

## Room operating unit

POS8.4420/109; POS8.4440/109



### Communicative room operating units with KNX PL-Link.

- Measurement of the room temperature (POS8.4420/109)
- Measurement of the room temperature and humidity (POS8.4440/109)
- Keys for adjustment of the room temperature setpoint, ventilation, domestic hot water, time scheduler settings depending on the controller application
- LCD display of room temperature, operating modes, humidity (only for POS8.4440/109), time scheduler, notification, and clock setting
- Operation with 8 push buttons
- 2-wire interface to the controller through KNX PL-Link
- Power supply of the room operating unit over KNX PL-Link
- LCD display with backlight

## Use

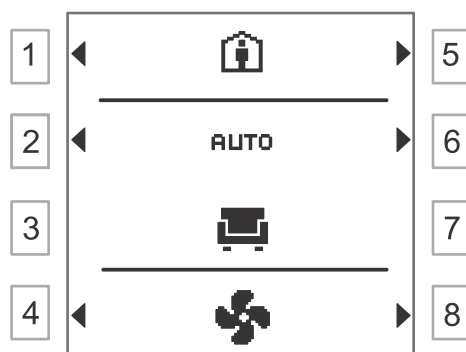
- Measure and indicate the room temperature with POS8.4420/109
- Measure and indicate the room temperature and humidity with POS8.4440/109
- Switch among different operating modes: Home mode, Away mode and Temporary mode
- Select among different HVAC modes: Comfort, Economy, Unoccupied and Protection

## Application

The device communicates with a controller using a KNX PL-Link bus to access the controller's preinstalled application:

- Heat recovery ventilation application

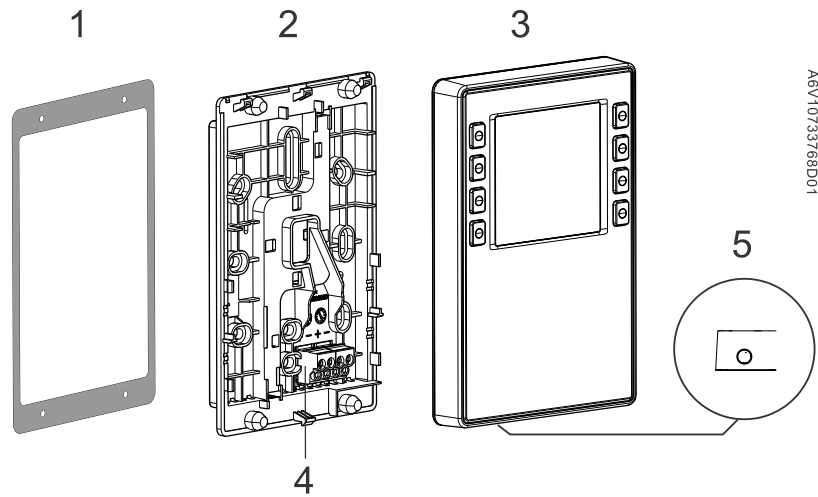
## Functions



Elements	Functions
	Home mode / Away mode / Temporary mode
	Temporary mode: Ventilation boost / Fire place
	HVAC Mode: Comfort / Economy / Unoccupied / Protection
AUTO / MAN	Auto / Manual
	Manual
	Ventilation page
	Temperature page
	Domestic hot water page
	Notification page
	Clock page
	General page / Expert page
	Indicates an operable element
	Wait
	Start
	List
	Alarm (A-alarm) notification abnormal and unacknowledged
	Alarm (A-alarm) notification normal and unacknowledged

Elements	Functions
	Alarm (A-alarm) notification abnormal and acknowledged
	Alarm (A-alarm) notification normal and acknowledged
	Service (B-alarm) notification abnormal and unacknowledged
	Service (B-alarm) notification normal and unacknowledged
	Service (B-alarm) notification abnormal and acknowledged
	Acknowledge all notifications
	Reset
	Confirm
	Cancel
	Go back
	Exit / next
	Increase / decrease
	Add a switch point
	Edit
	Delete
1 2 3 4 5 6 7	1=Monday, 2=Tuesday, ..., 6=Saturday, 7=Sunday
00 06 12 18 24	Time
	Switch point
	Time scheduler bar
P	Read parameter mode
	Outside temperature
	Room temperature
	Auxiliary input for comfort mode
	Auxiliary input for economy mode
	Auxiliary input for unoccupied mode
	Auxiliary input for protection mode
	Auxiliary input for ventilation boost mode
	Auxiliary input for fire place mode
	Auxiliary input for kitchen hood mode

