

Occupancy Sensor and Barrier Board Assembly:
NHZS-SS12 KIT

Installation & maintenance information

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

APPLICATION

For VMVL Luminaires (hazardous locations), only with suffix "M3" - Occupancy Sensor and Barrier Board Assembly kit consists of Occupancy Sensor and Barrier Board Assembly (of Component Model HZS-M4), a cable tie & two screws. It is intended for field installation, or for replacement of the same Barrier Board Assembly and Occupancy Sensor for VMVL luminaires with suffix M3. Kit model NHZS-SS12 KIT was assessed as suitable for the same hazardous locations and markings as shown on the VMVL luminaires with suffix M3.

- For UL/C-UL, ensure that the kit package label contains the following markings:
1.  and if applicable 
 2. Cat. No. "NHZS-SS12 KIT"
 3. "LUMINAIRE FITTINGS FOR USE IN HAZARDOUS LOCATIONS"
 4. "FOR USE WITH UL/C-UL LISTED LUMINAIRE FITTINGS CAT. NO. VMVL*M3;"... "REFER INSTALLATION INSTRUCTIONS IN IF 1983, FOR ASSEMBLY AND MAINTENANCE."

⚠ WARNING

To avoid explosion/product degradation:

Inspect the Occupancy Sensor and Barrier Board Assembly Kit Model NHZS-SS12 KIT before installation. DO NOT INSTALL DAMAGED KIT PARTS. Any parts damaged during shipping or assembly must be replaced—contact Eaton Crouse-Hinds.

The Occupancy Sensor must ALWAYS be installed together with the Barrier Board Assembly in kit model no. NHZS-SS12 KIT. Never attempt to install only the Occupancy Sensor without the Barrier Board Assembly, as this would invalidate intrinsic safety and cause an explosion hazard.

Kit model no. NHZS-SS12 KIT is only suitable for ambient and temperature codes mentioned on luminaire nameplate. Installing the kit outside those limits causes an explosion hazard.

Take care not to damage the Barrier Board Assembly (shown in Figure 4), especially the gray potting material inside the housing, and the wires/connectors protruding from it to avoid risk of explosion.

All gasket seals must be clean and undamaged.

Before opening, electrical power to the luminaire must be turned off. Keep tightly closed when in operation.

To reduce the risk of ignition due to electrostatic discharge, avoid contact with the luminaire while explosive atmosphere is present. Clean only with damp cloth.

Do not open when an explosive atmosphere is present.

Circuits must be wired per the enclosed wiring diagram to ensure safety of the equipment. Additionally, ensure that the maximum supply voltage to the luminaire does not exceed Um = 277 VAC.

These instructions do not contain all the installation and maintenance information for the different variations of the luminaire. If further information is needed for completing proper installation, contact Eaton Crouse-Hinds.

Occupancy Sensor of kit model NHZS-SS12 KIT for installation in VMVL luminaires with suffix M3 is intrinsically safe, Ex ia, when powered by Barrier Board Assembly of kit model NHZS-SS12 KIT, as indicated by these instructions. Substitution of components may impair intrinsic safety.

- For ATEX/IECEx, ensure that the kit package label contains the following markings:
1. "PART OF IECEx UL 19.0039X, DEMKO 19 ATEX 2118X AND DEMKO 19 ATEX 2119X"
 2. Cat. No. "NHZS-SS12 KIT"
 3. "REFER INSTALLATION INSTRUCTIONS IN IF 1983, FOR ASSEMBLY AND MAINTENANCE."

⚠ WARNING

To avoid the risk of fire, explosion or electric shock:

This product should be installed, inspected and maintained by a qualified electrician only, in accordance with all applicable electrical codes.

⚠ WARNING

To avoid electric shock:

Be certain electrical power is OFF before and during installation and maintenance.

Luminaire must be supplied by a wiring system with an equipment grounding conductor.

To avoid burning hands:

Make sure lens and housing are cool when performing maintenance.



