SIEMENS

1721P010

QAA24

1721P020

QAA25…QAA27

Room Temperature Sensors   QAA24...27

with and without setpoint adjuster

Use

In heating, ventilating and air conditioning plants, especially where a high level of comfort is required.

Major field of application:
Acquisition and adjustment of room temperature.

Type summary

Type reference	Description
QAA24	Room temperature sensor
QAA25	Room temperature sensor with setpoint adjuster (setting range 5...35 °C)
QAA26	Room temperature sensor with setpoint adjuster (setting range 5...30 °C)
QAA27	Room temperature sensor with setpoint adjuster (setting range ±3 K)

Ordering

When ordering, please give name and type reference, for example:
Room temperature sensor **QAA24**

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Equipment combinations

| Type reference	For use with systems/units
QAA24	All systems/units that are capable of acquiring and handling LG-Ni 1000 signals, such as: UNIGYR®/VISONIK®, via a measured value module (measured value input for temperature sensors LG-Ni 1000); Synco™200, Synco™700; AEROGYR™ RWI65...; TEC™ RCE9...; POLYGYR® RCM6..., RCE6..., RWF..., RWX... and RWC...; CLASSIC; DESIGO30
QAA25	Synco™200, Synco™700; POLYGYR® RCM6..., RCE6..., RWF..., RWX... and RWC...
QAA26	UNIGYR®/VISONIK®, via a measured value module (measured value input for temperature sensors LG-Ni 1000); AEROGYR™ RWI65...; TEC™ RCE9...
QAA27	Synco™200, Synco™700; CLASSIC RKN…; DESIGO30 RCK...IB and RCH...IB; AEROGYR™ RWI65...

Mechanical design

The units have been designed for wall mounting. They are suitable for use with most commercially available recessed conduit boxes. The cables can be introduced from the rear (concealed wiring) or from below or above (surface-run wires) through knock-out openings.

The units consist of two major sections: Casing and baseplate. Both snap together but can be detached again. The casing accommodates the temperature sensing element and, depending on the type of unit, various setting and operating elements. The baseplate carries the connecting terminals.

Setting and operating elements

(only with QAA25, QAA26 and QAA27)

Front   Rear
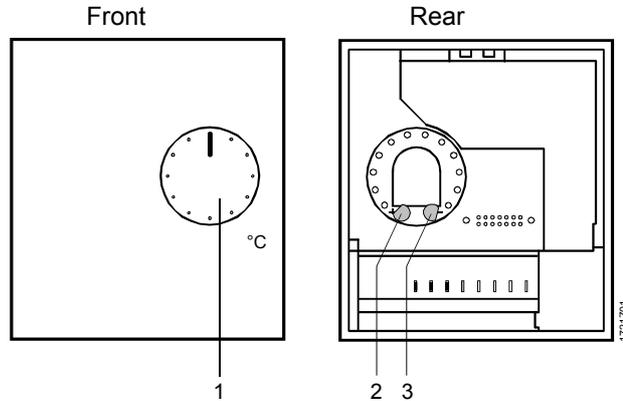
Legend

1   Setting knob for infinite setpoint adjustment
2   Pin for mechanical maximum limitation of setpoint setting range
3   Pin for mechanical minimum limitation of setpoint setting range

Disposal

For the permissible lengths of lines and measured value errors, refer to «Basic System Data» of the respective control system.

Engineering notes

For the permissible lengths of lines and measured value errors, refer to «Basic System Data» of the respective control system.

- UNIGYR®/VISONIK®
  When using the **QAA26**, both the temperature sensor and the setpoint setting unit must be connected to a measured value input (B...) of the measured value module (PTM1.2R1K).

- AEROGYR™ RWI65...
  When using the **QAA26** in connection with the RWI65…, the latter must be set to the setpoint setting range "Heating". In that case, the setpoint of "Heating" on the RWI65... must be set to 20 °C and additionally, the following must be set:
  - Data point 44 to –15 K and data point 45 to + 15 K for RWI65.01
    or
  - Commissioning data point 9 to –15 K and commissioning data point 10 to +15 K for RWI65.02
- When using the **QAA27**, the setpoint adjustment knob must be set to its centre position. Additionally, the following must be set:
  - Data point 44 to –4 °C and data point 45 to +5 °C for RWI65.01. The offset at data point 50 must be corrected until data point 2 has value 0.
  - Commissioning data point 9 to –15 °C and commissioning data point 10 to +15 °C for RWI65.02. The offset at commissioning data point 15 must be corrected until normal data point 2 has value 0.
- POLYGYR® RCM6..., RCE6... and RWF...
  For averaging with two temperature sensors and a POLYGYR® controller, the sensors need to be connected in series and the controller requires a setting range insert AZW61.119-tx50.
  If the **QAA25** is used with a shift controller, the sensor's range (0...50 °C) is required for calculating the authority
- CLASSIC RKN…
  Setpoint adjustments via **QAA27** is possible only with controllers RKN8-L, RKN88-L, RKN-W and RKN88T.

