

Molex 39-00-0039

Molex 39-00-0039 Crimp Socket Contact User Manual

Model: 39-00-0039 | Brand: Molex

INTRODUCTION

This manual provides detailed instructions for the proper use and handling of the Molex 39-00-0039 Crimp Socket Contact. This component is designed for reliable electrical connections in various applications, accommodating 24-18 AWG wires. Adherence to these instructions ensures optimal performance and longevity of the contact.



Figure 1: Molex 39-00-0039 Crimp Socket Contact. This image displays a single Molex crimp socket contact, a small metallic component designed for electrical connections. It features a cylindrical barrel for wire insertion and crimping, and a rectangular mating interface with retention features. The contact is shown in a horizontal orientation against a white background.

SETUP

Before beginning the crimping process, ensure you have the correct tools and materials:

- **Molex 39-00-0039 Crimp Socket Contacts:** Ensure contacts are free from damage or corrosion.
- **Wire:** 24-18 AWG (American Wire Gauge) stranded or solid wire, appropriate for your application.
- **Wire Stripper:** Calibrated for 24-18 AWG wires.
- **Crimping Tool:** A dedicated Molex crimping tool or a universal crimping tool with appropriate dies for Molex contacts is highly recommended for optimal crimp quality. Refer to the crimping tool's manual for specific die selection.
- **Wire Housing (Optional):** If the contact will be inserted into a connector housing, ensure it is compatible with Molex Mini-Fit Jr. series contacts.

Preparation Steps:

1. **Inspect Contacts:** Visually inspect each contact for any manufacturing defects or damage.
2. **Prepare Wire:** Using the wire stripper, carefully strip approximately 3-4 mm (0.12-0.16 inches) of insulation from the end of the wire. Ensure the wire strands are not cut or damaged during stripping. Twist the

exposed strands lightly to keep them together.

OPERATING INSTRUCTIONS (CRIMPING)

Follow these steps to properly crimp the Molex 39-00-0039 contact onto a prepared wire:

1. **Insert Contact into Tool:** Open the crimping tool and place the Molex contact into the appropriate crimp cavity (die) for the wire gauge (24-18 AWG). Ensure the contact is seated correctly and held in place by the tool's locator. The insulation barrel should align with the larger crimp section, and the wire barrel with the smaller crimp section.
2. **Insert Wire:** Insert the stripped end of the wire into the wire barrel of the contact until the insulation butts against the insulation stop. Ensure all wire strands are within the wire barrel.
3. **Crimp:** Close the crimping tool handles firmly and completely until the ratchet mechanism releases (if applicable). This ensures a full and proper crimp.
4. **Remove Crimped Contact:** Open the tool and carefully remove the crimped contact.
5. **Inspect Crimp:** Visually inspect the crimp for quality.
 - The wire strands should be fully enclosed and compressed within the wire barrel.
 - The insulation should be captured by the insulation barrel, providing strain relief without being cut.
 - There should be no loose strands or sharp edges.
 - Perform a gentle pull test on the wire to ensure it is securely held by the contact.
6. **Insert into Housing (if applicable):** If using a connector housing, align the crimped contact with the correct cavity and push it in until you hear or feel a click, indicating the locking tangs have engaged. Gently pull on the wire to confirm it is locked in place.

MAINTENANCE

Molex crimp contacts are designed for durability. Proper storage and handling are key to maintaining their integrity:

- **Storage:** Store contacts in their original packaging or in a clean, dry, and dust-free environment. Avoid exposure to extreme temperatures, humidity, or corrosive substances.
- **Handling:** Handle contacts by their body, avoiding contact with the mating surfaces to prevent contamination or damage.
- **Crimping Tool Care:** Regularly clean and lubricate your crimping tool according to its manufacturer's instructions to ensure consistent crimp quality.

TROUBLESHOOTING

If you encounter issues during the crimping or assembly process, consider the following:

- **Poor Crimp Quality:**
 - *Cause:* Incorrect crimping tool/die, improper wire stripping length, incorrect wire gauge, or incomplete crimp cycle.
 - *Solution:* Verify tool and die compatibility, ensure correct strip length (3-4mm), confirm wire gauge (24-18 AWG), and ensure the tool fully cycles.
- **Wire Pull-Out:**
 - *Cause:* Insufficient crimp force, wire not fully inserted into the wire barrel, or damaged wire strands.
 - *Solution:* Ensure the crimping tool fully cycles, verify wire insertion depth, and inspect wire for damage

before stripping.

