



Climatix™

## Climatix extension module 6 I/Os

POL925.00/xxx

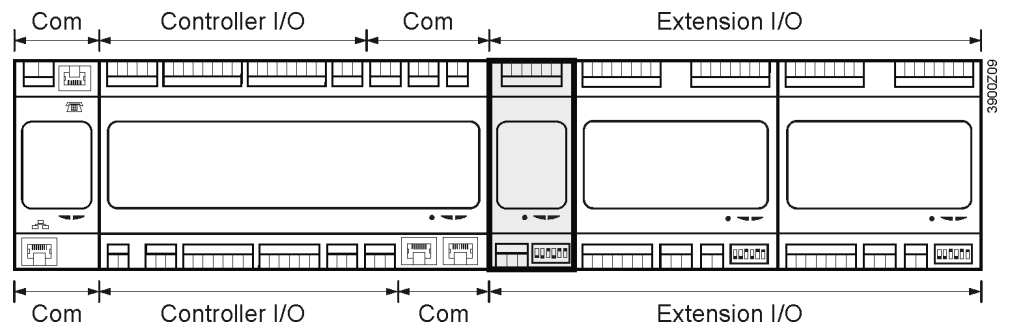
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The POL925.00/XXX extension module extends the number of I/Os of Climatix 600 controllers. It is a product of the Climatix range.

The extension module offers the following features:

- Power supply AC 24 V or DC 24 V
- 4 digital inputs for potential-free contacts
- 2 digital inputs galvanically isolated for AC 115/230 V
- Peripheral bus interface for local / remote extension I/Os

The POL985.00/xxx extension module is part of the Climatix product range (also refer to Data Sheet 3900 and Mounting Instructions M3910).



**Technical data**

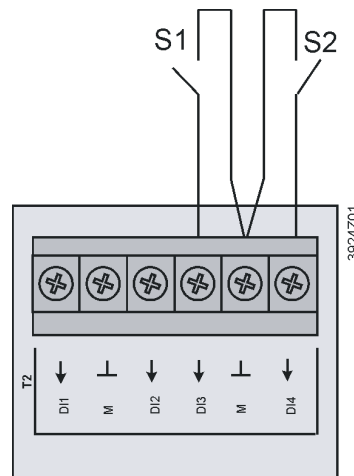
**Power supply**

Operating voltage	AC 24 V ± 20%; DC 24 V ± 10%
Frequency	45...65 Hz
Power consumption	150 mA, 1.5 W
Pass through current	Max. 4 A
Connection	Peripheral bus

**Digital inputs**

D1...D4 (T1)

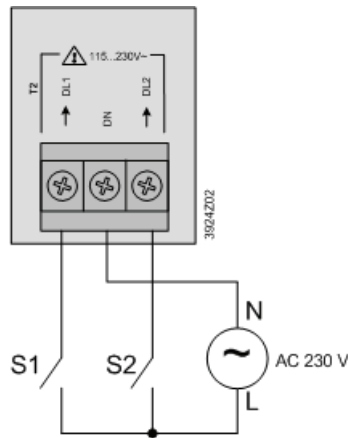
0/1 digital signal(binary)	For potential-free contacts
Sampling voltage / current	DC 24 V / 8 mA
Contact resistance	Max.200 Ω (closed) Min. 50 kΩ (open)
Delay	10 ms
Pulse frequency	Max. 30 Hz



Connecting floating contacts

**Digital input**  
DL1, DL2 (T2)

0/1 digital signal (binary)	Galvanically isolated contact
Nominal voltage	AC 115 V...230 V
Frequency range	45...65 Hz
Sample current	3 mA @ AC 230 V
Delay	100 ms
Pulse frequency	Max. 5 Hz



Connecting a AC 230 V signal to a galvanically isolated digital inputs

**Connection terminals**

Possible plugs for IO signals (not included)	Phoenix FKCVW 2,5 / x-ST Phoenix FKCT 2,5 / x-ST Phoenix MVSTBW 2,5 / x-ST Phoenix FRONT-MSTB 2,5 / x-ST
Solid wire	0.5...2.5 mm <sup>2</sup>
Stranded wire (twisted and with ferrule)	0.5...1.5 mm <sup>2</sup>
Cable lengths	In compliance with load, local regulations and installation documents