Fitting and installation notes

Location: On an inner wall of the space to be heated or air conditioned. Not in recesses, shelves, not behind curtains, not opposite or near heat sources.
The unit must not be exposed to direct solar radiation.

The end of the conduit at the sensor must be sealed to prevent false measurements due to draughts through the conduit.

The permissible ambient conditions should be observed.

Installation instructions are printed on the packing.

Technical data

General data	Range of use	0...50 °C
	Setting range	refer to «Type summary»
	Max. permissible line lengths and measured value errors	refer to «Engineering notes»
Connection terminals	Connection terminals for cross-sectional areas of	2 x 1.5 mm^2 or 1 x 2.5 mm^2
Protective data	Degree of protection	IP 30 to EN 60 529
	Safety class	III to EN 60 730
Environmental conditions	Operation to	IEC 721-3-3
	Climatic conditions	class 3K5
	Temperature	0...50 °C
	Humidity	<85 % r. h.
	Transport to	IEC 721-3-2
	Climatic conditions	class 2K3
	Temperature	–25...+65 °C
	Humidity	<95 % r. h.
	Mechanical conditions	class 2M2
Norms and standards	CE conformity to	EMC directive 89/336/EEC

| Materials and colors | Housing front | ASA+PC, NCS S 0502-G (white) |
	Botton section of housing	ASA+PC, NCS 2801-Y43R (grey)
	Base	PC, NCS 2801-Y43R (grey)
	Sensor (entirely)	silicon-free
Weight	with packaging	approx. 0,1 kg
Sensor	Sensing element [1]	LG-Ni 1000 (thin-film element)
	Time constant	7 min (depending on air movement and thermal coupling to the wall)

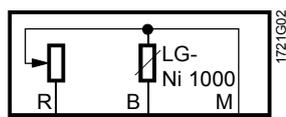1) QAA25...27 from serie B on with thin-film element

Setpoint setting knob

		QAA25	QAA26	QAA27
	Setpoint setting range	5...35 °C	5...30 °C	±3 K
	Resistance range	95...685 Ω	1000...1195 Ω	1000...1175 Ω
	Resistance value at setpoint			0 K $\cong$ 1091 Ω
	10 °C	193,9 Ω	1039 Ω	
	20 °C	390,0 Ω	1118 Ω	
	25 °C	488,3 Ω	1157 Ω	
	30 °C	586,7 Ω	1195 Ω	

Internal diagram

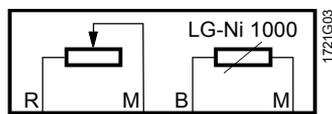**QAA24**
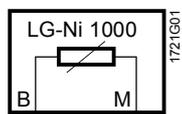
QAA25, QAA26

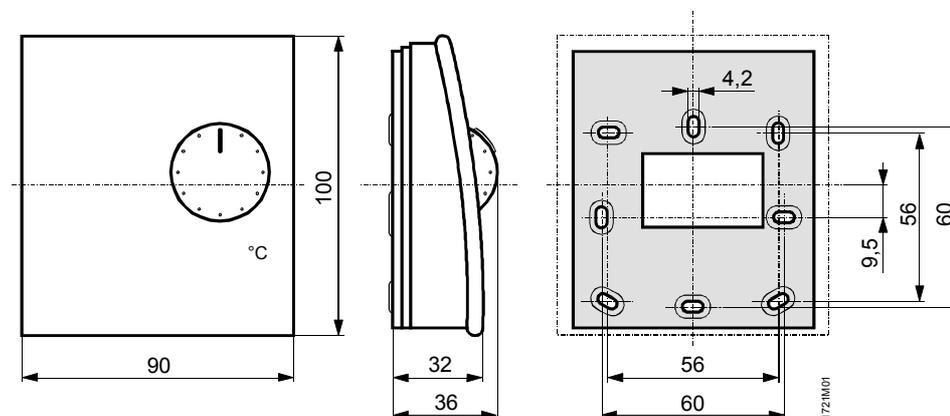**QAA27**

Legend

B1 Room temperature measuring signal
M Measuring neutral
R Setpoint signal

Dimensions

Dimensions in mm

4/4

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