Product Specification Sheet
CR2450
3V Lithium Coin Cell Battery



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The CR2450 3V Lithium Coin Cell Battery is a high-density, commercial-grade primary power cell engineered specifically for low-drain, high-reliability components within wireless healthcare communications. Acting as a critical operational pillar for facility safety, this high-energy-density coin cell delivers exceptional structural reliability and voltage stability under continuous deployment. Sourced through BEC Integrated Solutions, the CR2450 functions as the native, long-life power foundation required to keep emergency wearable transmitters operational, ensuring that patients and residents remain linked to caregivers without unexpected power interruptions.

Architects' and Engineers' Specifications

1.0 General Battery Description
The local emergency wearable transmitter shall rely upon a replaceable, non-rechargeable primary 3-Volt Lithium Manganese Dioxide coin cell battery, model CR2450, to execute wireless radio-frequency alerts. The power cell must provide sustained operational capacity without voltage sag during active signal loading.
2.0 Electrochemical Performance
• The battery cell must feature standard continuous discharge matching a 7.5K ohm load down to an end-point voltage threshold of 2.0 Volts.
• The structural seal must be rated for long-term storage within facility supply rooms, preserving cell capacity over extended standby periods.
• The active materials must feature a lightweight form factor optimized to avoid adding unnecessary physical burden to wearable neck pendants.
Standard & Advanced Features
• High-Voltage Stability: Features a 3.0V nominal voltage utilizing a Lithium Manganese Dioxide (Li/MnO_2) chemical composition for consistent voltage outputs during standard transmission drains.
• Ultra-Low Self-Discharge: Engineered with low internal resistance characteristics that restrict self-discharge to approximately 1% per year, ensuring an extended shelf life of up to 10 years.
• Advanced Leakage Resistance: Structured with a premium stainless steel container and a high-integrity isolation gasket to prevent localized corrosion and protect internal device circuitry.
• Extended Thermal Operating Window: Delivers steady discharge performance through intense climate variations, operating reliably across a temperature range of -20°C to 60°C.

Specifications

- SKU/Model: CR2450
- UPC: 605939651929
- Chemical System: Lithium / Manganese Dioxide (Li/MnO_2)
- Nominal Voltage: 3.0V
- Typical Capacity: 560 mAh – 620 mAh (to 2.0V cutoff)
- Dimensions: 24.5 mm Diameter × 5.0 mm Height
- Average Weight: 6.2 g to 6.8 g
- Container Material: Heavy-Duty Stainless Steel

Equipment Options

The CR2450 cell operates as an indispensable decentralized energy source across unified nurse call configurations:

- **System Infrastructure:** Serves as a standard auxiliary hardware component across the MV 200Plus, MV 500, and PC-Based Wireless Nurse Call Systems.
- **Device Compatibility:** Seamlessly supplies primary power to the WNC-NP Wireless Nurse Call Neck Pendants alongside various compatible wireless mobile pull stations and emergency wrist-pendant signaling transmitters.
- **Receiver Interfacing:** Safely pairs with active endpoints tracked by the MV200Z, MV200Plus, MV400Z, and MV500Z centralized wireless console receivers.
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Compliance and Certification

The CR2450 primary lithium battery satisfies structural safety and non-interference directives needed for institutional deployment.

- FCC Status: Inherently compliant as a passive chemical energy source that contains no radio components; it creates zero localized RF emissions, allowing full compliance with FCC Part 15 limits when placed inside host transmitters.
- UL Status: Component certified under UL 1642 (Standard for Safety for Lithium Batteries), ensuring strict compliance with mechanical, thermal, and electrical safety standards against deformation or ignition.
- RoHS Status: Thoroughly compliant with European RoHS environmental directives, manufactured with zero added mercury, cadmium, or hazardous substances to protect direct skin-contact devices.
- International Standards: Aligns with standard IEC 60086-4 safety definitions governing primary lithium batteries.

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