**Peripheral bus**

Power supply	U <sub>eff</sub> = AC 24 V ± 20%, f <sub>main</sub> = 45...65 Hz or U = DC 24 V ± 10%, no internal fuse
Bus termination selectable	(680 Ω / 120 Ω +1 nF / 680 Ω )
Solid wire	0.2...1.0 mm <sup>2</sup>
Stranded wire (twisted and with ferrule)	0.2...1.0 mm <sup>2</sup>
Cable lengths	Max. 30m
Addressing	DIP switches 1...5
Termination	DIP switch 6

**Environmental conditions**

Operation	IEC 721-3-3 class 3K5
Temperature	-40...70 °C
Humidity	<90% r.h. (non-condensing)
Atmospheric pressure	Min. 700 hPa, corresponding to max. 3,000 m above sea level
Transport	IEC 721-3-2 class 2K3/2K4
Temperature	-40...70 °C
Humidity	<95% r.h. (non-condensing)
Atmospheric pressure	Min. 260 hPa, corresponding to max. 10,000 m above sea level

<b>Protection</b>	Degree of protection	IP20 (EN 60529)
	Safety class	Suitable for use in plants with safety class II
<b>Standards</b>	Product safety	
	Automatic electrical controls	EN 60730-1
	Electromagnetic compatibility	
	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	
<b>General data</b>	Listings	UL916, UL873 CSA C22.2M205
	RoHS directive	2002/95/EC (Europe) ACPEIP (China)
	Dimensions of controller	45 x 110 x 75 mm
	Weight excl. packaging	92.6 g
	Base	Plastic, pigeon-blue RAL 5014
	Housing	Plastic, light-grey RAL 7035

#### Status of LEDs

The status of the BSP LED is defined as follows:

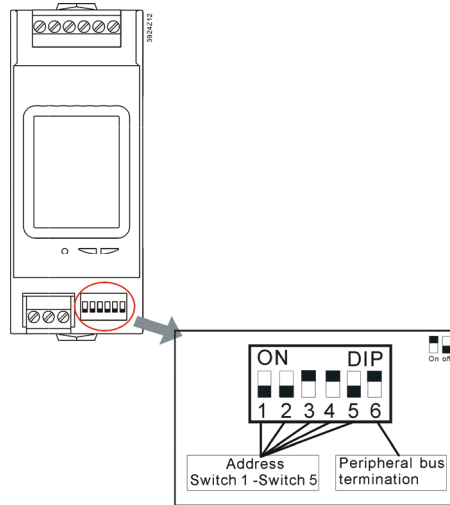
<i>Status</i>	<i>Meaning</i>
Red blinking at 2 Hz	BSP error or slave address error
Green on	BSP running

The status of the BUS LED is defined as follows:

<i>Status</i>	<i>Meaning</i>
Red on	Communication error
Green on	Communication running
Green on and red on (yellow)	Communication running but parameter not successfully configured

## DIP switches

The extension module is equipped with DIP switches for communication with the controller. Switches 1, 2, 3, 4, and 5 are configurable to set the slave address, while switch 6 acts as peripheral bus termination. When the extension module operates as the termination in the network, switch 6 must be set to ON.



The bit order for the switches is from 5 to 1. The lowest bit is 5 while the highest bit is 1. The following table shows the logic of slave address:

<b>Switch 1</b>	$2^4$
<b>Switch 2</b>	$2^3$
<b>Switch 3</b>	$2^2$
<b>Switch 4</b>	$2^1$
<b>Switch 5</b>	$2^0$

By combining switches 1, 2, 3, 4 or 5, a maximum of 31 slave addresses can be configured. The configuration formula is as follows:  $2^4+2^3+2^2+2^1+2^0=31$ .

Below are some configuration examples:

Slave address (controller)	DIP switch configuration of extension module					Schematics
	Switch 1	Switch 2	Switch 3	Switch 4	Switch 5	
1	Off	Off	Off	Off	On	
2	Off	Off	Off	On	Off	
3	Off	Off	Off	On	On	
4	Off	Off	On	Off	Off	
5...29						
30	On	On	On	On	Off	
31	On	On	On	On	On	

### Note



The same address of extension module must be set in the application program of the controller. Zero cannot be set as the slave address.

