SIEMENS

Climatix™

Climatix communication Advanced Web and BACnet module
POL909.80/STD

Equipped with 64 MB of flash memory, 64 MB of SDRAM

Communication module to enable Web functionality and connect a POL6xx.xx controller to a BACnet IP network.

- The POL909.80/STD communication module offers the following features:
  - **Internet-based device powered by ARM926EJ-S™ ARM® Thumb® Processor**
  - **Embedded WindowsCE® platform with Web server application**
  - **Generic tree view to read and write data points**
  - **Platform to program Web applications**
  - **Integration into a building automation and control system via BACnet IP**
  - **Client communication to other BACnet devices**
  - **Preloaded generic BACnet server**
  - **Supports BACnet/IP (B-AAC profile and BBMD)**
  - **Network parameters configurable via controller, HMI, SCOPE or Web**
  - **The module must be connected to the left side of a POL6xx.xx controller**
  - **Alarm server for SMS / mail**
  - **Peer-to-peer communication**
  - **RAS server**
  - **Full modem RS-232 port (GSM / GPRS support, Dial in and dial out)**

The POL909.80/STD communication module is part of the Climatix product range (also refer to Data Sheet 3900 and Mounting Instructions M3910 and BACnet PICS document P3939en).

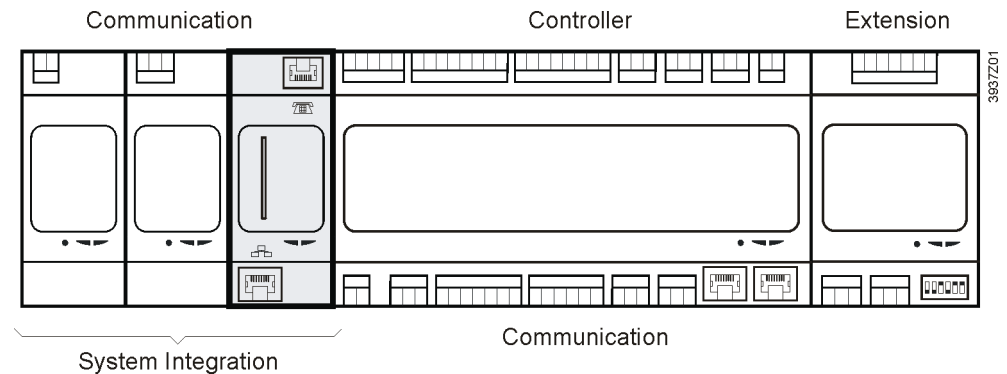| The BACnet / IP protocol	BACnet, an ASHRAE building automation and control networking protocol, was designed specifically to meet the communication needs of building automation and control systems for applications such as heating, ventilation, and air conditioning control, lighting control, access 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.
Advanced Web and BACnet module (AWB)	The advanced Web and BACnet module extends the communication capabilities of the Climatix controllers. It communicates using different protocols that can be loaded to the embedded WindowsCE platform. With the preloaded WindowsCE operating system, all network address parameters can be set statically, handled by a DHCP server or, if nothing is present, negotiated by the AutoIP functionality of the operating system. To manage the device, a set of Web-based extensions for the Web server are loaded to download files to access the registry or handle processes. Unlike other solutions, the AWB can be handled in managed and unmanaged networks.
Functions	The advanced Web and BACnet module is an Internet-based device powerded by ARM926EJ-S™ ARM® Thumb® Processor. Equipped with 64 MB of flash memory, 64 MB of SDRAM, the possibility of using SD-card and preloaded with WindowsCE operating system, the AWB is a powerful starting point for an Internet or communication application. To allow access to local area networks, the onboard Ethernet controller provides the flexibility to integrate this device into networks.
Software Web server	The Web server with its BGI capabilities and the remote management extensions (RMS) enable the user to implement and load his own Web pages and extend them with programmed Web functions. Using the RMS, all pages can be loaded to the file system. No more recompilations or firmware setup is needed. The access to certain pages can be granted based on user or group policies.
Generic tree view	The preloaded generic tree view application always reflects the loaded control program. After a modification of the controller application, only one restart is necessary to enable the operation of data points inside a Web browser. With the Java technologies used, this operation always shows the actual process data of the Climatix controller.

Installation concept

Technical data

General data		
	Dimensions	W x H x D: 45 x 110 x 75 mm
	Weight excl. packaging	102 g
	Base	Plastic, pigeon-blue RAL 5014
	Housing	Plastic, light-grey RAL 7035
	Power supply	Via system interface from controller
		DC 5 V (+5% / –5%), max. 270 mA
	Microprocessor	ARM926EJ-S™ ARM® Thumb® Processor, 400MHz
	Memory	64 MB NAND FLASH (3,3 V)
		64 MB SDRAM (133MHz)
		SD-Card Support
	Data connectivity	- 10BaseT Ethernet, with link detection
		- Modem
	Connectors:	
	RJ45-10BaseT Ethernet	with link detection
	RJ45-RS-232 serial	with full modem support
	Flash programming	JTAG support through CPU, download via Ethernet
	Software	
	Operating system	Windows CE 6.0
	Storage	FlashFile System
	Web server	With BGI extension and access security
	RMS	Remote management for file handling, process management and registry
	Generic treeview	Out of the box operation of loaded HVAC applications

