Precision RTD Temperature Data Logger
Part of the NOMAD® Family

OM-CP-RTDTEMP101A

MADE IN USA · **5 YEAR WARRANTY** · **NIST** Optional · CE

- ✔ **100 Ω Pt RTD Input RTD**
- ✔ **10 Year Battery Life**
- ✔ **±0.05°C (±0.09°F) Accuracy**
- ✔ **Multiple Start/Stop Function**
- ✔ **Ultra High Speed Download**
- ✔ **1,340,000 Reading Storage Capacity**
- ✔ **Memory Wrap**
- ✔ **Precision RTD Sensing Element**
- ✔ **Battery Life Indicator**
- ✔ **Optional Password Protection**
- ✔ **Programmable High and Low Alarms**
- ✔ **Field Upgradeable**

OM-CP-RTDTEMP101A, shown larger than actual size.

The OM-CP-RTDTEMP101A is part of a new series of low cost, state-of-the-art data logging devices.

The OM-CP-RTDTEMP101A offers a 10 year battery life, a multiple start/stop function, ultra-high speed download capability, 1,340,000 reading storage capacity, optional memory wrap, precision RTD sensing element, battery life indicator, optional password protection, programmable high-low alarms and more.

Using the software, starting, stopping and downloading from the OM-CP-RTDTEMP101A 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-RTDTEMP101A 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-RTDTEMP101A was 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.

Specifications
Temperature Sensor: External 100 Ω Pt RTD, $\alpha = 0.00385$

Temperature Measurement Range: -200 to 850°C (-392 to 1562°F)

Temperature Resolution: 0.001°C (0.0018°F)

Nominal Range: 18 to 400Ω

Resolution: 0.0001Ω

Calibrated Accuracy:
±0.05°C (±0.09°F);
±0.015 Ω (0 to 200 Ω);
±0.01% of readings
(200 to 400Ω)

Input Connection: Removable screw terminal; 2-, 3- or 4-wire

Temperature Effect on Span: < 2 ppm/°C

Temperature Effect on Offset: <10 ppm cumulative over entire range

Reading Rate: 1 reading every second to 1 every 24 hours

Memory: 1,340,000 readings; software configurable memory wrap 666,000 readings in multiple start/stop mode

Memory Wrap Around: Yes

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 five seconds, the green LED will flash during this time. The device has started logging
  To Stop the Device: Press and hold the pushbutton for five seconds, the red LED will flash for three seconds and then the green LED will flash for two seconds. 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

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

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

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

Calibration: Digital calibration through software

Calibration Date: Automatically recorded within device

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

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

Data Format: Date and time stamped ºC, ºF, K, ºR

Time Accuracy: ±1 minute/month at 20ºC (68ºF), stand alone data logging

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

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

Operating Environment: -40 to 80ºC (-40 to 176ºF), 0 to 95% RH non-condensing

Dimensions:
  Data Logger:
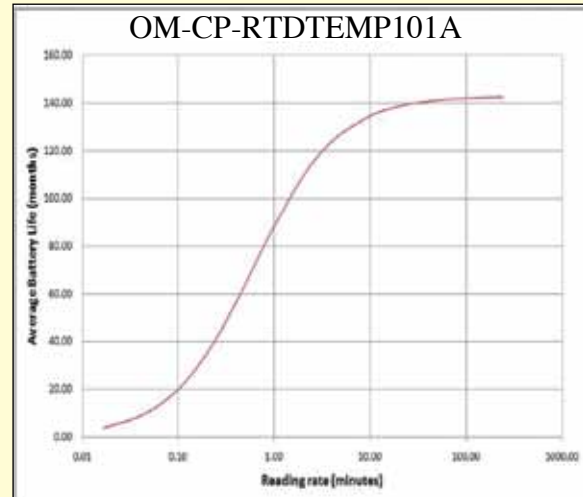 36 H x 56 W x 16 mm D (1.4 x 2.2 x 0.6")
  Waterbox Enclosure:
  74 H x 148 W x 39 mm D (2.9 x 5.8 x 1.5")
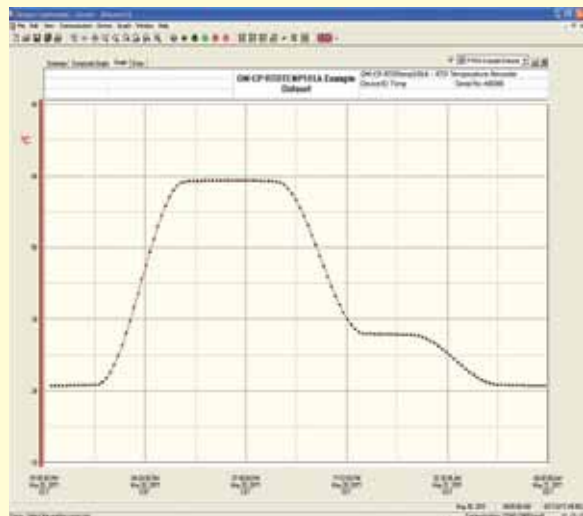
Weight: 24 g (0.9 oz)

Materials:
  Data Logger: ABS Plastic
  Waterbox Enclosure: Black anodized aluminum

Average battery life vs. reading rate for the OM-CP-RTDTEMP101A recording in a 25°C environment.

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

To Order

Model No.	Description
OM-CP-RTDTEMP101A	RTD temperature data logger
OM-CP-RTDTEMP101A-CERT	RTD temperature 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-CONNECTOR-4	Replacement 4 position terminal block for data logger
OM-CP-WATERBOX101A	Weatherproof NEMA 4 (IP65) enclosure for data logger

*Comes complete with 3.6V lithium battery. USB cable and operator's manual are included with the **OM-CP-IFC200** Windows software (required to operate the data logger and sold separately).*

***Ordering Example: OM-CP-RTDTEMP101A-CERT,** RTD temperature data logger with NIST calibration certificate and **OM-CP-IFC200,** Windows software.*