

# DATA LOGGERS

## High Temperature Data Logger with 559 mm (22") Stainless Steel Flexible Probe with Optional Thermal Shield Part of the **NOMAD®** Family

### OM-CP-HITEMP140-PT Series



- ✓ 559 mm (22") Flexible Probe
- ✓ Operating Temperature Range: -40 to 140°C (-40 to 284°F)
- ✓ Optional Thermal Shield for Operation up to 250°C (482°F)
- ✓ Submersible NEMA 4X (IP68)
- ✓ Programmable Start Time
- ✓ User Calibration Through Software
- ✓ Real-Time Operation
- ✓ Autoclave Verification
- ✓ Pharmaceutical
- ✓ Implement HACCP Programs
- ✓ Food Preparation and Processing

The OM-CP-HITEMP140-PT Series are submersible, temperature data loggers that can operate up to 140°C (284°F) and have an accuracy of  $\pm 0.1^{\circ}\text{C}$  ( $0.18^{\circ}\text{F}$ ). These devices feature a 559 mm (22") flexible stainless steel probe for measuring extended temperatures up to 260°C (500°F). The probe is durable and can be spiraled, bent or angled in any direction, making it easy to log temperatures within bottles, vials or other hard to reach places.

The OM-CP-HITEMP140-PT records date and time stamped readings, and has non-volatile solid state memory that will retain data even if the battery becomes discharged. Data retrieval is simple. Plug the device into an available USB port and our easy-to-use software does the rest. The software converts a PC into a real-time strip chart recorder.

Using the software, starting, stopping and downloading the OM-CP-HITEMP140-PT is simple and easy. Graphical, tabular and summary data is provided for analysis and data can be viewed in  $^{\circ}\text{C}$ ,  $^{\circ}\text{F}$ , K or  $^{\circ}\text{R}$ . The data can also be automatically exported to Excel® for further calculations.

The OM-CP-IFC406 multiplexer data logger interface allows for multiple devices to be connected into one interface. Each OM-CP-IFC406 allows for 6 data loggers to be connected. Up to 3 OM-CP-IFC406 units may be daisy-chained together to communicate with a total of 18 devices through 1 USB port. To connect multiple OM-CP-IFC406 interfaces together, simply join the units side by side, making sure the spring pin contacts are connected and magnetically joined.

The OM-CP-HITEMP140-TSK is a kit that includes a OM-CP-HITEMP140-PT data logger housed in a thermal shield.



OM-CP-HITEMP140-PT-1-TSK, shown smaller than actual size.



The combined features of the  $\pm 0.1^{\circ}\text{C}$  accuracy of the OM-CP-HITEMP140-PT and the properties of the durable thermal shield allow the device to be used for a wide range of validation applications.

Using the software, the data logger is fast and easy to setup. Remove the thermal shield and place the OM-CP-HITEMP140-PT into the OM-CP-IFC400 docking station (sold separately). Using the software, an immediate or delay start can be chosen, as well as the reading rate. Select Start to program the settings and start the data logger.

Place the thermal shield around the OM-CP-HITEMP140-PT and screw it back together. The device is ready to be deployed.

The OM-CP-HITEMP140-TSK can be completely submerged and is built for applications that require extreme temperature monitoring. These two devices can be started and stopped directly from a computer and their compact design allows them to fit almost anywhere.

## Specifications

### OM-CP-HITEMP140-PT-TSK (Thermal Shield)

**Operating Environment:** -200 to 250°C (-328 to 482°F)  
(time limited) 0 to 100% RH

**Enclosure Material:** PTFE

**Dimensions:** 110 H x 51 mm dia. (4.3 x 2.0")

**Weight:** 274 g (9.7 oz) not including data logger

### OM-CP-HITEMP140-PT (Without Thermal Shield)

**Temperature Sensor:** 100Ω Platinum RTD

**Probe Measurement Range:** -200 to 260°C  
(-328 to 500°F)

**Temperature Resolution:** 0.01°C (0.02°F)

**Calibrated Accuracy:**  $\pm 0.1^{\circ}\text{C}$  ( $\pm 0.18^{\circ}\text{F}$ );  
20 to 140°C (68 to 284°F)

**Start Modes:** Software programmable immediate start or delay start up to eighteen months in advance.

**Stop Modes:** Manual through software timed (specific data and time)

**Real Time Recording:** May be used with PC to monitor and record data in real time

**Password Protection:** An optional password may be programmed into the device to restrict access to configuration options, Data may be read out with the password