## Mechanical design



1	Frame for panel mounting	4	KNX PL-Link bus connector
2	Base plate with <ul style="list-style-type: none"> <li>Screw holes for all common conduit boxes in regions such as EU, UK, and so on.</li> <li>Guide channels for wiring from center, up, or bottom</li> </ul>	5	Jack connector for tool connection
3	Room operating unit		

## Type summary

Product number	Stock number	Feature		LCD display with backlight	Minimal order size
		Temperature sensor	Humidity sensor		
POS8.4420/109	S55625-H422-A100	Yes	No	Yes	20
POS8.4440/109	S55625-H444-A100	Yes	Yes	Yes	20

## Equipment combinations

Type	Type no.	Document ID	Description
Controller	POS3.5715/100	A6V11417931	For HVAC controlling, switching and monitoring functions

## Product documentation

Topic	Title	Document ID:
Installation, cable length, topology	Mounting instructions	A6V10733764
Engineering, commissioning, and operation	Basic documentation	A6V11471220
CE declaration	CE declaration	A6V11210253
Product environmental declaration	Product environmental declaration	A6V10733777

All documentation listed in the above table can be downloaded from:  
<http://siemens.com/bt/download>.

## Notes

### Security



## ⚠ CAUTION

### National safety regulations

Failure to comply with national safety regulations may result in personal injury and property damage.

- Observe national provisions and comply with the appropriate safety regulations.

## Engineering

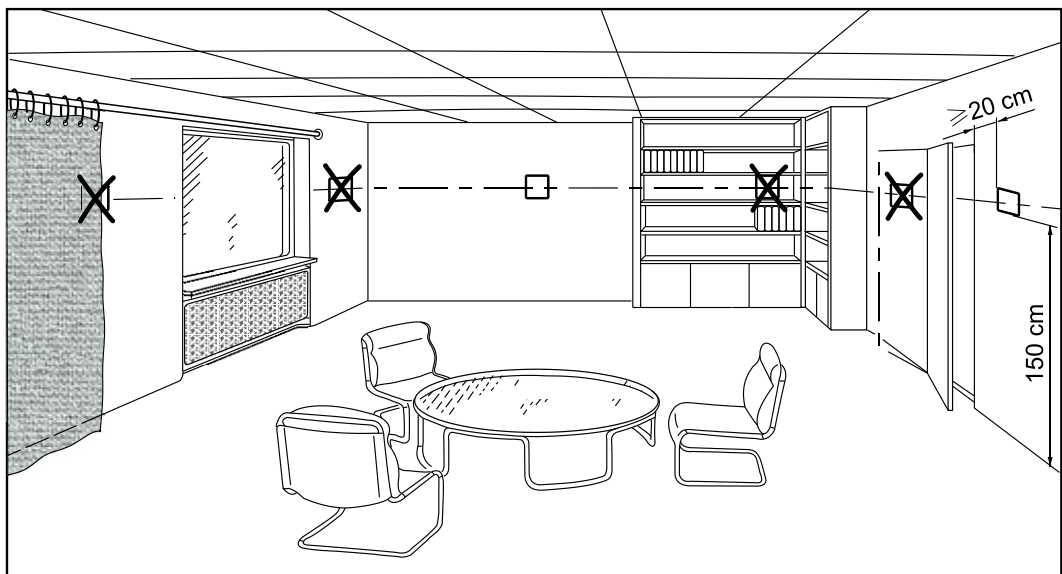
- The device offers plug and play functionality.
- The device receives their power from the connected controller via the KNX PL-Link interface or from the jack connector.



## NOTICE

De-energize the controller before wiring the device.

## Mounting



- The devices are suitable for wall mounting and panel mounting.
- Recommended height: 1.50 m above the floor.
- Do not mount the devices in recesses, shelves, behind curtains or doors, or above or near heat sources.
- Avoid direct solar radiation and drafts.
- Seal the conduit box or the installation tube if any, as air currents can affect sensor readings.
- Adhere to allowed ambient conditions.

For more information about mounting, see the *Mounting instructions A6V10733764*.

## Installation



## ⚠ CAUTION

The devices are not protected against accidental connection to AC 230 V.

- Use the correct cables for the KNX PL-Link bus.
- Do not interchange the wires of the KNX PL-Link cable.
- Observe all local installation regulations.

## Commissioning

The device gets applications from its connected controller by automatic commissioning. When it is powered up using the KNX bus for the first time, it performs the commissioning procedure automatically.

