

Autoclave Validation Systems Part of the NOMAD® Family

OM-CP-AVS140 Series



- ✓ Complete Systems for Autoclave Validation
- ✓ Enables Compliance with FDA 21 CFR Part 11
- ✓ NIST Traceable Calibration Included
- ✓ OM-CP-AVS140-1 for Temperature Monitoring
- ✓ OM-CP-AVS140-6 for Temperature and Pressure Monitoring

The OM-CP-AVS140-1 and OM-CP-AVS140-6 are complete systems used to perform autoclave validations. The OM-CP-AVS140-1 system for autoclave temperature monitoring consists of a NIST traceable OM-CP-HITEMP-140-1 temperature data logger, an OM-CP-IFC400 USB docking station and FDA 21 CFR part 11 secure software. For larger size autoclaves or mapping projects, the OM-CP-AVS140-6 is a system for autoclave temperature and pressure monitoring that includes five OM-CP-HITEMP-140-1 temperature data loggers, one OM-CP-PR140 pressure data logger, an OM-CP-IFC406 multiplexer interface (allows up to 6 data loggers to be interfaced to a single USB port on the computer) and the secure software.



OM-CP-AVS140-6 autoclave temperature and pressure validation system.



OM-CP-AVS140-1 autoclave temperature validation system.

The secure software aids users in compliance with FDA 21 CFR Part 11 requirements. The software ensures standards in which electronic files are considered equivalent to paper records, saving time and effort. The secure software contains criteria such as electronic signatures, access codes, secure data files and an audit trail which meets the requirements of 21 CFR Part 11 and helps provide data integrity. IQ/OQ/PQ (Installation Qualification/Operational Qualification/Performance Qualification) protocols are included to validate that the software has been installed and is operating correctly. The layout of the secure software is similar to the OM-CP Series Data Logger standard software, allowing users to easily learn the additional features. The Windows® based software package allows the user to effortlessly collect, display and analyze data. A variety of powerful tools provide the ability to examine, export, and print professional looking data with just a click of the mouse.

SPECIFICATIONS

OM-CP-HITEMP140-1 Temperature Data Logger with 27 mm (1.1") Probe

- Temperature Sensor:** 100Ω Platinum RTD
- Temperature Range (Body):** -40 to 140°C (-40 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:** ±0.1°C (±0.18°F) [20 to 140°C (68 to 284°F)]
- Battery Life:** 1 year typical [1 minute reading rate at 25°C (77°F)]
- Data Format:** Date and time stamped °C, °F, K, °R
- Time Accuracy:** ±1 minute/month at 20 to 30°C (68 to 86°F) (stand alone mode)
- Operating Environment:** -40 to 140°C (-40 to 284°F), 0 to 100% RH



FDA 21 CFR part 11 secure software included.



OM-CP-PR140 pressure data logger shown actual size.



OM-CP-HITEMP140-1 temperature data logger shown smaller than actual size.

Dimensions

Body: 40 H x 25 mm D (1.6 x 0.97")
Probe: 27 L x 3.2 mm dia (4.8 mm transitional dia)
 [1.1 x 0.125" dia (0.188" transitional dia)]

Weight: 120 g (4.2 oz)

Material: 316 stainless steel

OM-CP-PR140 PRESSURE DATA LOGGER

Pressure Sensor: Semiconductor strain gauge

Pressure Range: 0 to 5 bar (0 to 72.5 psia)

Pressure Resolution: 0.1 mBar (0.0015 psia)

Calibrated Accuracy: ±0.03 Bar (±0.435 psi) (20 to 140°C/68 to 284°F)

Pressure Response Time: 0.1 ms (10 to 90% FSR)

Repeatability: ±0.5% FSR; ±0.2% typical

Data Format: psia, bar, mbar, atm, Torr, Pa, kPa, MPa, mmHg, inHg, inH₂O, mH₂O, ft, m

Battery Life: 2 years typical

Time Accuracy: ±1 minute/month at 20°C

Operating Environment: -20 to 140°C, (-4 to 284°F)
 0 to 100% RH, may be used above 60°C (140°F) for up to 8 hrs per 24 hr period

Dimensions: 50.8 L x 25.4 mm dia. (2.0 x 1.0")

Weight: 85 g (3 oz)

Enclosure: Stainless steel

COMMON SPECIFICATIONS

(OM-CP-HITEMP140-1 and OM-CP-PR140)

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

Memory: 32,700 readings; software configurable memory wrap

Reading Rate: One second up to once every 24 hours

Calibration: Digital calibration through software

Calibration Date: Automatically recorded within device

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

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

Computer Interface: OM-CP-IFC400 USB docking station or OM-CP-IFC406 multiplexer interface required, 125,000 baud

To Order

Model No.	Description
OM-CP-AVS140-1	Autoclave temperature validation system: includes one (1) OM-CP-HITEMP-140-1 temperature data logger with NIST calibration certificate, OM-CP-IFC400 USB docking station and FDA 21 CFR Part 11 Secure Software with IQ/OQ/PQ validation protocols
OM-CP-AVS140-6	Autoclave temperature and pressure validation system: includes five (5) OM-CP-HITEMP-140-1 temperature data loggers with NIST calibration certificates, one (1) OM-CP-PR140 pressure data logger with NIST calibration certificate, OM-CP-IFC406 USB multiplexer interface and FDA 21 CFR Part 11 Secure Software with IQ/OQ/PQ validation protocols

OM-CP-HITEMP140-1 temperature data loggers and OM-CP-PR140 pressure data loggers come complete with 3.6V high temperature lithium battery.
Ordering Example: OM-CP-AVS140-1, autoclave temperature validation system.