

USB-501-PRO

Specifications



**MEASUREMENT
COMPUTING™**

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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

Table 1. Temperature specifications

Parameter	Specification
Measurement range	-40 to +125 °C (-40 to +257 °F)
Resolution	0.1 °C (0.2 °F) typical
Accuracy (overall error)	±0.2 °C (±0.4 °F) typical, ±0.5 °C (±1.0 °F) maximum (Note 1)

Note 1: When operating between 0 °C and 40 °C.

Data 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 hr, 2 hr, 6 hr, 12 hr
Temperature samples	32,510
Units	°C or °F
Data rollover	Software configurable; allows unlimited logging periods by overwriting the oldest data when the memory is full.

Alarms

Table 3. Alarm conditions

Parameter	Specification
High temperature alarm range	-40 °C (-40 °F) minimum, 124.5 °C (256 °F) maximum
Low temperature alarm range	-40 °C (-40 °F) minimum, 124.5 °C (256 °F) maximum
Alarm temperature resolution	0.1 °C (0.2 °F) typical

USB specifications

Table 4. USB specifications

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

Power

Table 5. Power specifications

Parameter	Condition	Specification
¾AA 3.6 V lithium battery life	At -20 °C and a 10 second logging rate	1 year, minimum,
	At +80 °C and a 10 second logging rate	2 year, typical
	-40 °C (-40 °F) minimum to +125 °C (+257 °F) maximum	3 year, maximum

Environmental

Table 6. Environmental specifications

Parameter	Condition	Specification
Operating temperature range		-40 °C (-40 °F) minimum to +125 °C (+257 °F) maximum
Moisture and dust protection	Protective cap installed	IP67
Corrosion protection		Stainless steel housing, 316 grade

Mechanical

Table 7. Mechanical specifications

Parameter	Specification
Dimensions	111 mm long x 20 mm wide x 20 mm high (4.37 in. long x 0.787 in. wide x 0.787 in. high)

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