

T-TEC Temperature Data Logger for Pt100 Sensor

Remote Pt100 sensor offers a wider range of temperatures than thermistor sensors. The two main temperature ranges are from -200 to +120 °C and -40 to 300 °C.

PT100 sensors are very stable. The T-TEC P data logger takes Pt100 sensor input and records it.



A Temperature Range

-200 to 120 °C

B Temperature Range

-40 to 120 °C

C Temperature Range

-40 to 300 °C

Other Features

- Memory: 20,000+ logs
- Ingress Protection (IP): 68, Dust and water tight, IEC standard 60529
- Sensor option: 3P: for remote Pt100 sensor

Size

- Height: 10.50 cm
- Width: 6.00 cm
- Depth: 3.00 cm
- Weight: 0.40 kg

Without LCD Display (Type 6)

- Audio alarm

With LCD Display (Type 7)

- Low battery warning
- Logging indicator
- Visual alarm

Data Logger Technical Specifications

| | |
|---|---|
| Casing | Polycarbonate, watertight to IP68 Humidity loggers splash proof from top |
| Size | 65 × 31 × 106 mm |
| Weight | 115 g |
| Ambient | -40 + 85 °C 1 × ½AA, 3.6V |
| Battery | T-TEC 6: Expected battery life: 3-4 years T-TEC 7: Expected battery life: 2 years, Low battery warning on display |
| Sensor (see sensor specifications) | Temperature: Precision Thermistor or Pt100 Humidity: capacitive precision |
| Memory | E model: 12,000 to 25,000 sets of measurements C model: 10,600 sets each sensor F model: 10,600 sets each sensor (21,200 if only one) A & P: 20,000 to 60,000 sets of measurements |
| Interface | Special interface cable to serial port and/or special interface cable to USB Port |
| Security ID | Permanent serial number |
| Warranty | 1 Year (not incl. sensor) |
| Resolution | Temperature: Better than 0.1 °C (see sensor specifications) Humidity: Better than 0.1%RH |

Special Alarm functions

T-TEC 6: Audio alarms, T-TEC 7 visual alarms

When starting the logging, one or two alarms may be set as minimum and/or maximum alarms. A period of grace may be set in minutes. Alarms can be programmed to reset themselves once a day at a chosen time. Type C loggers (For temperature and Humidity) have alarm functions for temperature **only**.

Special Relay Output

Some types may be supplied with optional **relay output**. Change-over relay, all three contacts available. Contacts: Gold clad silver contacts. Nominal switching capacity (Resistive load) 1A/30V DC, 0.5A 125V AC

Thermochron™ data logger specifications

| | |
|----------------|--|
| Casing | Stainless Steel, Polypropylene seal |
| Size | 17.35mm diameter 5.9mm height |
| Weight | 3.2 g |
| Ambient | -40 to 85 °C. Should not be exposed to temperatures in excess of 70 °C for prolonged time. |
| Battery | Built in: Non-replaceable Estimated life time: 5-7 years, depending on: |

- ambient temperature
- number logs taken
- resolution (DS1922 and DS1923)
- Logging interval (DS1922 and DS1923)

| | |
|----------------------|---|
| Sensor | Built in, semiconductor DS1921: 2,048 logs |
| Memory | DS1922: 4096 or 8192 (depending on resolution) DS1923: 2,048 or 4,096 (depending on resolution) |
| Interface | USB adaptor |
| Security ID | Engraved unique serial number on case. This number also embedded in internal electronics. 1921: ± 0.5 °C 1922: ± 0.5 °C (low resolution) or ± 0.0625 °C (high resolution) |
| Resolution | 1923: ± 0.5 °C (low resolution) or ± 0.0625 °C (high resolution) |
| Accuracy | ± 1 °C from $-20 + 70$ °C, at time of calibration at factory. |
| Time Accuracy | Maximum 8 minutes per month over full temperature range. |

Sensor Specifications

Internal and Fixed External Thermistor Sensor Accuracy

| Range | Accuracy |
|--------------|----------|
| -40 to 0 °C | ± 0.3 °C |
| 0 to 70 °C | ± 0.2 °C |
| 70 to 85 °C | ± 0.3 °C |
| 85 to 100 °C | ± 0.5 °C |

Fixed External Humidity Sensor Accuracy

10-90 % ± 2% RH, Compensated for -5 + 60 °C ambient temperature

Remote Thermistor Sensors' Ranges and Resolutions

Two different external temperature sensors available

| Type | Ranges | Resolution | Accuracy |
|------|---------------|------------|---|
| T1 | - 40 to 85 °C | < 0.1 °C | As for built in sensor -90 to 20 °C ± 0.8 °C |
| T2 | -100 to 20 °C | < 0.1 °C | -100 to -90 °C ± 1.0 °C |

Remote Pt100 Sensor

Four different temperature ranges available.

| Type | Ranges | Resolution | Accuracy |
|----------|---------------|------------|--|
| A | -200 + 120 °C | 0.2 °C | -200 - 100 °C ± 2.0 °C -100 - 40 °C ± 1.0 °C -40 + 120 °C ± 0.5 °C |
| B | -40 + 120 °C | 0.1 °C | -40 + 120 °C ± 0.3 °C -40 + 100 °C ± 0.4 °C |
| C | -40 + 280 °C | 0.2 °C | +100 + 200 °C ± 0.6 °C +200 + 280 °C ± 1.0 °C |

4-20 milli-Amperes input

Accuracy: $\pm 1\%$ of range

Connection through supplied 2 meter cable with connector for logger.

Time Accuracy

Synchronisation up to: ± 1 second; ± 1 minute per month.