



Climatix™

Climatix communication Modbus module

POL902.00/xxx

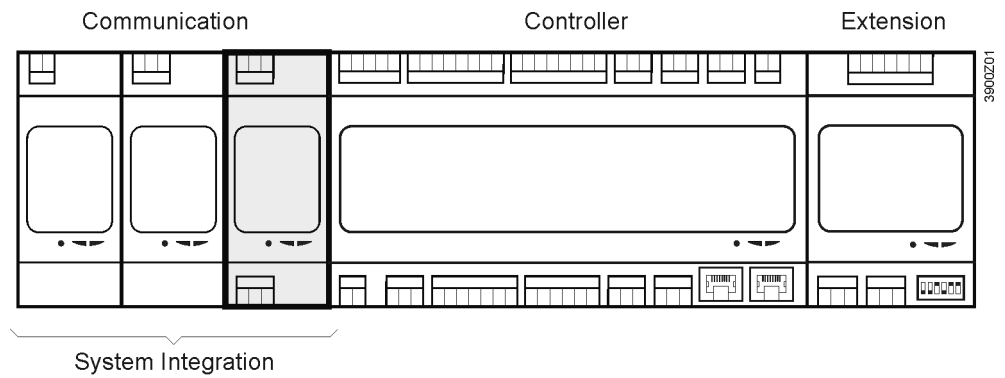
Communication module to connect a POL6xx.xx Climatix controller to a Modbus network.

The POL902.00/xxx communication module offers the following features:

- Integration into a building automation and control system via RS 485 Modbus RTU
- The module features 2 Modbus slave communication ports
- Galvanically isolated connection to the Modbus network
- The module must be connected to a POL6xx.xx controller

The POL902.00/xxx communication module is part of the Climatix product range (also refer to Data Sheet 3900 and Mounting Instructions M3910).

Installation concept



Technical data

General data

Dimensions	W x H x D: 45 x 110 x 75 mm
Weight excl. packaging	85 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. 140 mA

Modbus

RS-485 (EIA-485)	T1 and T2
Two Modbus interfaces	
Bus electronics	Galvanically isolated
Bus connection	+, -, REF
Bus cable	Shielded if length >3 m, twisted pair
Bus termination (switch by software)	680 Ω / 120 Ω +1nF / 680 Ω
Baud rate	2400, 4800, 9600, 19200 and 38400

Connection terminals



Example FKCT

Equipped with plug	2 Phoenix FKCT 2,5 /3-ST
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For other types of plug (optional), refer to PolyCool range document 3900 (CB1Q3900en_xx)

Solid wire	0.5...2.5 mm ²
Stranded wire (twisted or with ferrule)	0.5...1.5 mm ²

COMM interface plug

Board-to-board	ZEC1,0/10-LPV-3,5 GY35AUC2C11
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Board-to-board connector



System interface

Equipped with board-to-board plug	ZEC1,0/10-LPV-3,5 GY35AUC2C11
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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
Protection	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
Standards	Degree of protection	IP20 (EN 60529)
	Product safety	
	Automatic electrical controls	EN 60730-1
	Electromagnetic compatibility	
	Immunity	EN 60730-1 +A16
	Emissions	EN 60730-1 +A16
	Immunity in the industrial sector	EN 61000-6-2
	Emissions in the domestic sector	EN 61000-6-3
	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)	
Register and mappings	Only one slave configured	2 slaves configured
	2000 coils	2000 coils (per slave)
	2000 state	2000 state (per slave)
	2000 holding	1000 holding (per slave)
	2000 input	1000 input (per slave)
	2000 active mappings	2000 active mappings total for both slaves (max. 1000 on slave 1 and max. 1000 on slave 2)
Ordering data	Climatix RS-485 Modbus module	POL902.00/STD

Modbus service pin LEDs for diagnostics

Service pin button >



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

Mode	BUS LED status
	Green on
	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	BSP LED green, BUS LED alternating at 1 Hz between red and green

Engineering notes

- The communication module is attached to the controller with a board-to-board connector
- The connection to the Modbus is made via the connector T1 and T2 ports

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 POL902.00/xxx communication module

