DATASHEET

# NanoTemp125-2

MadgeTech

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MADGETECH
WE BUILD DATA LOGGERS

# NanoTemp125

## High Temperature Data Logger

The NanoTemp125 is a sleek, high precision temperature data logger engineered for the most demanding environments. Perfectly sized for tight spaces, this durable stainless steel logger is fully submersible and thrives in extreme temperatures ranging from -20 °C to +125 °C. Precision is paramount with the NanoTemp125, offering an accuracy of ±0.1 °C to ensure your data is always reliable.

Despite its compact size, the NanoTemp125 does not skimp on capacity, storing over 32,000 readings. It logs date and time-stamped readings and is equipped with non-volatile solid state memory that safeguards your data, even when the battery runs low.

The NanoTemp125 isn't just tough—it's purpose-built for precision in critical applications like autoclave validations. Its compact size allows it to fit effortlessly into tight spaces, ensuring accurate temperature monitoring throughout the sterilization process. Whether you're validating autoclaves in pharmaceutical production, laboratory settings, or medical device manufacturing, the NanoTemp125 delivers reliable, high-precision data you can trust. Its durable, submersible design makes it ideal for the intense environments autoclave processes demand, ensuring compliance and peace of mind.

The NanoTemp125 is also fully compatible with MadgeTech 4 Software, enhancing your data logging experience with powerful analysis tools right at your fingertips.

### FEATURES

- Miniature Size
- ±0.1 °C (± 0.18 °F) Accuracy
- Operates from -20 °C to +125°C
- Submersible (IP68)
- User Replaceable Battery
- Rugged Stainless Steel
- Programmable Start & Stop Time
- Probe Lengths up to 5.25 inches

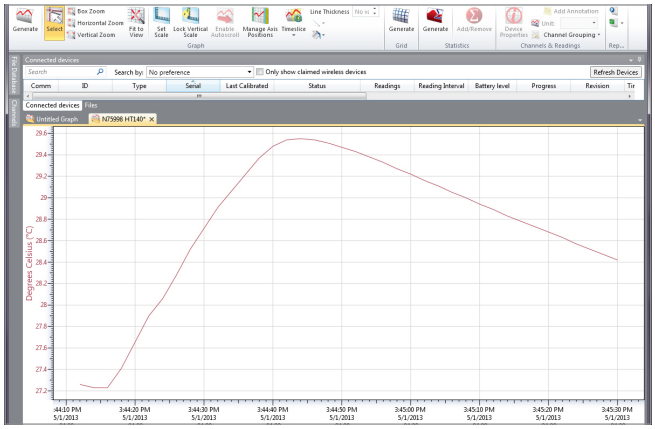
### BENEFITS

- Designed for tight spaces
- Simple Set up and Use
- Minimal Maintenance

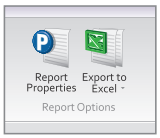
### APPLICATIONS

- Autoclave Verification
- Implement HACCP Programs
- Food Preparation and Processing
- Environmental Studies
- Well Monitoring
- Dishwasher Testing
- Pasteurization

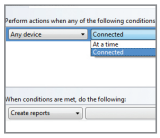
## MadgeTech 4 Software Features



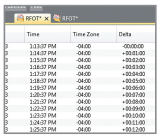
Graph View



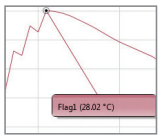

Export to Excel



Automation



Tabular Data View




Cooling Flags

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Summary view

# Specifications

Specifications are subject to change without notice. Specific warranty remedy limitations apply.
Call **(603) 456-2011** or go to **madgetech.com** for details.

