

TECHNICAL DATA SHEET

Temperature

In response to today's ever-increasing demand for speed, accuracy and performance at an affordable price, Digitron has introduced the 2000 series of hand-held digital thermometers.

The 2000 Series provides precise, stable readings, even in demanding environments are simple to operate, fast reliable and built to last.

Some measurements take minutes using standard thermometers due to poor thermal conductivity in the item being measured. Often a highly accurate answer is not required and an indicative answer showing that the reading is above or below a desired threshold will suffice. Digitron's unique SpeedRead>> function will offer an answer in 14 seconds or, if such a prediction cannot be made, revert back to a standard accuracy thermometer automatically.

Common Specification

Resolution:	0.1° from -199.9°C to +199.9°C/-199.9°F to +392.0°F 1°C elsewhere
Operating Temperature:	-10°C to +50°C/+14°F to +122°F (ambient)
Battery Type:	Two AA or equivalent cells (not supplied)
Battery Life:	Typically 500 hours
Low Battery Check:	symbol appears on display
Display:	12.7mm / 0.5" custom L.C.D.
Sensor Open Circuit:	Indicated by 'O-C' on display
Overrange/Underrange	'Out' displayed
Cold Junction Compensation:	Yes
Environmental Specifications:	IP65 (IP67 optional)
Auto Switch-Off Time:	12 minutes
Dimensions:	155 x 67 x 40mm/6.1 x 2.6 x 1.6"
Weight:	180g/6.4oz



Key Features

- ✓ SpeedRead>> for quicker indicative readings
- ✓ Logging mode for storage, retrieval and output of readings
- ✓ Long battery life: typically 500 hours
- ✓ Wide temperature ranges -250°C to +1750°C/-418°F to +3182°F
- ✓ Accurate performance: 0.2% of reading
- ✓ For type K,T,J,N,R, and S thermocouples, PT100 and Thermistor sensors
- ✓ Robust case for long life in harsh environments
- ✓ 2 year warranty
- ✓ Selectable auto switch-off
- ✓ Automatic zero calibration for added accuracy
- ✓ Last settings memorised

Instrument Accuracies

(All ± 1)

Models 2000T, 2008T, 2022T, 2028T, 2029T, 2038T, 2088T, 2098T: 0.1% rdg $\pm 0.2^{\circ}\text{C}/0.4^{\circ}\text{F}$ above $-100^{\circ}\text{C}/-148^{\circ}\text{F}$ 0.5% rdg $\pm 0.2^{\circ}\text{C}/0.4^{\circ}\text{F}$ below $-100^{\circ}\text{C}/-148^{\circ}\text{F}$
Models 2006T, 2086T: $\pm 0.2^{\circ}\text{C}/0.4^{\circ}\text{F}$ over range -20°C to $+70^{\circ}\text{C}/-4^{\circ}\text{F}$ to $+158^{\circ}\text{F}$ $\pm 0.1\%$ rdg $\pm 0.2^{\circ}\text{C}/0.4^{\circ}\text{F}$ elsewhere.
Models 2004T, 2024T, 2084T: $\pm 0.2\%$ rdg $\pm 0.1^{\circ}\text{C}/0.2^{\circ}\text{F}$ over range -150°C to $+800^{\circ}\text{C}/-238^{\circ}\text{F}$ to $+1472^{\circ}\text{F}$
Model 2046T (including Digitron probe) Better than $\pm 0.5^{\circ}\text{C}/0.9^{\circ}\text{F}$ over range -20°C to $+70^{\circ}\text{C}/-4^{\circ}\text{F}$ to $+158^{\circ}\text{F}$ $\pm 0.8^{\circ}\text{C}/1.4^{\circ}\text{F}$ elsewhere.
SpeedRead>>: This function reduces the accuracy from Class 0.5 to 2 (CEN TC141/WG12 N42E applies).

The overall performance of the instrument is obtained by combining the stated accuracy and any uncertainty due to the measurement process.

Version 1.3

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2000T Option Table

	2000T	2004T	2006T	2008T	2022T	2024T	2028T
Sensor Type	K	Pt100	T	T	K	Pt100	K
Connector Type	2 pin mini	TCM screw	2 pin mini	2 pin mini	2 pin mini	TCM screw	2 pin mini
°C/°F Function*				•	•	•	•
Hold Function	•	•	•	•	•	•	•
Range Lock						•	•
Max/Min				•		•	•
Averaging							
Logging							
Range	-200°C to +1350°C/ -328°F to +2462°F	-150°C to +800°C/ -238°F to +1472°F	-250°C to +400°C/ -418°F to +752°F	-250°C to +400°C/ -418°F to +752°F	-200°C to +1350°C/ -328°F to +2462°F	-150°C to +800°C/ -238°F to +1472°F	-200°C to +1350°C/ -328°F to +2462°F

	2046T	2084T	2086T	2088T	2029T	2038T	2098T
Sensor Type	Thermistor	Pt100	T	K	KT JNRS	KT JNRS	KT JNRS
Connector Type	Plug	TCM screw	2 pin mini	2 pin mini	2 pin mini	2 pin mini	2 pin mini
°C/°F Function*		•		•	•	•	•
Hold Function	•	•	•	•	•	•	•
Range Lock		•		•	•	•	•
Max/Min		•		•	•	•	•
Averaging		•					•
Logging		•	•	•			•
Range	-40°C to +120°C/ -40°F to +248°F	-150°C to +800°C/ -238°F to +1472°F	-250°C to +400°C/ -418°F to +752°F	-200°C to +1350°C/ -328°F to +2462°F	Type K Type T Type J Type N Type R Type S	-200°C to +1350°C/-328°F to +2462°F -250°C to +400°C/-418°F to +752°F -750°C to +750°C/-1318°F to +1382°F -200°C to +1300°C/-328°F to +2372°F 0°C to +1750°C/+32°F to +3182°F 0°C to +1750°C/+32°F to +3182°F	