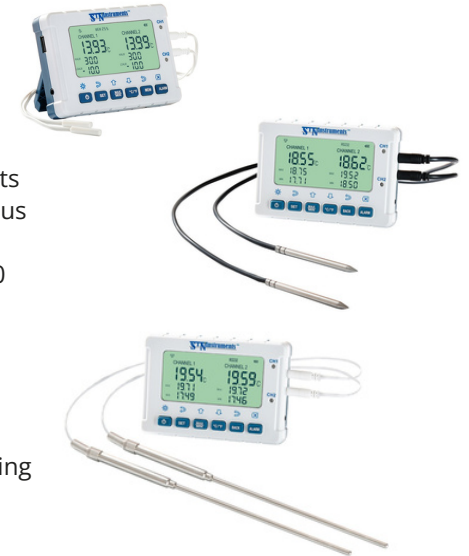


MiraThermo Temperature Monitor with Event Recording and Data Logging

Features

- 1- or 2- Channel & Accuracy of $\pm 0.2^{\circ}\text{C}$ & $\pm 0.1^{\circ}\text{C}$ optional
- NTC, Class A Pt1000 sensors/ PTFE bullet, short and long SS probes optional
- Probe onsite interchangeable of Pt1000 sensor & $\pm 0.2^{\circ}\text{C}$ accuracy
- 5-line large display & 2 channels display for dual-channel units
- Display max/min temperature data, date and time for previous 24 hours, 7-days and 31 days
- Supports data logging with a storage capacity of up to 32,000 records
- RS232 output & Visual/audible alarm
- Non-volatile memory, no data loss when power off
- Low power consumption and long standby time
- Calibration procedure provided to ensure the accuracy
- Calibration certificate with each unit across the range providing data with uncertainty traceable SI unit through NIST



Description

MiraThermo temperature monitor is purpose-built for reliable temperature monitoring and event recording in refrigerators and freezers. It provides continuous, accurate measurements of $\pm 0.2^{\circ}\text{C}$ / $\pm 0.1^{\circ}\text{C}$ optional to ensure that temperature-sensitive products such as vaccines, pharmaceuticals, laboratory reagents, biological samples, and food inventories remain within their required storage conditions.

The system automatically records temperature excursions, allowing users to identify, analyze, and respond to abnormal events that could affect product quality or regulatory compliance. With its robust sensor design and optional data-logging capability, the MiraThermo monitor delivers dependable performance across a wide range of cold-storage environments from household freezers to medical-grade, low-temperature equipment within temperature range -50°C to 70°C , -90°C to 110°C and -90°C to 200°C .

This makes MiraThermo an ideal solution for hospitals, research labs, pharmacies, biotech facilities, food safety programs, and any setting where precise, traceable temperature control is essential.

Main Unit Operation & Display

The device incorporates a three-line LCD display that simultaneously shows current, maximum, and minimum temperatures on one or two channels.

By pressing the MAX/MIN button, users can review timestamped high/low records from the past 24 hours (hourly), 7 days (daily), or 31 days (daily) supporting trend review, quality control, and excursion auditing.

Data Display

- Pressing the MAX/MIN button provides recorded highest and lowest temperature values, along with corresponding date and time.
- Users can review historical records for:
 - Past 24 hours (hourly)
 - Past 7 days (daily)
 - Past 31 days (daily)

Alarm Function

Visual and audible alarms notify users of any temperature deviations beyond the programmed thresholds, ensuring timely awareness of excursions.

Excursion Event Recording

For temperature-sensitive materials, documenting temperature excursions is critical for quality control, regulatory compliance, and risk assessment. Recording when and how long temperatures move outside acceptable limits allows users to evaluate product integrity, investigate root causes, and implement corrective actions. This meter includes a dedicated excursion-event recording function, ensuring that all deviations are captured and available for later analysis.

Calibration Procedure & Certificate

Every MiraThermo unit undergoes a multi-point factory calibration and includes a calibration certificate traceable to SI units through NIST, ensuring proven accuracy and compliance for critical temperature-sensitive operations. The built-in calibration procedure supports the excellent accuracy.

Data Logging (if available)

Built-in memory stores up to 320,000 data points, providing secure and continuous temperature recording for critical monitoring applications.

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Specifications

Measurement range	-50°C to 70°C & -90°C to 110°C & -90°C to 200°C
Unit	°C, °F
Resolution	0.01
Accuracy	±0.2°C or ±0.2% of readings whichever greater ±0.1°C or ±0.1% of readings whichever greater
Probe dimension	PTFE bullet OD 5mm * 25mm length SS OD 5mm * 75mm length SS OD 4mm * 150mm length
Probe onsite interchangeability	Available for Pt1000 & ±0.2°C accuracy
Cable length	3 meter
Memory	Non-volatile, no data loss when power off
Display lines	5
LCD refresh interval	2s, 5s, 10s, 30s and 60s selectable
Backlight	Auto off
Year/Date/Time	Configurable
Alarm values	Configurable
Alarm function	ON/OFF selectable
OIO (Out In Out): Defines the time window during which multiple alarm occurrences are recorded as a single event	Configurable from 5 mins to 60 mins. Up to 20 group records
Communication	RS232 output
Baud rate	2400, 9600, OFF
Factory default	Resettable

Export file formats	CSV (for units with data logging function)
Data storage capacity	320,000 groups (for units with data logging function)
Sampling interval (for meter with datalogging function)	Configurable from 1 minute to 1 hour (for units with data logging function)
Operation condition	-30°C to 50°C, no condensation
Power supply	3 "AAA" batteries An included DC adapter intended for use during data export to a flash drive
Shell material	ABS
Dimensions/Weight	3.25"X4.6"X1"/176g
Calibration	4 points across the range
Calibration report	Included with each unit