## TEMPERATURE

| | |
|---|---|
| **Temperature Sensor** | Internal RTD |
| **Probe Measurement Range** | -200 °C to +260 °C (-328 °F to +500 °F)<br>BODY OF LOGGER CANNOT EXCEED 125 °C |
| **Temperature Resolution** | 0.01 °C (0.02 °F) |
| **Calibrated Accuracy** | ±0.1 °C/±0.18 °F<br>(20 °C to +125 °C/68 °F to +257 °F)<br>±0.3 °C/±0.54 °F<br>(-20 °C to +19.99 °C/-4 °F to +67.98 °F) |

## GENERAL

| | |
|---|---|
| **Start Modes** | Software programmable immediate start<br>Delay start up to 18 months in advance |
| **Stop Modes** | Manual or Timed (specific date 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 without the password. |
| **Memory** | 32,512 readings |
| **Trigger Settings** | High and Low limits may be set. Once data meets or exceed 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. |
| **Reading in Trigger Settings Mode** | 6,502 readings |
| **Wrap Around** | Yes |
| **Reading Rate** | 1 reading every second up to 1 reading every 24 hours |
| **Calibration** | Digital calibration through software |
| **Calibration Date** | Automatically recorded within device |

| | |
|---|---|
| **Battery Type** | Two 3 V high-temperature lithium coin cell battery included; user replaceable |
| **Battery Life** | 1 years typical<br>(1 minute reading rate at 25 °C) |
| **Data Format** | Date and time stamped °C, K, °F or °R |
| **Time Accuracy** | ±1 minute/month at 20 °C to 30 °C<br>(68 °F to 86 °F) (Stand alone mode) |
| **Computer Interface** | IFC400 OR IFC406 USB docking station and adapter required; 125,000 baud |
| **Operating System Compatibility** | Windows XP SP3 or later |
| **Software Compatibility** | Standard Software version 4.2.25.16 or later<br>Secure Software version 4.2.24.16 or later |
| **Operating Environment** | -20 °C to +125 °C (-4 °F to +257 °F)<br>0 %RH to 100 %RH, 0.002 PSIA to 100 PSIA |
| **IP Rating** | IP68 |
| **Dimensions (Body)** | 0.9 in x 0.7 in dia.<br>22.9 mm x 17.8 mm dia. |
| **Dimensions (Probe)** | NanoTemp125-1:<br>1.0 in x 0.125 in dia. (0.188 in trans. dia.)<br>25.4 mm x 3.2 mm dia. (4.8 mm trans. dia.)<br><br>NanoTemp125-2:<br>2.0 in x 0.125 in dia.<br>50.8 mm x 3.2 mm dia. (4.8 mm trans. dia.)<br><br>NanoTemp125-5:<br>5.0 in. x 0.125 in dia.<br>133.35 mm x 3.2 mm dia. (4.8 mm trans. dia.) |
| **Weight** | NanoTemp125-1: 0.63 oz (18 g)<br><br>NanoTemp125-2: 0.67 oz (19 g)<br><br>NanoTemp125-5.25: 0.71 (20 g) |
| **Material** | 316 Stainless Steel, PEEK |
| **Approvals** | CE |

**BATTERY WARNING:** BATTERY WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, RECHARGE, DEFORM, THROW INTO FIRE OR DISASSEMBLE. RISK OF EXPLOSION IF HEATED ABOVE 125 °C (257 °F)

# Ordering Information

| | | |
|---|---|---|
| **NANOTEMP125-1** | PN 902459-00 | Miniature High Temperature Data Logger with 1 in Probe |
| **NANOTEMP125-2** | PN 902460-00 | Miniature High Temperature Data Logger with 2 in Probe |
| **NANOTEMP125-5.25** | PN 902461-00 | Miniature High Temperature Data Logger with 5.25 in Probe |
| **IFC400** | PN 900319-00 | Docking Station with USB Cable |
| **IFC406** | PN 900325-00 | 6 Port, Multiplexer Docking Station with USB Cable |
| **NANOTEMP125 COMMUNICATION KIT** | PN 902677-00 | Includes IFC Adapter and Wrench |
| **BAT-BR1225A-00** | PN 902678-00 | Replacement Battery for the NanoTemp125 (2-Pack) |

For Quantity Discounts call (603) 456-2011 or email sales@madgetech.com