SLIDING

AUTOMATIC DOOR SENSORS PERFORMANCE REQUIREMENTS ANSI 156.10 2005

VISION 4 SAFER DOORS

Door-Sensors.com

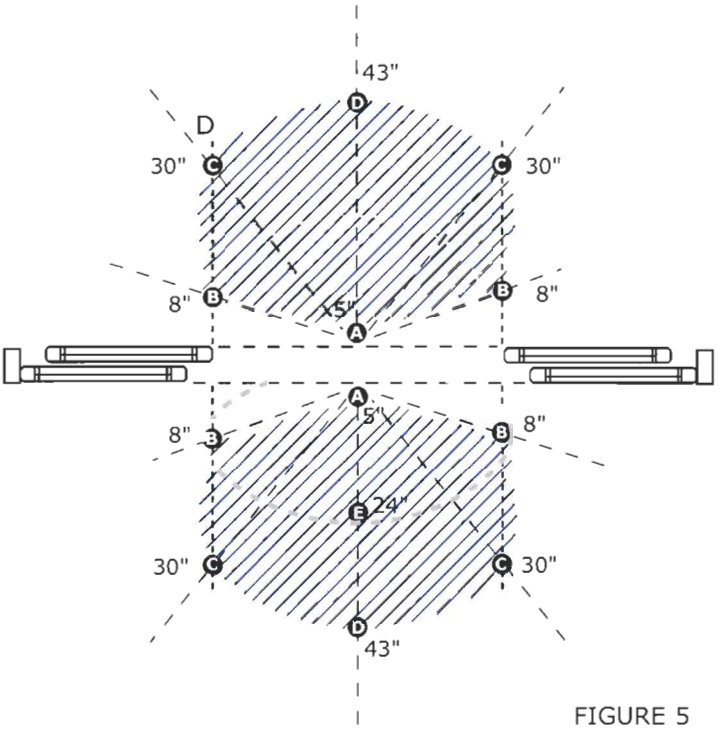


FIGURE 5

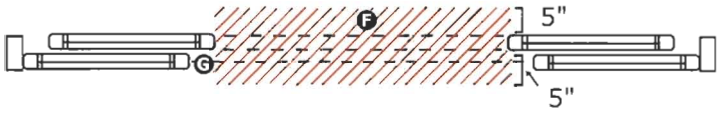


FIGURE 6

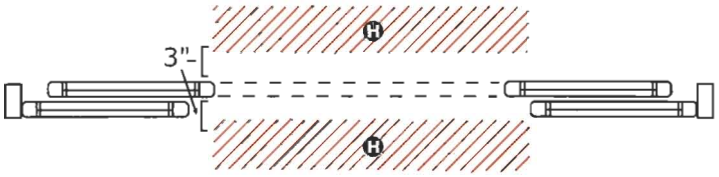


FIGURE 7

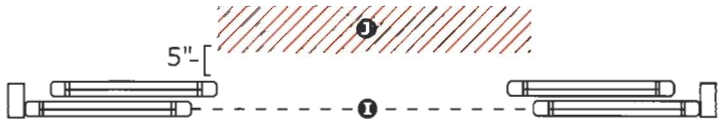


FIGURE 8

ACTIVATION (Blue)

SECTION 8.1.1 (FIGURE 5)

- Minimum width equal to the width of the clear door opening
- Detection points measured at 8" (B) & 30" (C) perpendicular from the face of the closed door
- Length from the face of the door is 43" min. (D) measured at the center of the clear door opening
- Detection to be effective to within 5" (A) from the face of the door measured at the center of the clear door opening

SECTION 8.1.2

- Motion sensors shall detect a 28" high person
- Motion sensors shall detect a person moving at a rate of 6" per second towards the center of the door

SECTION 8.3.3 (Sliding Doors used for One-way Traffic)

- Shall provide a secondary activating zone on the side not intended for use
- The zone shall extend out a minimum of 24" (E) from the face of the door
- Shall be effective to within 5" (A) from the face of the door measured at the center of the door opening
- Shall have a minimum width equal to the width of the clear door opening measured at 8" (B) perpendicular from the face of the closed door.
- The sensor shall be deactivated when the door is within 6" of the fully closed position

SAFETY (Red)

SECTION 8.1.3

- Presence sensors shall detect a stationary 28" minimum high person within the detection areas for a minimum of 30 seconds

SECTION 8.3.2

- A Presence sensor shall be used to detect a person in the space between two non overlapping activating zones for the width of the clear opening as follows:

SECTION 8.3.2.2 (FIGURE 6)

- If an overhead presence sensor is used through the door opening it:
  - > Shall extend out a minimum of 5" (F) from the face of the door on each side
  - > Shall remain active from open to within 6" of closed or
  - > Shall have a minimum of two beams (G) on one side of the door 1st beam measured 6-28" from the floor; 2nd beam measured 45-55" from the floor

SECTION 8.3.2.3 (FIGURE 7)

- If overhead presence sensors are installed on each side (H) of the sliding door opening:
  - > Shall not have an inactive area more than 5" extending out from the face of the door
  - > If the inactive area exceeds 3" from the face of the door, two beams are required on one side of the door (same measurements as stated above in section 8.3.2.2)
  - > The detection zone shall remain active from open to within 6" of closed

SECTION 8.3.2.4 (FIGURE 8)

- If beams are used on one side of the door (I) with a presence sensor (J) on the other side:
  - > A minimum of two beams shall be installed (same measurements as stated above in section 8.3.2.2) **and**
  - > Beams shall be installed within 3" of the center line of the slide door **and**
  - > The overhead presence sensor mounted on the opposite side shall not have an inactive area more than 5" out from the face of the door **and**
  - > The beams and overhead sensor must remain active until 6" of close **and**
  - > The hold open time is adjusted to 2.5 seconds

