Ambient Temperature and Thermocouple Data Logger
Part of the NOMAD® Family

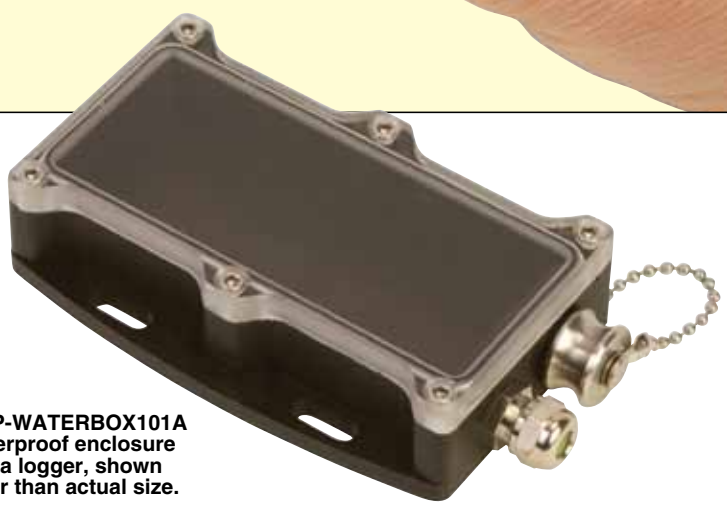
OM-CP-TC101A

MADE IN USA | 5 YEAR WARRANTY | NIST | CE

Optional

OM-CP-TC101A shown with 5SC Series thermocouple (sold separately). Visit omega.com for details.

- **Dual Channel/Ambient and Remote**
- **10 Year Battery Life**
- **1 Second Reading Rate**
- **Multiple Start/Stop Function**
- **Accepts Thermocouple Types J, K, T, E, R, S, B, N**
- **Ultra High Speed Download**
- **Memory: 500,000 Readings**
- **Memory Wrap Around**
- **Battery Life Indicator**
- **Programmable High and Low Alarms**
- **Multiple Start/Stop Function Storage Capacity**



OM-CP-WATERBOX101A weatherproof enclosure for data logger, shown smaller than actual size.

The OM-CP-TC101A is a state-of-the-art low-cost battery powered thermocouple data logger.

The OM-CP-TC101A offers a 10 year battery life, 1 second reading rate, a multiple start/stop function, ultra-high speed download capability, 500,000 reading storage capacity, optional memory wrap, battery life indicator, optional password protection, programmable high-low alarms and more.

Using the software, starting, stopping and downloading from the OM-CP-TC101A is simple and easy. Graphical, tabular and summary data is provided for analysis and data can be viewed in °C, °F, K or °R. The data can also be automatically exported to Excel® for further calculations.

The OM-CP-TC101A is a major leap forward in both size and performance. Its real time clock ensures that all data is time and date stamped.

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.

The OM-CP-TC101A designed with our customers in mind. There are free firmware upgrades for the life of the product so that data loggers already deployed in the field can grow with new technological developments. Units do not need to be returned to the factory for upgrades. The user can do this automatically from any PC.

Thermocouple Type	Range (°C)	Resolution	Accuracy*
J	-210 to 760°C	0.1°C	±0.5°C
K	-260 to 1370°C	0.1°C	±0.5°C
T	-260 to 400°C	0.1°C	±0.5°C
E	-260 to 980°C	0.1°C	±0.5°C
R	-50 to 1760°C	0.5°C	±2.0°C
S	-50 to 1760°C	0.5°C	±2.0°C
B	-60 to 1820°C	0.5°C	±2.0°C
N	-260 to 1300°C	0.1°C	±0.5°C

** Thermocouple accuracy is specified with a 24 AWG wire.*

Specifications

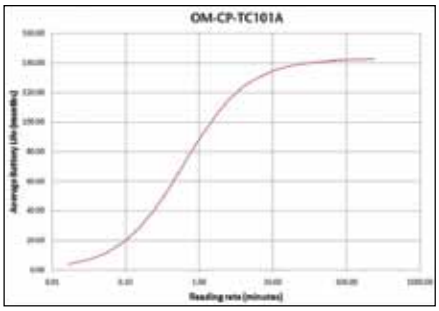
INTERNAL CHANNEL
Temperature Range:
-40 to 80°C (-40 to 176°F)
Temperature Resolution:
0.1°C (0.018°F)
Calibrated Accuracy:
±0.25°C (0.45°F)
REMOTE CHANNEL
Thermocouple Types:
J, K, T, E, R, S, B, N
Thermocouple Connection: Female subminiature (SMP) connector
Cold Junction Compensation: Automatic based on internal channel
Maximum Thermocouple Resistance: 100Ω
Reading Rate: 1 reading every second to 1 every 24 hours
Memory: 500,000 readings; software configurable memory wrap 250,000 readings in multiple start/stop mode or trigger settings mode
Memory Wrap Around: Yes (software configurable)
Start Modes:
- Immediate start
- Delay start up to 18 months
- Multiple pushbutton start/stop

Stop Modes:
- Manual through software
- Timed (specific date and time)

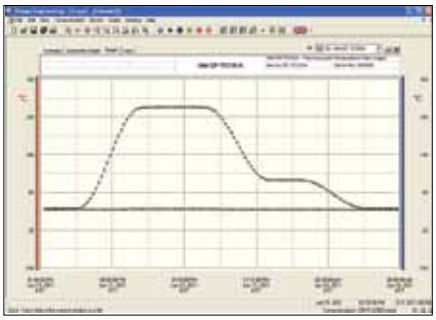
Multiple Start/Stop Mode: Start and stop the device multiple times without having to download data or communicate with a PC
Multiple Start/Stop Mode

Activation:

To Start the Device:
Press and hold the pushbutton for 5 seconds, the device has started logging



Average battery life vs. reading rate of the OM-CP-TC101A recording in a 25°C environment.



OM-CP-IFC200, Windows software displays data in graphical or tabular format

To Stop the Device:
Press and hold the pushbutton for 5 seconds while the device is logging, 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
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 20°C(68°F) stand alone data logging
Computer Interface: USB (interface cable required); 115,200 baud
Software: Windows® XP SP3/ Vista/7 and 8 (32- and 64-bit)
Operating Environment:
-40 to 80°C (-40 to 176°F), 0 to 95% RH non-condensing
Dimensions

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

Waterbox Enclosure:
74 H x 148 W x 39 mm D (2.9 x 5.8 x 1.5")

Weight: 24 g (0.9 oz)
Materials

Data Logger: ABS plastic
Waterbox Enclosure: Black anodized aluminum

To Order *Visit omega.com/om-cp-tc101a for Pricing and Details*

Model No.	Description
OM-CP-TC101A	Ambient temperature and thermocouple data logger
OM-CP-TC101A-CERT	Ambient temperature and thermocouple data logger and NIST calibration certificate
OM-CP-IFC200	Windows software and 1.8 m (6') USB interface cable
OM-CP-BAT105	Replacement 3.6V lithium battery
OM-CP-WATERBOX101A	Weatherproof NEMA 4 (IP65) enclosure for data logger

Comes complete with 3.6V lithium battery.
*Operator's manual and USB cable are included with the **OM-CP-IFC200** Windows software (required to operate the data logger and sold separately).*
***Ordering Example: OM-CP-TC1101A-CERT,** ambient temperature amd thermocouple data logger with NIST calibration certificate and **OM-CP-IFC200,** Windows software.*

To Order, Call 1-800-327-4333SM 1-800-DAS-TEEE or Shop Online at omega.comSM