

High Temperature Data Logger



With Flexible Probe

OM-CP-HITEMP140-FP



Optional

- ✓ PFA Coated Flexible Probe Available in 91.4 cm (36") or 183 cm (72") Lengths
- ✓ Operating Temperature Range: -40 to 140°C (-40 to 284°F)
- ✓ Optional Vented or Flush Thermal Shield for Operation up to 250°C (482°F)
- ✓ Probe Measures from -60 to 260°C (-76 to 500°F)
- ✓ ±0.1°C (±0.18°F) Accuracy
- ✓ Submersible (IP68)
- ✓ Trigger Settings
- ✓ Programmable Start and Stop Time
- ✓ 4 Hz Reading Rate

The OM-CP-HITEMP140-FP is a durable, user friendly high temperature data logger featuring a long, flexible RTD probe with a narrow diameter, making it ideal for use in steam sterilization and lyophilization processes. Commonly used for mapping, validation and monitoring of high temperature surfaces and environments, this stainless steel data logger is available in two models, the OM-CP-HITEMP140-FP-36 and the OM-CP-HITEMP140-FP-72, which feature either a 91.4 cm (36") or 183 cm (72") flexible probe length. The flexible probe is coated with PFA insulation and can withstand temperatures up to 260°C (500°F) with an accuracy of ±0.1°C (±0.18°F). The OM-CP-HITEMP140-FP is also available with an optional thermal shield enclosure to extend the operating range of the data logger to -200 to 250°C (-328 to 482°F). The OM-CP-HITEMP140-FP-TSK (Thermal Shield Kit) comes with either a vented or flush top enclosure to accommodate a multitude of applications.

The OM-CP-HITEMP140-FP probe design is narrow and lightweight making it ideal for placement within small vials, tubing, test tube and other small diameter or delicate applications. Because of the flexible probe, the risks of breakage (both vial and probe) generally associated with stainless steel probe data loggers are diminished and the location and placement of the probe is easy to manipulate. The device records and stores up to 32,700 time stamped readings and is equipped with non-volatile solid state memory which retains data even if the battery becomes discharged.

The OM-CP-MULTIMOUNT-Z is a versatile mount or stand for use with the OM-CP-HITEMP140 series of data loggers. It can be used to stabilize a logger inside an autoclave, or screwed to a flat surface to create an anchored base. Made of 316 stainless steel, the OM-CP-MULTIMOUNT-Z is able to withstand temperatures up to 150°C (302°F) making it ideal for use in autoclave sterilization processes.



OM-CP-HITEMP140-FP shown larger than actual size.

The OM-CP-HITEMP140-FP utilizes the latest software. Data can be viewed in graphical or tabular formats and summary and statistics views are available for further analysis. The software features export to Excel®, data annotation, digital calibration and more.

Specifications

OM-CP-HITEMP140-FP (DATA LOGGER WITHOUT THERMAL SHIELD)

TEMPERATURE

Temperature Sensor: Flexible100 Ω platinum RTD
Probe Measurement Range: -60 to 260°C (-76 to 500°F)
Temperature Resolution: 0.01°C (0.02°F)
Calibrated Accuracy: ±0.1°C (±0.18°F)

GENERAL

Data Logger Response Time (Hours: Minutes: Seconds: Fractions of a Second):

In Air: t60 - 0:00:30:00 (30 sec to reach 60% of step change)
t90 - 00:00:70:00 (70 sec to reach 90% of step change)
In Water: t60 - 00:00:03:50 (3.5 sec to reach 60% of step change)
t90 - 00:00:06:50 (6.5 sec to reach 90% of step change)

Reading Rate: 4 readings per second up to 1 reading every 24 hours

Memory: 32,767 readings

Start Modes:

- Software programmable immediate start
- Delay start up to 18 months in advance

Stop Modes: Manual or Timed (specific date and time)



Trigger Settings: High and low limits may be set. 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 of readings to take after the device triggers.

Readings in Trigger Settings Mode: 10,922 readings

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 without the password.

Memory Wrap Around: Yes

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, °R, K

Time Accuracy: ±1 minute/month at 25°C (77°F)

Extended Operation: ±20 minutes/month at 140°C (284°F)

Computer Interface: OM-CP-IFC400 USB docking station or OM-CP-IFC406 multiplexer interface 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

IP Rating: IP68

Dimensions (Body): 75 H x 24.6 mm D (2.95 x 0.97")

Dimensions (Probe):

OM-CP-HITEMP140-FP-36: 91.4 cm L x 2.5 mm dia (36 x 0.1")

OM-CP-HITEMP140-FP-72: 183 cm L x 2.5 mm dia (72 x 0.1")

Weight: 85 g (3 oz)

Materials:

Body: 316 SS

Probe: PFA insulated cable

OM-CP-MULTIMOUNT-Z

Material: 316 SS

Dimensions: 44.5 H x 38 L x 38 mm W (1.75 x 1.5 x 1.5")

