface	
Terminal	1 interface on terminal T1
Bus connection	CM+ / CM-
Bus electronic	Galvanically isolated
Bus cable	2 wires, interchangeable
Number of M-Bus devices	Without repeater, direct connection: ● Max. 6 M-Bus devices (6 standard loads of < 1.5 mA) With external M-bus repeater: ● Up to 64 M-Bus devices (min. 59 M-Bus devices via repeater)
Number of data points (binding)	Max. 200 data points can be integrated over the M-Bus module to the controller
Tool for M-Bus mapping (more info: SCOPE tool online help)	SCOPE tool Configuration of the mapped M-Bus devices and their required data points (bindings)
Manufacturer specific data structures	Manufacturer specific data structures (VIF = 7Fh or FFh) can be mapped to the Climatix controller.
User definable VIF's in plain ASCII-String	User definable VIF’s in plain ASCII-String (VIF = 7Ch or FCh) cannot be mapped to the Climatix controller.
Readout selection of all VIF's	Readout selctions of all VIF’s (VIF = 7Eh or FEh) cannot be mapped to the Climatix controller.
Extension indicator FBh or FDh	The extension indicators FBh and FDh are supported, therefore in electrical meters, additional values can be integrated as well as the total energy and power values.
Baud rate	300 / 600 / 1200 / **2400** / 4800 / 9600 baud
Type of addressing	Primary addressing using the addresses from 1 to 250 is supported and secondary addressing is fully supported.

Terminal, wiring and interface	
Connection terminal	Equipped with plug: 1 Phoenix FKCT 2,5 /2-ST
	For other types of plug (optional), refer to: Climatix range document 3900 (CB1Q3900en_xx)
Wiring	Solid wire: 0.5…2.5 mm^2 Stranded wire (twisted or with ferrule): 0.5…1.5 mm^2
COMM interface plug	Equipped with board-to-board: ZEC1,0/10-LPV-3,5 GY35AUC2CI1

Ambient conditions and protection classification	
Degree of protection of housing to EN 60529	IP20
Climatic ambient conditions Transport as per EN 60721-3-2	 Class 2K3 Temperature: -40...70 °C Humidity: <95 % r.h. Atmospheric pressure: Min. 260 hPa, corresponding to max. 10000 m above sea level
Operation as per EN 60721-3-3	Class 3K7 Temperature: -40...70 °C Air humidity: <90% r.h. Atmospheric pressure: Min. 700 hPa, corresponding to max. 3000 m above sea level

Standards, directives and approvals	
Product standard	EN 60730-1 Automatic electronic controls for household and similar use.
Electromagnetic compatibility	For residential, commercial, and industrial environments.
EU conformity (CE)	CB1T3930xx
RCM conformity	CB1T3909en_C1
Listings	UL916, UL873 http://database.ul.com/ CSA certification C22.2M205 http://www.csagroup.org
EAC	Eurasian conformity
Environmental compatibility	The product environmental declaration (CB1E3950_01en) contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).
	ACPEIP (China)

Functions

LEDs "BSP" and "BUS" for diagnostics



LED	Color	Flashing frequency	Meaning/Mode
BSP	Red/Green	1 s red / 1 s green	BSP upgrade mode
	Green	Steady "on"	BSP running and communication with controller
	Orange	Steady "on"	BSP running, but no communication with controller
	Red	Flashing at 2 Hz	BSP error (Software error)
	Red	Steady "on"	Hardware fault
BUS	Green	Steady "on"	• M-bus running and communication ok
	Red	Steady "on"	• No M-Bus device is running
	Orange	Steady "on"	• At least one M-Bus device is not running

If both LEDs stay dark: Power supply is outside the allowed range!

Ordering

Type	Stock number	Designation
POL907.00/STD	S55390-C108-A100	Climatix M-Bus module

Delivery/Included:

Phoenix Type	Designation
ZEC 1,0/10-LPV-3,5 GY35AUC2CI1	Board-to-board COMM interface plug
1 x 2 pos - FKCT 2,5 /2-ST	Terminal plugs

Devices are from PHOENIX CONTACT, www.phoenixcontact.com.

Product documentation

Document ID	Title	Topic
Q3900en	Climatix range	Climatix product range
M3910	Mounting instruction Climatix	Mounting and installation

Notes

Security: National safety regulations

⚠ CAUTION	
	**National safety regulations** Failure to comply with national safety regulations may result in personal injury and property damage. ● Observe national provisions and comply with the appropriate safety regulations.

