sym@ndo

Installation and operating instruction Symondo Controller WLAN



Read carefully before installation, commissioning and operation

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SAFETY INSTRUCTIONS

EG-Conformity

By affixing the CE mark to the unit the manufacturer declares that Symondo Controller WLAN conforms to the following relevant safety regulations:

- EU low voltage directive 2014/35/EU
- EU electromagnetic compatibility directive 2014/30/EU

conforms. Conformity has been verified and the corresponding documentation and the EU declaration of conformity are kept on file by the manufacturer.

General Instructions

Please read carefully!

These installation and operating instructions contain basic instructions and important information regarding safety, installation, commissioning, maintenance and the optimal use of the unit. Therefore these instructions must be read and understood completely by the installation

technician/specialist and by the system user before installation, commissioning and operation of the unit.

This unit is an automatic, electrical Symondo Controller WLAN. Install the unit only in dry areas and under the ambient conditions described in "Specifications".

In addition, observe the applicable accident prevention regulations, the regulations of the Association of Electrical Engineering, the local power supply utility, the applicable DIN-EN standards and the installation and operating instructions for the additional system components. Installation, electrical connection, commissioning and maintenance of the device may only be carried out by an appropriately trained specialist.

Users: Make sure that the specialist gives you detailed information on the function and operation of the unit. Always keep these instructions in the vicinity of the unit.

The manufacturer does not take over any liability for damage caused through improper usage or non-compliance of this manual!

Before working on the unit, switch off the power supply and secure it against being switched on again! Check that there is no power flowing! Electrical connections may only be made by a specialist and in compliance with the applicable regulations. The unit may not be put into operation if there is visible damage to the housing, e.g. cracks.

Changes to the Unit

- Changes, additions to or conversion of the unit are not permitted without written permission from the manufacturer.
- It is likewise forbidden to install additional components that have not been tested together with the unit.
- If it becomes clear that safe operation of the unit is no longer possible, for example because of damage to the housing, turn the Unit off immediately.
- Any parts of the unit or accessories that are not in perfect condition must be exchanged immediately.
- Use only original spare parts and accessories from the manufacturer.
- Markings made on the unit at the factory must not be altered, removed or made illegible.
- · Only the settings described in these instructions may be set using the Unit.



Changes to the unit can compromise the safety and function of the unit or the entire system.

The Unit has been manufactured and tested with regard to high quality and safety requirements. The warranty and liability shall not include, however, any injury to persons or material damage that is attributable to one or more of the following causes:

- Failure to observe these installation and operating instructions.
- Improper installation, commissioning, maintenance and operation.
- Improperly executed repairs.
- Unauthorised structural changes to the unit.
- Use of the device for other than its intended purpose.
- Operation above or below the limit values listed in the ,Specifi cations' section.
- Force majeure.

Disposal and Pollutants

The unit conforms to the European RoHS 2011/65/EU for the restriction of the use of certain hazardous substances in electrical and electronic equipment.

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Under no circumstances may the device be disposed of with the normal household waste. Dispose of the unit only at appropriate collection points or ship it back to the seller or manufacturer.

DESCRIPTION SYMONDO CONTROLLER WLAN

Technical Data

S Menu E S Menu	Housing	2-part, ABS plastic 75 mm x 95 mm x 19 mm Glass front	
	Display	Capacitive touch panel Color display with 240x320 dots 2.8 inches (7 cm) diagonal	
	$\begin{pmatrix} 1 \\ 2 \\ 3 \end{pmatrix}$ Operation	Intuitive user guidance	
	Language	Deutsch Italiano English Français Español Português	
75 mm 19 mm			
Electrical specifications:			
Power Supply	12 - 24 VDC +/- 10%		
power consumption	max. 2,5 W		
Protection Class	IP20		
Protection class / overvoltage category	0/111		
Max. Cable Length			
0-10V/PWM	<3m, if the cable lengt ted pair bus cable and conductor.	h is >=3m it is necessary to use a shielded twis- connect the shield on one side to the protective	
1-Wire Bus	Optional, without funct	tion	
Permissible Ambient Conditions			
during operation	0 °C - 50 °C, no moisture condensation permitted		
for transport/storage	0 °C - 60 °C, no moisture condensation permitted		
Measurement Range	Outside the measuring ranges there are larger deviations		
Internal temperature sensor	0 °C - 60 °C	Accuracy +/- 1 °C	
		Resolution 0,1 °C	
Internal sensor for rel. humidity	0 % - 100 %	Accuracy +/- 6 °C	
		Resolution 0.1 %	

1-Wire temperature sensors

After switching on or disconnecting from the mains, it takes up to 60 minutes until the temperature is displayed precisely.

tion

Optional, without func-

Other Specifications Installation Methods

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Real Time Clock

Wall installation, with/without wall socket RTC with 24 hour power reserve

Scope of Supply

- Symondo Controller WLAN
- 2 screws 3,5 x 35 mm and 2 plugs 6 mm for wall installation.
- Symondo Controller WLAN installation guide

INSTALLATION

Symondo Controller WLAN installation



Mount the unit at a suitable location.



