

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**

The Condition Monitoring 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 $\pm(0.04\% + 0.3\text{ °C})$.

The measurement overview of the Condition Monitoring 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 Condition Monitoring 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 Condition Monitoring 4-channel thermometer can be imported, graphically represented, analyzed, and archived.

The Condition Monitoring 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.

Specification

Type K temperature	
Measuring range	-200 ... +1370 °C
Resolution	0,1 °C
Accuracy	±(0.04 % of Rd +0.3 K)
Temperature J-type	
Measuring range	-200 ... +1050 °C
Resolution	0,1 °C
Accuracy	±(0.04 % of Rd +0.3 K)
Temperature S-type	
Measuring range	0 ... 1750 °C
Resolution	0,1 °C
Accuracy	±(0.05 % of Rd +1 K)
Temperature R-type	
Measuring range	0 ... 1750 °C
Resolution	0,1 °C
Accuracy	±(0.05 % of Rd +1 K)
Temperature E-type	
Measuring range	-200 ... +850 °C
Resolution	0,1 °C
Accuracy	±0.6 K
Temperature T-type	
Measuring range	-200 ... +400 °C
Resolution	0,1 °C
Accuracy	±0.6 K
Temperature N-type	
Measuring range	-200 ... +1300 °C
Resolution	0,1 °C
Accuracy	±0.6 K
Temperature B-type	
Measuring range	600 ... 1800 °C
Resolution	0,1 °C
Accuracy	±(0.05 % of Rd +1 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)
Dimensions	Thermocouple length: approx. 1m
Menu language	Turkish, English, Polish, Spanish, German, Chinese, Russian, Japanese, French, Danish, Italian, Dutch, Portuguese
Protection class (device)	IP52
Power supply	3.7 V
(Rechargeable) battery	1 x 3,7 V LP785060 , Lithium-ion polymer battery
Capacity	2500 mAh
Performance	9,25 Wh
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
Weight	255 g