

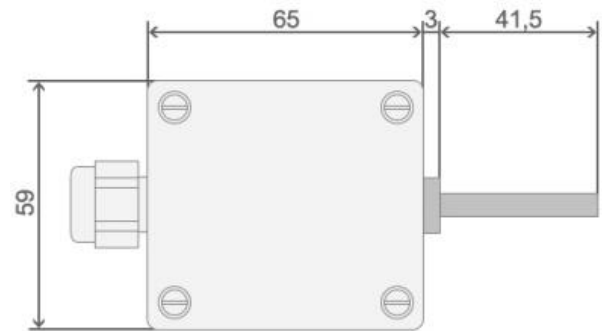
Outside Temperature Sensor with 0-10V Converter

Part No.: 200003

FEATURES

- Compatible 0 - 10 V signal
- 3 point calibrated and linearised
- High long-term stability
- Sensor in 316Ti grade stainless steel
- High quality IP 65 rated enclosure
- Integrated temperature voltage converter

DIMENSIONS



OPERATION

With its in-built surge protection, this temperature sensor is ideally suited to be used in a wide range of applications in our automation system. In addition to that this sensor will deliver very accurate readings for precise control. The temperature is measured with a precise and long-term stable platinum thermistor that conforms to relevant industry standards. The non-linear reading of this platinum sensor is linearised using a second order polynomial according to DIN47115 guidelines. Following this signal processing the reading is represented as a 0-10V signal which conforms to common industry standards.

The sensor is mounted in a protective cap made from 316Ti grade stainless steel and is suitable measuring any surface temperature. The most common application is as a clamp-on sensor for pipes in heating systems. The electronics required for the signal processing are thermally isolated from the platinum sensor to avoid any self-heating.

POWER SUPPLY

The sensor requires a 24V DC power supply, which can be supplied directly from one of our controllers or using an alternate power supply.

SPECIFICATIONS

Temperature	
Measurement Range	-30 to +70°C (preset)
Sensor Element	Platinum resistor (PT 100)
Accuracy	+/- 0.2 °K + max. 3% of FV
Output scaling	-50 to +50°C FS
General	
CE	89/336/EEC
EMC Emissions	EN 61000-6-3:2001
Sensor Dimensions	See dimensional drawing
Enclosure Electronics	Plastic
Connection	Screw terminals 1.5mm ²
Operating Voltage	15-36 VDC / 24 VAC
Surge Protection	Varistor

Please Note: Specifications may change at any time

CALIBRATION AND ADJUSTMENT

All units are calibrated using a ladder arrangements of precision resistors according to national standards of PTB.

Due to the high-quality platinum sensor elements, the sensors are long term stable and maintenance free. Recalibration is therefore generally not required.

CONNECTION

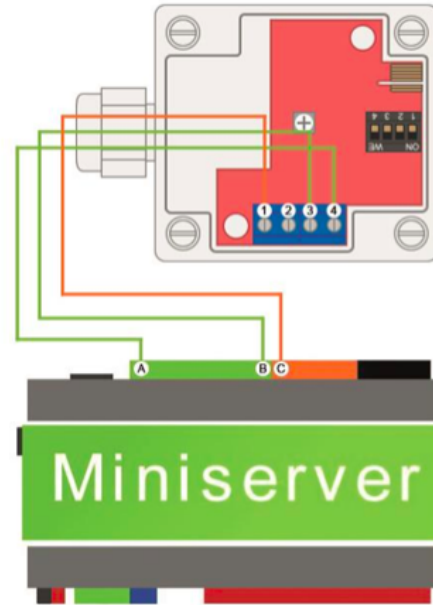
The preferred cable for connecting this sensor is a STP (Shielded Twisted Pair) cable, though UTP (Unshielded Twisted Pair) can be used. The use of a STP cable is especially important in environments with high EMI. The shielding must be grounded to be effective.

WARRANTY

We provide a 24 month manufacturer's warranty on our sensors.

Mechanical damage to the sensor and any modifications of the electronics result in the loss of warranty. Calibration services are excluded from the warranty.

CONNECTION DIAGRAM



	Function	Description
1	0-10V	Temperature signal
2	Screen	Cable shielding
3	GND 0V	Reference potential
4	15-36VDC	Operating voltage
A	+24V	24V power supply
B	GND	Ground
C	AI	Analog input 0-10V

Measurement Range: Adjustable by Dip Switch

	Range	1	2	3	4
1	-50° to + 50°	OFF	OFF	OFF	OFF
2	-50° to +150°	ON	OFF	OFF	OFF
3	-30° to +70°	OFF	ON	OFF	OFF
4	-20° to +50°	ON	ON	OFF	OFF
5	-20° to +80°	OFF	OFF	ON	OFF
6	-20° to +120°	ON	OFF	ON	OFF
7	0° to +50°	OFF	ON	ON	OFF
8	0° to +70°	ON	ON	ON	OFF
9	0° to +70°	OFF	OFF	OFF	ON
10	0° to +100	ON	OFF	OFF	ON
11	0° to +150°	OFF	ON	OFF	ON
12	0° to +200°	ON	ON	OFF	ON