SIEMENS

3924

Climatix™

Climatix extension module 6 I/Os

POL925.00/xxx

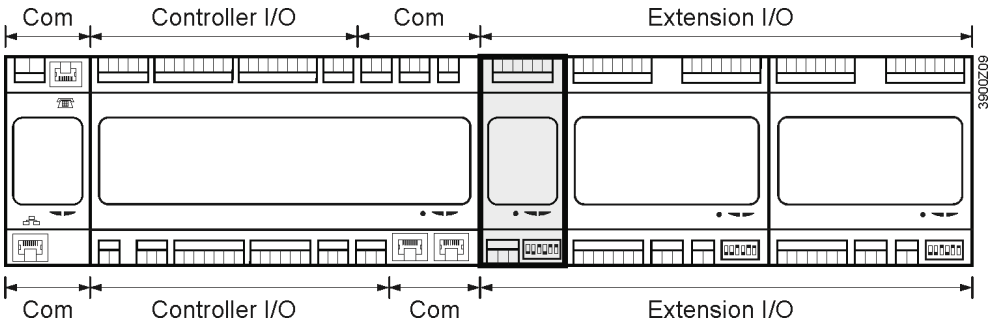
The POL925.00/XXX extension module extends the number of I/Os of Climatix 600 controllers. It is a product of the Climatix range.

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**

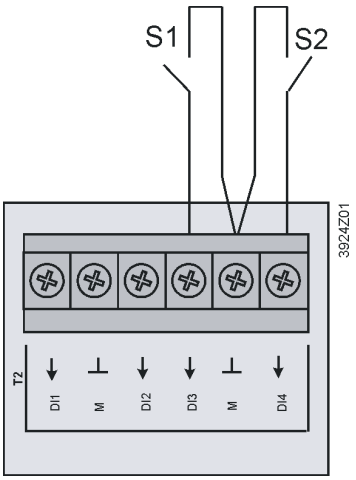
The POL985.00/xxx extension module is part of the Climatix product range (also refer to Data Sheet 3900 and Mounting Instructions M3910).

Climatix product range **Installation concept**



Technical data

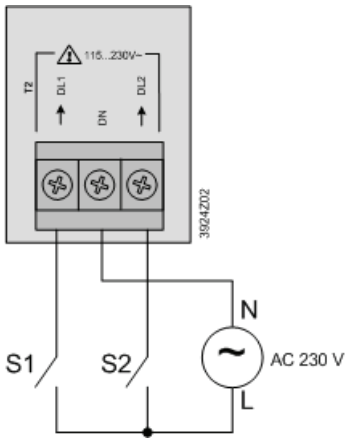
Power supply	Operating voltage	AC 24 V ± 20%; DC 24 V ± 10%
	Frequency	45…65 Hz
	Power consumption	150 mA, 1.5 W
	Pass through current	Max. 4 A
	Connection	Peripheral bus
Digital inputs D1...D4 (T1)	0/1 digital signal(binary)	For potential-free contacts
	Sampling voltage / current	DC 24 V / 8 mA
	Contact 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 mm²
Stranded wire (twisted and with ferrule)	0.5…1.5 mm²
Cable lengths	In compliance with load, local regulations and installation documents

Peripheral bus

Power supply	Ueff = AC 24 V ± 20%, fmain = 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 mm²
Stranded wire (twisted and with ferrule)	0.2…1.0 mm²
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

Protection

Degree of protection	IP20 (EN 60529)
Safety class	Suitable for use in plants with safety class II

Standards

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
Listings	
	UL916, UL873
	CSA C22.2M205
RoHS directive	
	2002/95/EC (Europe)
	ACPEIP (China)

General data

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:

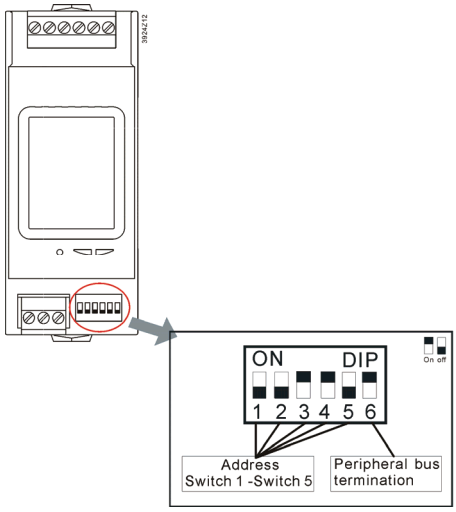
Status	*Meaning*
Red blinking at 2 Hz	BSP error or slave address error
Green on	BSP running

The status of the BUS LED is defined as follows:

Status	*Meaning*
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.

