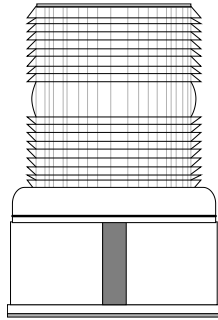


# 105 Series Adverse Location Visual Signal Installation Sheet



## Description

The 105 Series visual signals are heavy duty, reliable, UL, cUL (general utility), and CSFM Listed (miscellaneous device/control unit accessory) beacons which, when assembled in accordance with installation instructions, constitute a UL Listed Type 4X enclosure and are UL Listed for marine use. They are designed for use in industrial applications or in applications where a Type 4X enclosure is required. The signals are available in steady-on halogen, flashing halogen, 3 joule strobe, or 8 joule high intensity strobe.

When assembled in accordance with these instructions, the 105 Series visual signals are UL Listed for use in hazardous locations with operating temperatures as listed in Table 1.

These appliances are UL and cUL Listed for use in Class I, Division 2, Group A, B, C, and D, Class II, Division 2, Groups F and G, and Class III, Division 1 and 2 for hazardous or nonhazardous locations only.

For electrical specifications, see Table 2.

## Installation

Installation must be in accordance with local codes. The lens should be positioned facing up for outdoor applications.

## WARNINGS

- Explosion hazard. Substitution of any component may impair suitability for Class I, Division 2.
- Explosion hazard. Do not remove or replace lamps or plug-in modules unless power has been disconnected or the area is known to be free of ignitable concentrations of flammable gases or vapors.
- Explosion hazard. Do not disconnect while the circuit is live or unless the area is known to be free of ignitable concentrations.
- To reduce the risks of ignition of hazardous atmospheres and shock, do not apply power to the signal until installation has been completed and the signal is tightly assembled and secured.
- To prevent electrical shock, before starting work on signals disconnect the power. For strobe models wait 5 minutes for stored energy to dissipate.
- To avoid risk of injury, install the lens before energizing the signal and do not remove or insert the light source when the signal is energized.

## WARNINGS (continued)

- Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.
- To reduce the risk of ignition of hazardous atmospheres and shock, keep the assembly tightly closed when circuits are energized.

## Cautions

- The 105BX outlet box, 105BM mounting bracket, and 105PM pipe mount attachments are nonconductive plastic fixtures and do not provide earth-ground continuity when attached to metallic wiring systems. Therefore, they are intended for use with the 105XBRI series visual signals only when earth-grounding is not required.
- The 105BX outlet box, 105MB mounting bracket, and 105PM pipe mount attachments can be used with metallic wiring systems only when installed at the end of the run.

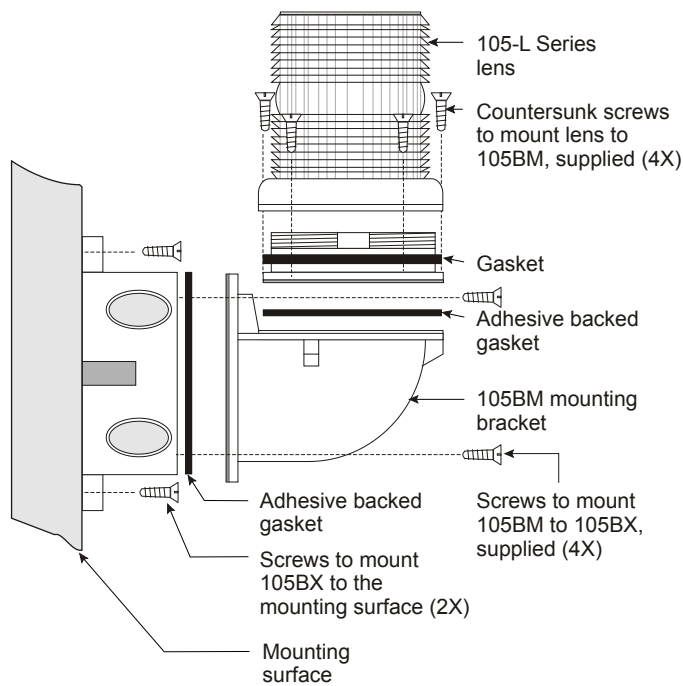
## To install the device:

