

## **SECTION 284621.31 - SINGLE-STATION AND MULTI-STATION COMBINATION SMOKE-CARBON MONOXIDE ALARMS**

### **PART 1 - GENERAL**

#### **1.1 SUBMITTAL REQUIREMENTS**

- A. Product Data
  - 1. For each type of devices including catalog numbers, electrical characteristics, ratings, color, temperature limitations, etc.

#### **1.2 GENERAL**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, and Division 01 Specification Sections, apply to this Section. Refer to Division 26 sections for requirements associated with all electrical work not specifically defined in this section, which shall be considered additional and concurrent scope of work that is associated with work of this section.
- B. Apply for and pay all required permits and fees. Submit to AHJ and issue revisions to AHJ as required to keep AHJ documentation current.

### **PART 2 - PRODUCTS**

#### **2.1 SINGLE-STATION AND MULTI-STATION COMBINATION SMOKE/CO ALARMS**

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following: BRK; Gentex; Kidde.
- B. Provide combination smoke/carbon monoxide alarm units equal to BRK #SC7010B series.
- C. Provide contacts, accessories and wiring work as required for tandem interconnections between all alarm units, so that any unit that initiates an alarm condition causes all units to activate their integral alarms.
- D. Provide 9VDC battery backup (monitored, with audible low battery chip) with battery, 90 dB (at 10 feet) solid state piezo alarm horn, nominal 2% sensitivity, quick disconnect wiring harness, tandem interconnection capability of up to 18 units (or 6 units with relay), test switch or button, full insect screening, solid state LED condition/status indicator and universal mounting hardware. Provide UL 217 Listing for both wall and ceiling mounting.

- E. Comply with current applicable provisions of the following standards.
  - 1. Local and State building codes.
  - 2. Requirements of the Local Authority Having Jurisdiction (AHJ).
  - 3. National Electric Code (including Article 760).
  - 4. National Fire Protection Standards, including but not limited to, NFPA 72E (Automatic Fire Detectors).
  - 5. Underwriters Laboratories, Inc., including but not limited to, UL 268, UL 217, UL 464, UL 1638, UL 1481 and UL 1971 as applicable.

## **PART 3 - EXECUTION**

### **3.1 EXECUTION**

- A. Coordinate product, locations and mounting heights with authorities having jurisdiction prior to procuring any related materials and prior to commencing with any related work. Unless directed otherwise by an authority having jurisdiction, and unless device manufacturer's literature states otherwise, install alarm devices to ceilings or to walls at least 12 inches below ceiling, as indicated on drawings. Install devices spaced, and in locations and quantities, as required to ensure full coverage based on manufacturer's published specifications. Install no further than 15 feet from adjacent walls and no more than 30 feet apart in areas that require coverage.
- B. Connect 120VAC input power to local lighting circuit ahead of switching. Tandem-wire devices in large areas together for complete coverage, and so that activation of one alarm in the area automatically triggers the integral alarms in all other tandem-wired devices in the respective area.
- C. Provide alarm unit within each bedroom/sleeping area. Provide alarm unit(s) in the room, hall or passage outside each bedroom/sleeping area (or group of bedrooms/sleeping areas sharing the passage or area).
- D. Placement Restrictions:
  - 1. Locate alarm units no closer than 3 feet horizontally from air-supply diffuser or return-air opening.
  - 2. Locate alarm units not closer than 12 inches from any part of a lighting fixture.
  - 3. Locate alarm units no closer than 3 feet horizontally from the tip of a ceiling fan blade.
  - 4. Locate alarm units no closer than 3 feet horizontally from the door or opening of a bathroom that contains a bathtub or shower, unless this would prevent placement of an alarm unit that is required by prevailing codes.
  - 5. Locate alarm units no closer than 6 feet horizontally from a permanently installed cooking appliance, unless this would prevent placement of an alarm unit that is required by prevailing codes.

## **END OF SECTION 284621.31**