Pay attention to suitable environmental conditions. Direct sunlight, sources of heat and cold, e.g. radiators and windows must be avoided.

When wall mounting, make sure that the cables are kept as short as possible (max. 40 mm for direct wall mounting), as unnecessary vein loops in the Symondo Controller WLAN housing can lead to problems.

When mounting on a switch box, make sure that the cables are kept as short as possible (strip cables max. 55 mm) and that any vein loops are fed back into the switch box, as unnecessary vein loops in the Symondo Controller WLAN housing can lead to problems.

Strip the last 8 - 9 mm of the wires. Isolate shielding and connect it at a suitable location (controller or CAN-box) to the protective conductor.



Any contact between protective conductor and circuit board can cause serious damage.

Mounting on plastic wall socket

Fix the base with the screws $(3,0 \times 16)$ to the mounting box.

Direct wall mounting

Hold the lower part of the housing up to the selected position and mark the three mounting holes. Make sure that the wall surface is as even as possible so that the housing does not become distorted when it is screwed on. Using a drill and drill holes at the points marked on the wall and push in the plugs. Insert screws and screw it in slightly. Align the base and tighten the screws.

Open the terminals with the accompanying operating tool and make the electrical connection as described.



Power supply 24 VDC, ensure correct polarity or it may cause damage to the unit!







The first and last unit in the CAN-network in series must be fitted with terminating resistance.



The connection of the opposite side (controller) can be found in the corresponding terminal diagram in the controller manual.



Refit the base and fasten with screw. Switch on the mains voltage and put Symondo Controller WLAN into operation.



The setup wizard can be called up at any time in the Symondo Controller WLAN menu under Expert.



Example CAN-Connection



*Only CAN in power supply from 4 cores of the regulator.

The order and the number of devices (max. 50) is arbitrary.

OPERATION

Room Overview

Displays the room temperature, humidity and external temperature once the start screen was activated.



sensor is used on the HCC or an outdoor sensor is activated on a Symondo Box in the menu "Expert > Symondo Box > Heating circuit > Sensor outdoor".

Operating Mode

Overview > Operating Mode





Overview > Operating Mode > Menu > Timer

Setting of individual heating and cooling times for the selected room.

Separate times are set for the heating and cooling modes. To do this, first switch to the heating mode and define the corresponding times for this operating mode under Main menu > Timer. Then change to the cooling mode and define the corresponding times for this operating mode under Main menu > Timer.





Step 2

Select the first heating mode (Normal) - with the index finger select the desired length of time. The selected period will be coloured after selecting the colour of the operating mode (normal = orange). Set the times of the other operating modes in the same way.



Use the arrow keys to select the desired day.

Step 3

Step 1

After completing the setting of the individual heating or cooling times, you have the option of copying the times via the main menu to the following day, to Monday - Friday or to Monday -Sunday or to set them individually for each day of the week.



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In the interests of efficient and energy-saving single room control, the operating times should be set specifically for each room.



The menu structure described here is based on the status at the time of production and may vary due to subsequent software changes.

Settings

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If room synchronisation is activated, rooms set up on other Symondo Controller of the same network are also displayed on this Symondo Controller and vice versa. Overview > Operating mode > Menu > Expert > Settings > **Devices**



Overview > Operating mode > Menu > Expert > Settings > **Rooms**



Overview > Operating mode > Menu > Expert > Settings > **Room 2**



Overview > Operating mode > Menu > Expert > Settings > Rooms > Room 1 > Sensors > **Temperature**



Overview > Operating mode > Menu > Expert > Settings > Rooms > Room 1 > Sensors > Humidity



Overview > Operating mode > Menu > Expert > Settings > Functions

Activate and set additional functions.



Overview > Operating mode > Menu > Expert > Settings > Functions > **Thermostat 1**

Switches the defined output to the set room / rooms depending on time and temperature.



The dehumidifier function switches the defined output depending on the set humidity in the set room(s).



Overview > Operating mode > Menu > Expert > Settings > Functions > **Season Switch**

The seasonal switch changes the operating mode of the heat pump (compressor) between "heating" and "cooling". Therefore the heat pump (compressor) must be compatible with reversible operation.

