


Product Name	Smart Temperature Monitor
Product Image	 <p>The image shows a white and black Smart Temperature Monitor (STM-001) with a circular display. The display features a UK flag, a 'RESET' button, a 'SB' logo, and text: 'PT100 -50 - 200 °C', '4 Channels', '2xRelay Control', 'Smart Temperature Monitor', and 'SmartControl'. Below the display, there are four channels labeled 1, 2, 3, and 4, and a connector port.</p>
Part Number	STM-001
Dimensions & Weight	
Product Description	<ul style="list-style-type: none"> • The Smart Temperature Monitor provides accurate, multi-point temperature monitoring across critical onboard systems, fully integrated into the Smart Boat ecosystem. • Using a 3-wire sensing architecture, it delivers highly accurate readings over extended cable runs—overcoming the limitations of traditional single-wire sensors. With four independent monitoring channels and integrated relay control, it enables both real-time visibility and automated thermal management.
Key Features	<p>Temperature Monitoring</p> <ul style="list-style-type: none"> • 4 Independent Channels Monitor multiple locations simultaneously (e.g. battery bank, engine bay, compartments) • High Accuracy Over Distance 3-wire sensor design maintains accuracy over 20–30 metre cable runs • Wide Temperature Range Rated up to 250°C • Compatible Sensor Interfaces Designed for use with ThermoPuck and ThermoLug probes <p>Sensor Technology Advantage</p> <ul style="list-style-type: none"> • 3-Wire Compensated Measurement Actively compensates for cable resistance to maintain accuracy over long distances • Superior to Single-Wire Sensors Eliminates drift and inaccuracy caused by cable length <p>Control & Automation</p>

	<ul style="list-style-type: none"> • Dual Relay Outputs Trigger external devices based on temperature thresholds • Automated Thermal Response <ul style="list-style-type: none"> ○ Activate heaters in low-temperature conditions ○ Trigger fans, extractors, or ventilation when overheating <p>System Integration</p> <ul style="list-style-type: none"> • App Integration Real-time temperature display and control via Smart Boat app • Configurable Alerts Set thresholds for notification and automated response <ul style="list-style-type: none"> • Accurate Monitoring Where It Matters Reliable readings even across long cable runs • Protect Critical Systems Prevent damage to batteries, electronics, and enclosed spaces • Automated Safety Responses Immediate action without manual intervention • Reduced Risk with Lithium Batteries Prevent charging in unsafe temperature conditions
Customer Benefits	<ul style="list-style-type: none"> • Accurate Monitoring Where It Matters Reliable readings even across long cable runs • Protect Critical Systems Prevent damage to batteries, electronics, and enclosed spaces • Automated Safety Responses Immediate action without manual intervention • Reduced Risk with Lithium Batteries Prevent charging in unsafe temperature conditions
Use Cases	<ul style="list-style-type: none"> • Battery Bank Protection (Lithium & Lead-Acid) Prevent charging below safe temperatures or overheating • Engine Bay Monitoring Detect abnormal heat conditions early • Compartment Temperature Control Manage airflow and ventilation automatically • Equipment Protection Safeguard sensitive electronics and power systems
SmartBoat Ecosystem Context	<p>The Smart Temperature Monitor extends the Smart Boat platform beyond electrical monitoring into environmental and thermal management, enabling a more complete view of onboard system health.</p>
Installation & Integration	<p>Designed for competent DIY installers and marine professionals, the system:</p> <ul style="list-style-type: none"> • Compatible with extended cable runs (20–30m typical)

	<ul style="list-style-type: none">• Integrates directly with Smart Boat app and relay-controlled systems• Suitable for both retrofit and new installations Designed for surface or Din Rail mounting
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