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, sliding and folding door 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. Underwriters Laboratories (UL) UL 325 – Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems
   2. American National Standards Institute (ANSI) / Builders' Hardware Manufacturers Association (BHMA)
   3. ANSI/BHMA A156.10: American Standard for Power Operated Pedestrian Doors
   4. ANSI/BHMA A156.19: American Standard for Power Assist and Low Energy Power Operated Doors
   5. American Association of Automatic Door Manufacturers (AAADM)

1.02 DEFINITIONS

A. Activation Device: A 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 sensor device that prevents a door from closing when detection area is occupied by a person.

1.03 PERFORMANCE REQUIREMENTS

A. Provide an automatic entrance door sensor capable of providing activation and presence detection safety along the door opening via active infrared technologies. The presence detection shall consist of two (2) rows with a total of 20 infrared spots and shall be used for the purpose of pedestrian detection, along the door opening and is adjustable to within 3" of the face edge of the door panel to comply with ANSI 156.10.

   1. Presence area shall consist of 2 rows of detection. The 2 rows shall have angle adjustment capability to complying with ANSI 156.10. The 2 presence rows shall remain active at all time. Presence area shall have an adjustable learn time, enabling the sensor to learn permanently changed environments. Presence area shall be adjustable up to 16'-1" wide when mounted at 7'-3" above the finish floor. The depth of the presence area pattern shall be adjustable via adjustment screw.
   2. The activating detection area shall have bi-directional and uni-directional sensing capability. The activating detection area shall be adjustable up to 16'-1"' wide and up to 14'-0" deep.
   3. Use of a remote control device to adjust sensor shall not be accepted.

B. Thermal Range Requirements: Provide sensor that can be used in all climates, allow for thermal range from -4 degrees to +131 degrees Fahrenheit.

C. Mounting Range Capabilities: 7'-3" to 9'-10" above finish floor.

D. Motion area shall be capable of detecting a 28 inch minimum high person, moving at a rate of 6 inches per second minimum toward the center of the door.

E. Presence Area: Shall detect a stationary 28 inch minimum high person within the detection areas described for a minimum of 30 seconds.

F. Motion/Presence Detection Area:

1. Activating Area Pattern: Max. 16'-1" Wide X 14'-0" Deep when mounted at 7'-3" above finished floor.
2. Presence Area Pattern: Max. 16'-1" Wide X 2'-0" Deep when mounted at 7'-3" above finished floor.

G. Presence Area Automatic Learn time: Presence Learn Timer to be compliant per ANSI 156.10.

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 holds a certification from the automatic door manufacturer.

B. Manufacturer Qualifications: A qualified manufacturer with a manufacturing facility that specializes in automatic door 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 Pedestrian 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 personnel who holds a valid AAADM certificate: technician to perform necessary adjustments, service and affect repairs during warranty period.

PART 2 - PRODUCTS

2.01 AUTOMATIC ENTRANCE DOOR SENSOR

A. Acceptable Manufacturer: Optex Technologies Inc, 3882 Del Amo Blvd Suite 604, Torrance, CA, 90503, 800-877-6656. www.ot-inc.com. No substitutes accepted.

2.02 PRODUCT

A. Product shall be: Optex I-One, Infrared technology sensors. Dimensions: 12 inches wide by 2.6 inches tall by 2.6 inches deep.

B. Optional accessories: Optex Black Rain Cover RH-I.

C. Mounting Height:

1. Standard: 7'-3" to 9'-10"

D. Finish: Black cover.

PART 3 - EXECUTION

1.1.1 INSPECTION

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

1.01 INSTALLATION

A. Do not install damaged components.

1.01.1 Factory installed and on-site installed units.

A. Install surface mounted units on header above center of door opening using concealed fasteners to greatest extent possible.

B. Shall be installed and inspected by a certified AAADM inspector.

C. Door Operators: Connect door operators to electrical power distribution system as specified in Division 16 Sections.

1.01.1 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. AAADM recommends an annually inspection of each automatic door thereafter.

1.01.1 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 and other applicable ANSI/BHMA standards.

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 inspection stickers in the appropriate place for the type of door system selected.