

PT1k-01FE, PT1k-01FI, PT1000I, PT1000E, PT1k

Temperature measurement module

6.6.2007



Features

- Temperature measurement (PT-1000)
- Factory Calibrated
- High Precision Measurements
- Linet connection

Application

- Temperature measurement
- Climath control
- Thermostats
- Weather monitoring
- Building and industrial automation

Description

PT1k-01F is very accurate temperature measuring module. It uses Platinum PT1000 sensor for linear and accurate measurements, very low self heating and low power consumption. The PT1000-

type temperature sensor is either installed permanently on the board or connected to module with 3m cable. Module electronics are factory calibrated.

Allthou PT1000-sensor is naturally linear it is also linearized digitally with on board processor. This high-end feature comes standard with all PT1k-modules.

Instructions

CAT6 type Linet cable shall be connected to the network connector. After system is powered up the module shall be configured as DATA12 group type. After that the module transmits 12-bit data value relative to the measured temperature.

Temperature data:

Calculation formula:
 $(\text{Data value} - 1000) / 10 = \text{Temperature (Celsius)}$

Example:

Data 1356 = 35.6 °C
2167 = 116.7 °C
1000 = 0.0 °C
845 = -15.5 °C

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Technical specifications

Parameter	Value	Unit
Measurement range with external sensor.	-50...250	Celsius
Accuracy	+/- 0,5 (-15...+100) +/- 1,5 (whole range)	Celsius
Resolution	0,1	Celsius
Module Operating temperature	-25...80	Celsius
Operating humidity	Non condensing	
Dimensions	40.6 x 45.7	mm

Ordering

PT1k-01FI F-box Temperature Measurement Module with internal fixed sensor

PT1k-01FE F-box Temperature Measurement Module with external sensor connector (Sensor not included)

PT1000-I Wall mount module, with internal fixed sensor

PT1000-E Wall mount module, with external sensor connection (sensor not included)

PT1k PT1000 sensor element with 3m cable.