



GAI-TRONICS®
A HUBBELL COMPANY

Intrinsically-Safe Microphone Barrier Kit

Model 10438-101

Confidentiality Notice

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General Information

The Model 10438-101 Intrinsically-Safe Microphone Barrier Kit is designed for exclusive connection to a GAI-Tronics Model 400-003 or 400-004 Rigcom Zone 1 Station to utilize a remote gooseneck microphone in a hazardous area. This kit provides an intrinsically safe barrier. This allows using the microphone at a location other than the station to which it is connected. The enclosure must be used in applications where the microphone is mounted remotely from the station.



The Model 10438-101 Microphone Intrinsically-Safe Barrier Kit includes the following components:



Qty Description

- | | |
|---|--|
| 1 | No. 12801-002 Gooseneck Microphone Assembly with Mounting Flange |
| 1 | Enclosure with I.S. Barrier PCBA |

Installation

This enclosure must be installed by trained, qualified and competent personnel. Installation must comply with state and national regulations, as well as safety practices for this type of equipment.

 **CAUTION**  —Where multiple circuits extend from the same piece of associated apparatus, they must be installed in separate cables or in one cable having suitable insulation in accordance with the requirements of BS EN 60079-25 / IEC 60079-25.

 **CAUTION**  —Do not install this equipment in hazardous areas other than those indicated on the approval listing in the Approvals section. Such installation may cause a safety hazard and consequent injury or property damage.

Mounting

Mount the enclosure using the four 0.28-inch (7-mm) diameter holes located on the mounting flanges with 5/16-inch (M6) hardware. One M20 thru hole is provided for conduit entry on the left and right sides of the enclosure.

The suggested mounting height for the enclosure is 48 inches (1219 mm) to the center of the bottom mounting holes of the enclosure (see Figure 1 for mounting dimensions).