Engineering: concept

- The M-Bus module is attached to the controller with a board-to-board connector
- The connection to the M-Bus is made via the T1 port
- For service, use the M-Bus service button

Commissioning

Meter setting

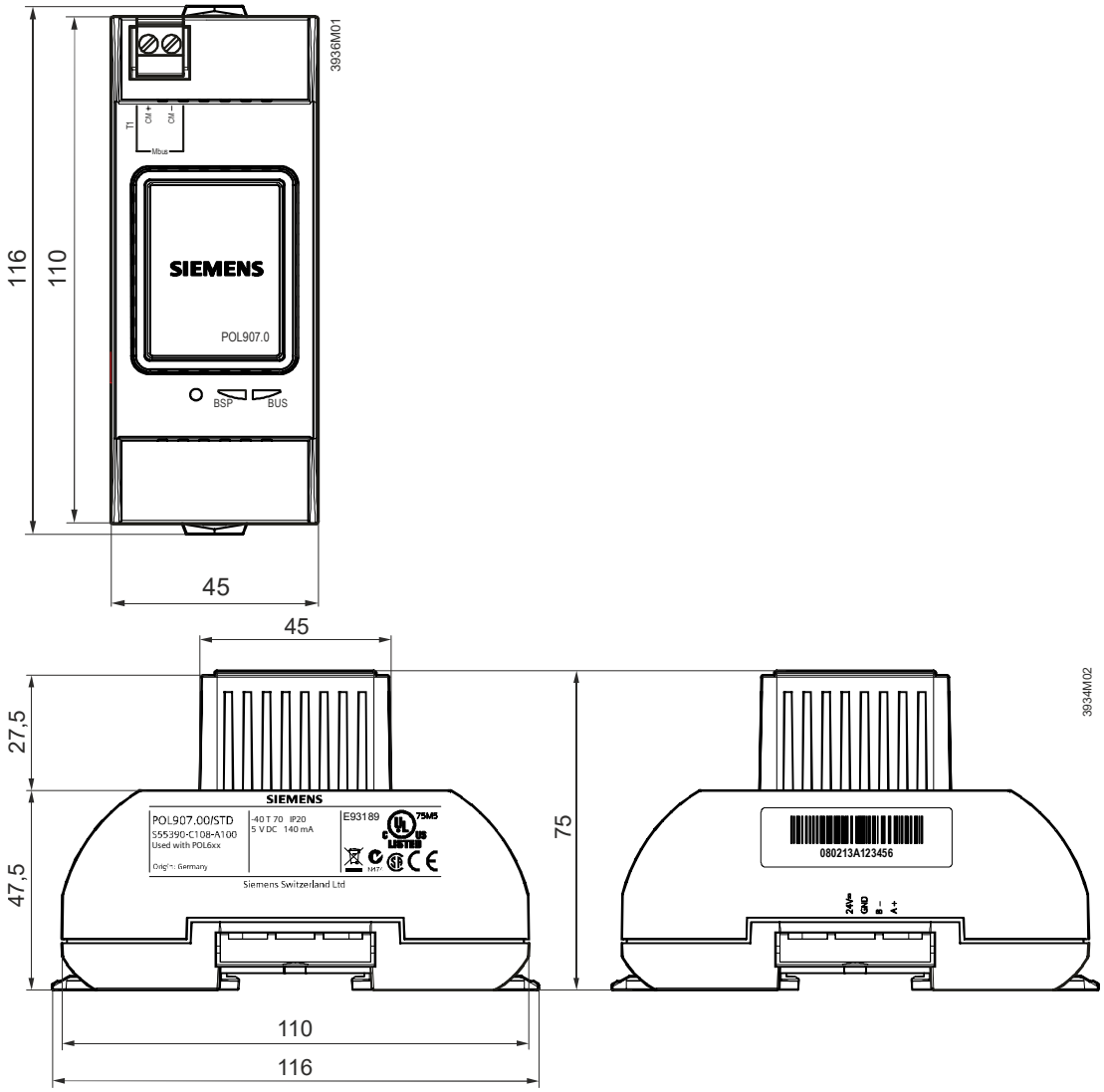
Prior to connecting the M-Bus module, the following meter settings must be made:

- Primary address from 1 to 250 (physical address)
- Baud rate 300 / 600 / 1200 / 2400 / 4800 / 9600 baud
- Enabling the required data, storage no. = 0, tariff = 0
  - Energy in kWh
  - Volume in m^3
  - Power in W
  - Flow rate in l/h
  - Flow temperature in °C
  - Return temperature in °C
- Enabling the required data, storage no. = 1, tariff = 0
  - Date of set day: Day, month, (year)
  - Energy in kWh on the set day
  - Volume in m^3 on the set day

Disposal

	The device is considered an electronics device for disposal in terms of European Directive 2012/19/EU and may not be disposed of as domestic garbage. ● Dispose of the device through channels provided for this purpose. ● Comply with all local and currently applicable laws and regulations.

Dimensions



Right side

Left side

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Smart Infrastructure
Global Headquarters
Theilerstrasse 1a
CH-6300 Zug
+41 58 724 2424
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