

HAMPSHIRE



CONTROLS

*“Safeguarding
Your Precious
Biological
Materials”*



TC-25+ TEMPCHECK Rapid Response Thermometer

PRODUCT DESCRIPTION:

The TC-25+ TEMPCHECK Rapid Response Thermometer is a unique digital temperature verification system for blood, red blood cells (RBC), platelets, fresh frozen plasma (FFP - stored and thawed), cryoprecipitates (cryo), and other bagged biologics. Designed for hospital or laboratory use, the noninvasive CAP-TRM42470-compliant TC-25+ TEMPCHECK thermometer ships with a NIST-traceable “Certificate of Calibration” and eliminates the need for inaccurate, slow-responding “stick-on” temperature indicators. When bagged blood products are used for transfusion, delivered to blood banks, or removed from, or returned to, cold storage refrigerators, temperature must be verified. The bag is placed directly onto the TC-25+ TEMPCHECK’s flatbed base incorporating a specially designed rapid response embedded temperature sensor. In 15-30 seconds, the bulk temperature of the bag is displayed on the easy-to-read, angled display screen.

Do you want to verify that the temperature of a product bag is within the required range? **Manual+** and **Go/No Go** modes automatically determine the temperature and trigger visual and/or audio alarms if it is out of range. Have a batch of bags that need to be labeled or packaged? **Monitor** mode continuously checks the temperature of one of the bags while the others are processed. If the temperature of the sample bag drifts outside of the required range during the batch processing period, then audio and visual alarms will inform the technician that the batch of bags must be returned to storage immediately to maintain temperature within the required range.

The TC-25+ TEMPCHECK is compatible with standard USB healthcare barcode readers. Stream out the bag’s barcode and temperature through a USB output port, or alternatively, record the bag’s barcode and temperature on the TC-25+ TEMPCHECK’s SD card. For lightweight portability or operation during a power outage, the TC-25+ TEMPCHECK Rapid Response Thermometer includes a 3.6V LiPo rechargeable battery offering more than 7½ hours of temperature display running time. When operating on battery, the TC-25+ TEMPCHECK will shut down to conserve battery life after 4 minutes of inactivity. Simply press and hold the POWER/EXIT button to reactivate the temperature display. The battery automatically recharges when the TC-25+ TEMPCHECK is connected to line power.

Custom programming can be provided to satisfy temperature monitoring requirements for any bagged biologic application.



FEATURES:

- Non-invasive temperature verification of blood, RBC, platelets, FFP, cryo, and other bagged biologics
- Rapid response time: 15 to 30 seconds
- Tightly targeted temperature range (0.0 - 40.0 °C) providing ± 0.2 °C accuracy
- Angled, easy-to-read backlit display with 0.1 ° resolution
- User selectable temperature scale: °C or °F
- 8 sets of programmable high and low temperature alarm setpoints
- Optional USB input from barcode readers
- Optional USB output of barcode and temperature
- Optional SD card recording of barcode and temperature
- >7.5 hours LiPo rechargeable battery backup

APPLICATIONS:

- **Manual+:** LED indicators if temperature is out of range
- **Go/No Go:** audio and visual alarms if temperature is out of range
- Continuously **Monitor** temperature of one bag while others are being batch processed
- Temperature verification of packaged blood bags containing blood, RBC, platelets, FFP, and cryo
- Temperature verification of blood bags upon delivery to blood banks
- Temperature verification of plasma and platelet bags in operating rooms and blood banks

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TC-25+ TEMPCHECK Rapid Response Thermometer

Specifications:

Temperature Sensor & Display		
Sensor	Type K rapid-response thermocouple on an insulated pad	
Temperature Response Time	15 – 30 seconds	
Display Resolution	0.1 °C or °F	
Temperature Scale	°C	°F
Temperature Range	0.0 °C to 40.0 °C	32.0 °F to 104.0 °F
Accuracy	±0.2 °C	±0.4 °F
Temperature Display	Line Power	Temperature display active when TC-25+ has line power.
	Battery Power	Press and hold POWER/EXIT button to activate temperature display for four minutes.
Port	Port Type	Input/Output
Barcode Reader	Input, USB Type-A	Barcode alpha-numeric (ASCII)
USB Output	Output, USB Type-B	Barcode alpha-numeric, date-timestamp, temperature, <i>etc.</i>
SD Card	Output, SD/MMC	Record barcode alpha-numeric, date-timestamp, temperature.
Power	Load	Supply
Power Requirements	12 VDC, 1 A, 12 W	100-240 VAC (fluctuation <150 mV peak-to-peak), 50/60 Hz, <0.35 A RMS @ 115 VAC, UL listed
Battery Backup		
Rechargeable	1-cell, 3.6 V LiPo, battery charge regulator (BCR), >7.5 hours active use	
Mechanical		
Mounting	Sits on benchtop, 4 ea. stiff rubber insulating feet	
Dimensions, WxHxD	15.2 x 5.2 x 23.1 cm (6.0 x 2.1 x 9.1 in.)	
Weight	466 g (1.0 lb.)	
Case	ABS plastic	
Environmental Conditions		
Facilities	Intended for indoor (laboratory) use	
Altitude	Up to 2,000 meters (6,600')	
Ambient Temperature Range	15 °C to 32 °C (59 °F to 90 °F)	
Maximum Relative Humidity	60% (15 °C to 32 °C)	
Ventilation	Compliance with ANSI/ASSP Z9.5-2022 recommended.	
Pollution Degree	POLLUTION DEGREE 2: only non-conductive pollution occurs.	

One-year warranty on all Hampshire Controls products.

About Us: Established in 1975, Hampshire Controls provides standard and custom-designed electronics to the biomedical and industrial markets. In addition to the **TC-25** and **TC-25+ TEMPCHECK Rapid Response Thermometers**, our product portfolio includes:

- **MPS Multi-Probe Monitor/Alarms**
- **TT-150/200** temperature & humidity Wi-Fi transmitters
- **LD-215 Liquid Nitrogen Level Detector/Alarms**
- **Air Flow Monitors** (50 to 2500 FPM)
- **STEDIVOLT SV2005 Line Voltage Controls**
- Customized OEM electronics design and manufacturing
- **T° Sentry ALERT Monitoring System** data logging
- **CO₂, LN₂ CA5000 Freezer Backup Systems**
- **T° Sentry Model 140** single probe temperature monitor/alarms
- **ADM-215 Remote Alarm Delay Modules**
- Customized monitoring, alarm notification, and logging