**Ordering data** Extension module 6 I/Os POL925.00/STD

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**Accessories** Connector set (spring cage, cable top entry) POL092.56/XXX  
1 x Phoenix FKCT 2,5/3-ST KMGY  
1 x Phoenix FKCT 2,5/6-ST GY7035  
1 x Phoenix ZEC 1,0 / 4-LPV-3,5 GY35AUC2C11  
2 x Phoenix ZEC 1,0 / 4-ST-3,5 GY35AUC1R1,4

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### Engineering notes

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To ensure protection against accidental contact with relay connections carrying voltages above 42 V<sub>eff</sub>, the module must be installed in an enclosure (preferably a control panel). It must be impossible to open the enclosure without the aid of a key or tool.

AC 230 V cables must be double-insulated against safety extra low-voltage (SELV) cables.

### Disposal notes

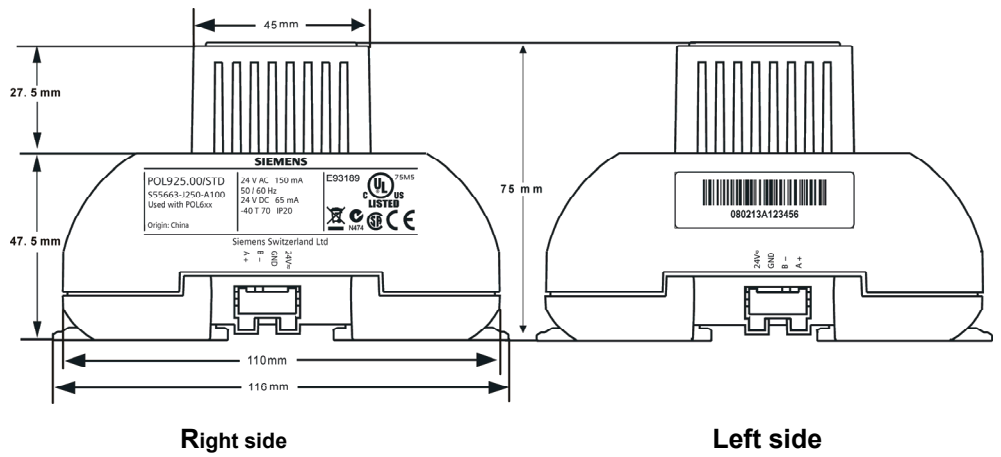
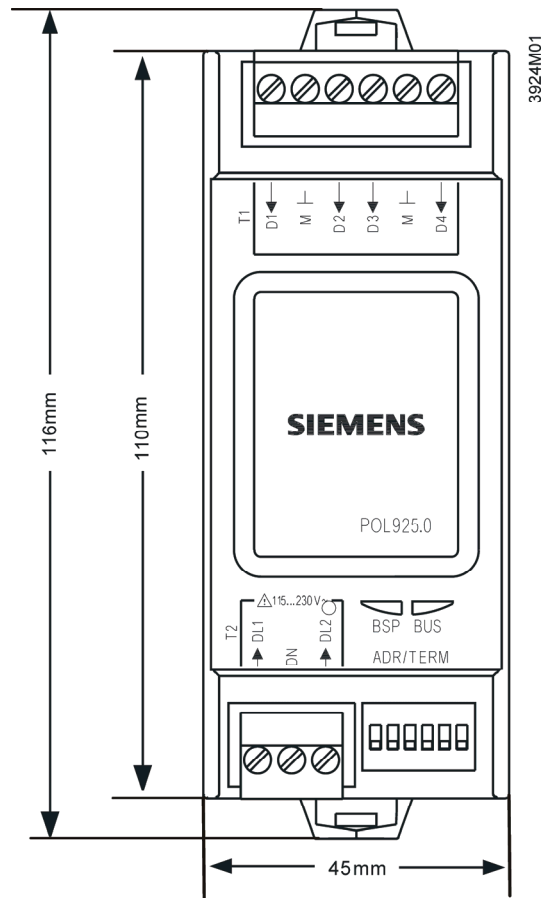
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**The module contains electrical and electronic components and must not be disposed of together with household waste.**

**Local and currently valid legislation must be observed!**

Layout of extension module 6 I/Os



Right side

Left side