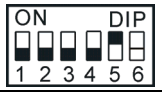
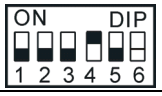
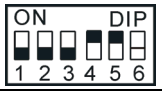
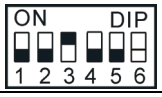
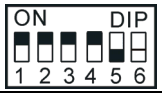
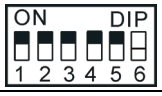


The bit order for the switches is from 5 to 1. The lowest bit is 5 while the highest bit is 1. The following table shows the logic of slave address:

Switch 1	2^4
Switch 2	2^3
Switch 3	2^2
Switch 4	2^1
Switch 5	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:

	DIP switch configuration of extension module					
Slave address (controller)	Switch 1	Switch 2	Switch 3	Switch 4	Switch 5	Schematics
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
Accessories	Connector set (spring cage, cable top entry) 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 GY35AUC2CI1 2 x Phoenix ZEC 1,0 / 4-ST-3,5 GY35AUC1R1,4	POL092.56/XXX

Engineering notes

To ensure protection against accidental contact with relay connections carrying voltages above 42 V_{eff}, 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.

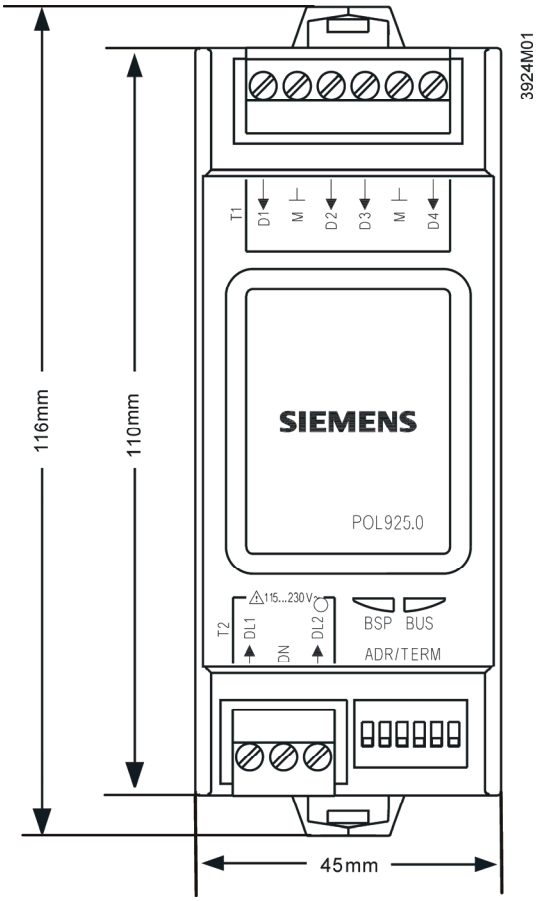
AC 230 V cables must be double-insulated against safety extra low-voltage (SELV) cables.

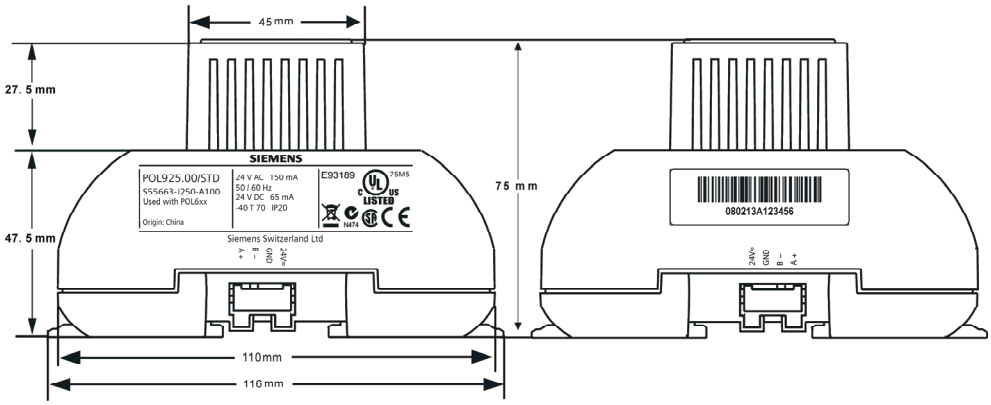
Disposal notes

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**