IF 1983



⚠ WARNING

Pour éviter l'explosion ou la dégradation du produit:

Avant l'installation, inspectez le capteur de présence et la trousse d'assemblage de carton barrière, modèle NHZS-SS12 KIT. N'INSTALLEZ PAS LES PIÈCES DE LA TROUSSE SI ELLES SONT ENDOMMAGÉES. Toute pièce endommagée pendant l'expédition ou l'assemblage doit être remplacée. Communiquez avec Eaton Crouse-Hinds.

Le capteur de présence doit TOUJOURS être installé avec l'assemblage de carton barrière présent dans la trousse d'assemblage au numéro de modèle NHZS-SS12 KIT. Ne tentez jamais d'installer uniquement le capteur de présence sans l'assemblage de carton barrière, car cela pourrait entraver la sécurité intrinsèque et causer un risque d'explosion.

La trousse au numéro de modèle NHZS-SS12 KIT ne convient qu'aux températures ambiantes et aux codes de température mentionnées sur la plaque signalétique du luminaire. L'installation de la trousse à l'extérieur de ces limites pose un risque d'explosion.

Prenez soin de ne pas endommager l'assemblage de carton barrière (illustré à la figure 43), surtout le matériau de potage gris à l'intérieur du boîtier, et les fils/connecteurs qui en sortent pour éviter tout risque d'explosion.

Tous les joints d'étanchéité doivent être propres et en bon état.

Avant l'ouverture, l'alimentation électrique du luminaire doit être coupée. Le luminaire doit être bien fermé lorsqu'il est sous tension.

Pour réduire le risque d'allumage à cause d'une décharge électrostatique, éviter tout contact avec le luminaire dans un environnement explosif. Nettoyer seulement avec un chiffon humide.

Ne pas ouvrir dans un environnement explosif.

Les circuits doivent être câblés selon le schéma de câblage fourni pour assurer la sécurité de l'équipement. De plus, assurez-vous que la tension d'alimentation maximale du luminaire ne dépasse pas Um = 277 VCA.

Ces instructions ne contiennent pas toutes les informations d'installation et d'entretien des différentes variations du luminaire. Si vous avez besoin de plus de renseignements pour effectuer l'installation appropriée, communiquez avec Eaton Crouse-Hinds.

Le capteur de présence de la trousse au numéro de modèle NHZS-SS12 KIT servant à l'installation dans les luminaires VMVL avec le suffixe M3 est intrinsèquement sécuritaire, S.I., Ex ia, lorsqu'il est alimenté par un assemblage de carton barrière de la trousse au numéro de modèle NHZS-SS12 KIT, tel qu'indiqué dans ces instructions. La substitution des composants peut nuire à la sécurité intrinsèque.



⚠ AVERTISSEMENT

Pour prévenir toute décharge électrique:

S'assurer que l'alimentation électrique est COUPÉE avant et pendant l'installation et l'entretien.

Le luminaire doit être alimenté par un système de câblage doté d'un conducteur de mise à la terre de l'équipement.

Pour éviter de se brûler les mains:

S'assurer que la lentille et le boîtier sont froids avant d'effectuer l'entretien.



⚠ AVERTISSEMENT

Pour éviter les risques d'incendie, d'explosion ou de décharge électrique:

Ce produit doit être installé, inspecté et entretenu par un électricien qualifié seulement, conformément à tous les codes de l'électricité pertinents.

INSTALLATION

De-energize the luminaire before performing any maintenance/ installation.

