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› Sigma Engineered Solutions ProConnex 43384 Rigid Insulated Metallic Grounding Bushing Instruction Manual

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Model: 43384

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1. PRODUCT OVERVIEW

The Sigma ProConnex Insulated Metallic Grounding Bushing, model 43384, is designed for use with 1-1/4-inch Rigid conduits and IMC (Intermediate Metal Conduit) or other threaded connectors. Its primary function is to provide a smooth, rounded bearing surface at the end of the conduit to protect wires or cables from abrasion during pulling and operation. Additionally, it incorporates a lay-in lug to facilitate the connection of a grounding conductor, ensuring electrical safety and compliance.



Image 1.1: Top view of the Sigma ProConnex 43384 Rigid Insulated Metallic Grounding Bushing, showing the threaded interior and the lay-

2. SAFETY INFORMATION

Always adhere to local and national electrical codes and regulations when installing electrical components. Improper installation can lead to electrical shock, fire, or other hazards. This product should be installed by a qualified electrician or a knowledgeable individual familiar with electrical wiring practices.

- **Disconnect Power:** Ensure all power to the circuit is disconnected at the main service panel before beginning any installation.
- **Use Appropriate Tools:** Utilize proper tools for installation to prevent damage to the product or injury.
- **Proper Grounding:** Verify that the grounding connection is secure and meets all applicable codes.
- **Inspect Components:** Before installation, inspect the bushing for any signs of damage. Do not install damaged components.

3. PRODUCT FEATURES

- Provides a smooth surface to prevent damage to wires during pulling.
- Includes a lay-in lug for easy attachment of a grounding wire.
- Designed for use with 1-1/4-inch Rigid conduit or IMC.
- Compatible with wire range #14 - #4.
- Constructed from zinc die-cast with an aluminum lug for durability.
- UL and CSA listed for safety and quality assurance.

4. SPECIFICATIONS

Model Number	43384
Conduit Size	1-1/4-inch Rigid or IMC
Wire Range	#14 - #4 AWG
Material	Zinc die-cast body, Aluminum lug
Color	Gray and Black
Dimensions (L x W x H)	3.11" x 1.88" x 0.61"
Item Weight	1.94 ounces
Certifications	UL Listed, CSA Certified
Temperature Rating	257°F (125°C)

5. INSTALLATION INSTRUCTIONS

Follow these steps for proper installation of the Sigma ProConnex 43384 Grounding Bushing:

1. **Prepare Conduit:** Ensure the end of the 1-1/4-inch Rigid or IMC conduit is clean and free of burrs.
2. **Thread Bushing:** Thread the grounding bushing onto the end of the conduit or threaded connector. Tighten securely by hand, then use appropriate tools to ensure a firm connection. The internal threads of the bushing should engage fully with

the conduit threads.

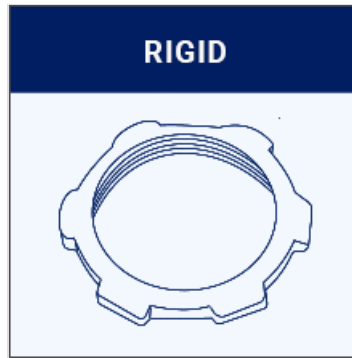


Image 5.1: Illustration representing a rigid conduit fitting, similar to how the bushing threads onto the conduit.

3. **Pull Wires:** Once the bushing is securely installed, carefully pull the electrical wires or cables through the conduit. The insulated throat of the bushing will protect the wire insulation from damage.
4. **Connect Grounding Wire:** Insert the grounding conductor (wire range #14 - #4 AWG) into the lay-in lug. Ensure the wire is stripped to the correct length to make full contact with the lug's clamping surface.



Image 5.2: Side view of the Sigma ProConnex 43384 Grounding Bushing, highlighting the lay-in lug for grounding wire connection.

5. **Secure Grounding Wire:** Tighten the screw on the lay-in lug to firmly secure the grounding wire. Verify that the connection

is tight and the wire cannot be easily pulled out.



Image 5.3: Illustration depicting a grounding connection, similar to how the lay-in lug secures the grounding wire.

6. **Final Check:** Double-check all connections for tightness and ensure no bare wires are exposed where they shouldn't be.

6. MAINTENANCE

The Sigma ProConnex 43384 Grounding Bushing requires minimal maintenance. Periodically inspect the installation for:

- **Tightness:** Ensure the bushing remains securely threaded onto the conduit and the grounding lug screw is tight.
- **Corrosion:** Check for any signs of corrosion on the metallic components, especially in damp or outdoor environments.
- **Damage:** Look for any physical damage to the bushing or the insulated throat. Replace if damage is found.
- **Grounding Integrity:** Verify the grounding wire connection remains intact and secure.

7. TROUBLESHOOTING

If issues arise, consider the following:

- **Loose Connection:** If grounding issues are suspected, first check that the bushing is tightly threaded onto the conduit and the grounding wire is securely fastened in the lug.
- **Incorrect Wire Size:** Ensure the grounding wire used is within the specified #14 - #4 AWG range for proper contact.
- **Conduit Compatibility:** Verify that the bushing is used with the correct 1-1/4-inch Rigid or IMC conduit type.
- **Damaged Insulation:** If wire insulation is damaged during pulling, inspect the bushing's throat for burrs or defects. Replace the bushing if necessary and re-pull wires carefully.

8. SUPPORT AND CONTACT INFORMATION

For technical assistance, product inquiries, or warranty information, please contact Sigma Engineered Solutions directly:

Website: www.sigmaengineeredolutions.com

Refer to the official Sigma Engineered Solutions website for the most current contact details and support resources.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question