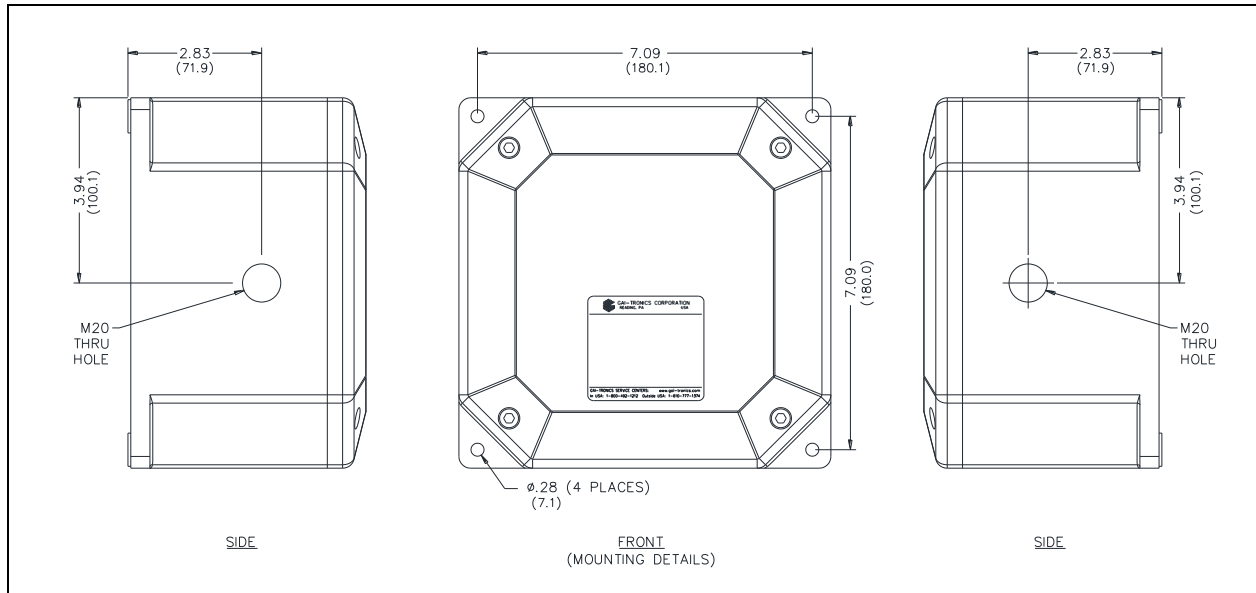


Figure 1. Model 10438-101 Microphone I.S. Barrier Kit Mounting Details

⚠ WARNING ⚠ — **Insure proper grounding to protective earthing.
Do not disconnect equipment while energized.**

After all wiring and cable connections are complete:

1. Place the front cover on the rear enclosure.
Be careful not to pinch any cables.
2. Secure the front cover using the four screws and washers provided.
3. Torque the screws to 50 in·lb (5.65 N·m).

Enclosure Configuration

The Model 10438-101 I.S. barrier enclosure contains a single No 69544-001 PCBA. Make all customer connections to this PCBA:

1. Properly lug all connections.
2. Use one conductor (0.50–1.5 mm²) per screw terminal.
3. Torque wire binding screws to 1.35 N·m.
4. Torque wire clamps to 2.36 N·m.

The front cover of the enclosure contains all applicable approval labeling.

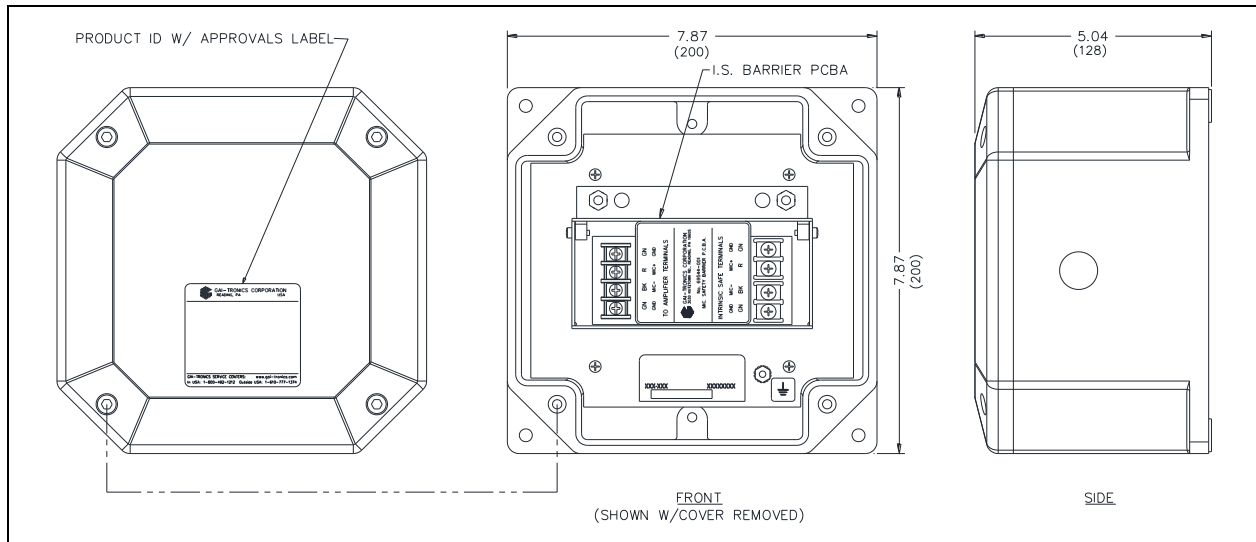


Figure 2. Model 10438-101 Microphone I.S. Barrier Outline Drawing

Gooseneck Microphone

The microphone is mounted to a 19-inch gooseneck with a mounting flange and is equipped with a 5.5-foot cord.

