



Outside Sensors

QAC22...
QAC32...

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

Use

- The sensor is used as a
- reference sensor for weather-dependent flow temperature control
 - measuring sensor for optimization functions

Type summary

Outside sensor with a sensing element Landis & Staefa Ni 1000	QAC22
Outside sensor with a sensing element NTC	QAC32

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.

Notes

Engineering

- Depending on use, the sensor 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 sensor 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 sensor 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 sensor 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

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

Mounting instructions are printed on the packing.

Permissible cable lengths

The permissible lengths of the measuring line between sensor 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 1.0 mm ²	6.6 mm	80 m
Copper cable 1.5 mm ²	7.2 mm	120 m

Technical data

Measuring range	−35...+50 °C
Sensing element QAC22	Landis & Staefa Ni 1000 Ω at 0 °C
Sensing element QAC32	NTC 575 Ω at 20 °C, (linearized)
Tolerances QAC22	to DIN 43760
Tolerances QAC32	±1 °C, −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	IP54 to EN 60529
Insulation class	III to EN 60529
Electrical connections	terminals (interchangeable)
Cable entry gland	Pg 11, (can be fitted)
Weight	0.120 kg
Colour	RAL 9003

Dimensions

