

Product Certificate

Gealog NTC Temperature Sensors

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Gealog NTC Air Temperature Sensor



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The Gealog NTC Temperature Sensors are based on a high precision NTC-Thermistor network sensing element. This sensor element is built in in different enclosures depending on the application of the temperature sensor. Ready available types are:

- Gealog NTC Air Temperature Sensor
For this type the sensing element is enclosed in a very small measuring tip to realize a fast response time.
- Gealog NTC Soil Temperature Sensor
This type has a robust, watertight enclosure and can be buried in the soil. It is used especially for soil temperature measurements in different depths.

Measuring parameter/precision

- Sensor element: Precision NTC-Thermistor network, consisting of 2 parallel thermistors.
- Standard measuring range: -50°C to +60°C
(also other ranges available on request within the overall range of -60°C to +80°C)
- Uncertainty: +/- 0,1K
- Resolution: infinite
- Response time:
 - Gealog NTC Air Temperature Sensor $T_{66} < 10 \text{ sec}$
 - Gealog NTC Soil Temperature Sensor: $T_{66} < 60 \text{ sec}$

Interface/output

- 3-Wire NTC-Thermistor network for use with any Gealog Measuring Interface with inputs for NTCs.

Power supply

- Passive sensor element

Wiring/connector

- Sensor cable:
 - Logotronic product code: Cable PUR 3*0.25 mm² Shielded
 - Standard length: 5 m (Please specify other cable lengths on order), delivery with loose ends
 - UV resistant
 - For use in open air
 - PU jacket, 3 x 0.25 mm²
 - Color code DIN 47100
- Outer diameter: 4.7 mm

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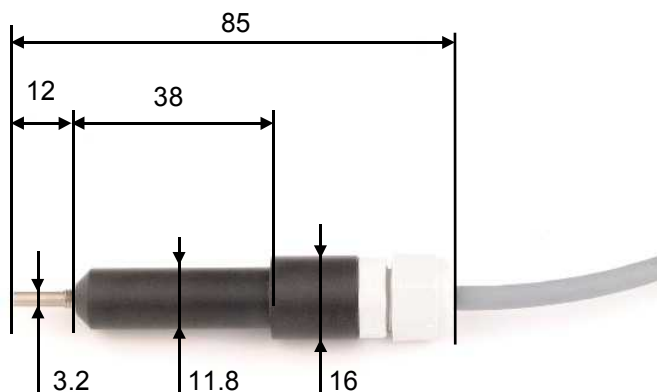
Gealog NTC Temperature Sensors

- Wire assignment

No.	Signal	Recommended Wire Color
1	REF	brown
2	NTC	green
3	GND	white
4	Cable shield, must be connected to ground bar	yellow/green

Environmental/mechanical data

- Housing material:
 - Gealog NTC Air Temperature Sensor: Polyamid, stainless steel, 1.4571
 - Gealog NTC Soil Temperature Sensor: Stainless steel, 1.4571
- Sensor Cable: Polyurethane
- Temperature range PU sensor cable: -50°C to +100°C, UV resistant
- Protection mode: IP 68
- Weight (without cable)
 - Gealog NTC Air Temperature Sensor: 25 g
 - Gealog NTC Soil Temperature Sensor: 40 g
- Dimensions:

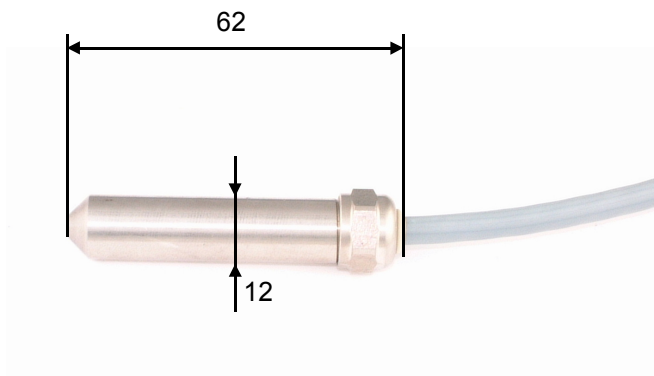


All dimensions in mm

Dimensions Gealog NTC Air Temperature Sensor

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All dimensions in mm

Dimensions Gealog NTC Soil Temperature Sensor

Origin

- Manufacturer: Logotronic GmbH, Vienna, Austria
- Country of origin: European Community

Fulfilled standards

- CE Conformity
- WMO recommendations
WMO -No. 8, Guide to Meteorological Instruments and Methods of Observation



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Ordering Information

- **Gealog NTC Air Temperature Sensor**
 - o Linear NTC-thermistor network
 - o Standard measuring range: -50°C to +60°C
(also other ranges possible on request)
 - o Uncertainty: 0.1K
 - o Time constant < 10 sec
 - o Encapsulated housing, IP68
 - o Incl. 5 m sensor cable with loose ends
 - o Please specify other lengths of sensor cable on order

- **Gealog NTC Soil Temperature Sensor**
 - o Linear NTC-thermistor network
 - o Standard measuring range: -50°C to +60°C
(also other ranges possible on request)
 - o Uncertainty: 0.1K
 - o Time constant < 60 sec
 - o Encapsulated housing, IP68
 - o Incl. 5 m sensor cable with loose ends
 - o Please specify other lengths of sensor cable on order

Accessories

- **Cable PUR 3*0.25 Shielded**
 - o Data- and sensor cable
 - o UV resistant
 - o For use in open air
 - o PU mantle 3 x 0.25 mm²
 - o Wire colors: brown, green, white
 - o Wire resistance: 82 Ohms per km
 - o Outer diameter: 4.7 mm

- **Radiation Shield for Air Humidity/AirTemperature Sensor**
 - o Version with natural ventilation

- **Radiation Shield for Air Humidity/AirTemperature Sensor, Ventilated**
 - o Version with artificial ventilation
 - o Integrated fan with pulse output for monitoring of the fan's rotation speed

- **Radiation Shield for Soil Temperature Sensor**
 - o Radiation shield for temperature above soil +5cm

- **Sensor Protection Unit for Soil Temperature Sensor**
 - o Wire cage for mechanical protection of the soil temperature sensor
 - o Painted, white



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Revision List

No.	Revision	Date	Name	Description of Changes
1	1	20.9.06	Pe	New release

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