

CONDITION MONITORING 4-CHANNEL THERMOMETER

PCE-T 420



- » **Measurement range from -200 to +1800 °C**
- » **High accuracy of $\pm (0.04\%$ of reading + 0.3 K) for Type K**
- » **Compatibility with 8 thermocouple types**
- » **Thermocouple types K, J, S, R, E, T, N, B**
- » **Storage for 10 million measurement values**
- » **Adjustable alarm limits**
- » **4 input channels**

The 4-channel thermometer for thermocouples allows for the display and archiving of multiple temperature sensors simultaneously. It can be connected to up to 8 different types of thermocouples. Notably, the data logger offers high accuracy, especially with Type K thermocouples, with an accuracy of $\pm(0.04\% + 0.3\text{ }^{\circ}\text{C})$.

The measurement overview of the 4-channel thermometer provides a quick overview of the 4 displayed temperatures. Another view displays the maximum, minimum, and average values since the start of measurement. Additionally, each channel can be compared with all other channels, showing the current measurement value of the channel and the difference from the reference channel. The 4-channel thermometer can store up to 100 data sets, each with a maximum of 100,000 readings. Adjustable alarm thresholds for upper and lower temperature values can highlight measurements in red. Using the included PC software, data stored by the 4-channel thermometer can be imported, graphically represented, analyzed, and archived.

The 4-channel thermometer for thermocouples is well-suited for areas where temperature monitoring is critical. Possible applications include furnace inspections, temperature-sensitive component development processes, or laboratory experiments. For the temperature data logger, we offer a wide range of thermocouple probes, which can be found in the accessories section.

Specification

Temperature K-type

Measurement range up to -200 ... +1370 °C

Resolution 0,1 °C

Accuracy $\pm(0.04\% \text{ of Rd} + 0.3 \text{ K})$

Temperature J-type

Measurement range up to -200 ... +1050 °C

Resolution 0,1 °C

Accuracy $\pm(0.04\% \text{ of Rd} + 0.3 \text{ K})$

Temperature S-type

Measurement range up to 0 ... 1750 °C

Resolution 0,1 °C

Accuracy $\pm(0.05\% \text{ of Rd} + 1 \text{ K})$

Temperature R-type

Measurement range up to 0 ... 1750 °C

Resolution 0,1 °C

Accuracy $\pm(0.05\% \text{ of Rd} + 1 \text{ K})$

Temperature E-type

Measurement range up to -200 ... +850 °C

Resolution 0,1 °C

Accuracy $\pm 0.6 \text{ K}$

Temperature T-type

Measurement range up to -200 ... +400 °C

Resolution 0,1 °C

Accuracy $\pm 0.6 \text{ K}$

Temperature N-type

Measurement range up to -200 ... +1300 °C

Resolution 0,1 °C

Accuracy $\pm 0.6 \text{ K}$

Temperature B-type

Measurement range up to 600 ... 1800 °C

Resolution 0,1 °C

Accuracy $\pm(0.05\% \text{ of Rd} + 1 \text{ K})$

General technical data

Number of measuring channels 4

Units °C, °F

Display type LCD

Display size 2,8 Inch

Storage capacity 100 Data records

Memory capacity (additional information) Up to 100,000 measured values per data record

Storage interval from 1 s

Storage interval to 12 h

Interface USB-C

Operating time additional information 15 ... 20 h (depending on the display brightness)

Menu language Turkish, English, Polish, Spanish, German, Chinese, Russian, Japanese, French, Danish, Italian, Dutch, Portuguese

Protection class (device) IP52

Power supply 3.7 V

Capacity 2500 mAh

Operating conditions -20 ... 65 °C, 10 ... 95 % RH

Storage conditions -20 ... 65 °C, 10 ... 95 % RH

Dimensions (L x W x H) 165 x 85 x 32 mm

Other dimensions Thermocouple length: approx. 1m

Weight 255 g