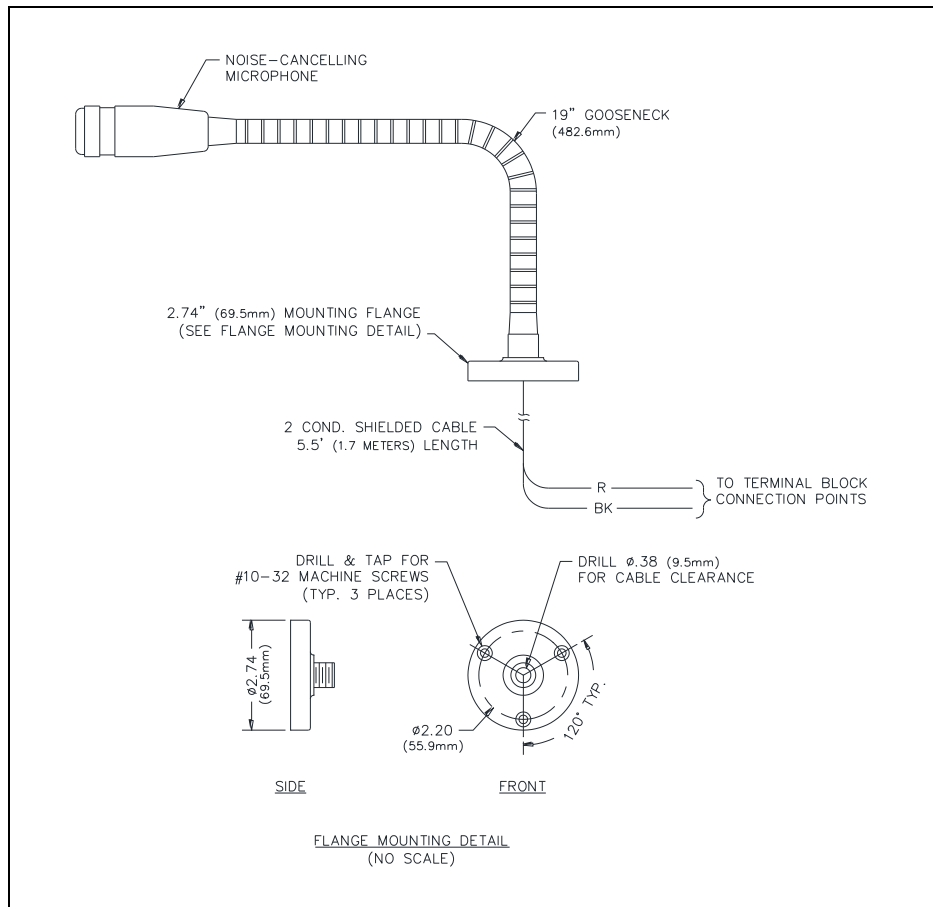


Figure 3. Model 12801-002 Microphone Assembly

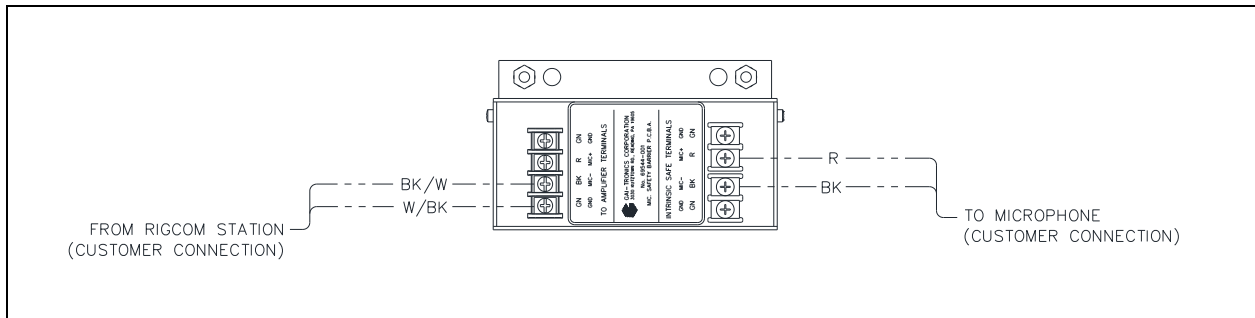


Figure 4. IS Barrier Kit Wiring

Mounting the Gooseneck Microphone Assembly

1. Mount the gooseneck microphone assembly using the supplied mounting flange.
A device box can be used to mount the microphone assembly.
2. Mount the gooseneck in accordance with applicable electrical codes.

