# Clamp-on Temperature Sensor QAD26.220

## Use

Heating, ventilation, air conditioning and refrigeration plant.
Acquisition of the medium temperature in pipes from -35 to +90 °C to provide measurement, limitation, compensation, or control.

## Ordering

| *Product number* | *Order number* | *Designation* |
|---|---|---|
| QAD26.220 | BPZ:QAD26.220 | Anlegetemperaturfühler |

When ordering, please give name and type reference.

Delivery

The sensor is individually packed and supplied in a plastic bag, complete with a clamping band made of plastic and mounting instructions.

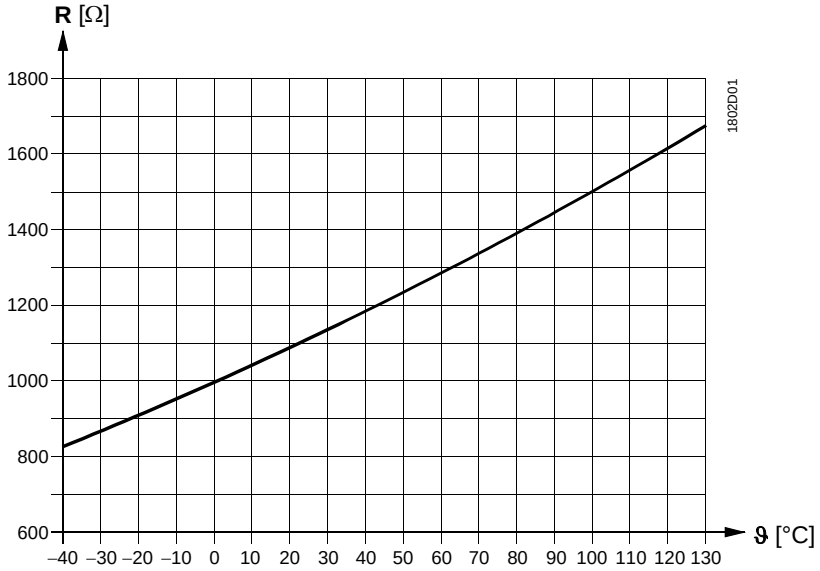
## Equipment combinations

The QAD26.220 is suited for use with all types of controllers that can handle analog, passive LG-Ni1000 sensor signals.

## Technical design

The sensing element is a nickel thin-film element having a basic resistance of 1000 Ω at 0 °C. The resistance of the element increases in function of the temperature at a rate of about 5 Ω per Kelvin.

Characteristic of the sensing element




Legend

R Resistance in Ohm

ϑ Temperature in degree Celsius

## Mechanical design

Hermetically sealed plastic casing, with resilient lateral wings to facilitate positioning on the pipe. The casing accommodates the sensing element (LG-Ni1000 Ohm at 0 °C) with a ready connected two-wire cable. Sensing element and cable entry are encapsulated. The casing has a resilient top to compensate for thermal expansion resulting from temperature changes.

The cable is two meters long and provided with terminating sleeves at its end. It features tension relief.

The QAD26.220 is fitted to the pipe with the help of the heat-resistant plastic clamping band supplied with the sensor.

The sensor can be fitted to pipes having a diameter from 10 to 50 mm.

## Mounting notes

The clamp–on temperature sensor can be mounted either under the lagging or on a piece of unlagged pipe. When placed under the lagging, the response time is shorter. When used in the field of refrigeration, the sensor must always be fitted under the pipe's lagging.

The pipe's surface where the sensor is placed must be bare. When fitting the sensor, press it firmly on the pipe and tighten the clamping band.

The QAD26.220 is supplied complete with mounting instructions.

## Warranty

Technical data on specific applications are valid only together with Siemens products listed under "Equipment combinations". Siemens rejects any and all warranties in the event that third-party products are used.

## Disposal

The device is considered electrical and electronic equipment for disposal in terms of the applicable European Directive and may not be disposed of as domestic garbage.

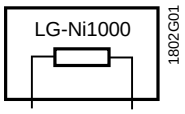
- Dispose of the device via the channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

## Technical data

| | | |
|---|---|---|
| General device data | Measurement range | -35...+90 °C |
| | Sensing element | Ni1000 Ω at 0 °C |
| | Measurement accuracy | ±0.5 K at 25 °C, without considering the conductance error and the self-heating effect |
| | Self-heating | 0.1 K/mW |
| | Perm. measuring current | ≤2 mA (self-heating <0.5 K) |
| | Time constant $t_{63}$ | <10 s |
| | Dielectric strength | 500 V against the pipe |
| Electrical connections | Cable tension relief | Max. 30 N |
| | Electrical connections | Two-wire cable |
| | Cable length | 2 m |
| | End of cable | terminating sleeves |
| | EU conformity (CE) | CM1T1802xx *) |
| Environmental conditions | Perm. ambient temperature | |
| | Operation | -35...+90 °C |
| | Transport and storage | -25…+60 °C |
| | Perm. ambient humidity | 100 % r. h. |
| Degree of protection | Protection class | III according to EN 60730-1, sensor must operate on extra low voltage |
| | Protection degree of housing | IP65 according to EN 60529 |
| Directives and Standards | Product standard | EN 60730-1<br>Automatic electrical controls for household and similar use |
| Environmental compatibility | The product environmental declaration CE1E1701*) contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal). | |
| Weight | | approx. 0.275 kg |

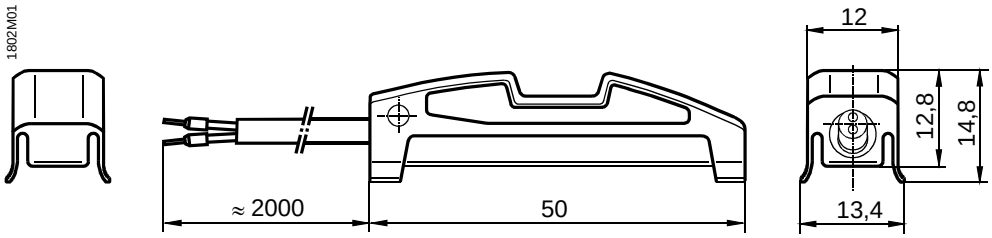
*) The documents can be downloaded from http://siemens.com/bt/download.

## Connection diagrams




## Dimensions

Dimensions in mm

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