20081001

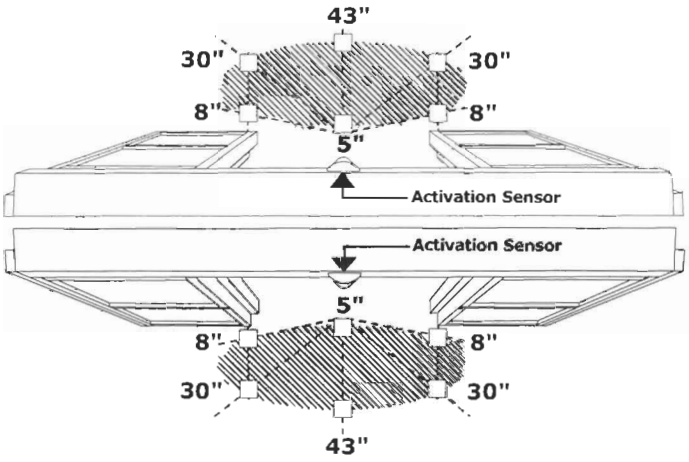
BEA
OPEN UP NEW HORIZONS
A HALMA COMPANY

ANSI 156.10
Full Powered Automatic Doors
STILL COMPLIANT?
2005 CHANGES

SLIDING DOOR REQUIREMENTS

ACTIVATION

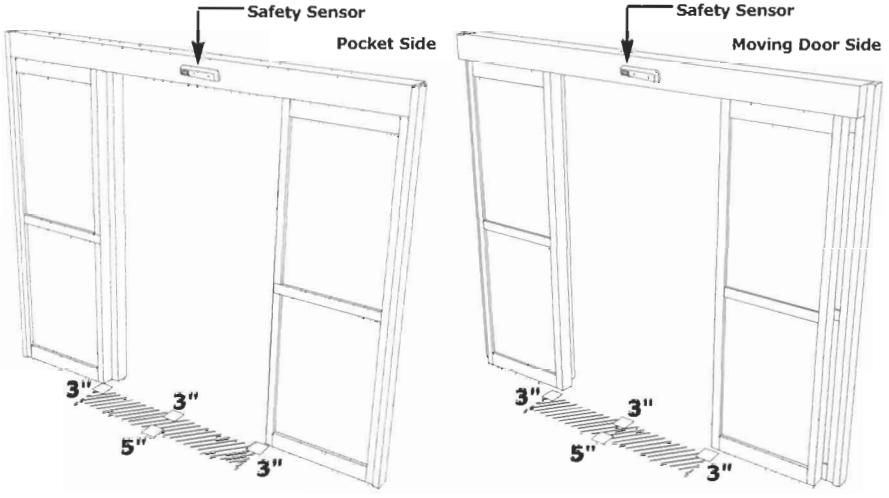
2 Way Traffic



- Different zones are required on both sides of the door for 1 way traffic.

SAFETY

1 Way + 2 Way Traffic



- If safety sensor can reach within 3" from the sliding door panel on each side.
- No Beams are required.

BEA's explanation to help you understand:

1. **ANSI**- American National Standard Institute. ANSI is a standard not a law. Because there are no regulations for automatic doors, the ANSI standard is utilized in a court of law as the reference point in determining many cases.
   a. 156.10 full power operated pedestrian doors (2005)
   b. 156.19 low energy (ADA) power operated doors (2002)
   c. 156.27 power and manual operated revolving pedestrian doors (2003)

2. **AAADM**- American Association of Automatic Door Manufacturers. AAADM is a trade association of automatic door manufacturers dedicated to the promotion of safety throughout the automatic door industry. AAADM certified inspectors learn the following:
   a. The ANSI 156.10 standard
   b. How to conduct field tests of automatic door installations to ensure the door complies to the ANSI standard
   c. How to complete necessary inspection forms

3. **Presence sensor (safety)**- A presence sensor will detect the "presence" of an object or person within a predetermined detection pattern and prevents the door from striking the person or object, depending on the situation.

4. **Infrared Technology**- Detects the presence of a stationary person, or object by emitting a pulsed invisible light signal from the LED (Light Emitting Diode) back to a receiver that analyzes the reflected signal. In other words, the infrared takes a "picture" of the safety area and if the "picture" changes, the door will remain safe. Infrared Technology is ideal for detecting presence, not motion. Caution: not all infrared sensors are created equal, if a weaker infrared technology is used the sensor may not detect some dark colors which could result in an unsafe door.

5. **Motion sensor (activation)-** A motion sensor will detect the movement of an object or person within its detection pattern.

6. **K-Band Microwave Technology**- Provides a sharp, crisp, stable pattern that can detect motion moving as slow as 2" per second. Microwave technology has been proven to be the best technology to activate a door open.

7. **Low energy swinging door (ADA)**- The opening time shall be 3 seconds or longer and meet other criteria of ANSI 156.19.

8. **Full Automatic swinging door**-The opening time shall be 1.5 seconds or longer and meet other criteria of ANSI 156.10.

9. **Photo-electric beams**-A device which employs the use of a visible or invisible light beam across or through an opening typically used as a safety device. When the beam is interrupted by a person or object, a signal is generated. Caution: beams cover a small area and can miss detecting an object, such as a walker or child lying on the floor.

10. **Knowing Act**- Pressing a push plate or performing another act to open a door.

11. **Trained traffic**-People trained in the safe use and operation of a particular automatic door. ANSI does not apply to trained traffic doors. Caution: very few doors are actually trained traffic doors.

12. **Two-way traffic**- Traffic approaching from both sides of the door. (i.e. traffic entering both the swing and non-swing side of the door)

**For more information, please visit: www.bea-arch.com

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