

# USB-504

## 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.

## Current

Table 1. Current specifications

| Parameter                | Specification       |
|--------------------------|---------------------|
| Measurement range        | 4 -20 mA DC typical |
| Resolution               | ±0.05 mA DC         |
| Accuracy (overall error) | ±1%, ±1 count       |

## Sampling

Table 2. Sampling specifications

| Parameter               | Specification   |
|-------------------------|---|
| Sampling intervals      | 10 s, 30 s, 1 min, 5 min, 15 min, 30 min, 1 h, 2 h, 6 h, 12 h |
| Maximum current samples | 32,000  |
| Units                   | mA DC   |

## Alarms

Table 3. Alarm conditions

| Parameter                     | Specification |
|-------------------------------|---------------|
| High current alarm range      | 4 -20 mA DC   |
| High current alarm resolution | 0.16 mA       |
| Low current alarm range       | 4 -20 mA DC   |
| Low current alarm resolution  | 0.16 mA       |

## 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

|                                |  |
|--------------------------------|--|
| ½AA 3.6 V lithium battery life | One year, depending on ambient temperature, logging rate, and use of alarm LEDs. |
|--------------------------------|--|

## Environmental

Table 6. Environmental specifications

|                             |   |
|-----------------------------|---|
| Operating temperature range | -35°C (-31°F) minimum, 80°C (176°F) maximum |
|-----------------------------|---|

## 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-504 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-504 continues logging, low alarm.                    |
|                                | Flashes twice every 20 seconds        | Low battery, USB-504 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.

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