OCCUPANCY SENSOR AND BARRIER BOARD
ASSEMBLY KIT FOR FIELD INSTALLATION/
REPLACEMENT

a) Field installation of Barrier Board Assembly:

1. To gain access to the driver compartment, separate the luminaire from the top hat by loosening the ¼-20 slotted head captive screw (See Figure 1).
2. Remove floating Controller Board output wires with 4-Pin connector and Bulkhead wires with 4-Pin connector by carefully cutting cable tie, taking care not to damage wire insulation (See Figure 2).
3. Disconnect the Jumper cable connector & discard the Jumper cable from assembly (See Figure 2, 3 & 15c).
4. Take the Barrier Board Assembly from the Occupancy Sensor and Barrier Board Assembly kit. Make sure the wires marked "BOARD" feed through the wire exit feature provided in plastic housing (See Figure 4).
5. Connect Input wires of Barrier Board Assembly (having "BOARD" label) to Controller board 4-Pin connector wire harness & Output wires (having "IS (TO BULKHEAD)" label) to Bulkhead 4-Pin connector wire harness. (See Figure 2, 4 & 15b). Refer labels attached to the Barrier Board Assembly wires for connection.

6. Install the Barrier Board Assembly (See Figure 4) by aligning the two mounting holes on the Barrier Board Assembly with the corresponding holes on mounting plate in the orientation shown in Figures 5 and 6.
7. Make sure the I.S. output wires labeled "I.S. (TO BULKHEAD)" and the connectors/wiring now connected feed down the "Intrinsically safe wire hole" shown in Figure 5 such that there is no excess wiring left in the driver compartment or pinched below the Barrier Board Assembly (See Figure 4 & 6). Secure the Barrier Board Assembly with the #8-32 screws provided (quantity-2) (See Figure 4). Tighten the screws to 20 in.-lb. (2.3 N-m). The Barrier Board Assembly housing edges should be flushed with mounting plate surface.
8. Secure the barrier board wires connected to controller board with cable tie (See Figure 6) to avoid interference between cover and housing.
9. Reinstall and secure the luminaire to the top hat prior to re-energizing the luminaire. Tighten back the captive screw to top hat by applying torque of 30 in.-lbs. (3.4 N-m). See Figure 1. Ensure two (2) bosses on driver housing are in contact with Top hat (See Figure 6 & 7).

b) Field installation of Occupancy Sensor

1. Ensure the gaskets are properly seated on the sensor before installing Sensor assembly from NHZS-SS12 KIT (See Figure 8).
2. The sensor lens is fragile, take care while handling to avoid any damage to the lens.
3. Remove & discard Occupancy Sensor cap from the luminaire (See Figure 9) by pulling out by hand and clean the Occupancy Sensor bore from any debris or dust (See Figure 10).
4. To clean the bore, use clean, damp cloth. Do not use additional water or any cleaning fluid.
5. Per wiring diagram (See Figure 15a), connect the Occupancy Sensor connector (See Figure 8) to the bulkhead output connector (See Figure 10) while supporting the sensor.
6. Feed the wiring and connectors into the Occupancy Sensor housing.
7. Orient the lens of the Occupancy Sensor toward the top hat of the luminaire and insert Occupancy Sensor into bore (See Figure 11). Ensure that no wiring gets pinched during this step. Once the Occupancy Sensor has bottomed out in the bore, slowly rotate the Occupancy Sensor into the desired position (do not turn more than 180 degrees clockwise or counterclockwise to reach the desired position). Optimal position is typically parallel to the ground, with the lens pointing at the ground. Ensure the flexible tabs are engaged/extended to prevent rotation and accidental removal of the Occupancy Sensor (See Figure 12). Ensure no wiring or connectors are visible after installation of the Occupancy Sensor.



