

Halex 12105B

Halex 12105B Set Screw Connectors User Manual

Model: 12105B

1. PRODUCT OVERVIEW

The Halex 12105B 1/2-inch Set-Screw Connectors are designed for use with Electrical Metallic Tubing (EMT). These fittings are constructed from zinc die cast and are supplied in packs of 50 pieces. Halex products are manufactured to exceed the standard requirements set forth by UL and CSA, ensuring reliability and safety for indoor electrical installations.

Key Features:

- 1/2-inch size for EMT.
- UL and CSA certified for safety and quality.
- Suitable for indoor use only.
- Concrete-tight for 1/2-inch to 3/4-inch applications; concrete-tight when taped for 1-inch to 4-inch applications.
- Durable zinc die cast construction.
- Supplied in a box of 50 pieces.



Figure 1: A single Halex 12105B 1/2-inch Set Screw Connector, showing the main body and the set screw for securing the EMT conduit.

2. SAFETY INFORMATION

Always adhere to local electrical codes and regulations when installing electrical components. Improper installation can lead to electrical shock, fire, or other hazards. If you are unsure about any part of the installation process, consult a qualified electrician.

- **Disconnect Power:** Before beginning any electrical work, ensure that power to the circuit is turned off at the main breaker or fuse box. Verify with a voltage tester.
- **Indoor Use Only:** These connectors are designed for indoor applications. Do not use them in wet or outdoor locations unless specifically rated for such environments.
- **Proper Sizing:** Ensure the 1/2-inch connectors are used with appropriately sized EMT conduit.
- **Secure Connections:** Always tighten set screws firmly to ensure a secure and safe connection. Over-tightening can damage the conduit or connector; under-tightening can lead to loose connections and potential hazards.
- **Material Handling:** Handle connectors carefully to avoid cuts or pinches.

3. SETUP AND INSTALLATION

Halex 12105B set screw connectors are used to secure EMT conduit to electrical boxes or enclosures. Follow these steps for proper installation:

1. **Prepare Conduit:** Cut the EMT conduit to the desired length. Ensure the ends are clean and free of burrs to prevent damage to wire insulation.
2. **Insert Conduit:** Slide the EMT conduit into the open end of the set screw connector. Ensure the conduit is fully seated within the connector.
3. **Tighten Set Screw:** Using a screwdriver, firmly tighten the set screw on the side of the connector. This screw bites into the EMT conduit, securing it in place. Do not overtighten.
4. **Attach to Box/Enclosure:** Insert the threaded end of the connector through the knockout hole in the electrical box or enclosure.
5. **Secure with Locknut:** Thread the provided locknut onto the connector from inside the electrical box. Tighten the locknut securely against the box to create a firm, ground-continuity connection. For concrete-tight applications, especially for sizes 1-inch to 4-inch, taping the connection may be required as per local codes.



Figure 2: Side view of the Halex 12105B connector, highlighting the set screw mechanism and the threaded portion for attachment to an electrical box.

4. OPERATING INSTRUCTIONS

Once properly installed, the Halex 12105B set screw connectors provide a secure and continuous path for electrical metallic tubing, protecting enclosed wiring. These connectors are passive components and do not require active operation after installation. Their function is to maintain the integrity of the conduit system and ensure proper grounding.

5. MAINTENANCE

Halex 12105B set screw connectors are designed for long-term, maintenance-free operation once correctly installed. As they are made of zinc die cast, they are resistant to corrosion in typical indoor environments.

- **Periodic Inspection:** Periodically inspect installed connectors for any signs of loosening, corrosion, or damage, especially in areas subject to vibration or environmental changes.
- **Cleaning:** If necessary, gently wipe the exterior of the connectors with a dry cloth to remove dust or debris. Do not use abrasive cleaners or solvents.
- **Re-tightening:** If a connection appears loose, ensure power is disconnected before carefully re-tightening the set screw and locknut.

6. TROUBLESHOOTING

Most issues related to set screw connectors stem from improper installation. Always ensure power is off before attempting any troubleshooting.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Conduit is loose in connector.	Set screw not tightened sufficiently.	Ensure power is off. Re-tighten the set screw firmly.
Connector is loose on electrical box.	Locknut not tightened sufficiently.	Ensure power is off. Re-tighten the locknut securely against the box.
Difficulty inserting conduit.	Conduit end has burrs or is not properly reamed.	Ream the conduit end to remove burrs and ensure a smooth insertion. Verify conduit size matches connector size.
Corrosion on connector.	Exposure to moisture or harsh chemicals; not suitable for environment.	These connectors are for indoor, dry locations. Replace if corroded. Ensure proper environmental conditions.

7. SPECIFICATIONS

- **Model Number:** 12105B
- **Size:** 1/2 inch
- **Material:** Zinc Die Cast
- **Certification:** UL, CSA
- **Application:** Electrical Metallic Tubing (EMT)
- **Usage Environment:** Indoor use only
- **Concrete-tight:** 1/2-inch to 3/4-inch; concrete-tight when taped for 1-inch to 4-inch
- **Package Quantity:** 50 pieces per box
- **Product Dimensions:** Approximately 11.13 x 18.88 x 7.5 inches (packaging dimensions)
- **Item Weight:** Approximately 1.44 ounces per connector (total box weight will be higher)
- **UPC:** 051411121051



Figure 3: A large quantity of Halex 12105B connectors, illustrating the typical packaging of 50 pieces per box.

8. WARRANTY AND SUPPORT

Halex products are manufactured to high standards and are required to exceed the standard requirements set forth by UL and CSA. For specific warranty information or technical support, please contact Halex directly or refer to their official website.

You can find more information about Halex products by visiting the [Halex Store on Amazon](#).



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