SIEMENS

Climatix^{TM}

Climatix communication BACnet MS/TP module

POL904.00/xxx

Communication module to connect a POL6xx.xx Climatix controller to a BACnet MS/TP network.

The POL904.00/xxx communication module offers the following features:

- **Integration into a building automation and control system via BACnet MS/TP**
- **The module must be connected to a POL6xxx.xx controller**
- **Supports BACnet MS/TP (B-AAC profile) with different Baud rates**
- **Network parameters configurable via controller, HMI or SCOPE**
- **Preloaded generic BACnet server**

The POL904.00/xxx communication module is part of the Climatix product range (also refer to Data Sheet 3900, Mounting Instructions M3910 and PICS document P3939en).

The BACnet MS/TP protocol	BACnet, an ASHRAE building automation and control networking protocol, was designed specifically to meet the communication needs of building automation and control systems for applications such as heating, ventilation, and air conditioning control, lighting control, access control, and fire detection systems and their associated equipment. The BACnet protocol provides mechanisms by which computerized building automation devices can exchange information, regardless of the particular building service they perform. As a result, the BACnet protocol may be used by head-end workstations, general-purpose direct digital controllers, and application-specific or unitary controllers with equal effect.

MS/TP (Master-Slave/Token-Passing) is also unique to BACnet and is implemented using the EIA-485 signaling standard. This is a shielded twisted-pair (STP) LAN operating at speeds from 9.6 kbit/s up to 76.8 kbit/s. This LAN type is low cost and particularly suitable for unitary controller communications.

Installation concept

System Integration
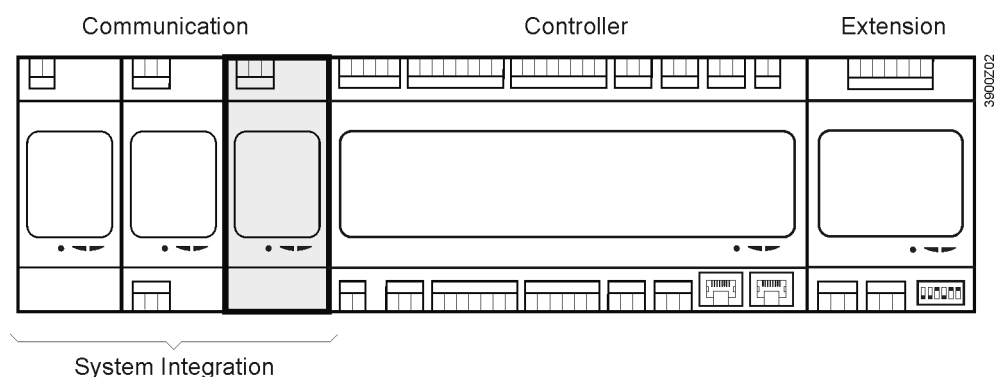
Technical data

General data

Dimensions	W x H x D: 45 x 110 x 75 mm
Weight excl. packaging	98g
Base	Plastic, pigeon-blue RAL 5014
Housing	Plastic, light-grey RAL 7035
Power supply	Via PolyCool 6XX bus connector
	DC 5 V (+5% / –5%), max. 270 mA

BACnet MS/TP

RS-485 (EIA-485)	
Bus connection / electronics	Galvanically isolated
Bus connection	A+, B-, REF (3 wires)
Bus termination (switch by software)	680 Ω / 120 Ω +1 nF / 680 Ω

Connection terminals

Example FKCT

| Equipped with plug	Phoenix FKCT 2,5 /3-ST
For other types of plug (optional), refer to PolyCool range document 3900 (CB1Q3900en)	
Solid wire	0.5…2.5 mm²
Stranded wire (twisted or with ferrule)	0.5…1.5 mm²

COMM interface plug

Board-to-board

ZEC1,0/10-LPV-3,5 GY35AUC2CI1

Board-to-board connector

System interface	Equipped with board-to-board plug	ZEC1,0/10-LPV-3,5 GY35AUC2CI1

Cable types	RS-485 interface	3-wire twisted pair, shielded

Environmental conditions	Operation	IEC 721-3-3
	Temperature	-40...70 °C
	Humidity	<90% r.h.
	Atmospheric pressure	Min. 700 hPa, corresponding to max. 3,000 m above sea level
	Transport	IEC 721-3-2
	Temperature	-40...70 °C
	Humidity	<95% r.h.
	Atmospheric pressure	Min. 260 hPa, corresponding to max. 10,000 m above sea level

Protection	Degree of protection	IP20 (EN 60529)

Standards	Product safety	
	Automatic electrical controls	EN 60730-1
	Electromagnetic compatibility	
	Immunity	EN 60730-1 +A16
	Emissions	EN 60730-1 +A16
	CE conformity	
	EMC directive	2004/108/EC
	Low-voltage directive	2006/95/EC
	Listings	
		UL916, UL873
		CSA C22.2M205
	RoHS directive	
		2002/95/EC (Europe)
		ACPEIP (China)

Ordering data	Climatix BACnet MS/TP module	POL904.00/STD

MSTP
LEDs for diagnostics

LEDs for BSP and BUS diagnostics (green, red and yellow)
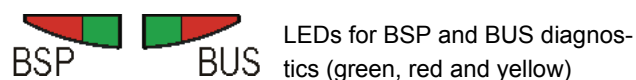
Mode	BUS LED status
BACnet MS/TP running and communication ok	Green on
MS/TP not running	Yellow on
Hardware error	Red on
Mode	BSP LED status
BSP running and communication with controller	Green on
BSP running but no communication with controller	Yellow on
BSP error (software error)	Red blinking at 2 Hz
Hardware error	Red on
BSP upgrade mode	Every second alternating between red and yellow

Engineering notes

- The communication module is attached to the controller with a board-to-board connector
- The connection to the MSTP network is made via theT1 port

Disposal notes

The module contains electrical and electronic components and must not be disposed of together with household waste.

Local and currently valid legislation must be observed!

Layout of POL904.00/xxx communication module

Right side

Left side

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Subject to change