

Climatix™

## Communication module LON

POL906.00/xxx



**Communication module to connect a Climatix POL6xx.xx controller to a LON network**

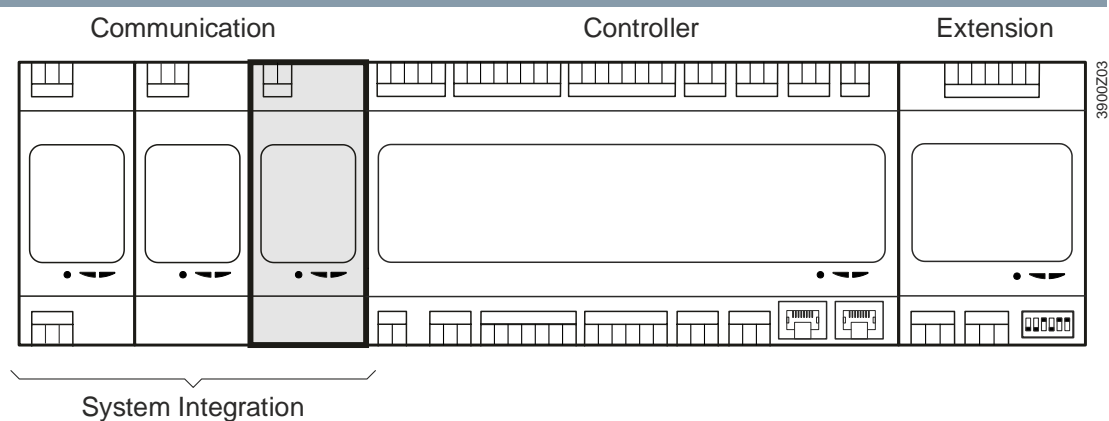
- Integration into a building automation and control system via LON network
- The module must be connected to the left side of a POL6xx.xx controller
- It includes a LON network controller (Neuron chip) which handles the complete LON network protocol and the user application
- Galvanically isolated connection to the LON network via the 78 kilobaud TP/FT-10 transceiver
- User applications can be downloaded into the flash memory using standard LON tools
- Tooling via LON
- The POL906.00/xxx communication module is part of the Climatix product range. Refer also to Data sheet Q3900 and Mounting instructions M3910

**LON protocol**

LonWorks® is a networking platform specifically created to address the unique performance, reliability, installation, and maintenance needs of control applications.

The platform is built on a protocol created by Echelon Corporation for networking devices via media such as twisted pair, powerlines, fiber optics, and RF.

It is popular for the automation of various functions within buildings such as lighting and HVAC.

**Installation concept**

## Technical data

### General Data

Dimensions (w x h x d)	45 x 110 x 75 mm
Materials and Colors	<ul style="list-style-type: none"> <li>Base: Plastic, pigeon-blue RAL 5014</li> <li>Housing: Plastic, light-grey RAL 7035</li> </ul>
Weight excl. packaging	85 g

### Power supply

Power supply	Via system interface from controller DC 5 V (± 5 %), max. 80 mA
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### LON interface

Terminal	1 interface on terminal T1
Bus connection	CLA, CLB
Bus electronic	Galvanically isolated
Bus cable	2 wires, interchangeable
LON data memory	56 kbyte flash memory for the user application

### Terminal, wiring, cables 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 Q3900
Wiring	Solid wire: 0.5...2.5 mm <sup>2</sup> Stranded wire (twisted or with ferrule): 0.5...1.5 mm <sup>2</sup>
Cable types	Refer to LON Manual
COMM interface plug	Equipped with board-to-board: ZEC1,0/10-LPV-3,5 GY35AUC2C11

### 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 <a href="http://database.ul.com/">http://database.ul.com/</a> CSA Class 4812 <a href="http://www.csagroup.org">http://www.csagroup.org</a>
EAC	Eurasian conformity
Environmental compatibility	The product environmental declaration (CB1E3950_01) contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).

## Functions

### LON service pin button



The LON service pin button is used for LON addressing.

