Thermocouple Temperature Data Logging System with Waterproof Enclosure and Remote Probe

OM-CP-ETR101A-KIT

5 YEAR WARRANTY | **NIST** Optional | **CE**

- ✔ **Complete System - Includes Data Logger, Waterproof NEMA 4 (IP65) Enclosure, Type K Thermocouple Probe, USB Interface Cable and Windows Software**
- ✔ **10 Year Battery Life**
- ✔ **1 Second Reading Rate**
- ✔ **Multiple Start/Stop Function**
- ✔ **Ultra High Speed Download**
- ✔ **500,000 Reading Storage**
- ✔ **Memory Wrap**
- ✔ **Battery Life Indicator**
- ✔ **Optional Password Protection**
- ✔ **Programmable High and Low Alarms**
- ✔ **Field Upgradeable**

TJ36-CASS-18U-6-SMPW-M thermocouple probe (included). Many other thermocouple styles available, contact Sales. **

OM-CP-ETR101A-KIT, shown smaller than actual size.

The OM-CP-ETR101A-KIT comes assembled and includes a data logger, temperature sensor (thermocouple Type K), waterproof NEMA 4 (IP65) enclosure suitable for outdoor use, USB interface cable, and software. Setup is fast and easy.

The OM-CP-ETR101A-KIT is suitable for a wide range of outdoor applications including profiling the exhaust gas temperature of tractor trailers, buses and trucks. Simply mount the enclosure containing the data logger to the vehicle and insert the included type K thermocouple probe into the vehicle exhaust pipe using a compression fitting. The data logger can then record a complete exhaust gas temperature profile that can be used in the selection of the correct diesel particulate filter (DPF) for the vehicle.

Using the included software, the logger is programmed to record for a set period. Data is stored in the data logger, and is downloadable at any time via a pc or laptop computer. The storage medium is non-volatile solid state memory, providing maximum data security
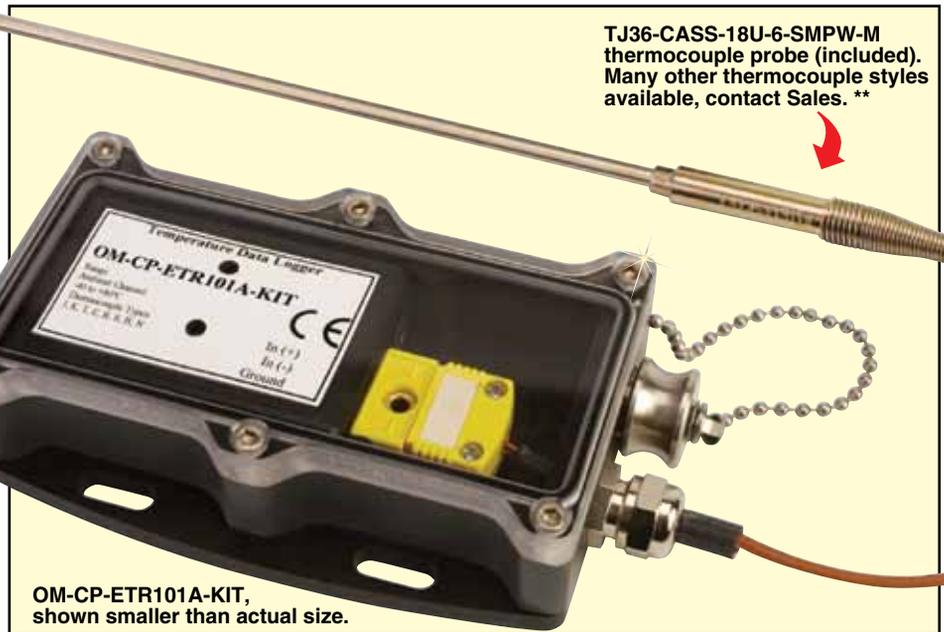
even if the battery becomes discharged. Its small size allows it to fit almost anywhere.

Data retrieval is simple. Plug it into an available USB port and the easy to use Windows® software does the rest. The software converts your PC into a real time strip chart recorder. Data can be printed in tabular format and can also be exported to a text or Microsoft Excel® file.

Specifications

INTERNAL CHANNEL
Temperature Range:
-40 to 80°C (-40 to 176°F)
Temperature Resolution:
0.1°C (0.18°F)
**Calibrated Accuracy:**
±0.25°C (±0.45°F)
REMOTE CHANNEL
Thermocouple Types: K**
  Temperature Range:
  -270 to 1070°C (-454 to 1958°F)
Accuracy: ±2.0°C (24 AWG wire)
Resolution: 0.1°C
Thermocouple Connection:
Female subminiature (SMP) connector
Cold Junction Compensation:
Automatic based on internal channel
Max Thermocouple Resistance:
100 Ω
Reading Rate: 1 reading every second to 1 every 24 hours
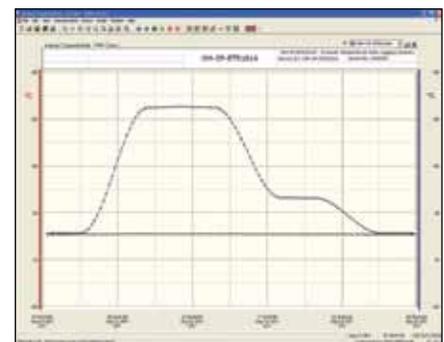
OM-CP-IFC200, Windows software (included) displays data in graphical or tabular format.

