Cembre BF-M4 (10111275)

Cembre BF-M4 Insulated Eyelet Terminals User Manual

MODEL: BF-M4 (10111275)

1. Product Overview

The Cembre BF-M4 insulated eyelet terminals are designed for creating secure electrical connections. The unique funnel shape of the PVC collar facilitates easy and complete insertion of all wire strands into the copper sleeve, eliminating the need to twist the strands. This design ensures a direct wire insertion, saving assembly time and guaranteeing a reliable electrical and mechanical compression.

Key Features:

- Terminals are manufactured from Cu-ETP CWOO4A brass in accordance with UNI ENI 1652:1999 760 standard.
- Tin-plated with a minimum thickness of 3 µm.
- Operating temperature range: -20 °C to +80 °C (briefly +90 °C).
- Each crimp connector features the Cembre company logo, product designation, and conductor cross-section (mm^2).
- Suitable for secure electrical connections in various applications including home, garden, garage, car, truck, motorcycle, and bicycle.
- Package contains 50 pieces.

Figure 1.1: Cembre BF-M4 insulated eyelet terminal, blue insulation, ring terminal.

Figure 1.2: Close-up view showing the internal copper sleeve and insulation.

Figure 1.3: Side view highlighting the compact design.

Figure 1.4: Angled view showing the funnel-shaped insulation entry.

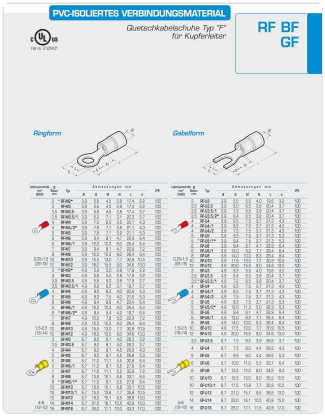


Figure 1.5: Technical diagram with dimensions and specifications.

Figure 1.6: Front view showing the wire entry point.

Figure 1.7: Top-down view emphasizing the ring shape.

Figure 1.8: Side view showing the full length of the terminal.

Figure 1.9: Perspective view ready for wire insertion.

2. Setup and Installation

Proper installation is crucial for ensuring a secure and reliable electrical connection. Follow these steps carefully:

1. **Prepare the Wire:** Strip the insulation from the end of the wire to the appropriate length, ensuring that the bare conductor will fully enter the terminal's copper sleeve. For BF-M4 terminals, the recommended wire cross-section is 1.5-2.5 mm².
2. **Insert the Wire:** Insert the stripped wire directly into the funnel-shaped PVC collar of the terminal. Ensure all individual strands of the conductor enter the copper sleeve completely. The design of the terminal allows for direct insertion without twisting the strands.

3. **Crimp the Terminal:** Using a suitable crimping tool designed for insulated terminals, apply firm and even pressure to the crimping barrel of the terminal. Ensure the crimp is secure and the wire is firmly held within the terminal. A proper crimp will result in a strong electrical and mechanical connection.
4. **Verify Connection:** After crimping, gently pull on the wire to ensure it is securely fastened within the terminal. Inspect the crimped area for any signs of loose strands or improper compression.

Note: Always use appropriate safety measures and tools when working with electrical components.

3. Operating Guidelines

Once installed, the Cembre BF-M4 insulated eyelet terminals function as a permanent electrical connection point. They are designed for passive use in various electrical circuits.

Application:

- These terminals are ideal for creating robust and safe electrical connections in diverse environments.
- Common applications include wiring in residential and commercial buildings, garden lighting, garage electrical systems, and automotive (car, truck, motorcycle) and bicycle electrical systems.

Ensure the terminal is connected to a compatible stud or screw of size M4 for the eyelet to function correctly.

4. Maintenance and Storage

Cembre BF-M4 insulated eyelet terminals are designed for durability and require minimal maintenance once installed. However, proper storage and occasional inspection can prolong their lifespan and ensure continued performance.

Storage:

- Store unused terminals in a dry environment, away from direct sunlight and extreme temperatures.
- Keep them within their recommended temperature range of -20 °C to +80 °C.
- Avoid exposure to corrosive chemicals or excessive moisture, which could degrade the insulation or the metal components.

Inspection:

- Periodically inspect installed terminals for any signs of corrosion, physical damage, or loose connections.
- Ensure the insulation remains intact and free from cracks or degradation.
- If any damage is observed, replace the terminal immediately to prevent electrical hazards.