## Operation

The operation of the device is defined by the application loaded in the connected controller.

### Operating mode:

- Auto mode
  - The device always works as defined in the application.
  - Users can change settings temporarily, such as heating temperature or the domestic hot water setpoint.
- Manual mode
  - Users can change operating settings, such as operating mode, heating and domestic hot water setpoint, HVAC mode, etc.
- Temporary function
  - There are two temporary modes: fan boost and fire place. When temporary mode times out, the device returns to its previous mode. Tap button 1 during the temporary mode running time terminates the temporary mode and the device returns to the auto mode.

### Parameter settings

The behavior of the device can be configured by setting parameters. Long press button 8 to enter the standard page to adjust settings for P01 to P05 and long press button 6 and 8 to enter the expert page to adjust settings for P01 to P05 and P51.

More information about parameter descriptions, see the *Basic documentation (A6V11471220)*.

### Time scheduler settings

Users can use the time scheduler to adjust the settings for HVAC modes. For example, users can set the device to run under Comfort mode from 9:00 to 17:00 and Economy mode from 17:00 to 19:00. Long press button 2 to enter the time scheduler settings page.

## Maintenance

The device can be cleaned with off-the shelf, solvent-free cleaning agents.

Do not use mechanical aids (rough sponge or similar materials) – only a soft, damp cloth.

## Disposal



The device is considered an electronic device for disposal in accordance with the European Guidelines and may not be disposed of as domestic garbage.

- Dispose of the device through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

## Warranty

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Technical data on specific applications are valid only together with Siemens products listed under "Equipment combinations". Siemens rejects any and all warranties in the event that third-party products are used.

## Technical data

Power supply	
Operating voltage	KNX PL-Link DC 21...30 V
Max power consumption	7...10 mA

Interfaces	
Type of port between controller and room operating unit	KNX PL-Link
Baud rate	9.6 kbps
Protocol	KNX PL-LINK
Standard KNX connector	Wire diameter 0.8 mm, max. 1.0 mm (solid conductors only)
Cable type	2-core twisted pair, stranded, solid
Single cable length (from room automation station to room operating unit)	<1000 m
Section	0.5...1.5 mm <sup>2</sup>
Bus line polarity	PL+, PL-
Bus terminating resistor	not required

Sensor data		
Temperature Sensor	Measuring element	NTC resistance sensor
	Measuring range	0...50 °C
	Measuring accuracy (5...30 °C)	±0.8 °C
	Measuring accuracy (25 °C)	±0.5 °C

Ambient conditions and protection classification	
Housing Protection Protection standard as per EN 60529	<ul style="list-style-type: none"> <li>IP30</li> <li>IP33 for surface part</li> </ul>
Insulation protection class	Class III
Climatic ambient conditions <ul style="list-style-type: none"> <li>Normal operation</li> <li>Transport</li> </ul>	<ul style="list-style-type: none"> <li>Environmental Conditions: Class 3K5 Temperature 0...50 °C Air humidity &lt;85% r.h.</li> <li>Environmental Conditions: Class 2K3 Temperature -25...70 °C Air humidity &lt;95% r.h.</li> </ul>
Mechanical ambient conditions Normal operation Transport	Class 3M2 Class 2M2

Standards, directives and approvals	
EU conformity (CE)	A6V11210253 *)
RCM conformity to EMC emission standard	A6V11210257 *)
IC Compliance	CAN ICE-3(B)/NMB-3(B)
UL Compliance	UL916
FCC Compliance	Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.
Environmental compatibility	The product environmental declaration (A6V10733777 *) contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging,



**Standards, directives and approvals**

environmental benefit, disposal).

\*) Documents can be downloaded at the following address:

<http://siemens.com/bt/download>**NOTICE**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**General data (POS8.4420/109)**

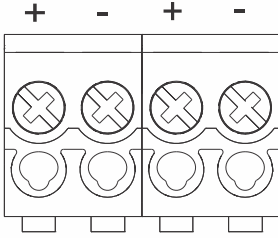
Color	Signal white (RAL9003)
Weight	145 g

**General data (POS8.4440/109)**


Color	Signal white (RAL9003)
Weight	146 g

Connection terminals


KNX PL-Link plug

Connector	Pin	Description
	+	KNX PL-Link (positive)
	-	KNX PL-Link (negative)

To find the location of the KNX PL-Link plug, refer to Mechanical design  
**NOTICE! Users can choose either pair of the pins to connect.**

