Models: eST1 & eST2

Temperature Monitoring for Critical Storage Environments

The AiRISTA Temperature Monitoring Solution delivers continuous, automated monitoring of temperature-sensitive environments using Bluetooth Low Energy (BLE) sensors. Designed for healthcare, laboratory, and industrial applications, the system safeguards assets by ensuring storage conditions remain within defined thresholds — triggering instant alerts when temperatures drift out of range.

Temperature data is transmitted wirelessly to the AiRISTA Sofia® platform, providing real-time visibility, alerting, and historical trend analysis to support compliance and quality assurance requirements.

Sensor Options for Diverse Use Cases

- **eST1 Temperature Sensor:** Measures temperatures from -40°C to +125°C, ideal for common cold storage applications including refrigerators, freezers, and ovens.
- **eST2 Temperature Sensor:** Extended range of -200°C to +200°C, suitable for ultra-low freezers, cryogenic storage, and high-heat environments.

Both sensors feature external probes, allowing the main sensor housing to remain outside extreme temperature zones for easier maintenance, extended device life, and optimized wireless performance.

Diverse Applications

Probes are available for both air and glycol solution monitoring, supporting applications that require certified accuracy and traceable calibration standards.

Benefits

- **Real-Time Visualization:** On-device LCD display for immediate, local temperature readings.
- **Customizable Alerts:** Configurable temperature thresholds to align with specific asset and regulatory requirements.
- **Sealed for Environmental Protection:** Designed with IP65/IP67-rated enclosures to guard against water and dust ingress.
- **Supports Compliance Efforts:** Automated tracking and documentation simplify compliance with temperature regulations.
- **Asset Protection:** Early detection of temperature excursions helps prevent spoilage, degradation, and equipment failure.
- **Operational Efficiency:** Wireless sensors minimize manual checks and reduce maintenance time.
- **Actionable Insights**: The Sofia® platform provides historical data trends for audits, reporting, and continuous improvement.
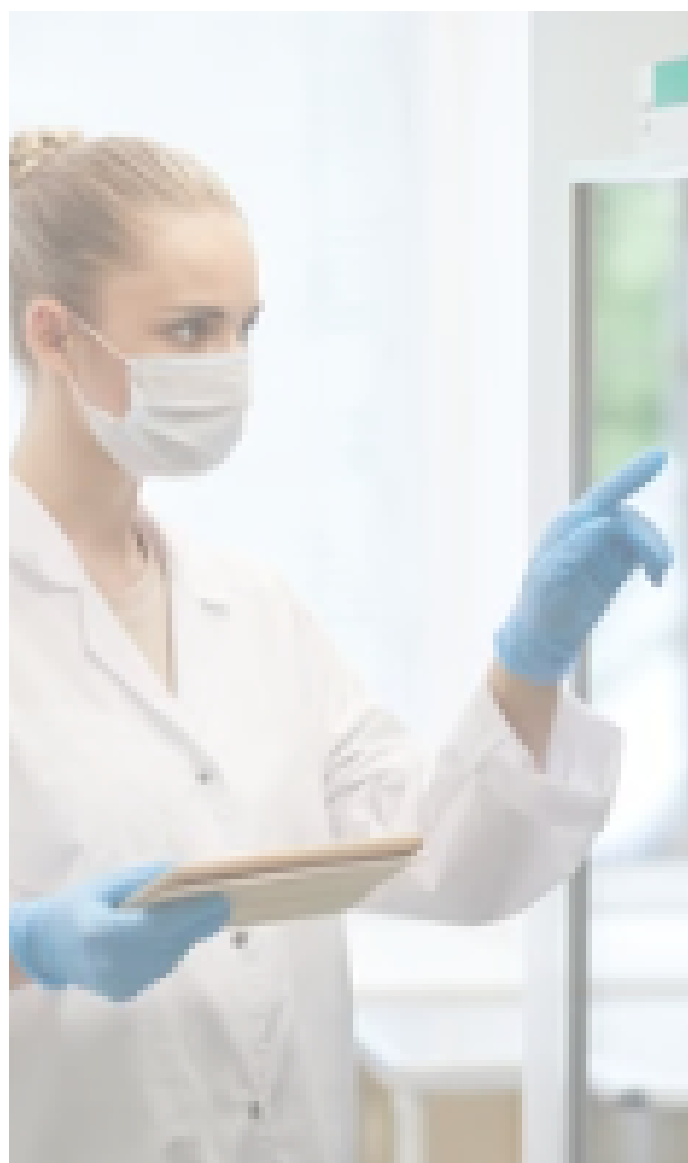
Technical Specifications

Models: eST1 & eST2

Part #	Description
eST1	Temp sensor with Temperature Range: -40 to +125 Celsius
eST2	Temp sensor with Temperature Range: -200 to +200 Celsius

Note: You must use an AiRISTA G5 or BGU with the eST1 & eST2 for the product to communicate with Sofia.

Please contact sales regarding questions or for more details.

	eST1	eST2
Body Material	ABS + PC	
Wire Material	PVC	PTFE
Body Size (L*W*H)	75*66.5*27mm (without bracket) 82*66.5*31.3mm (with bracket)	
Probe Size (D*H)	Ø5.3*30mm	Ø4*70mm
Weight	129g	
Temperature Range	-40° ~ 125°C	-200° ~ 200°C
Temperature Accuracy	±0.5°C (-30°~80°C) ±1°C (other ranges)	±0.5°C (-70°~130°C) ±1°C (-130°~180°C) ±2°C (other ranges)
Temperature Resolution	0.01°C	
Temperature Units	Celsius or Fahrenheit	
Humidity Range	0 ~ 100% RH	N/A
Humidity Accuracy	±5% RH	N/A
Humidity Resolution	0.01% RH	N/A
Broadcast Range	150 meters (open area)	
Broadcast Capacity	2,700 mAh (lithium battery)	
Battery Life	3 years	
Main Unit Operating Temp	-30°C to +70°C	
Main Unit Operating Humidity	0~95% RH, no condensation	
IP Rating	IP65	IP67