FIGURE 1

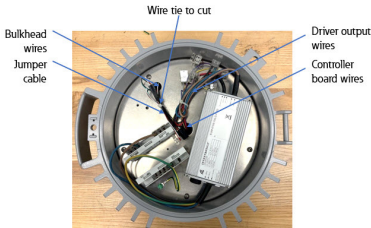


FIGURE 2

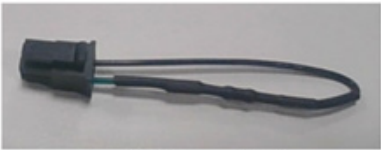


FIGURE 3

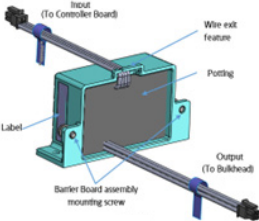


FIGURE 4

c) Field replacement of Barrier Board Assembly

1. In case of faulty Barrier Board Assembly or Occupancy Sensor replace both with NHZS-SS12 KIT.
2. To gain access to the driver compartment, separate the luminaire from the top hat by loosening the ¼-20 slotted head captive screw (See Figure 1).
3. Release the barrier board wires by carefully cutting barrier board cable tie, taking care not to damage wire insulation. (See Figure 6)
4. Disassemble Barrier Board Assembly by removing two # 8-32 screws from its housing.
5. Pull out the barrier board assembly by disconnecting "I.S. (TO BULKHEAD)" & "BOARD" from their respective connectors (See Figure 2, 4 & 15b).
6. Finally, follow steps 4 to 9 from section 'a) Field Installation of Barrier Board Assembly' to install the new Barrier Board Assembly.

d) Field replacement of Occupancy Sensor:

1. Rotate existing installed Occupancy Sensor so that orientation of Lens of sensor will be towards the Top hat. See Figure 13.
2. Remove the Occupancy Sensor from casting bore by pulling it out by hand slowly, taking care not to strain the wiring/ connectors.
3. Disconnect the Occupancy Sensor connector (See Figure 8) from the bulkhead output connector (See Figure 10) while supporting the sensor.
4. Clean the Occupancy Sensor bore from any debris or dust (See Figure 10). To clean the bore use -clean, damp cloth. Do not use additional water or any cleaning fluid.
5. The sensor lens is fragile, take care while handling to avoid any damage to the lens.
6. Finally, follow steps 5 to 7 from section 'b) Field Installation of Occupancy Sensor' to install the new Occupancy Sensor