**Memory:** 32,700 readings

**Wrap Around:** Yes

**Reading Rate:** One second up to once every 24 hours

**Battery Type:** 3.6V high-temperature lithium battery (included); user replaceable

**Battery Life:** 1 year typical [1 minute reading rate at 25°C (77°F)]

**Calibration:** Digital calibration through software

**Calibration Date:** Automatically recorded within device

**Data Format:** Date and time stamped °C, °F, K, °R

**Time Accuracy:**  $\pm 1$  minute/month at 20 to 30°C  
(68 to 86°F)

**Computer Interface:** OM-CP-IFC400 docking station required; 125,000 baud

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

**Operating Environment:** -40 to 140°C (-40 to 284°F),  
0 to 100% RH

**Weight:** 120 g (4.2 oz)

**Material:** 316 Stainless Steel

### Dimensions:

**Body:** 48 x 25 mm dia. (1.9 x 0.97")

### Probe Tip:

**OM-CP-HITEMP140-PT-1:** 3.2 OD x 42 mm L  
(0.125 x 1.7")

**OM-CP-HITEMP140-PT-5:** 3.2 OD x 121 mm L  
(0.125 x 4.8") with 4.8 OD x 25 mm L handle (0.188 x 1")

**Flexible Probe Portion:** 559 x 1.6 mm OD dia.  
(22 x 0.062")

### OM-CP-IFC406 Multiplexer

**Operating Environment:** 10 to 35°C (50 to 95°F)  
0 to 95% RH non-condensing

**Baud Rate:** 125,000 baud

**Connection Type:** USB (to PC)

**Weight:** 750 g (1.65 lb)

**Material:** 6061 Aluminum (PTFE impregnated hard anodize coating), ABS plastic

**Enclosure Dimensions:** 24.13 L x 4.95 W x 4.45 cm H  
(9.5 x 1.95 x 1.75")

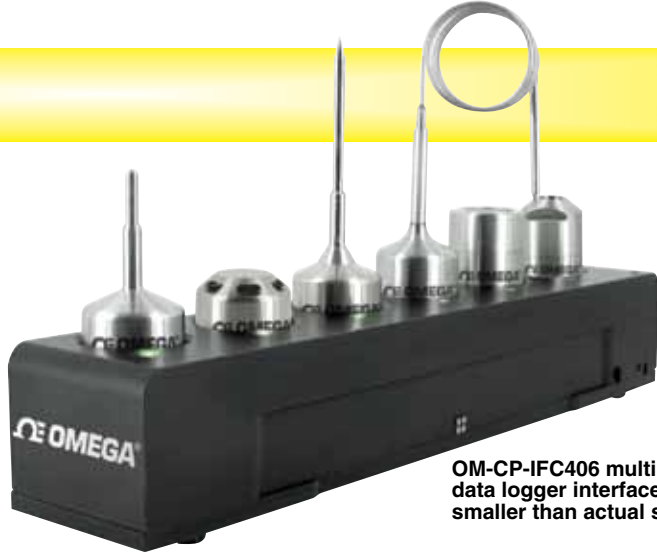
### OM-CP-HITEMP140-PT-TSK (Data Logger with Thermal Shield)

Ambient Temperature	Time in Air to Maximum Internal Temp (140°C / 284°F)	Time in Liquid to Maximum Internal Temp (140°C / 284°F)
-200°C (-328°F)	18 min	N/A
-180°C (-292°F)	19 min	N/A
-160°C (-256°F)	21 min	N/A
-140°C (-220°F)	24 min	N/A
-120°C (-184°F)	27 min	N/A
-100°C (-148°F)	32 min	N/A
-80°C (-112°F)	40 min	N/A
-60°C (-76°F)	55 min	25 min
-40°C (-40°F)	70 min	32 min
-20 to 140°C (-4 to 284°F)	Indefinitely	Indefinitely
150°C (302°F)	88 min	40 min
160°C (320°F)	75 min	34 min
170°C (338°F)	63 min	29 min
180°C (356°F)	55 min	26 min
190°C (374°F)	50 min	23 min
200°C (392°F)	45 min	21 min
210°C (410°F)	42 min	19 min
220°C (428°F)	39 min	18 min
230°C (446°F)	36 min	17 min
240°C (464°F)	34 min	16 min
250°C (482°F)	32 min	15 min

