

DOL 13 Temperature Sensor



1 Product description

DOL 13 is a universal, fully electronic temperature sensor. The electronics of the sensor is embedded in special plastic and it is well suited for application in environments, where a sturdy design is required.

The temperature sensor consists of an embedded temperature transducer and protection components.

2 Electrical installation



Installation, servicing and troubleshooting of all electrical equipment must be carried out by qualified personnel in compliance with the applicable national and international standard EN 60204-1 and any other EU standards that are applicable in Europe.

The installation of a power supply isolator is required for each motor and power supply to facilitate voltage-free work on the electrical equipment. The power supply isolator is not included.

2.1 Connection

- ! + and - must be turned correctly
- ! + is WHITE and - is BROWN

A diode is mounted over the conductors on the sensor. If the conductors are mounted incorrectly, the input terminal of the device will short-circuit. The device will then measure 40 °C.

Shielded cable

Conductors to the sensors must have shielded cable, e.g. the type USY-JZ in order to minimize the risk of outside induction. There are no requirements concerning the cross section (power approx 0.3 mA).

Assembly with silicone sleeves



Splices must be done very carefully by means of the enclosed blue silicone sleeves. Tracking current between conductors will result in indication error. Connection terminals will create problems in the course of time and should therefore not be used.

Placing temperature sensor

Inside: The sensor must be placed one meter above the zone occupied by the animals, approx in the middle of the house. At the same time, it must be considered that the sensors should not be affected by e.g. a spraying system, two-climate system or the like.

Outside: The sensor must be placed in the north side of the house protected from the sun and rain.

The sensors are supplied with a 2 m cable. Contact box must only be 3.5 m above floor.

Calibration/adjustment

The sensor is calibrated and a label indicates the offset-deviation. Use this to adjust the measurement.

3 Technical data

When connected to 4-14 V it can measure a power supply of 1 $\mu\text{A}/\text{°Kelvin}$ (-273.2 $^{\circ}\text{C}$), i.e. 300 μA at 26.8 $^{\circ}\text{C}$.
If you measure the resistance (Ω), there is passage (diode) one way but a non-usable figure the other way.

