

High Temperature Data Logger Part of the NOMAD® Family

OM-CP-HITEMP140



- ✓ Operating Temperature Range: -20 to 140°C (-4 to 284°F)
- ✓ Optional Thermal Shield for Operation up to 250°C (482°F)
- ✓ Submersible IP68
- ✓ Programmable Start/Stop Time
- ✓ User Calibration Through Software
- ✓ Real-Time Operation
- ✓ Autoclave Verification
- ✓ Pharmaceutical
- ✓ Implement HACCP Programs
- ✓ Food Preparation and Processing

The OM-CP-HITEMP140 is a rugged, high precision, temperature data logger that is built for use in harsh environments. This stainless steel device is submersible, can withstand temperatures up to 140°C (284°F) and has an accuracy of $\pm 0.1^\circ\text{C}$ (0.18°F) over the entire operating range.

The OM-CP-HITEMP140 can store up to 32,700 readings, and features a 2" rigid external probe capable of measuring extended temperatures, up to 260°C (500°F). The device records date and time stamped readings, and has non-volatile solid state memory that will retain data even if the battery becomes discharged.

Using the OM-CP-HITEMP140 software, starting, stopping and downloading the OM-CP-IFC400 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.



OM-CP-HITEMP140, shown in OM-CP-IFC400 docking station, shown actual size.

The OM-CP-HITEMP140-TSK is a kit that includes a OM-CP-HITEMP140 data logger housed in a thermal shield. The combined features of the $\pm 0.1^\circ\text{C}$ accuracy of the OM-CP-HITEMP140 and the properties of the durable thermal shield allow the device to be used for a wide range of validation applications.

When using software, the data logger is fast and easy to setup. Remove the thermal shield and place the OM-CP-HITEMP140 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 and screw it back together. The device is ready to be deployed.



OM-CP-HITEMP140-TSK, data logger with thermal shield, shown smaller than actual size.

The OM-CP-HITEMP140-TSK can be completely submerged and is built for applications that require extreme temperature monitoring.

Specifications

OM-CP-HITEMP140-TSK (Thermal Shield)

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

Enclosure Material: PTFE

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

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

OM-CP-HITEMP140 (Without Thermal Shield)

Temperature Sensor: 100Ω Platinum RTD

Temperature Range (Body): -20 to 140°C (-4 to 284°F)

Temperature Measurement Range (Probe): -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 (-4 to 284°F)]

† Refer to next page for NIST calibration ordering information.



Start Modes:

- Software programmable immediate start
- Delay start up to eighteen months in advance

Stop Modes:

- Manual through Software
- Time (specific date and time)

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

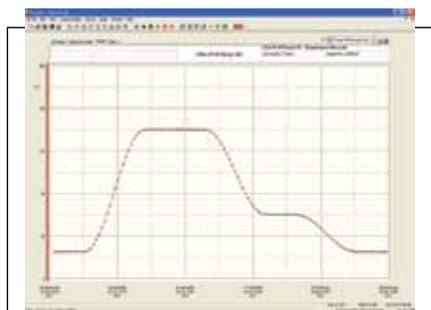
Memory: 32,700 readings

Reading Rate: One second up to once every 24 hours

Battery Type: 3.6V high-temperature lithium battery (included)

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

Calibration: Digital calibration through software



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

Calibration Date: Automatically recorded within device

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

Time Accuracy: ±1 minute/month at 20 to 30°C (68 to 86°F) (RS232 cable not in use)

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

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

Operating Environment: -20 to 140°C (-4 to 284°F), 0 to 100% RH

Dimensions

Body: 67 H x 25 mm D (2.7 x 0.97")

Probe: 50 L x 3.8 to 3.2 mm transitional dia (2.0 x 0.188 to 0.125"); See additional probe lengths in the ordering chart below

Weight: 120 g (4.2 oz)

Material: 316 stainless steel

OM-CP-HITEMP140-TSK Data Logger with Thermal Shield

Ambient Temperature	Time in Air to Max Internal Temp (140°C / 284°F)	Time in Liquid to Max 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

To Order Visit omega.com/om-cp-hitemp140 for Pricing and Details

Model No.	Description
OM-CP-HITEMP140	High temperature data logger with 50 mm (2") probe
OM-CP-HITEMP140-CERT†	High temperature data logger with 50 mm (2") probe and NIST certificate
OM-CP-HITEMP140-TSK	OM-CP-HITEMP140 data logger with thermal shield
OM-CP-HITEMP140-TSK-CERT†	OM-CP-HITEMP140 data logger with thermal shield and NIST certificate
OM-CP-HITEMP140-1	High temperature data logger with 25 mm (1") probe
OM-CP-HITEMP140-1-CERT†	High temperature data logger with 25 mm (1") probe with NIST certificate
OM-CP-HITEMP140-5.25	High temperature data logger with 131 mm (5.25") probe
OM-CP-HITEMP140-5.25-CERT†	High temperature data logger with 131 mm (5.25") probe and NIST certificate
OM-CP-HITEMP140-5.25-TSK	High temperature data logger with 131 mm (5.25") probe and thermal shield
OM-CP-HITEMP140-5.25-TSK-CERT†	High temperature data logger with 131 mm (5.25") probe, thermal shield and NIST certificate
OM-CP-HITEMP140-7	High temperature data logger with 175 mm (7") probe
OM-CP-HITEMP140-7-CERT†	High temperature data logger with 175 mm (7") probe and NIST certificate
OM-CP-HITEMP140-7-TSK	High temperature data logger with 175 mm (7") probe and thermal shield
OM-CP-HITEMP140-7-TSK-CERT†	High temperature data logger with 175 mm (7") probe, thermal shield and NIST certificate
OM-CP-IFC400	Docking station with USB cable, software and manual
OM-CP-BAT110	Replacement 3.6V high-temperature 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 (required for data logger operation, sold separately).

Ordering Example: OM-CP-HITEMP140-CERT high temperature data logger with NIST certificate.