

Accutech 770177 1-8 Zone Multiplexer Cut-Sheet

1-8Zone Multiplexer | Wander Management System Component



PRODUCT OVERVIEW

The **Accutech 770177 1-8 Zone Multiplexer** is a high-performance hardware routing and data-aggregation module engineered for the Accutech RFID-driven Wander Management and Patient Safety suites, including ResidentGuard, Cuddles, and FacilityGuard platforms.

Acting as a centralized data concentrator, the module intercepts telemetry and alarm signals from up to eight independent physical monitoring zones—such as perimeter doors, hallway thresholds, or elevator cars. By multiplexing these inputs onto a shared communication bus, it ensures high-speed signal processing and minimizes data collisions during simultaneous multi-zone events, while significantly optimizing facility wiring infrastructure.

ARCHITECTS AND ENGINEERS (A&E) SPECIFICATION

- **System Topology:** The system contractor shall provide a dedicated hardware-based 1-8 Zone Multiplexer (P/N: 770177) to aggregate data from localized edge devices (receivers/door controllers) for transmission to primary processing equipment.
- **Wiring Optimization:** The unit shall support up to 8 distinct zone inputs, compressing these feeds onto a unified trunk line to reduce multi-conductor wire drops and copper home-run lengths.
- **Collision Prevention:** The module must utilize hardware sequential polling or native memory buffering to systematically serialize signals, preventing data overlap or latency during concurrent alarms.
- **Physical Housing:** The hardware shall be contained within a secure, industrial-grade enclosure suitable for installation within low-voltage backboards, electrical panels, or IT riser closets.

SYSTEM COMPONENTS

The 770177 serves as the hardware network mid-plane for the following components:

- **Central Aggregator:** Accutech 770177 1-8 Zone Multiplexer hardware.
- **Perimeter Sensors:** Up to 8 edge devices (LC 1200 controllers, LS 2400 receivers, etc.).
- **Wearable Transmitters:** Active patient tags transmitting on a supervised 418 MHz frequency.
- **Display & Control:** ResidentGuard Management Software or regional LCD display panels.

FEATURES AND BENEFITS

- **Cost-Effective Scaling:** Expand zone architectures in blocks of 8 without additional master controller modules.
- **Optimized Routing:** Localized termination of edge zones eliminates individual long-distance cable pulls.
- **Telemetry Protection:** Individual channel isolation shields data from electrical crosstalk and electromagnetic interference.
- **Reliable Event Management:** A robust queuing engine ensures all distinct zone alarms are preserved and reported accurately.
- **Granular Addressing:** Provides discrete address coordinates for all 8 paths for accurate floorplan mapping.

PRODUCT SPECIFICATION

Manufacturer	Accutech Security (An ICS Company)
Model Name	1-8 Zone Multiplexer
Part Number / SKU	770177
UPC	605939649247
Zone Capacity	1 to 8 physical monitoring zones
Compatibility	ResidentGuard, Cuddles, FacilityGuard, LS 2400
Form Factor	Wall-mountable industrial junction module

COMPLIANCE AND CERTIFICATION

- **NFPA 101 (Life Safety Code):** Compliant with institutional egress and fire safety emergency lock-release parameters.
- **FCC Part 15 Class A:** Certified for non-interference with sensitive medical electronics and life-support machinery.
- **UL / ETL Standards:** Factory-tested for permanent commercial installation in institutional facility control loops.
- **National Electrical Code (NEC):** Matches standards for Class 2 low-voltage signaling and power-limited infrastructure.