



QAW590

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Wireless Room Unit with Receiver as a Set

QAW590
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for use with controllers with PPS

- Acquisition of the room temperature
- Room temperature setpoint adjuster (QAW591 only)
- Battery-powered (2 batteries LR6 or AA)
- Can be extended by several room units for room temperature averaging

Use

The wireless units are used for acquiring the room temperature and for adjusting the room temperature setpoint (QAW591 only).

Indoors, the wireless range is approximately 30 meters.

Field of use

- In the renovation market (old buildings, museums, churches, historical buildings)
- In rooms where the walls cannot be easily reworked (e.g. sandstone or glass)
- In rooms where flexible partitioning is called for (e.g. open-plan offices, museums, television studios)
- In rooms with flexible furnishing and frequently changing décor
- Simple averaging of the temperature of several rooms or areas
- In cases where straightforward system extensions are required

Type summary

QAW590	Wireless room unit (QAX90.1) and receiver (RXZ90.1)
QAW591	Wireless room unit with room temperature setpoint adjuster (QAX91.1) and receiver (RXZ90.1)

Mechanical design

Receiver (RXZ90.1)	The receiver is designed for wall mounting, ceiling mounting or for mounting on recessed conduit boxes. The cable can be introduced from the rear, the bottom or the top, after knocking out the cable entry tongues. The major components are housing and mounting base; both are made of plastic. They snap together but can be separated again. The housing accommodates a printed circuit board with the electronics.
Room unit (QAX9...)	The room unit is designed for wall mounting but can also be placed on a shelf. The major components are housing and mounting base; both are made of plastic. They snap together but can be separated again. The housing accommodates a printed circuit board, room temperature sensor, setpoint adjuster (QAX91.1), button for commissioning and battery compartment.

Disposal



The device is classified as waste electronic equipment in terms of the European Directive 2002/96/EC (WEEE) and should not be disposed of as unsorted municipal waste.

The relevant national legal rules are to be adhered to.

Regarding disposal, use the systems setup for collecting electronic waste.

Observe all local and applicable laws.

Technical data

Power supply receiver	Operating voltage range	SELV / PELV DC 12...15 V	
	The room unit receives its power from the connected controller, via the PPS2 interface		
Power supply transmitter	Power consumption from controller	max. 0.12 VA	
	Alkaline batteries 2 x 1.5 V	type LR6 or AA, Alkaline	
	Battery change (to avoid leaks)	every 3 years	
Interfaces	Interface receiver – controller	PPS (point-to-point)	
	Radio room unit – receiver	unidirectional	
	Frequency band 868 MHz, operating frequency	868.95 MHz	
	Transmission power (ERP)	1 mW (0 dBm)	
	Indoor range	approx. 30 m (depending on the type of building)	
Electrical connections	Connection terminals (screw terminals)	solid or stranded wires 0.8...2.5 mm ²	
Single cable length	Type of cable	2-wire unshielded, twisted pairs	
		0.25 mm ² , max. 25 m	
		0.5 mm ² , max. 50 m	
Degree of protection	To EN 60 529	IP 30	
Safety class	Insulation class	III	
Environmental conditions	To IEC 721	Operation:	Transport:
	Climatic conditions	class 3K5	class 2K3
	Temperature	0 ... 50 °C	– 25 ... 70 °C
	Humidity	< 85 % r.h.	< 95 % r.h.
	Mechanical conditions	class 3M2	class 2M2

Standards and directives

CE conformity

Electromagnetic compatibility	2004/108/EC
Low Voltage Directive	2006/95/EC
Radio Equipment and Telecommunication 1999/5/EC	
Terminal Equipment	
Electromagnetic compatibility	
Emission (residential)	EN 61000-6-3
Product safety	EN 60950-1
Product safety (EMF)	EN 50371
ERM (Short range devices)	EN 300 220-2
	EN 301 489-3



C-Tick conformity (EMC) AS/NZS 61000-6-3

Dimensions

Refer to "Dimensions"

Color

Housing front NCS S 0502-G ≈ RAL 9003 (signal-white)

Housing base, mounting base RAL 7035 (light-grey)

Weight

Set including packaging 0.35 kg

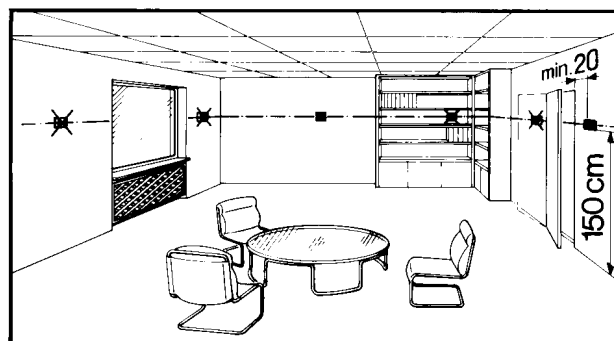
Notes

Product liability

- The units may only be used in HVAC plant on the applications specified and in compliance with the products' features
- When employing the units, all requirements specified in "Technical data" must be satisfied
- Local safety regulations must be complied with

Engineering

- The room unit should be installed in the main living room or reference room
- It should be located such that the unit's sensor can acquire the room temperature as accurately as possible. This means that it should not be exposed to direct solar radiation or other heat or refrigeration sources
- The mounting height is about 1.5 meters above the floor
- The units are supplied as a set matched to one another so that no settings for radio communication are required
- The sets can be extended by additional room sensors QAX90.1 (for details, refer to Data Sheets CA2N1643 and CA2N1644)
- The room unit can be fitted on most commercially available recessed conduit boxes or directly on the wall, or it can be placed on a shelf



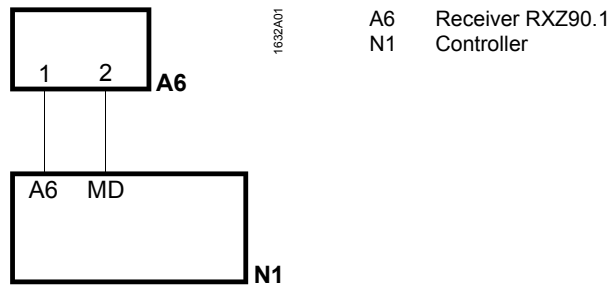
Mounting

- Wall mounting with base
- The units may not be exposed to drip water

Installation

- The local regulations for electrical installations must be complied with
- Every unit is supplied with mounting and commissioning instructions

Connection diagram



Dimensions

