



חיישן טמפרטורה בחיבור RS232 מדגם PA-TM-R

Digital temperature sensor

The digital temperature sensor makes the easy measurement of temperature possible and allows transmission of the measured data to a PC. The data are transmitted in a simple ASCII protocol, within which the temperature values are given directly in degrees Celsius (°C). The sensor is connected to a PC via a standard RS232 serial port. The accuracy of this sensor is ±0.5 °C within temperature range from -10 °C to +85 °C; the measurable range is from -55 °C to +125 °C.

Features

- ... The measurable range is from -55 °C to +125 °C, with a 0.1 °C resolution.
- ... Direct output in °C, ASCII communication, there is no need to recalculate the values
- ... Connection to the serial port RS232 of a PC
- ... No need for a power supply

Use

- ... Temperature measurement in living areas, warehouses, server rooms and on production premises
- ... Measurement of outdoor temperature
- ... An interesting addition to your website design

Connection

The sensor is connected to the serial port of a PC or another device. Install the temperature sensor at the location where you wish to measure the temperature.

Technical parameters

| | |
|---|--|
| Measurable range | -55 to +125 °C |
| Accuracy | ±0.5 °C within range from -10 °C to +85 °C and ±2 °C outside of this range |
| Resolution | 0,1 °C |
| Operating temperature of electronic | -40 to +85 °C |
| Communication | ASCII, described below |
| Measurement speed | the first measurement within 1 sec, subsequently once per 10 sec ±2 % |
| Communication line. | RS232 (simplified) |
| Communication parameters | 9600 Bd, 8 bits, 1 stop-bit, parity – none |



Description of functions

The temperature sensor is supplied with power from the serial port to which it is connected. As soon as the DTR signal is set on the port, the sensor measures the temperature value and sends it to the connected PC as an ASCII character string. If the DTR signal remains active, the sensor measures and sends the temperature value every 10 seconds. The yellow indicator on the connector is lit when the actual measurement is being taken. The standard workmanship of the sensor is mainly used for the measurement of air temperature.

Connector specification

The sensor is connected to a PC serial port with a CANNON 9 connector

| pin | signal |
|-----|---|
| 2 | RxD – data from the sensor – temperature values |
| 4 | DTR – sensor power supply and control |
| 5 | GND – signal grounding |

Communication protocol

| Input: PC → Device | Function | Output: Device → PC |
|--------------------------------------|--|---|
| DTR signal setting | Sensor activation | <sign><3 characters – integer °C> |
| Continuous setting of the DTR signal | The temperature values are measured and sent automatically | <decimal point><1 character – tenths of °C> <C><Enter> <i>E.g.: +025.3C</i> |