NOTE: The path between the Model 400-003 or 400-004 Zone 1 RigCom Station and the Model 10438-101 IS Barrier Enclosure must have type “d” flameproof cable gland. The path between the IS barrier enclosure and the microphone must have a type “e” increased safety cable gland (see [Figure 5](#) for a typical installation).

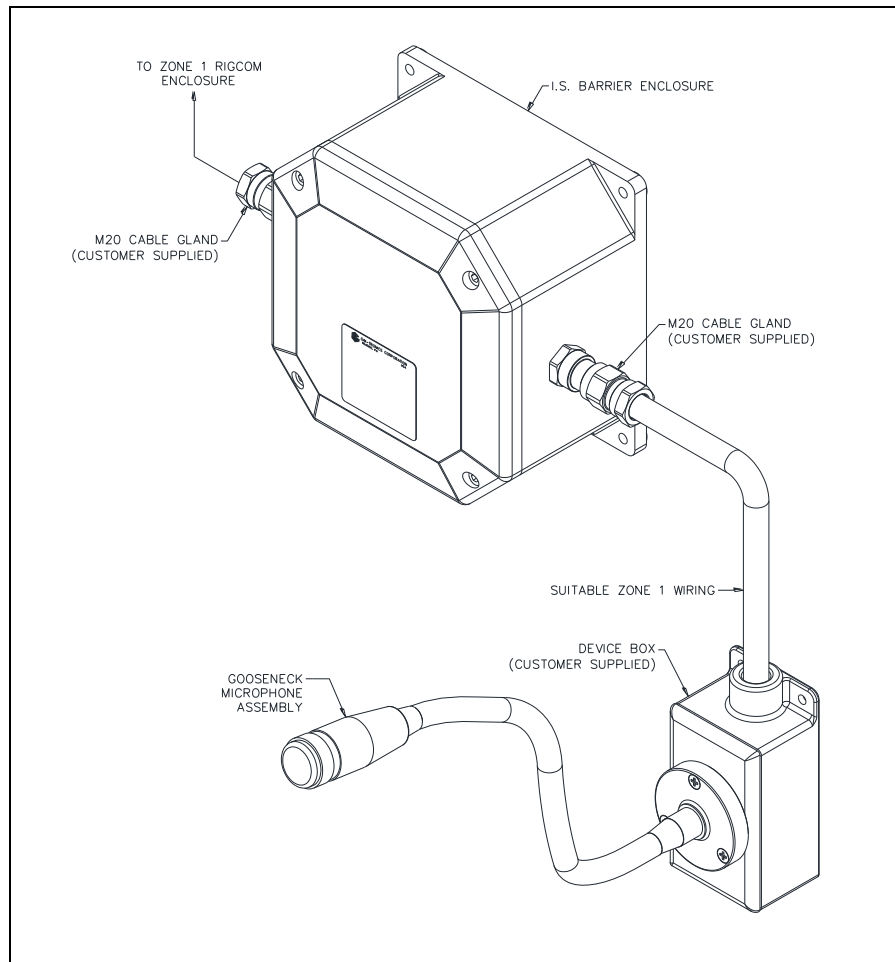


Figure 5. Typical Installation

Specifications

Enclosure

Construction/finish..... black, carbon loaded glass-reinforced polyester
 Mounting..... wall or column, four 0.28-inch (7-mm) mounting holes
 Conduit entries one M20 thru hole on two opposite sides
 Dimensions 7.87 H × 7.87 W × 5.04 D in (200 H × 200 W × 128 D mm)
 Shipping weight 6.5 lb (2.9 kg)
 Temperature range (operating and storage) -4 °F to +140 °F (-20 °C to +60 °C)