1. Select a mounting configuration (Figure 1).  
**Note:** When mounting using the 105BM mounting bracket, the 105BX outlet box attachment must also be used as shown in Figure 2.
2. Pull the field wiring into the mounting attachment.
3. Install the mounting attachment as follows:
  - a. **105BX:** Screw the outlet box attachment to the mounting surface using two screws (not supplied) suitable for the surface. Attach the adhesive backed gasket to the top of the 105BX outlet box, being careful to line up the holes in the gasket with the mounting holes in the outlet box.
  - b. **105BM:** Using the four supplied screws, secure the mounting bracket to the 105BX outlet box attachment as shown in Figure 2. Attach the adhesive backed gasket to the top of the 105BM mounting bracket, being careful to line up the holes in the gasket with the mounting holes in the outlet box.
  - c. **105PM:** Install 3/4 in. conduit. Screw the pipe mount attachment onto the 3/4 in. conduit. Attach the adhesive backed gasket to the top of the 105PM pipe mount attachment, being careful to line up the holes in the gasket with the mounting holes in the outlet box.  
**Note:** It is not necessary to remove the lens from the hi-intensity strobe base to install the 105HIST Series beacons.
4. Mount the 105SINH, 105FINH, and 105ST Series as follows. Unscrew the gasketed base from the lens assembly as shown in Figure 3 and remove the clear gasket from around the base.
5. Secure the base to the appropriate mounting attachment using the four screws (supplied). Replace the clear gasket on the base with the flared, open end facing down.
6. Attach the signal wire leads to the field wiring as shown in Figure 5.
7. Ensuring that the light source is in place, screw the lens back on the base.
8. Mount the 105HIST Series as follows. Secure the hi-intensity strobe base to the appropriate mounting attachment using the four screws (supplied) as shown in Figure 4.
9. Apply power and verify operability.

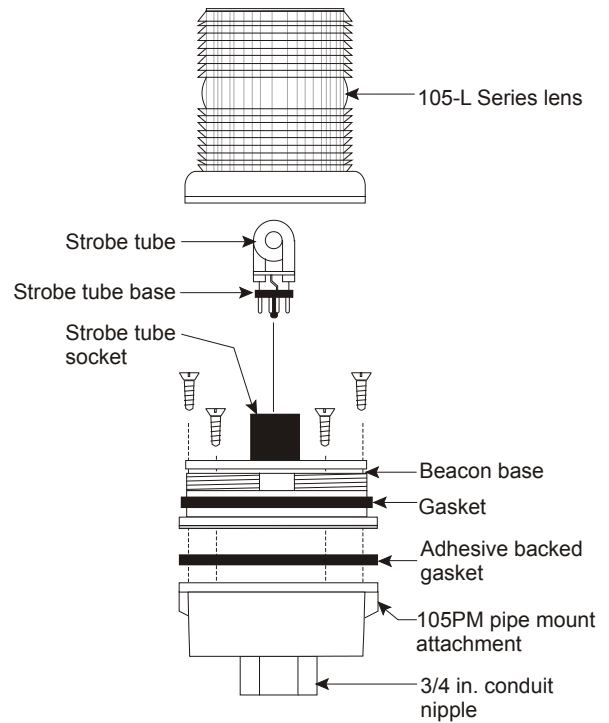
**Figure 1: Mounting configurations**

	105SINH, 105FINH, 105ST Series	105HIST Series
Mounted on a 105PM pipe mount attachment		
Mounted on a 105BX outlet box attachment		
Mounted on a 105BM mounting bracket with the 105BX outlet box attachment		