### LEDs "BSP" and "BUS" for diagnostics

LED	Color	Flashing frequency	Meaning/Mode
<b>BSP</b>	Red/Green	1 s red / 1 s green	BSP upgrade mode
	Green	Steady "on"	BSP operating and communication with controller working
	Orange	Steady "on"	BSP operating, but no communication with controller or upgrade mode active
	Red	Flashing at 2 Hz	BSP error (Software error)
	Red	Steady "on"	Hardware fault
<b>BUS</b>	Green	Steady "on"	<ul style="list-style-type: none"> <li>Ready for communication (all parameters loaded, Neuron configured)</li> <li>Does not indicate communication with other devices</li> </ul>
	Red	Steady "on"	<ul style="list-style-type: none"> <li>No communication to Neuron</li> <li>Internal error, could be solved by downloading a new LON application</li> </ul>
	Orange	Steady "on"	<ul style="list-style-type: none"> <li>Startup</li> </ul>
	Orange	Flashing	<ul style="list-style-type: none"> <li>Communication not possible to the Neuron</li> <li>The Neuron must be configured and set online over the LON Tool</li> </ul>



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

## Ordering

Type	Stock number	Designation
POL906.00/STD	S55390-C105-A100	LON communication 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 plug


Devices are from PHOENIX CONTACT, [www.phoenixcontact.com](http://www.phoenixcontact.com).

## Product documentation

Document ID	Title	Topic
Q3900en	Climatix range	Climatix product range
M3910	Mounting instruction Climatix	Mounting and installation
J3964	LON communication with POL906.00	LON integration

## Notes


### Security: National safety regulations

	<b>⚠ CAUTION</b>
	<b>National safety regulations</b> Failure to comply with national safety regulations may result in personal injury and property damage <ul style="list-style-type: none"><li>Observe national provisions and comply with the appropriate safety regulations.</li></ul>

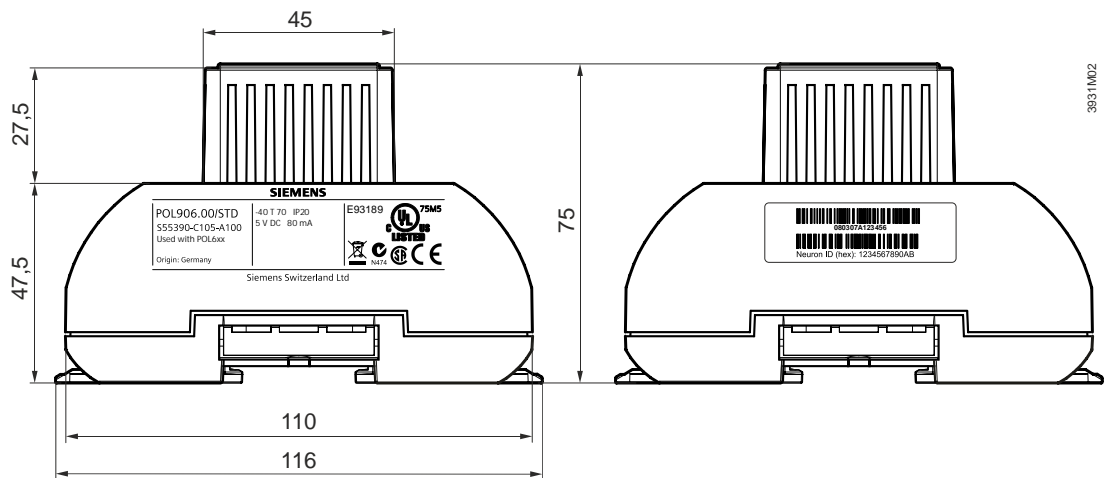
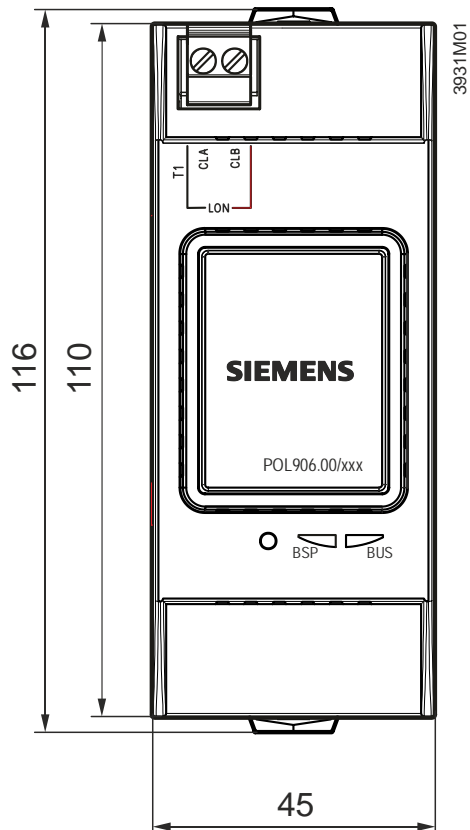
### Engineering: concept

- The communication module is attached to the controller with a board-to-board connector
- The connection to the LON bus is made via the T1 port

### 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. <ul style="list-style-type: none"><li>Dispose of the device through channels provided for this purpose.</li><li>Comply with all local and currently applicable laws and regulations.</li></ul>
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## Dimensions



Right side

Left side