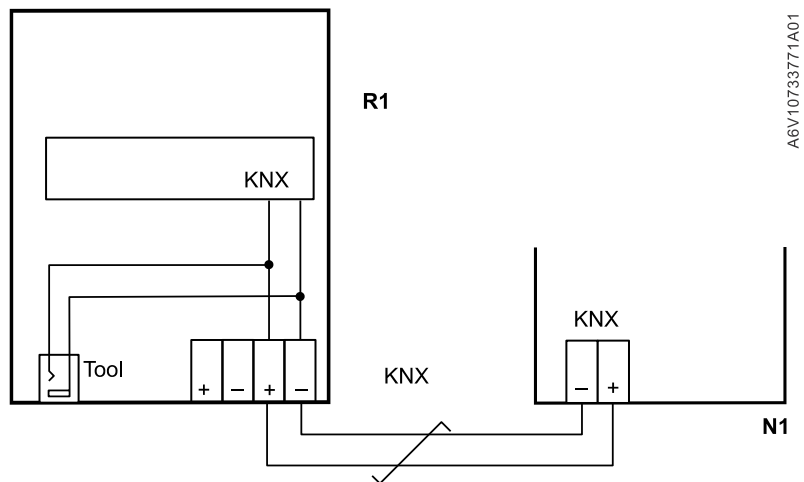
	<b>NOTICE</b>
	<p><b>Wires are NOT interchangeable!</b></p> <p>The device is protected against faulty wiring, but communications does not work on interchanged wires. The KNX / KNX PL-Link bus <b>MUST NOT</b> be connected to the tool plug, only the tool.</p>

Tool plug

Connector	Pin	Description
	+	KNX PL-Link (positive)
	-	KNX PL-Link (negative)

Connection diagrams

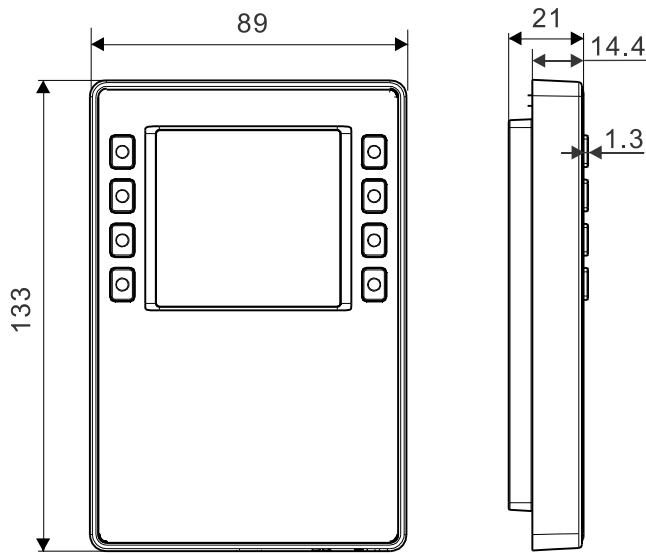
Operation



R1 The device - room operating unit (POS8.44xx)  
N1 The controller - room automation station  
✓ Twisted pair

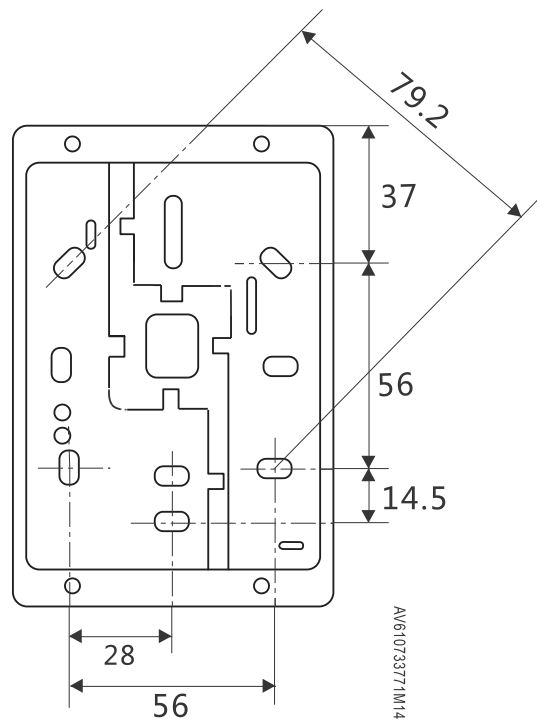
## Dimensions

Unit: mm



A6V10733771M01

*Dimensions for housing*



A6V10733771M14

*Dimensions for mounting*

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