## **Autoclave Validation System** Part of the NOMAD® Family

## OM-CP-AVS150-CERT



SOFTWARE For OM-CP SERIES DATA LOGGERS

IQ/OQ/PQ Guidelines



Windows software (included) shows data in graphical format.

OM-CP-AVS150-CERT, autoclave validation system. Shown smaller than actual size.

> All items shown here are included.



Series

- ✓ Enables Compliance with FDA 21 CFR Part 11
- ✓ Software Calculates Thermal Resistance in F0
- ✓ NIST Traceable Calibration Included
- Stand Alone, **Complete System**
- ✓ No Thermocouple Wires
- ✓ Digital Calibration **Through Software**

The OM-CP-AVS150 is a complete system used to perform autoclave validations. The OM-CP-AVS150 consists of a NIST traceable OM-CP-HITEMP-150 data logger. an IP68 extended range thermal shield, an OM-CP-IFC200 USB cable package and FDA 21 CFR part 11 secure software. For larger size autoclaves or mapping projects, the OM-CP-AVS150-5, includes five OM-CP-HITEMP-150's and five thermal shields.

The OM-CP-HITEMP-150 is completely submersible and can measure temperatures up to 150°C (302°F). The 51 mm (2") rigid probe provides a fast response time and can record readings as fast as once per second.

The OM-CP-HITEMP-150 can be used in each autoclave cycle for verification and to provide data for validation. When used with the thermal shield the device can withstand up to 250°C (482°F) (time dependent).

The secure software provides data in graphical and tabular form, and provides a summary and statistical report of the data.

The software also features sterilization calculations to determine the F0 value. Furthermore the software allows for different user levels and logins, electronic signatures, an audit trail and a secure data file to stand up to auditors.

This device can be started and stopped directly from a computer and their compact design allows them to fit almost anywhere.

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. Data can be printed in graphical and tabular format or exported to a text or Microsoft® Excel file.



**SPECIFICATIONS** OM-CP-HITEMP-150 **DATA LOGGER Temperature Sensor:** 100Ω platinum RTD **Temperature Range:** -40 to 150°C (-40 to 212°F)

Temperature Resolution: 0.05°C Calibrated Accuracy: ±0.5°C

**Start Modes:** 

Software Programmable

 Start now Delay start

Memory: 32,767 readings Reading Rate: One second up

to 12 hours

Calibration: Digital calibration

through software

**Calibration Date:** Automatically

recorded within device

**Battery Type:** 

3.9V high-temperature lithium battery (included) factory

replaceable only

Battery Life: 1 year typical (1 minute reading rate @25°C) Data Format: Date and time

stamped °C, °F, K, °R

Time Accuracy: ±1 minute/month at 20°C (RS232 cable not in use)

Computer Interface: PC serial or USB (interface cable required);

2400 baud

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

**Operating Environment:** -40 to 150°C (-40 to 302°F),

0 to 100% RH **Dimensions:** 

**Body:** 28 x 45 mm dia.

 $(1.1 \times 1.75")$ 

Probe: 50 x 5 mm dia.

(2.0 x \frac{3}{16}")

Ambient Temperature	Time in Air to Max Internal Temp (150°C / 302°F)	Time in Liquid to Max Internal Temp (150°C / 302°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 to 150°C (-40 to 302°F)	Indefinitely	Indefinitely
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

## Weight:

OM-CP-HITEMP-150:

225 g (8 oz)

OM-CP-AVS150:

1.49 kg (3.28 lb)

OM-CP-AVS150-5:

3.58 kg (7.88 lb)

Material 316 stainless steel

## **Specifications**

(Thermal Shield)

**Operating Envionment:** 

-200 to 250°C (-328 to 482°F) time limited, see table above

IP Rating: IP68

**Dimensions:** 53.3 H x 66 mm dia

(2.1 x 2.6")

Weight: 0.3 kg (0.65 lb)

Material: PTFE



certificate (included).

To Order		
Model No.	Description	
OM-CP-AVS150-CERT	Includes (1) OM-CP-HITEMP-150 data logger with NIST calibration certificate, an extended range thermal shield, OM-CP-IFC200 interface cable, FDA 21 CFR Part 11 Secure Software and IQ/OQ/PQ validation protocols	
OM-CP-AVS150-5-CERT	Includes (5) OM-CP-HITEMP-150 data loggers with NIST calibration certificates, (5) extended range thermal shields, OM-CP-IFC200 interface cable, FDA 21 CFR Part 11 Secure Software and IQ/OQ/PQ validation protocols	

Comes complete with 3.9V high temperature lithium battery, NIST calibration certificate, operator's manual, secure software, and OM-CP-IFC200 interface cable.

Ordering Example: OM-CP-AVS150-CERT, autoclave validation system including a OM-CP-HITEMP-150 data logger.