

DATA SHEET

TMELOG 1021 Data Logger - Thermocouple Input



Description

The TMELOG 1021 is fitted with a thermocouple input socket which is suitable for both mini and standard connections.

Thermocouple temperature sensors are extremely versatile and can be used for a variety of applications. Please contact the TME sales office for further information.

Features

| | |
|------------------------|--|
| Total Reading Capacity | 28,000 readings |
| Memory type | Non Volatile |
| Trigger Start | Magnetic Switch |
| Delayed Start | Relative/Absolute (up to 3650 days) |
| Stop Options | When full, Never (overwrite oldest data) |
| Reading Types | Actual, Min, Max |
| Logging Interval | 1 sec to 10 days |
| Alarms | 4 fully programmable; latchable |

Measurement Specification (Thermocouple)

| | |
|----------------------------|---|
| Sensor Type | K, J, T or N Thermocouple |
| Range | |
| Type K | -270 to +1370°C (-454 to 2498°F) |
| Type J | -210 to +1200°C (-346 to 2192°F) |
| Type T | -270 to +400°C (-454 to 752°F) |
| Type N | -270 to +1300°C (-454 to 2372°F) |
| Reading Resolution | 0.01°C |
| Cold Junction Compensation | -10 to 70°C |
| Accuracy | Better than $\pm 1.0^\circ\text{C}$ across all ranges when logger is between -10 to +70°C |

(Note that the above accuracy figures are exclusive of thermocouple probe)

Reading Specification (Internal)

| | |
|--------------------|----------------------------------|
| Range | -40 to +85°C (-40 to +185°F) |
| Sensor Type | 10K NTC Thermistor |
| Response Time | 20 mins to 90% FSD in moving air |
| Reading Resolution | 0.02°C or better |
| Accuracy | Better than ±0.5°C |

Physical Specification

| | |
|--------------------|----------------------------------|
| IP Rating | IP51 |
| Operational Range* | -40°C to +85°C (-40°F to +185°F) |
| Case Dimensions | |
| Height | 42mm/2.83" |
| Width | 60mm/2.36" |
| Depth | 33mm/1.30" |
| Weight | 65g/2.29oz |

*The Operational Range indicates the physical limits to which the unit can be exposed, not the reading range over which it will record.

Notes

| | |
|--------------|---|
| Battery Type | Tekcell SBAA02P SAFT LS14250 or LST14250 |
|--------------|---|

The logger will operate with other ½ AA 3.6V Lithium (Li-SOCl₂) batteries but performance cannot be guaranteed.

| | |
|--------------|-----------------------|
| Battery Life | Greater than one year |
|--------------|-----------------------|

The TMELOG software will prompt the user when a new battery is required (about a week before the battery will run flat). If the logger is being used for long term monitoring, the battery should be replaced annually.

Before replacing the battery, the data logger must be stopped.

Data stored on the logger will be retained after the battery is replaced.

Trigger Start

The trigger start option allows a unit to be set up as required and then started at a later time with a magnet. The position of the trigger start switch is indicated by the --- marking on the back of the logger. When the "Wait until trigger event" option is selected in the software the green LED on the unit will flash once every eight seconds to indicate that it is waiting to start. When a magnet is held next to the --- marking, the green LED will light to indicate the switch is closed. After the magnet has been removed, the green LED will flash every four seconds to indicate that the logger is recording.