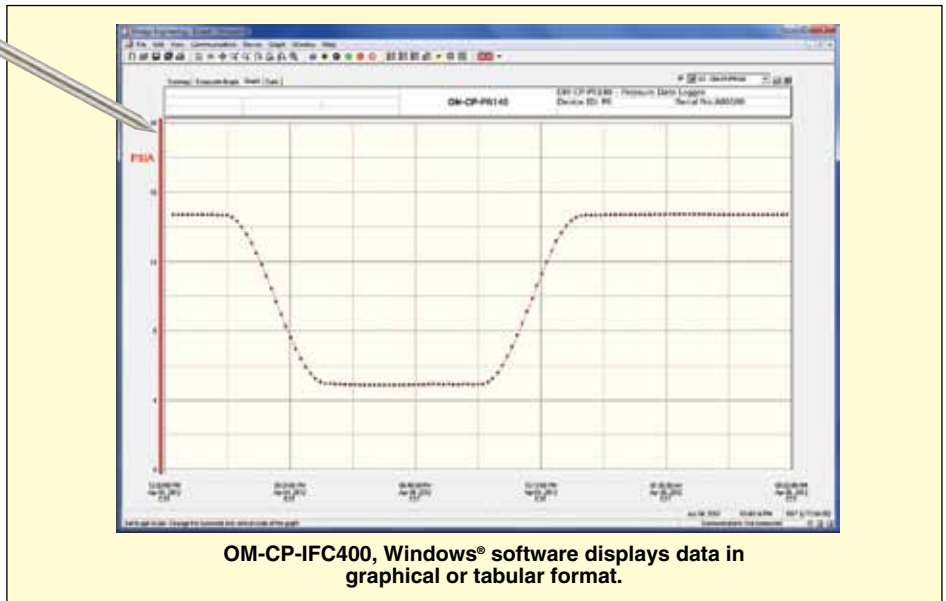
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OM-CP-HITEMP140-PT-1, shown smaller than actual size.



OM-CP-IFC406 multiplexer data logger interface, shown smaller than actual size.



OM-CP-IFC400, Windows® software displays data in graphical or tabular format.

## To Order

Model No.	Description
OM-CP-HITEMP140-PT-1	High temperature data logger with stainless steel flexible probe, 42 mm (1.7") probe tip
OM-CP-HITEMP140-PT-1-CERT	High temperature data logger with stainless steel flexible probe, 42 mm (1.7") probe tip and NIST calibration certificate
OM-CP-HITEMP140-PT-1-TSK	High temperature data logger with stainless steel flexible probe, 42 mm (1.7") probe tip and thermal shield
OM-CP-HITEMP140-PT-1-TSK-CERT	High temperature data logger with stainless steel flexible probe, 42 mm (1.7") probe tip, thermal shield and NIST calibration certificate
OM-CP-HITEMP140-PT-5	High temperature data logger with stainless steel flexible probe, 121 mm (4.8") probe tip
OM-CP-HITEMP140-PT-5-CERT	High temperature data logger with stainless steel flexible probe, 121 mm (4.8") probe tip and NIST calibration certificate
OM-CP-HITEMP140-PT-5-TSK	High temperature data logger with stainless steel flexible probe, 121 mm (4.8") probe tip and thermal shield
OM-CP-HITEMP140-PT-5-TSK-CERT	High temperature data logger with stainless steel flexible probe, 121 mm (4.8") probe tip, thermal shield and NIST calibration certificate
OM-CP-IFC406	Multiplexer data logger interface (accepts up to 6 data loggers) with USB cable, software and manual
OM-CP-IFC400	Docking station (for single data logger) with software, USB cable and manual
OM-CP-SVP-SYSTEM	FDA 21 CFR Part 11 compliant IQ/OQ/PQ secure software validation workbook and software package (unlimited users, license per computer)
OM-CP-BAT110	Replacement 3.6V lithium battery

Comes complete with 3.6V lithium battery. Operator's manual and USB interface cable are included with the OM-CP-IFC400 software/cable package and OM-CP-IFC406 multiplexer. OM-CP-IFC400 required for data logger operation. Both models sold separately.

**Ordering Example:** OM-CP-HITEMP140-PT-1 High temperature data logger with stainless steel flexible probe, 42 mm (1.7") probe tip, and OM-CP-IFC400 docking station with software.