

SYNERGYR[®]

Room Unit

QAW10

Room unit for operation of the SYNERGYR[®] control and billing system. The unit's setting knob and economy button make it easy to control the supply of heat.

Use

QAW10 is the room unit for reference room-compensated temperature control in connection with the

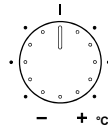
- WRI80 control and heat meter interface
- WRV... control and heat cost allocation valve

For the field of use of the SYNERGYR[®] system, refer to Data Sheets N2800 to N2803 (System Overview).

Functions

The QAW10 is a combination of room temperature sensor and operator unit for use with the control and heat meter interface or the control and heat cost allocation valve. It is connected to the WRI80 or the WRV... via a digital 2-wire interface and an ALW... conduit box.

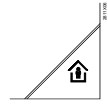
Setpoint setting knob



With the setting knob, the nominal setpoint can be readjusted within a range of ± 3 °C. When making a readjustment, the reduced setpoint remains unchanged.

Note: The setting range can be limited by pins at the rear of the unit, after removing the base.

Economy button



The economy button is used for changeover from the nominal to the reduced room temperature, or vice versa. The choice made is indicated by the LED in the button:



Button lit = nominal room temperature active



Button dark = reduced room temperature active

Blocking time

At the OZW30 central unit, it is possible to set a blocking time. During that blocking time, the economy button can be pressed to change from the nominal temperature to the reduced temperature, or vice versa.

Central temperature setback

Outside the blocking time, central temperature setback is active. During that period of time, the setpoint to be used during the blocking time can be preselected by pressing the economy button.

Preselecting normal heating

Button lit for about 5 seconds.

Preselecting economy operation

Button flashes for about 5 seconds.

Basic setpoint setting

The basic settings of normal and reduced room temperature are programmed at the WRI80 or WRV... or the central unit during commissioning and can only be changed by authorized personnel.

Note

Using the setting knob, the nominal room temperature can be readjusted by ± 3 °C.

Type summary

Room unit

QAW10

Ordering

When ordering, please give type reference according to "Type summary".

Mechanical design

The room unit consists of terminal base and operating section. The base can be fitted to most commercially available conduit boxes or directly on the wall before the operating section is placed on it. Both housing and terminal base are made of plastic.

Disposal

The larger plastic parts carry material reference markings conforming to ISO/DIS 11469 to facilitate environment-friendly disposal.

Engineering notes

The room unit should be mounted in the main living room (reference room). It acquires the room temperature, which is used for temperature control.

The mounting location should be chosen such that the sensor will acquire the room temperature as accurately as possible, with no influence from direct solar radiation or other heating or cooling sources.

In the reference room where the QAW10 is mounted, there should be no radiators with thermostatic radiator valves. If there are, they must be set to their fully open position.

The room unit can be fitted to most commercially available conduit boxes or directly on

the wall. When mounting on the wall, the cable can be introduced either from the top or the bottom through knockout holes.

The connection terminals are suited for the following cross-sectional areas:

Stranded wire or solid wire	0.25...2.5 mm ²
Stranded wire with ferrule	max. 2 × 1.5 mm ²

Maximum cable lengths:

0.6 mm dia.	25 m
0.8 mm dia.	50 m

Installation notes

For the electrical installation, the local regulations and standards must be observed. The wires must be laid based on the regulations for safety extra low-voltage (SELV) to EN 60730.

First, the base is fitted and wired up. Then, the unit is placed on the lower part of the base and swung upward. Adhesive labels (e.g. the connection diagram) can be fitted on the side of the housing.

Commissioning notes

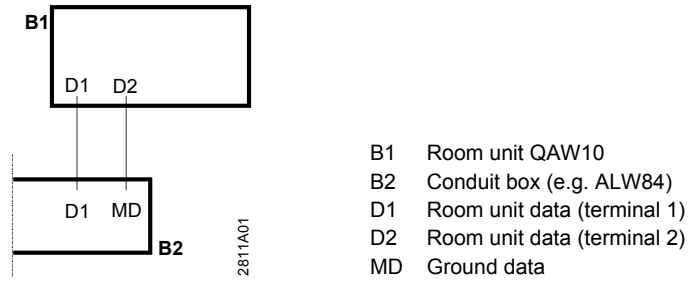
A functional check can be made by pressing the economy button. Power is present when the button is lit or when it flashes.