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

Thermal Shield Specifications	OM-CP-HITEMP140-FP-TSK-FL (Flush)	OM-CP-HITEMP140-FP-TSK (Vented)
Dimensions (Enclosure)	70 x 51 mm dia. (2.75 x 2.0")	109 x 51 mm dia. (4.3 x 2.0")
Weight	190 g (6.7 oz) not including data logger	270 g (9.5 oz) not including data logger
Operating Environment	-200 to 250°C (-328 to 482°F) (Time limited - See table below) 0 to 100% RH	
Material	Enclosure: PTFE	

Maximum Exposure Time Chart	OM-CP-HITEMP140-FP-TSK-FL (Flush)		OM-CP-HITEMP140-FP-TSK (Vented)	
	Exposure Time in Air 150°C (302°F)	Exposure Time in Liquid 150°C (302°F)	Exposure Time in Air 150°C (302°F)	Exposure Time in Liquid 150°C (302°F)
-200°C (-328°F)	12 minutes	N/A	14 minutes	N/A
-180°C (-292°F)	13 minutes	N/A	15 minutes	N/A
-160°C (-256°F)	15 minutes	N/A	16 minutes	N/A
-140°C (-220°F)	17 minutes	N/A	18 minutes	N/A
-120°C (-184°F)	19 minutes	N/A	21 minutes	N/A
-100°C (-148°F)	22 minutes	N/A	24 minutes	N/A
-80°C (-112°F)	27 minutes	N/A	30 minutes	N/A
-60°C (-76°F)	37 minutes	22 minutes	42 minutes	25 minutes
-40 to 140°C (-40 to 284°F)	Indefinitely	Indefinitely	Indefinitely	Indefinitely
150°C (302°F)	59 minutes	34 minutes	66 minutes	40 minutes
160°C (320°F)	51 minutes	29 minutes	57 minutes	34 minutes
170°C (338°F)	43 minutes	25 minutes	48 minutes	29 minutes
180°C (356°F)	37 minutes	23 minutes	42 minutes	26 minutes
190°C (374°F)	34 minutes	20 minutes	38 minutes	23 minutes
200°C (392°F)	31 minutes	18 minutes	34 minutes	21 minutes
210°C (410°F)	29 minutes	17 minutes	32 minutes	19 minutes
220°C (428°F)	27 minutes	16 minutes	30 minutes	18 minutes
230°C (446°F)	25 minutes	15 minutes	27 minutes	17 minutes
240°C (464°F)	23 minutes	14 minutes	26 minutes	16 minutes
250°C (482°F)	22 minutes	13 minutes	24 minutes	15 minutes

All models shown smaller than actual size.



OM-CP-MULTIMOUNT-Z bracket, sold separately.

Flush top thermal shield option.



Vented thermal shield option.



Data logger software, sold separately.

OM-CP-IFC406 multiplexer data logger interface, sold separately.



To Order

Model No.	Description
OM-CP-HITEMP140-FP-36	High temperature data logger with 91 cm (36") flexible probe
OM-CP-HITEMP140-FP-36-CERT	High temperature data logger with 91 cm (36") flexible probe and NIST calibration certificate
OM-CP-HITEMP140-FP-36-TSK	OM-CP-HITEMP140-FP-36 data logger with vented thermal shield
OM-CP-HITEMP140-FP-36-TSK-CERT	OM-CP-HITEMP140-FP-36 data logger with vented thermal shield and NIST calibration certificate
OM-CP-HITEMP140-FP-36-TSK-FL	OM-CP-HITEMP140-FP-36 data logger with flush top thermal shield
OM-CP-HITEMP140-FP-36-TSK-FL-CERT	OM-CP-HITEMP140-FP-36 data logger with flush top thermal shield and NIST calibration certificate
OM-CP-HITEMP140-FP-72	High temperature data logger with 183 cm (72") flexible probe
OM-CP-HITEMP140-FP-72-CERT	High temperature data logger with 183 cm (72") flexible probe and NIST calibration certificate
OM-CP-HITEMP140-FP-72-TSK	OM-CP-HITEMP140-FP-72 data logger with vented thermal shield
OM-CP-HITEMP140-FP-72-TSK-CERT	OM-CP-HITEMP140-FP-72 data logger with vented thermal shield and NIST calibration certificate
OM-CP-HITEMP140-FP-72-TSK-FL	OM-CP-HITEMP140-FP-72 data logger with flush top thermal shield
OM-CP-HITEMP140-FP-72-TSK-FL-CERT	OM-CP-HITEMP140-FP-72 data logger with flush top thermal shield and NIST calibration certificate
OM-CP-IFC400	Docking station (for single data logger) with USB cable, software and manual
OM-CP-IFC406	Multiplexer data logger interface (accepts up to 6 data loggers) with USB cable, software and manual
OM-CP-BAT110	Replacement 3.6V high temperature lithium battery
OM-CP-MULTIMOUNT-Z	Mount/stand for OM-CP-HITEMP140 series data loggers
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)

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-FP-36-CERT high temperature data logger with 91 cm (36") flexible probe and NIST calibration certificate.