



Room unit with PPS2 interface

QAA88.3

for use with: – controllers with a PPS2 interface

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- Room temperature measurement
 - Key buttons for adjustment of the room temperature setpoint
 - Key buttons for operating mode selection (⏻ / Auto) and manual control of the fan in fan-coil systems (up to 3 speeds)
 - PPS2 interface to controller
 - LCD with room temperature and operating mode display

Usage

The room unit is used in rooms controlled by an individual room control system, to measure the room temperature and for operation of the room controller. The functions of the LCD display are determined by the controller. If manual fan-speed control is enabled, the room unit is suitable for control of a fan-coil system.

Ordering

When ordering, please specify the quantity, product name and type code.

Example:

30 Room units QAA88.3/xxx

Note that xxx has to be replaced with the correct 3 letters defining the complete type including special customer versions. The general version is QAA88.3/ALG.

Equipment combinations

The room unit is suitable for use in conjunction with all controllers which incorporate a PPS2 room unit interface.

Mechanical design

The room unit is designed for surface mounting or for mounting on a recessed conduit box.

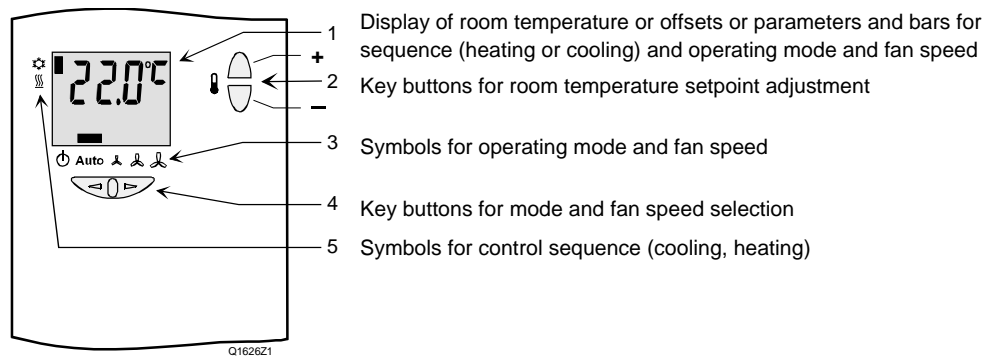
The unit comprises a housing and base unit, connected by releasable snap-fittings.

The base unit accommodates the screw terminals.

The housing accommodates a printed circuit board, room temperature sensor element, setpoint adjuster, key buttons for mode selection and fan speed selection.

Both the housing and the base are made of plastic.

Operator controls and indication














Note

The actual functions of the operator controls and indicators are determined by the controller (based on the selected application and associated parameters).

LCD display

In normal operation, the following examples may be displayed (depending on the controller configuration). For details of these functions, refer to the application description of the relevant controller range.

Display element (examples)	Description
21.5°C	Room temperature in °C (resolution 0.5 °C)
68°F	Room temperature in °F (resolution 1.0 °F)
+2.5°C	Digital display of setpoint adjustment (displayed only while relative adjustment is in progress).
21.5°C -----+-----	Digital display and scale (displayed only while absolute adjustment is in progress)
 █ 	Controlling sequence "cooling" active Controlling sequence "heating" If no bar is shown, the controller is in the neutral zone between heating and cooling.
█ Auto   	Operating mode is standby Fan speeds are automatically controlled
█ Auto   	Operating mode is Comfort Fan speeds are automatically controlled
█ Auto   	Operating mode is Comfort" Fan speed 1 active, manually selected

Disposal



The room unit includes electrical and electronic components and must not be disposed of as domestic waste.

Current local legislation must be observed.

Engineering notes

The QAA88.3 receives its power from the connected controller via the PPS2 interface (low voltage). Only one room unit may be connected to any one controller.

A twisted-pair cable is required for the connection to the controller.
Screening is not required.

Mounting

- Follow the mounting instructions included in the room unit packaging.
- The room unit is suitable for wall-mounting and for mounting on a recessed conduit box with the cables fed in from the rear. If the cables are mounted on the surface of the wall, then the accessory ARG70.2 shall be used
- Do not mount in recesses, shelves, behind curtains or doors, or above or near heat sources.
- Avoid exposure to direct sunlight or draughts.
- The electrical wiring conduit must be sealed where it joins the room unit, to prevent the occurrence of draughts in the conduit which could affect the sensor.
- The specified ambient conditions must be complied with.
- A mounting kit is included with the unit.

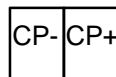
Installation notes

Local installation regulations must be observed.

 **Note!**

The room unit is not protected against connection to AC 230 V.

Terminal layout



PPS2 interface, supply voltage

CP- Device supply, Data PPS2 (neg.)
CP+ Device supply, Data PPS2 (pos.)

Technical data

Supply voltage	Maximum voltage (SELV to HD 384)	DC 24V	
	The room unit receives its power from the connected controller, via the PPS2 interface (SELV, security extra low voltage according to HD384)		
Function data	Power consumption (from controller)	Max. 0.10 VA	
	Temperature sensor		
	Measuring element	NTC resistor	
	Measuring range	0 ... 40 °C	
	Response time	≤ 10 min	
	Accuracy (5 ... 30 °C)	±1 K	
	Accuracy (25 °C)	± 0.5 K	
	Set-point correction		
	Correction range (determined by controller)	max. ± 10 K (default ± 3 K)	
	Display		
	Type	LCD	
Functions displayed	<ul style="list-style-type: none"> – Room temperature – Setpoint adjustment – Operating mode – Manually selected fan-speed – Control sequence – Error code 		
Interfaces	Type of interface between controller and room unit	PPS2 (point-to-point interface, Version 2)	
	Baud rate	4.8 kbit/s	
	Signal voltage logical 0	< 5 V	
	Signal voltage logical 1	> 7 V	
Cable connections	Connection terminals (screw terminals)	Stranded or solid conductors 0.8 ... 2.5 mm ²	
	Cable type	2-core or 4-core, twisted pairs, unshielded	
Housing protection standard	Protection standard to EN 60529	IP 30	
Protection class	Insulation protection class	III	
Ambient conditions	IEC 721	Operation	Transport
	Ambient air conditions	Class 3K5	Class 2K3
	Temperature	0 ... 50 °C	– 25 ... 70 °C
	Humidity	< 85 %rH	< 95 %rH
	Mechanical conditions	Class 3M2	Class 2M2
Standards	Electromagnetic compatibility		
	Interference immunity	EN 61000-6-2	
	Interference emission	EN 61000-6-3	
	CE compliance		
	Meets the requirements for CE marking as defined in EMC directive	89/336/EEC	
Dimensions	See "Dimensions"		
Color	Front housing, key buttons	RAL9003 - signal white	
	Middle housing, wall bracket	RAL7038 - light grey	
Weight	Excluding packaging	0.119 kg	

Dimensions

All dimensions in mm

