

# USB-501-TC

## Specifications



**MEASUREMENT  
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# Specifications

All specifications are subject to change without notice.

Typical for 25 °C unless otherwise specified.

Specifications in *italic text* are guaranteed by design.

## Temperature

The USB-501-TC can log temperatures as detailed below using thermocouple sensors. However, the data logger should not be subjected to temperatures outside the operating temperature range of –10 to +40 °C (+14 to +104 °F).

The K-type thermocouple probe that ships with the USB-501-TC is rated from 0 to 400 °C (32 to 752 °F)

Table 1. Temperature specifications

Parameter	Specification
Measurement range	<ul style="list-style-type: none"><li>▪ K-type thermocouple: –200 to +1350 °C (–328 to +2462 °F)</li><li>▪ J-type thermocouple: –200 to +1190 °C (–328 to +2174 °F)</li><li>▪ T-type thermocouple: –200 to +390 °C (–328 to +734 °F)</li></ul>
Resolution	0.5 °C (1 °F) typical
Accuracy (logger error)	±1 °C (±2 °F) typical

## Sampling

Table 2. Sampling specifications

Parameter	Specification
Sampling intervals	1 s, 2 s, 5 s, 10 s, 30 s, 1 min, 5 min, 15 min, 30 min, 1 h, 2 h, 6 h, 12 h
Max temperature samples	32,510
Units	°C or °F

## Alarms

Table 3. Alarm conditions

Parameter	Specification
High temperature alarm range	–200 °C (–328 °F) minimum, 1349.5 °C (2461 °F) maximum
Low temperature alarm range	–200 °C (–328 °F) minimum, 1349.5 °C (2461 °F) maximum
Alarm temperature resolution	0.5 °C (1 °F)

## USB specifications

Table 4. USB specifications

USB-device type	USB 2.0 (full-speed)
Device compatibility	USB 1.1, USB 2.0

## Power

Table 5. Power specifications

1/2AA 3.6 V lithium battery life	@ 1 minute logging rate	6 months typical
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## Environmental

Table 6. Environmental specifications

Operating temperature range	-10 °C (+14 °F) minimum to +40 °C (+104 °F) maximum
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## LED flashing modes

Table 7. LED functions

Parameter	Condition	Specification
Green LED	Flashes once every 10 seconds	Currently logging, no alarm.
	Flashes once every 20 seconds	Low battery, USB-501-TC continues logging, no alarm.
	Flashes once every 30 seconds	Logging to start at set date and time.
	Flashes twice every 20 seconds	Memory is full, no alarms, no more readings stored.
Red LED	Flashes once every 10 seconds	Currently logging, low alarm condition *
	Flashes twice every 10 seconds	Currently logging, high alarm condition *
	Flashes once every 20 seconds	Low battery, USB-501-TC continues logging, low alarm.
	Flashes twice every 20 seconds	Low battery, USB-501-TC continues logging, high alarm.
Both LEDs flash simultaneously	Both LEDs flash once every 20 seconds	Memory is full, low or high alarm condition, no more readings stored.
No LEDs flash		Logger stopped or battery depleted

\*If both alarms have Hold selected, the LED indicator only applies to the first alarm condition detected

## Mechanical

Table 8. Mechanical specifications

Dimensions	118 mm long x 27 mm wide x 27 mm high (3.86 in. long x 1.02 in. wide x 1.02 in. high)
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