SD card	SD-Card up to 8 GB	

BACnet IP	Ethernet 10/100 Mbit (IEEE 802.3U)	
	Cable connection	RJ45 jack, 8 pins
	BACnet / IP interface	Supports B-BC and BBMD profile

Modem port	Cable connection RS-232	RJ45 jack, 8 pins
		Support of GSM, GPRS Modems

COMM interface plug	Board-to-board	ZEC1,0/10-LPV-3,5 GY35AUC2CI1

Board-to-board
connector

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)

Directives, standards and approvals	Product standard	EN 60730-1 Automatic electrical controls for household and similar use
	Electromagnetic compatibility (applications)	For use in residential, commerce, light-industrial and industrial environments.
	EU conformity (CE)	CB1T3930xx *)
	RCM conformity (EMC)	CB1T3909en_C1 *)
	Listings	
		UL916, UL873 http://database.ul.com/ CSA Class 4812 http://www.csagroup.org

Environmental compatibility	Product environmental declaration CB1E3950_01 *) (contains data on RoHS compliance, materials composition, packaging, environmental benefit, disposal)

*) The documents can be downloaded from http://siemens.com/bt/download.

Ordering data	Climatix advanced Web and BACnet module	POL909.80/STD

Advanced Web module LEDs for diagnostics

LEDs for BSP and BUS diagnostics (green, red and yellow)

Mode	BUS LED status
BACnet IP running and communication ok	Green on
Startup	Yellow on
Hardware/Software error	Red on
Application update	Green/Red blinking at 1 Hz

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
BSP updating	Green/Red blinking at 1 Hz

Engineering notes

- The communication module is attached to the controller with a board-to-board connector
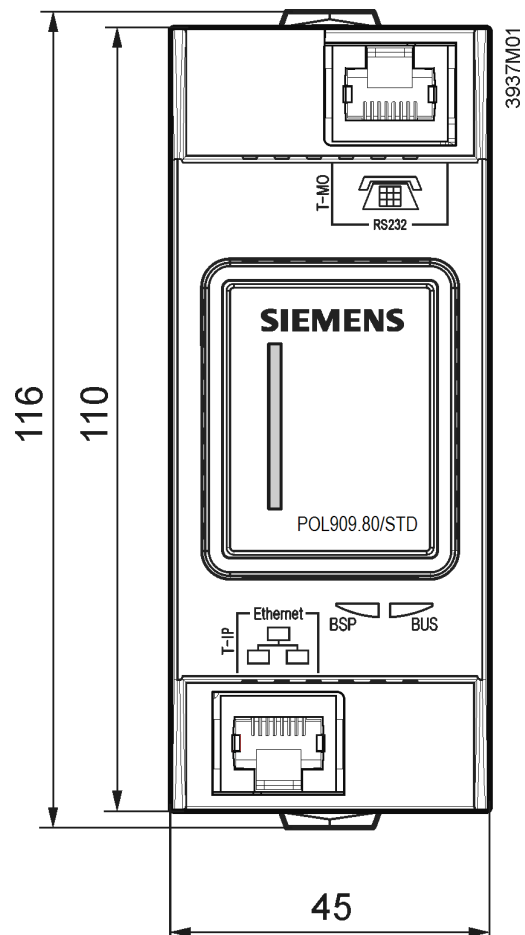- The connection to Ethernet is made via the T-IP port (RJ45 jack)

Disposal notes

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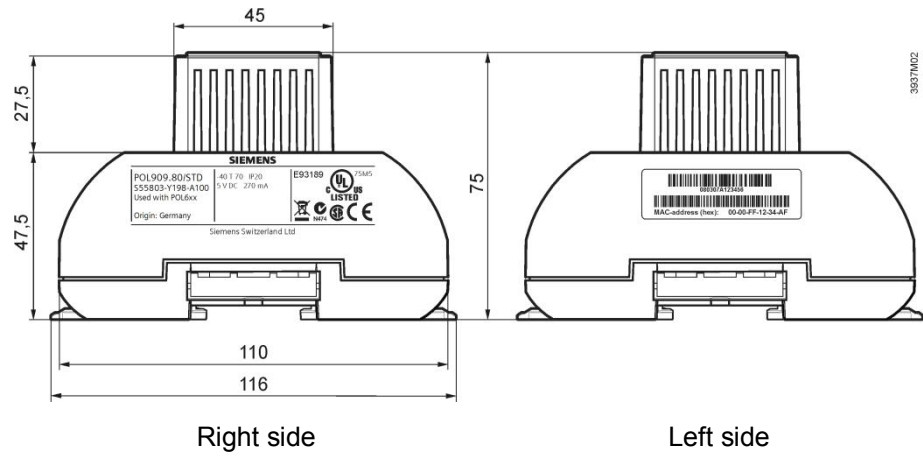
- Dispose of the devices through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

Layout of POL909.50/xxx communication module

Dimensions

45

27,5

47,5

75

110

116

SIEMENS
POL909.80/STD   -40 T 70   IP20   E93189
555803-Y198-A100   5 V DC   270 mA
Used with POL6xx
Origin: Germany
Siemens Switzerland Ltd

MAC-address (hex):   00-00-FF-12-34-AF

3937M02

Right side   Left side

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