ACCUTECH 300302

Passive Infrared Reader (PIR) | Centralized Wander Management Infrastructure Hub



PRODUCT OVERVIEW

The Accutech 300302 Passive Infrared Reader (PIR) 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 directional thermal motion 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 at primary egress paths, staff service doors, elevators, and restricted facility exit zones, the 300302 module channels precise directional motion sensing telemetry. 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 infant protection zones by safeguarding exposed external egress routes from environmental wear and unauthorized passage.

ARCHITECTS AND ENGINEERS (A&E) SPECIFICATION

- **System Infrastructure:** The contractor shall supply, install, and configure the Accutech 300302 Passive Infrared Reader (PIR) to act as the primary external security access control and localized override node. The hardware must support direct integration configurations to synchronize active bypass states and thermal motion detection directly with peripheral zone controllers.
- **Healthcare Environment Protection:** The remote optical motion sensing assembly shall incorporate a durable, compact commercial-grade structural design explicitly engineered to sustain continuous clinical exposure, operating reliably across extreme temperature variations, direct moisture impacts, and high-humidity indoor settings.
- **Access and Control:** The device physical interface shall feature a heavy-duty, highly sensitive dual-element infrared grid layout to allow authorized clinical staff, security personnel, and facility supervisors to execute localized door bypass commands, egress filtering, and alarm resets directly at the security boundary.

- **Enclosure and Durability:** The optical pyroelectric sensing component assembly shall be protected inside a ruggedized, vandal-resistant commercial-grade housing optimized for flush-mount or surface-mount terminal configurations on walls, door headers, or ceiling tiles.
- **System Interoperability:** The passive infrared sensor architecture must feature validated native compatibility for direct low-voltage data connection with Accutech environmental safety platforms, ensuring non-latent signaling and secure credential validation across the facility's dedicated security network.

SYSTEM COMPONENTS

The 300302 Passive Infrared Reader (PIR) incorporates several fundamental integrated sub-modules and physical connection layouts:

- **Conformal-Protected Pyroelectric Sensor:** The primary internal dual-element thermal infrared receiver and processing circuit assembly coated with protective compounds to isolate electronic paths from moisture and dust intrusion.
- **High-Efficiency Fresnel Optical Lens:** Ruggedized, high-durability multi-zone exterior lens configuration engineered to achieve precise infrared focus and accurate motion pattern detection.
- **Form-C Dry Contact Relay Interface:** Integrated low-resistance terminal relay paths dedicated to managing auxiliary lock circuits, local alarm notification loops, or bypass triggers safely on the host system.
- **Low-Voltage Hardware Backplane:** Multi-position mechanical wiring terminal block layout designed for clean, reliable power routing, ground loops, and hardwired signal line termination.
- **Vandal-Resistant Outer Case Shield:** Heavy-duty commercial-grade composite protective enclosure providing absolute structural impact protection and an adjustable swivel bracket for precise target angling.

FEATURES AND BENEFITS

- **Centralized Boundary Awareness:** Consolidates perimeter entry tracking and thermal movement communication states down to a single monitoring focal point, greatly simplifying hardware footprints and reducing response times for clinical teams.
- **Advanced Directional Discrimination:** Features an intelligent dual-zone optical array engineered to differentiate between incoming traffic and exiting traffic, preventing nuisance alarms caused by normal indoor movement.
- **Adjustable Detection Pattern:** Employs precise focal adjustment shutters behind the protective lens to scale the sensing pattern to the exact dimensions of the protected doorway layout.
- **Workflow Workload Reduction:** Built using dependable structural components that automate exit monitoring and staff bypass detection, minimizing manual overrides and lowering overall healthcare workspace hazards.
- **Validated Platform Interoperability:** Engineered for total out-of-the-box compatibility with established Accutech ResidentGuard and perimeter protection systems, ensuring a unified approach to facility patient protection.

PRODUCT SPECIFICATION

Manufacturer	Accutech Healthcare Security Solutions
Product Model Name	Directional Passive Infrared Reader (PIR) Component
Part Number / SKU	300302
Sensing Technology Type	Dual-Element Pyroelectric Passive Infrared (PIR)
Enclosure Protection Rating	Tamper-Resistant Low-Profile Housing / Indoor Controlled-Environment Seals

Operating Input Voltage	12 to 24 VDC / VAC Low-Voltage Control Paths
Interface Link Mechanism	Form-C Dry Contact Relays (Common, Normally Open, Normally Closed Contacts)
Wander System Compatibility	Accutech ResidentGuard Series Access and Security Environments
Chassis Construction	Heavy-Duty Industrial Commercial-Grade High-Impact ABS Plastic Shell
Primary Target Environments	Main Exit Doorways, Automated Sliding Doors, Stairwell Entries, Elevator Vestibules

COMPLIANCE AND CERTIFICATION

- **FCC Status:** Designed and certified to meet FCC Part 15 regulations regarding digital device shielding. This guarantees that multi-zone switching and internal pyroelectric processing paths do not cause or sustain harmful electromagnetic interference with nearby diagnostic medical devices or critical patient networks.
- **UL Listing:** Engineered and assembled using components compliant with UL safety classifications for low-voltage signal appliances, exterior access control equipment, and healthcare facility alert instrumentation.
- **RoHS Compliance:** Formulated in alignment with environmental protection directives, ensuring that the assembly, internal structural materials, optical plastic composites, and lead configurations restrict the use of lead, mercury, and other hazardous materials.