**Figure 2: 105BM bracket mounting**



**Figure 3: 105PM pipe mounting**



**Figure 4: 105HIST mounting**

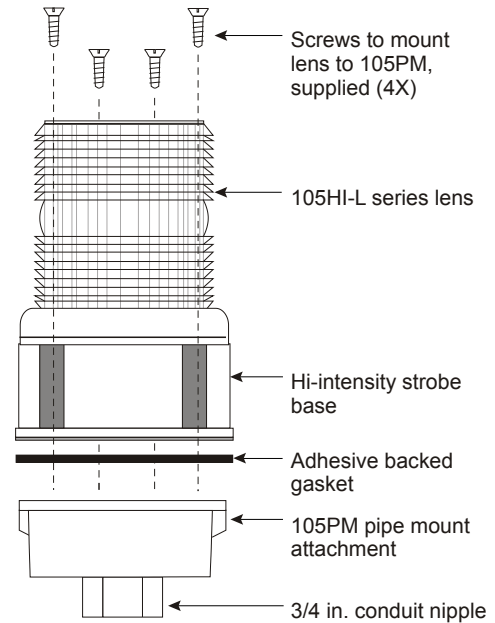
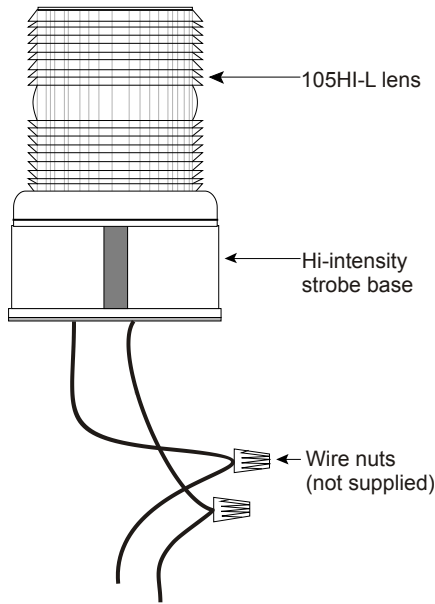


Figure 5: Wiring



## Maintenance

**WARNING:** Shock hazard. To prevent electrical shock, before starting work on signals disconnect the power. For strobe models wait 5 minutes for stored energy to dissipate.

**Caution:** Do not touch the strobe tube or halogen bulb with bare fingers. Grasp the light source either by the base or using a soft, clean cloth.

The lens should be periodically cleaned using a mild detergent and water on a soft, clean, lint-free cloth.

### To replace the light source:

1. Unscrew the lens from the base.
2. For halogen bulb replacement:
  - a. While pressing down on the bulb, turn and then pull straight up and out of the socket.
  - b. Insert the new halogen bulb into the socket, press down and turn until the bulb is locked into place.
3. For strobe tube replacement:
  - a. Grasp the strobe tube by its base and pull straight up out of the strobe tube socket (Figure 3).
  - b. Grasp the new strobe tube by the strobe tube base and press into the strobe tube socket.
4. Screw the lens onto the base.
5. Apply power and verify operability.

## Specifications

Table 1: Hazardous location ratings

Model number	Class	Division	Group	Operating temperature
105FINH*-G1 105SINH*-G1 105FINH*-G5 105SINH*-G5	I II III	2 2 III	A, B, C, D F, G	T3 (200°C, 392°F), T4A (120°C, 248°F) T4A (120°C, 248°F)
105FINH*-N5 105SINH*-N5	I II III	2 2 III	A, B, C, D F, G	T2A (280°C, 536°F), T4 (135°C, 275°F) T4 (135°C, 275°F)

Model number	Class	Division	Group	Operating temperature
105HIST*-N5 105HIST*-R5	I II III	2 2 III	A, B, C, D F, G	T2B (260°C, 500°F) T4 (135°C, 275°F) T4 (135°C, 275°F)
105HIST*-EK	I II III	2 2 III	A, B, C, D F, G	T2C (230°C, 446°F) T4 (135°C, 275°F) T4 (135°C, 275°F)
105ST*-G1 105ST*-N5 105ST*-R5	I II III	2 2 III	A, B, C, D F, G	T3 (200°C, 392°F) T4A (120°C, 248°F) T4A (120°C, 248°F)

\* Lens color: A = Amber, B = Blue, C = Clear, G = Green, M = Magenta, R = Red.