Memory: 500,000 readings (software configurable memory wrap); 250,000 readings in multiple start/stop mode or trigger setting mode
Wrap Around: Yes
Start Modes:
  • Immediate start
  • Delay start up to 18 months
  • Multiple pushbutton start/stop
Stop Modes:
  • Manual through software
  • Timed (sprcific date and time)
Multiple Start/Stop Mode: Start and stop the device multiple times without having to download data or communicate with a PC

** *Use of stainless steel braided thermocouple may allow water to wick in through the cable and cause damage to the data logger*

Multiple Start/Stop Mode Activation:

To Start the Device:
Press and hold the pushbutton for 5 seconds, the green LED will flash during this time. The device has started logging.

To Stop the Device:
Press and hold the pushbutton for 5 seconds, the red LED will flash during this time. The device has stopped logging.

Real Time Recording:
The device may be used with PC to monitor and record data in real-time

Alarm: Programmable high and low limits; alarm is activated when temperature reaches or exceeds set limits

Alarm Delay: A cumulative alarm delay may be set in which the device will activate that alarm (via LED) only when the device has recorded a user specified time duration of data

Trigger Settings: High and low limits may be set for the thermocouple channel. Once data meets or exceeds sets limits, the device will record to memory. Bi-level start and stop triggers can also be programmed. Users can specify the number or readings to take after the device triggers.

LED Functionality:

Green LED Blinks: 10 second rate to indicate logging 15 second rate to indicate delay start mode

Red LED Blinks: 10 second rate to indicate low battery and/or full memory 1 second rate to indicate an alarm condition

Password Protection: An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.
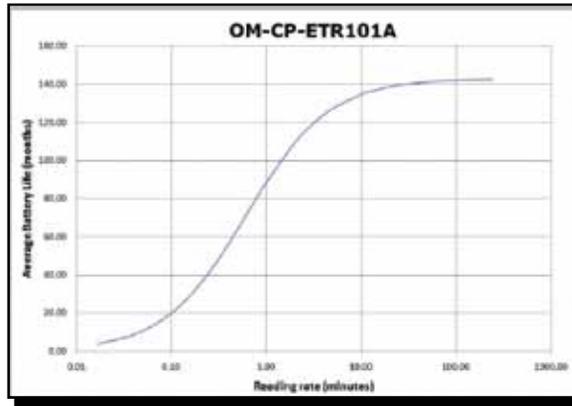
Average battery life vs. reading rate of OM-CP-ETR101A-KIT recording in a 25°C environment.

OM-CP-ETR101A-KIT, shown smaller than actual size.

Battery Type: 3.6V lithium battery (included); user replaceable

Battery Life: 10 years typical at a 15 minute reading rate

Data Format: Date and time stamped °C, °F, K, °R; µV, mV, V

Time Accuracy: ±1 minute/month (at 20ºC, stand alone data logging)

Computer Interface:
USB (interface cable required); 115,200 baud

Software: XP SP3/Vista/7 and 8 (32 and 64-bit)

Operating Environment:
-20 to 80°C (-4 to 176°F), 0 to 100% RH non-condensing

Dimensions:

Data Logger:
36 H x 56 W x 16 mm D (1.4 x 2.2 x 0.6")

Waterbox:
87 H x 73 W x 27 mm D (3.5 x 2.9 x 1.1")

Thermocouple Wire:
24 gauge, 762 mm (30")

Thermocouple Probe:
153 L x 3.2 mm dia. (6 x ⅛")

Weight:

Complete Kit: 425 g (15 oz)
Waterproof Enclosure, Data Logger and Thermocouple: 283 g (10 oz)

To Order

Model No.	Description
OM-CP-ETR101A-KIT	Temperature data logging system with waterproof enclosure
OM-CP-ETR101A-KIT-CERT	Temperature data logging system with waterproof enclosure and NIST calibration certificate
OM-CP-BAT105	Replacement 3.6V lithium battery
TJ36-CASS-18U-6-SMPW-M	Spare type K thermocouple for OM-CP-ETR101A-KIT data logger [3.2 mm (⅛") dia, ungrounded, 153 mm (6") length, 1 m (40") PTFE insulated lead wire, subminiature male connector]
SSLK-18-14	316SS compression fitting for (⅛") dia thermocouple probe, ¼" NPT male connection
OM-CP-WATERBOX101A	Replacement weatherproof NEMA 4 (IP65) enclosure for data logger
OM-CP-WATERBOX101A-KIT	Maintenance kit for OM-CP-WATERBOX101A

Comes complete with 3.6 V lithium battery, OM-CP-IFC200 Windows software, 1.8 m (6') USB interface cable, thermocouple probe, waterproof enclosure and operator's manual.

***Ordering Example: OM-CP-ETR101A-KIT-CERT,** temperature data logging system with NIST calibration certificate.*