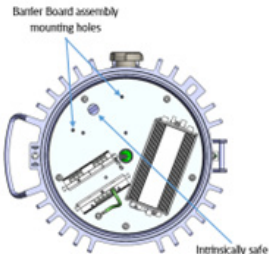


FIGURE 5

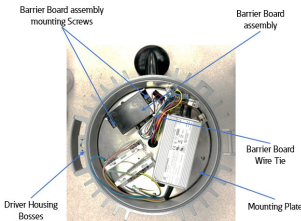


FIGURE 6

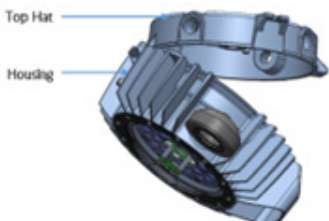


FIGURE 7



FIGURE 8

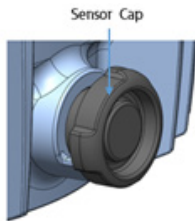


FIGURE 9

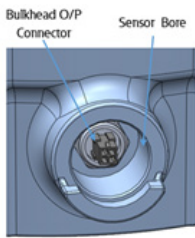


FIGURE 10

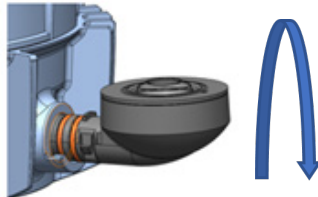


FIGURE 11

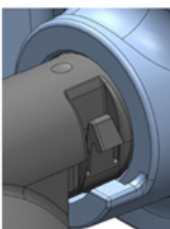


FIGURE 12

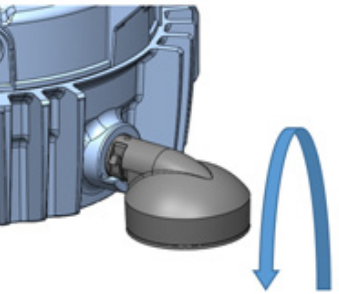


FIGURE 13

MAINTENANCE

1. Perform visual, electrical and mechanical inspections on a regular basis. The environment and frequency of use should determine this. However, it is recommended that checks be made at least once a year. We recommend an Electrical Preventive Maintenance Program as described in the National Fire Protection Association Bulletin NFPA No. 70B: Recommended Practice For Electrical Equipment Maintenance (www.nfpa.org).
2. The luminaire lens should be cleaned periodically to ensure continued lighting performance. To clean, wipe the lens with a clean, damp cloth. If this is not sufficient, use a mild soap or a liquid cleaner such as Collinite NCF or Duco #7. Do not use an abrasive, strong alkaline or acid cleaner. Damage may result.

3. Visually check for undue heating evidenced by discoloration of wires or other components, damaged parts or leakage evidenced by water or corrosion in the interior. Replace all worn, damaged or malfunctioning components, and clean gasket seals before putting the luminaire back into service.
4. Electrically check to make sure that all connections are clean and tight.
5. Mechanically check that all parts are properly assembled.

WIRING DIAGRAMS

Sensor wiring

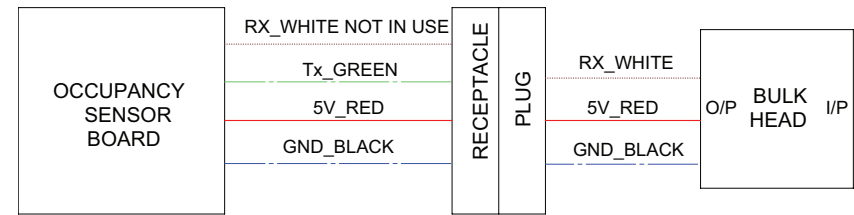


FIGURE 14A

WIRING DIAGRAMS

Barrier board wiring

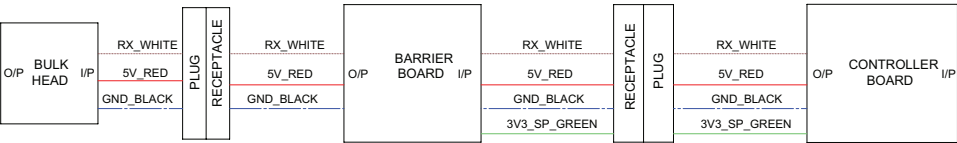


FIGURE 14B

WIRING DIAGRAMS

VMVL 3 - 7, -AT & -GT (without sensor option)

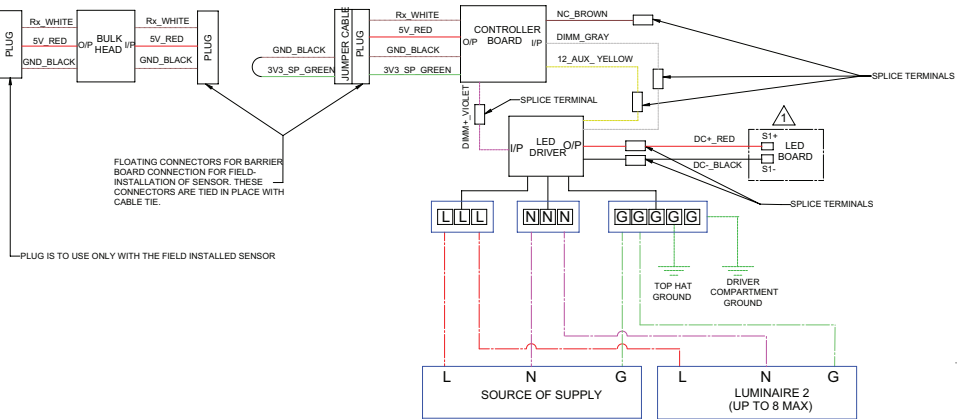


FIGURE 14C

For additional information refer to Luminaire Installation & maintenance information – IF 1981

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