

ACCUTECH 662314

RS485 to USB Serial Adapter | Centralized Wander Management Infrastructure Hub



PRODUCT OVERVIEW

The Accutech 662314 RS485 to USB Serial Adapter serves as a core hardware intelligence component within advanced wandering management and resident safety infrastructures. It is engineered to bridge the gap between physical perimeter sensors deployed at facility exits and localized control monitoring stations. By aggregating and processing automated security credentials and high-speed data telemetry from protected boundaries, it eliminates the operational complexity of managing individual entry points. This centralized topology ensures that large-scale senior care, nursing home, memory care, and hospital facilities maintain instantaneous, real-time situational awareness.

Deployed directly between peripheral zone controllers, transmitter wands, door controllers, and central administration computers running management software, the 662314 module channels complex serial data traffic. This proactive routing method eliminates communication bottlenecks and guarantees that complex localized actions—such as authorized staff bypass, secure visitor access, and localized security overrides—are instantly synchronized with perimeter sensors. This active tracking processing ensures absolute protection across expansive hospital wings, long care facility corridors, and high-risk resident zones by establishing an uncompressed, bidirectional data pipeline for system programming, real-time diagnostics, and unified event logging.

ARCHITECTS AND ENGINEERS (A&E) SPECIFICATION

- **System Infrastructure:** The contractor shall supply, install, and configure the Accutech 662314 RS485 to USB Serial Adapter to act as the primary data interface bridging the peripheral exit network and the central management workstation. The hardware must support bidirectional communication to synchronize active bypass states and real-time controller logs directly with the host computer software.
- **Healthcare Environment Protection:** The data translation assembly shall incorporate a durable, commercial-grade structural design explicitly engineered to sustain continuous clinical exposure, operating reliably across standard high-traffic healthcare IT environments.
- **Access and Control:** The device physical data interface shall feature automated data direction control paths to allow authorized clinical staff, security personnel, and system administrators to issue network-wide bypass commands, hardware configuration adjustments, and alarm resets from the central software console.

- **Enclosure and Durability:** The interface electronic component assembly shall be protected inside a compact, ruggedized commercial-grade housing optimized for inline placement or clean mounting behind administrative terminal workstations.
- **System Interoperability:** The interface architecture must feature validated native compatibility for direct connection with Accutech LC1400T and ResidentGuard controllers, ensuring non-latent RS485 to USB signaling across the facility's dedicated security network.

SYSTEM COMPONENTS

The 662314 RS485 to USB Serial Adapter incorporates several fundamental integrated sub-modules and physical connection layouts:

- **High-Speed Serial Processing Chipset:** The primary internal multi-layer integrated circuit board dedicated to handling automated baud rate sensing and bidirectional data conversion protocols.
- **Industrial RS485 Screw Terminal Block:** A ruggedized, low-resistance mechanical compression terminal interface configured to accept hardwired twisted-pair communication lines from the door controller network.
- **Standard USB Type-A Interface Connector:** An integrated, high-durability physical port layout designed for a direct, secure connection to local workstation or server expansion slots.
- **Transient Voltage Protection Array:** Internal safety circuitry engineered to isolate delicate computing components from data line surges, ground loops, and electrostatic discharge (ESD).
- **Vandal-Resistant Enclosure Matrix:** A lightweight, commercial-grade impact-resistant shell providing absolute physical protection for interior circuits within busy administrative workspaces.

FEATURES AND BENEFITS

- **Centralized Boundary Awareness:** Consolidates multiple peripheral controller channels down to a single USB hub connection on the administration server, greatly simplifying hardware footprints and reducing response times for clinical teams.
- **Seamless Protocol Conversion:** Automatically translates complex industrial RS485 differential signals into a standard USB virtual COM port layout without data packet loss or communication delays.
- **Bus-Powered Convenience:** Draws all necessary operating current directly from the host computer's USB port, eliminating the need for standalone external power supplies and reducing outlet clutter.
- **Diagnostic Status Indicators:** Features integrated LED status lights to provide clear visual feedback on data transmission and reception, streamlining troubleshooting tasks for facility maintenance teams.
- **Validated Platform Interoperability:** Engineered for native plug-and-play compatibility with Accutech security networks and software suites, ensuring a unified approach to facility patient protection.

PRODUCT SPECIFICATION

Manufacturer	Accutech Healthcare Security Solutions
Product Model Name	RS485 to USB Serial Adapter
Part Number / SKU	662314
Component Technology Type	Bidirectional Industrial Protocol Converter & Data Interface
Host Interface Port	USB 2.0 (Compatible with USB 1.1 and USB 3.0 Standard Ports)

Device Interface Port

Industrial RS485 Differential Terminal Connections

Supported Data Baud Rates

Standard Ranges from 300 bps up to 115200 bps

Operating Input Voltage

5 VDC (Bus-Powered via Host Workstation USB Interface)

Visual Diagnostic Indicators

Integrated LED Array for Power, Data Transmit (TX), and Data Receive (RX)

Wander System Compatibility

Accutech ResidentGuard, LC1400T, and Central Event Manager Environments

Chassis Construction

High-Impact, Commercial-Grade Structural Thermoplastic / Composite Shell

Primary Target Environments

Central IT Server Closets, Nurses' Stations, Security Command Centers,
Maintenance Terminals

COMPLIANCE AND CERTIFICATION

- **FCC Status:** Designed and certified to meet FCC Part 15 Class B regulations regarding digital device shielding. This guarantees that internal serial processing paths and high-speed data translation steps do not introduce or sustain harmful electromagnetic interference across nearby diagnostic clinical devices or patient networks.
- **UL Listing:** Developed and engineered using interior assembly components compliant with UL safety classifications for low-voltage information technology equipment, data communication accessories, and auxiliary healthcare resident safety tools.
- **RoHS Compliance:** Formulated in alignment with environmental protection directives, ensuring that the internal circuit layouts, external terminal components, and housing finishes strictly restrict the use of lead, mercury, polybrominated biphenyls, and other hazardous materials.