

CSI SPECIFICATION SECTION 8.
SECTION [08460]
SENSORS FOR AUTOMATIC DOORS

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes the following types of automatic entrance/exit door sensors:
 - 1. Exterior and interior swing applications.
 - 2. Entrance and exit applications
- B. Related Sections:
 - 1. Division 16 Sections for electrical connections including conduit and wiring for automatic entrance door operators.
 - 2. Division 08.71.13 and 08.71.16 for door hardware connections for automatic doors.
- C. REFERENCES
 - 1. American National Standards Institute (ANSI) / Builders' Hardware Manufacturers Association (BHMA):
 - a. ANSI/BHMA A156.10: American National Standard for Power Operated Pedestrian Doors.
 - 2. American Association of Automatic Door Manufacturers (AAADM)

1.02 DEFINITIONS

- A. Activation Device: A presence sensing device that, when actuated, sends an electrical signal to the door operator to open the door, re-open or hold a door open.
- B. Safety Device: A presence sensing device that prevents a door from opening or closing or stops, stalls, or reverses a door when appropriate.

1.03 PERFORMANCE REQUIREMENTS

- A. Provide a door mounted sensor for swinging doors utilizing focused reflective active infrared technology that provides detection in the swing path during door travel and at the full open and the full closed positions.
- B. For swing doors: Sensor shall be coupled with a capable automatic door control to provide safety on the push and pull side of an automatic swing door.
- C. Requirements:
 - 1. Utilizes Focused Reflective Active Infrared detection with noise cancel logic.
 - 2. Each sensor pattern shall be capable of being adjusted to no less than the width of the door panel up to 48".
 - 3. Each sensor shall be capable of looking back through the door opening a min of 24" with the door in the full open position.
 - 4. Sensor shall provide Dip Switches for adjustment and configuration. Remote shall not be accepted.
 - 5. Sensor shall utilize a loop assembly connecting the door control to the sensors.
- D. Remote Control: Shall not be accepted. Elite shall be capable of being adjusted to be a stand-alone device, compliant to ANSI 156.10 (2011), Section 8.2.2.3.
- E. Mounting Height: 6' - 7" to 8' - 2".
- F. Output: Sensor shall provide outputs for reactivation, safety and stall.
- G. Time at Detection: <300ms max.

- H. Presence Detection:
 - 1. Focused Active Infrared with I.N.C. Logic (Intelligent Noise Cancellation)
 - 2. Each Elite sensor systems shall have 48 active spots for detection and shall be adjustable up to a 48" door panel.
 - 3. Maximum presence detection time: Infinite
- I. Environmental Conditions:
 - 1. Temperature Range: -4°F (-25°C) to +131°F (+55°C).
 - 2. Degree of Protection: IP54

1.04 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is an AAADM certified inspector and employed by a company who regularly engages in the installation and service of pedestrian automatic doors as its primary business. And installer holds a certification approved by the manufacturer.
- B. Manufacturer Qualifications: A qualified manufacturer with a manufacturing facility that specializes in automatic door sensor devices.
 - 1. Product must be compliant to applicable ANSI Standards 156.10 when inspected by an AAADM certified inspector.

1.05 COORDINATION

- A. Electrical System: Coordinate layout and installation of sensors systems to automatic entrance door assemblies with connections to power supplies and other electrical component systems as supplied by others.

1.06 WARRANTY

- A. Automatic Entrance Door Sensors shall be free of defects in material and workmanship for a period of one (1) year from the date of substantial completion.
- B. During the warranty period the Owner shall engage a factory-trained automatic door installer/service technician who holds a valid AAADM certificate to perform necessary adjustments, service and affect repairs.

PART 2 - PRODUCTS

2.01 AUTOMATIC ENTRANCE DOOR SENSOR

- A. Acceptable Manufacturer: Optex Technologies, 3882 Del Amo Blvd., Torrance, CA 90503, 800-877-6656, www.ot-inc.com. No substitutes accepted.

2.02 PRODUCT

- A. Optex Elite System: Comprised of two sensor heads, one position loop, one control module, wiring harness and mounting hardware. Each Elite system is designed to provide safety for 1 door panel up to 48" wide.
- B. Mounting Height: 6' - 7" to 8' - 2".
- C. Finish: Black Polycarbonate.

PART 3 - EXECUTION

1.1.1 INSPECTION

- A. Examine conditions for compliance with requirements for installation tolerances.

1.02 INSTALLATION

- A. Do not install damaged components.

1.02.1 Factory installed and on-site installed units.

- A. Install plumb and level near the top rail of each door leaf/ wing. Conceal fasteners to the greatest extent possible.
- B. Shall be installed and certified by a certified AAADM inspector.
- C. Door Operators: Connect door operators to electrical power distribution system as specified in Division 16 Sections.

1.02.1 FIELD QUALITY CONTROL

- A. An AAADM certified inspector shall test and inspect each automatic entrance door to determine compliance of installed systems with applicable ANSI standards.
- B. AAADM certified inspection for compliance with ANSI 156.10. Ensure to place appropriate AAADM labels and completed inspections stickers in the appropriate place for the type of door system selected.

1.02.1 ADJUSTING

- A. Adjust door operators, controls, and hardware for smooth and safe operation, for weather-tight closure, and complying with requirements in ANSI/BHMA A156.10.

1.01 WARRANTY

- A. One year warranty shall be issued from time of installation, followed by an AAADM certified inspection, for compliance with ANSI 156.10. Ensure to place appropriate AAADM labels and completed inspections stickers in the appropriate place for the type of door system selected.