

**SECTION 28 31 11**  
**BUILDING INTRUSION DETECTION**

**PART 2 PRODUCTS**

**1.01 INTRUSION DETECTION SYSTEM REQUIREMENTS**

- A. Provide new intrusion detection system consisting of all required equipment, conduit, boxes, wiring, connectors, hardware, supports, accessories, software, system programming, etc. as necessary for a complete operating system that provides the functional intent indicated.
- B. Alarm Control Unit: New addressable alarm control panel located as indicated.
- C. Provide products listed, classified, and labeled as suitable for the purpose intended.
- D. Electromagnetic Interference/Radio Frequency Interference (EMI/RFI) Limits: Comply with FCC requirements of 47 CFR 15, for Class B, consumer application.

**1.02 ALARM CONTROL UNITS AND ACCESSORY EQUIPMENT**

- A. Alarm Control Panel: Modular construction.
  - 1. Enclosure: Lockable; provide tamper protection.
  - 2. Power Supply:
    - a. Primary Power: 120 VAC; provide suitable transformer/power supply; supervised for loss of AC power.
    - b. Secondary Power: Standby battery; provide suitable capacity for minimum standby time required by listing requirements, applicable codes, and authority having jurisdiction, but not less than four hours; provide suitable battery charger; supervised for low battery condition; protected from accidental reversal of battery leads.
- B. Alarm Initiating Circuits: Supervised.
  - 1. Hardwired Zones: Supports both normally closed and normally open conventional (non-addressable) initiating devices.
  - 2. Addressable Zones: Supports addressable initiating devices and modules using multiplexed polling loops.
- C. Alarm Notification Circuits: Supervised.
- D. Communications Interfaces: Supervised.
  - 1. Supports system reporting to central station receivers via integral interface or accessory interface modules using:
    - a. Telephone lines.
- E. Keypads: Supervised.
  - 1. Provide interface to alarm control unit for system control and remote annunciation.
  - 2. Provide visual notification of system status and zone information.
  - 3. Provide audible notification to indicate system status, entry/exit delay, and alarm situations; provide separate distinguishable sounds for alarm and trouble conditions.
  - 4. Keypad Type: Only LCD or graphic touch screen keypads are acceptable. Do not use LED keypads.
    - a. Graphic Touch Screen Keypads: Displays system status and zone information using plain English on graphic display; touch screen interface.
    - b. LCD Keypads: Displays system status and zone information using plain English on alphanumeric display; illuminated keys.
- F. Peripheral Devices: Supervised; provide tamper protection.
- G. Output Relays:
  - 1. Relay Modules: Form C relays (normally open and normally closed); provide tamper protection.
  - 2. Programmable to respond to system events, according to defined scheduling, or by manual activation from keypad.
- H. User Codes:

1. Each user code to be individually assignable to any defined authority level for configurable access to system features and functions.
- I. Scheduling:
  1. Provide time/calendar-based scheduling capability for automated system control.
  2. Supports open/close schedules for control of arming/disarming and reporting.
  3. Supports timed events including, but not limited to:
    - a. Point bypass/unbypass.
    - b. Relay activate/deactivate.
- J. Event Log:
  1. Stores system events including time, date, partition, zone, and user code where applicable.
  2. Supports viewing of event log on keypads.

### **1.03 INITIATING DEVICES**

- A. Manufacturers: Same as manufacturer of alarm control units where possible.
- B. General Requirements:
  1. Provide devices suitable for intended application and location to be installed.
  2. Outdoor Units: Weather resistant, suitable for outdoor use.
  3. Addressable Systems:
    - a. Addressable Devices: Individually identifiable by control unit.
    - b. Provide suitable addressable modules for connection to conventional (non-addressable) devices and other components that provide a dry closure output.

**END OF SECTION 28 31 11**