- **Difficulty Inserting into Housing:**

- *Cause:* Deformed contact, bent locking tangs, or incorrect orientation.
- *Solution:* Inspect the contact for deformation, ensure locking tangs are not bent, and verify correct orientation before insertion. Do not force the contact.

SPECIFICATIONS

Feature	Detail
Model Number	39-00-0039
Brand	Molex
Contact Type	Socket, Crimp
Wire Gauge Range	24-18 AWG
Manufacturer	MOLEX
Item Package Dimensions	6.5 x 3.3 x 0.5 inches (for 50 pieces)
Package Weight	9.98 g (for 50 pieces)
First Available Date	November 1, 2014

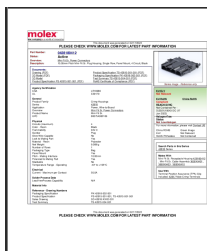
WARRANTY AND SUPPORT

For specific warranty information regarding the Molex 39-00-0039 Crimp Socket Contact, please refer to the official Molex website or contact your authorized Molex distributor. Warranty terms typically cover manufacturing defects.

For technical support, product inquiries, or assistance with specific applications, please visit the official Molex website or contact their customer service department. Ensure you have the product model number (39-00-0039) available when seeking support.

Note: This manual provides general guidance. Always refer to the latest product datasheets and application specifications provided by Molex for critical applications.

Related Documents - 39-00-0039



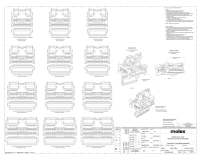
[Molex 0428180412 Mini-Fit Sr. Power Connector Datasheet](#)

Technical datasheet for the Molex 0428180412 Mini-Fit Sr. Power Connector. Details include part number, status, overview, description, documents, agency certifications, general, physical, electrical, solder process, material information, compliance, and related parts. Features 10.00mm pitch, 4 circuits, panel mount, and black polyester resin.



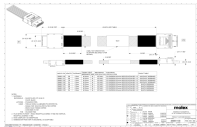
[Premo-Flex Hot Bar Solder Solutions: Compact & Reliable FFC Jumpers by Molex](#)

Explore Molex's Premo-Flex Hot Bar Solder FFC Jumpers, offering robust, compact, and cost-effective connectivity solutions for harsh environments, automotive, medical, and mobile applications. Features include improved mechanical strength and consistent electrical performance.



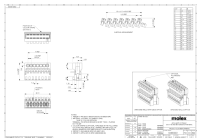
[Molex Mini50 Dual Row Receptacle Connector Specifications and Part Numbers](#)

Detailed sales drawing and specifications for Molex Mini50 Dual Row Receptacle Connectors, covering various circuit counts, polarization options, lock bridges, and CPA features. Includes part numbers, material specifications, and mating component information.



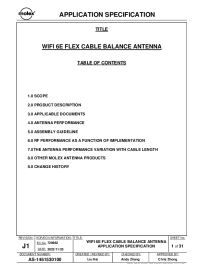
[Molex Nanopitch to Nanopitch 4X INT Straight Active Latch Connector Specifications](#)

Detailed specifications and pinout tables for the Molex Nanopitch to Nanopitch 4X INT Straight Active Latch connector, including electrical and mechanical properties, materials, and compliance information.



[Molex Appli-Mate 2.5 Female Connector Specifications](#)

Detailed specifications and part number configurations for the Molex Appli-Mate 2.5 Female Connector series, including various circuit counts, end wall options, and terminal configurations.



[WIFI 6E Flex Cable Balance Antenna Application Specification - Molex](#)

This document from Molex provides a detailed application specification for the WIFI 6E Flex Cable Balance Antenna (Series 146153). It covers product description, applicable documents, comprehensive RF performance data including return loss, efficiency, and radiation patterns across various frequency bands (2.4GHz, 5GHz, 6GHz, 7.125GHz). It also includes assembly guidelines, considerations for implementation with ground planes, the impact of cable length, and other Molex antenna products.