Outside Detectors

QAC22...
QAC32...

Outside detector for acquiring the outside temperature and - to a lesser degree - solar radiation, the effect of wind and the temperature of the wall.

Use

The detector is used as a

- reference detector for weather-dependent flow temperature control
- measuring detector for optimization functions

Type summary

Outside detector with a sensing element Ni 1000 Ω at 0 °C	**QAC22**
Outside detector with a sensing element NTC 575 Ω at 20 °C	**QAC32**

Ordering

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

Mechanical design

The detector has a plastic casing with a removable cover. The sensing element is encapsulated in synthetic resin. The connection terminals can be accessed after removal of the cover. Cable entry is either from the rear (concealed wiring) or from below (surface-run wires). A cable entry gland Pg11 can be screwed into the bottom of the casing.

Technical data

Measuring range	-35…+50 °C
Sensing element	
QAC22	Ni 1000 Ω at 0 °C
QAC32	NTC 575 Ω at 20 °C, (linearized)
Tolerances	
QAC22	to DIN 43760
QAC32	±1 °C at -10…+20 °C
Time constant	approx. 10 min
Climatic requirements	to IEC 721-3
Mechanical requirements	to IEC 721-3

Permissible ambient temperature	
Storage	-5…+45 °C
Transportation	-25…+70 °C
Operation	-35…+50 °C
Permissible ambient humidity	-5…100 % r.h.
Degree of protection of casing	IP43 to EN60529
Insulation class	III to EN60529
Electrical connections	terminals (interchangeable)
Cable entry gland	Pg11 (can be fitted)
Weight	0.120 kg
Colour	RAL9003

Notes

Engineering

Depending on use, the detector must be located as follows:

- For control:
  On the wall of the house or building that has the windows of the occupied rooms, but the detector must not be exposed to the morning sun. In case of doubt, it should be mounted on the wall facing north or north-west.
- For optimization:
  Always on the coldest wall of the house or building (normally the wall facing north). The detector must never be exposed to the morning sun.

Mounting and installation

Mounting height:
Preferably in the middle of the house or building or heating zone, but at least 2.5 m above the ground.

The detector may **not** be fitted at the following locations:

- Above windows, doors, air extracts or other heat sources
- Below balconies or the eave of the roof

The prevent measuring errors due to air circulation, the cable conduit at the detector should be sealed. The detector may not be painted over.

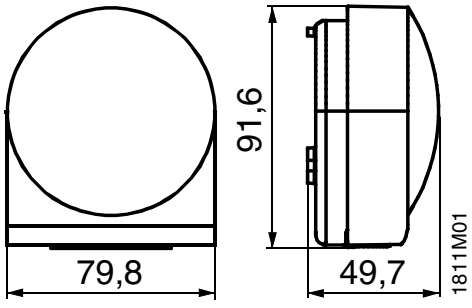
Mounting instructions are printed on the packing.

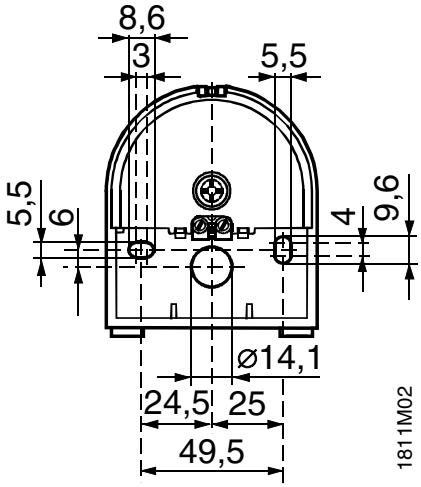
Permissible cable lengths

The permissible lengths of the measuring line between detector and controller are as follows:

Type of cable		Outside dia.	Line length
Copper cable	0.6 mm dia.	5.5 mm	20 m
Copper cable	1 mm^2	6.6 mm	80 m
Copper cable	1.5 mm^2	7.2 mm	120 m

Dimensions





Subject to alteration