Output

Assign the output to be switched by the function. The other menu options become visible after assigning the output.

Seizing Protection

If the seizing potection is activated (daily, weekly, off), the controller switches on the outputs one after the other at 12:00 noon for 5 seconds to prevent seizing of the connected device during longer inactivity.



Room

Room selection to start the function. As soon as one of the assigned rooms switches from "heating" mode to "cooling" mode the season switch becomes active and the assigned relay is switched. The function Timer 1-2 switches the defined output depending on the set times.



Overview > Operating mode > Menu > Expert > Settings > Functions > Fan coil 1

The fan coil function controls convection heating and cooling via the 0-10V/PWM outputs .

Output

Assign the output to be switched by the function.

The other menu options become visible after assigning the output.

Flow

Assignment of the convector flow sensor in "Heating" mode.

Room

Selection of the sensors on whose settings and states the function is to be based.



Operating Mode

Set the operating mode of this convector function. Heating, cooling, or heating and cooling.

Delay

Delays the switching on of the fan coil so that it does not push against closed valves.

Modulation Humidity

Set the limit value for the air humidity. If this is exceeded, the dehumidifier is switched on.

Hysteresis

Define the switch-off hysteresis.

Modulation

Modulation of the output for power control

Signal type

Selection of the control: 0-10V = voltage signal PWM = square wave signal

Relay Modus

Switching mode of the output Normal/Inverted.

Off Signal

Signal to switch off the target device

On Signal

Signal to switch on the target device at minimum power

Max Signal

Signal to set target device to maximum power

Seizing Protection

If the seizing potection is activated (daily, weekly, off), the controller switches on the outputs one after the other at 12:00 noon for 5 seconds to prevent seizing of the connected device during longer inactivity. Overview > Operating mode > Menu > Expert > Settings > WiFI

Activate WiFi Activate WiFi function.

Select Network Scan for available networks and select the network.

SSID

Manually enter the WLAN name.



WiFi status

Information about WiFi status and device address (which is required to connect to the Symondo App).

Manage Access

Allow up to 5 users to access the unit via Symondo App by entering their email addresses.

WiFi

Entering the WiFi password

Activate DHCP

If auto-configuration is enabled, the device searches the network for a DHCP server that assigns it an IP address, subnet mask, gateway IP and DNS server IP. If you deactivate the auto configuration (DHCP), you will have to make the required network settings manually!

See the following points:

IP address Enter the Symondo Controller IP address.

Network mask Set the network mask.

Gateway Set the gateway address.

DNS/ DNS 2 Set the DNS address.

WPS

Connecting the Symondo Controller WLAN to a WPS-enabled router.

Access Point Settings for routing and the WPS Repeater.

WiFi Sensor Settings for the LED display and the transmission interval.

Access Point

Overview > Operating Mode > Menu > Expert > Settings > WiFi > Access Point

Routing Mode

The automatic routing independently selects between a direct connection of WiFi devices with the access point of the Symondo Controller and indirect connection via the WLAN router. As not all routers support this function, the setting "No" is recommended in case of problems in WiFi communication. In this case, all communication runs via the WLAN router. If there is no router, the communication runs via the access point of the Symondo Controller.



WiFi Sensor

Overview > Operating Mode > Menu > Expert > Settings > WiFi > WiFi Sensor

LED-Mode

LED behaviour settings. Sending of sensor values successful = LED lights up green Sending of sensor values failed = LED flashes red In "Still" mode, the LED only flashes red if the sending of sensor values has failed 3 times in succession.





Symondo Controller WLAN and Symondo App Configuration



Support

Event	Support
The display does not show anything.	Is the device connected to the power supply? Is the mains connection voltaged? Has the electrical connection been made as described in the user manual?
The heating/cooling circuit does not respond to my Symondo Controller WLAN.	Is Symondo Controller WLAN assigned to the heating circuit in the controller menu? Is the CAN bus wiring between controller and Symondo Controller WLAN correct?
The CAN bus connection is incorrect.	Is the CAN bus connection properly installed and have all devices been wired <u>in line</u> (no star!)? Are end resistors set on the first and last device for termination of the bus?
No additional function can be assigned to a relay/V output under "Functions".	Is the selected function already assigned to another output? Is the output already assigned to another function?

Notes

Final Declaration

Although these instructions have been created with the greatest possible care, the possibility of incorrect or incomplete information cannot be excluded. Subject as a basic principle to errors and technical changes.

Date and time of installation:

Name of installation company:

Space for notes:

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