The setpoint readjustment range can be limited with the help of pins at the rear of the unit. Finally, the heating engineer needs to make the required settings at the WRI80 or WRV... and the OZW30.

Technical data

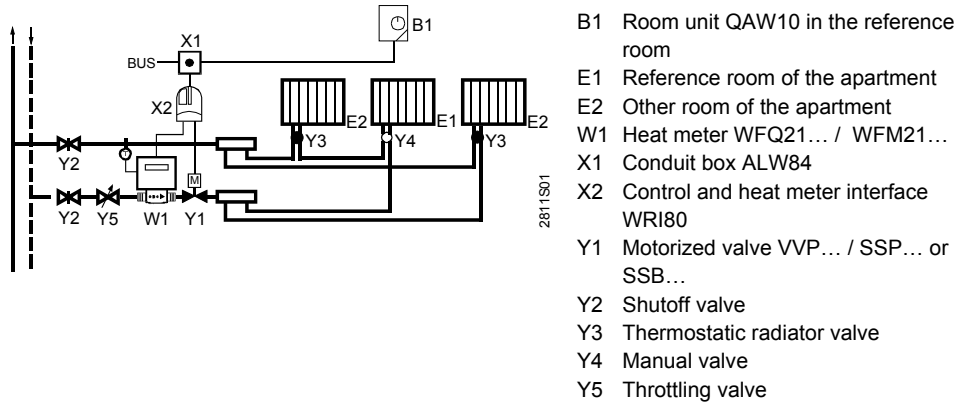
General unit data	Operating voltage	SELV / PELV DC 10...15 V
	Max. perm. voltage	AC 24 V
	Rated voltage	DC 15 V
	Perm. Ambient temperature	
	Transport and storage	-25...+65 °C
	Operation	0...55°C
	Perm. Ambient humidity	
	Transport and storage	class E DIN 40040
	Operation	class G DIN 40040
	Temperature sensor	NTC
	Time constant	10 min.
	Thermal coupling to the wall	50 %
	Measuring range room temperature	0...32 °C
	Setting ranges	
	Setpoint readjustment range	±3 °C
	Resolution	0.5 °C
	Weight	0.16 kg
Room unit bus	Perm. cable lengths	
	0.6 mm dia.	25 m
	0.8 mm dia.	50 m
Safety data	Degree of protection on a flat, closed wall	IP30 to EN 60529
	Safety class	III to EN 60730
Standards	Product standard	EN 60730-1
	Electromagnetic compatibility	
	Immunity (residential)	EN 61000-6-1
	Emissions (residential)	EN 61000-6-3
	CE conformity to EMC directive	2004/108/EC

Connection diagram

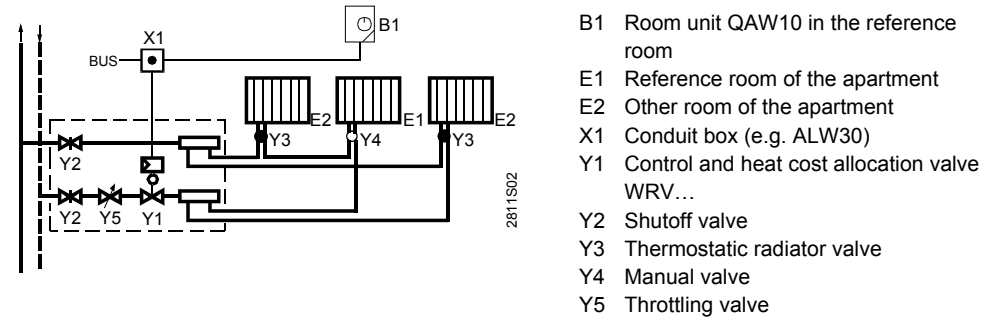


Application example

With WRI80



With WRV...



Dimensions