Table 2: Electrical specifications

Model number	Module type	Lamp ratings	Voltage	Current
105SINH*-G1	Steady-on halogen	20 W, 226 lumens, 20,000 hours [1][2]	24 VDC	0.8 A
105SINH*-G5	Steady-on halogen	20 W, 226 lumens, 20,000 hours [1][2]	24 V, 60 Hz	0.8 A
105SINH*-N5	Steady-on halogen	25 W, 175 lumens, 20,000 hours [1][2]	120 V, 60 Hz	0.2 A
105FINH*-G1	Flashing halogen	20 W, 226 lumens, 20,000 hours [1][2]	24 VDC	0.8 A
105FINH*-G5	Flashing halogen	20 W, 226 lumens, 20,000 hours [1][2]	24 V, 60 Hz	0.8 A
105FINH*-N5	Flashing halogen	25 W, 175 lumens, 20,000 hours [1][2]	120V, 60 Hz	0.2 A
105ST*-G1	3 joule strobe	300,000 peak candela, 3,000 hours [3]	24 VDC	0.3 A
105ST*-N5	3 joule strobe	300,000 peak candela, 3,000 hours [3]	120 V, 60 Hz	0.1 A
105ST*-R5	3 joule strobe	300,000 peak candela, 3,000 hours [3]	240 V, 60 Hz	0.02 A
105HIST*-EK	High-intensity 8 joule strobe	800,000 peak candela, 3,000 hours [3]	12 VDC 24 VDC 48 VDC	1.2 A 0.8 A 0.38 A
105HIST*-N5	High-intensity 8 joule strobe	800,000 peak candela, 3,000 hours [3]	120 V, 60 Hz	0.1 A
105HIST*-R5	High-intensity 8 joule strobe	800,000 peak candela, 3,000 hours [3]	240 V, 60 Hz	0.05 A

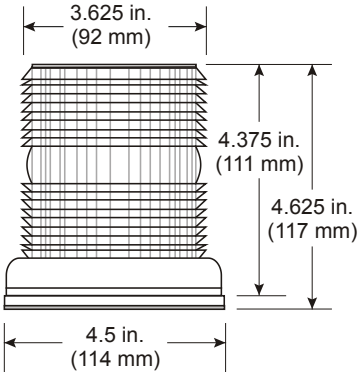
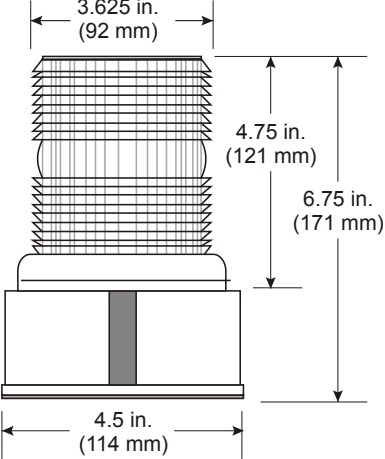
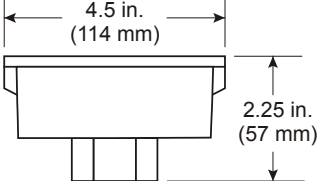
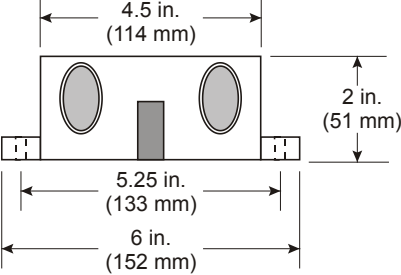
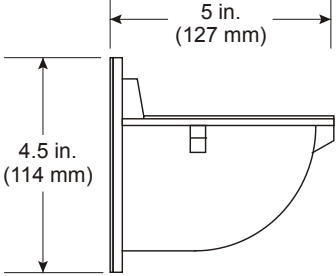
\* Lens color: A = Amber, B = Blue, C = Clear, G = Green, M = Magenta, R = Red.

[1] At nominal operating voltage.

[2] Projected lamp life based on manufacturer's calculated lamp life at 65 FPM and 50% duty cycle.

[3] Strobe tube life at operating power to 75% efficiency.

**Table 3: Dimensions**

Model	Dimensions
105SINH, 105FINH, 105ST models	
105HIST models	
105PM pipe mount attachment	
105BX outlet box attachment	
105BM mounting bracket (use with 105BX)	

**Regulatory information**

Ratings	ANSI/ISA 12.12.01 CSA C22.2 No. 205 CSA C22.2 No. 213 UL 1638 UL and cUL Listed Type 4X enclosure
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**Contact information**

For contact information, see [www.edwardssignaling.com](http://www.edwardssignaling.com).

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