5. Troubleshooting Common Issues

As passive components, most issues with eyelet terminals stem from improper installation or selection. Here are some common problems and their solutions:

Issue: Poor Electrical Connection / High Resistance

- **Cause:** Wire not fully inserted into the terminal's copper sleeve before crimping.
- **Solution:** Ensure the stripped wire is fully seated against the internal stop of the terminal. Re-crimp if possible, or replace the terminal and re-do the connection.
- **Cause:** Incorrect wire gauge used (too small for the terminal).
- **Solution:** Verify the wire cross-section is within the 1.5-2.5 mm^2 range for this terminal. Use the correct terminal size for your wire.

- **Cause:** Improper crimping tool or technique.
- **Solution:** Use a dedicated crimping tool for insulated terminals. Ensure the tool is properly calibrated and apply sufficient, even pressure.

Issue: Terminal Detachment / Mechanical Failure

- **Cause:** Insufficient crimping force or improper crimp location.
- **Solution:** Ensure the crimp is applied to the metal barrel of the terminal, not the insulation. The crimp should be tight enough to prevent the wire from being pulled out.
- **Cause:** Excessive mechanical stress on the connection.
- **Solution:** Ensure the wiring is properly supported and not subjected to undue tension or bending at the terminal point.

Issue: Insulation Damage

- **Cause:** Over-crimping or exposure to sharp objects/chemicals.
- **Solution:** Replace any terminal with damaged insulation to prevent short circuits or electrical shock.

6. Technical Specifications

Specification	Value
Product Name	Cembre BF-M4 Insulated Eyelet Terminals
Model Number	10111275
ASIN	B07VW978XV
Manufacturer	Cembre
Connector Type	Ring Terminal (Eyelet)
Eyelet Size	M4
Wire Cross-Section	1.5-2.5 mm^2
Contact Material	Brass (Cu-ETP CWOO4A), Tin-plated
Insulation Material	Polyvinyl Chloride (PVC)
Operating Temperature	-20 °C to +80 °C (briefly +90 °C)
Standards Complied	UNI ENI 1652:1999 760
Country of Origin	Taiwan
Units per Package	50 pieces

7. Warranty and Support

For specific warranty information, please refer to the terms and conditions provided by your point of purchase or the seller. As these are industrial components, warranty terms may vary.

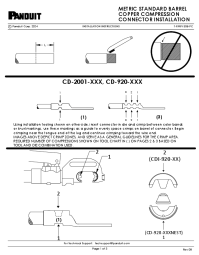
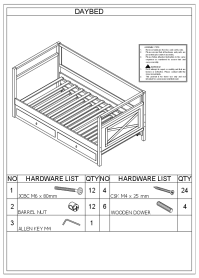
Spare Parts Availability:

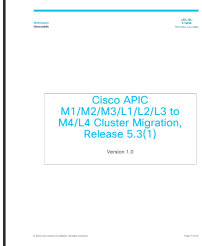
Information regarding the availability of spare parts for this product is not provided by the manufacturer.

Technical Support:

For technical assistance or inquiries regarding the Cembre BF-M4 insulated eyelet terminals, please contact the seller or distributor from whom you purchased the product. For purchases made via Amazon, the seller is Kalitec Verbindungstechnik.

Related Documents - BF-M4 (10111275)

	Panduit Metric Standard Barrel Copper Compression Connector Installation Guide This document provides installation instructions and detailed tool charts for Panduit metric standard barrel copper compression connectors, including LCMA, LCMD, LCMDN, and SCMS series. It specifies compatible wire sizes, cable classes (Metric Class 2, 5, 6), Panduit tooling, and Cembre tooling for proper crimping.
	Cintia Daybed with Trundle Assembly Instructions Detailed assembly instructions for the Cintia Daybed and Trundle, providing a step-by-step guide with hardware and parts lists for easy setup.
	DB Drive WDX Amplifiers Product Guide 2023-2024 Explore the comprehensive 2023-2024 product guide for DB Drive WDX amplifiers, featuring detailed specifications, features, and model information for their range of car audio amplifiers.
	Configuring SD Card Support on Cisco UCS Servers A guide to configuring internal Secure Digital (SD) card support on Cisco UCS B-Series, C-Series, and S-Series servers, covering FlexFlash and FlexUtil features, firmware management, and operational procedures.
	Shoe Cabinet with 3 Flip Drawers: User Manual and Assembly Guide Comprehensive user manual and assembly guide for the Shoe Cabinet with 3 Flip Drawers, detailing parts, hardware, and step-by-step installation instructions.



Cisco APIC M1/M2/M3/L1/L2/L3 to M4/L4 Cluster Migration Guide (Release 5.3(1))

This guide details the process for migrating Cisco APIC servers from older M1/M2/M3/L1/L2/L3 models to M4/L4 models for Release 5.3(1), covering requirements, procedures, and troubleshooting for in-service replacement.