Microphone

Element:

 Type noise-canceling, dynamic
 Impedance 500 Ω, nominal
 Construction/finish..... die cast zinc/chrome
 Connections.....stripped wires
 Dimensions 19 in (482.6 mm) gooseneck
 Supplied cable length.....5.5 ft
 Shipping weight 0.75 lb (0.34 kg)

Approvals

CE Mark

Certificate No.
 Notified Body ID No. 0539
 UL International DEMKO A/S
 Lyskear 8
 DL-2730 Herlev
 Denmark

DEMKO 12 ATEX 1116051 II 2 G Ex e [ia] IIB + H₂ T6 Gb
 IECEX UL 12.0012 Ex e [ia] IIB + H₂ T6 Gb

Warranty

Equipment. GAI-Tronics warrants for a period of one (1) year from the date of shipment, that any GAI-Tronics equipment supplied hereunder shall be free of defects in material and workmanship, shall comply with the then-current product specifications and product literature, and if applicable, shall be fit for the purpose specified in the agreed upon quotation or proposal document. If (a) Seller's goods prove to be defective in workmanship and/or material under normal and proper usage, or unfit for the purpose specified and agreed upon, and (b) Buyer's claim is made within the warranty period set forth above, Buyer may return such goods to GAI-Tronics nearest depot repair facility, freight prepaid, at which time they will be repaired or replaced, at Seller's option, without charge to Buyer. Repair or replacement shall be Buyer's sole and exclusive remedy. The warranty period on any repaired or replacement equipment shall be the greater of the ninety (90) day repair warranty or one (1) year from the date the original equipment was shipped. In no event shall GAI-Tronics warranty obligations with respect to equipment exceed 100% of the total cost of the equipment supplied hereunder. Buyer may also be entitled to the manufacturer's warranty on any third-party goods supplied by GAI-Tronics hereunder. The applicability of any such third-party warranty will be determined by GAI-Tronics.

Services. Any services GAI-Tronics provides hereunder, whether directly or through subcontractors, shall be performed in accordance with the standard of care with which such services are normally provided in the industry. If the services fail to meet the applicable industry standard, GAI-Tronics will re-perform such services at no cost to buyer to correct said deficiency to Company's satisfaction provided any and all issues are identified prior to the demobilization of the Contractor's personnel from the work site. Re-performance of services shall be Buyer's sole and exclusive remedy, and in no event shall GAI-Tronics warranty obligations with respect to services exceed 100% of the total cost of the services provided hereunder.

Warranty Periods. Every claim by Buyer alleging a defect in the goods and/or services provided hereunder shall be deemed waived unless such claim is made in writing within the applicable warranty periods as set forth above. Provided, however, that if the defect complained of is latent and not discoverable within the above warranty periods, every claim arising on account of such latent defect shall be deemed waived unless it is made in writing within a reasonable time after such latent defect is or should have been discovered by Buyer.

Limitations / Exclusions. The warranties herein shall not apply to, and GAI-Tronics shall not be responsible for, any damage to the goods or failure of the services supplied hereunder, to the extent caused by Buyer's neglect, failure to follow operational and maintenance procedures provided with the equipment, or the use of technicians not specifically authorized by GAI-Tronics to maintain or service the equipment. **THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES AND REMEDIES, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

Return Policy

If the equipment requires service, contact your Regional Service Center for a return authorization number (RA#). Equipment should be shipped prepaid to GAI-Tronics with a return authorization number and a purchase order number. If the equipment is under warranty, repairs or a replacement will be made in accordance with the warranty policy set forth above. Please include a written explanation of all defects to assist our technicians in their troubleshooting efforts.

Call 800-492-1212 (inside the USA) or 610-777-1374 (outside the USA) for help identifying the Regional Service Center closest to you.