MX150L™ INDUSTRIAL SEALED CONNECTOR SYSTEM

molex®
The MX150L™ Industrial Sealed Connector System is IP67 rated and conforms to UL 1977, but it is NOT suitable for automotive applications with requirements such as USCAR-2, USCAR-25, GMW3191, AK Testing, J2030, Volvo Technology Requirements, and Toyota Connector Spec (TCS)

The MX150L sealed connector system is designed to meet the need for a rugged, environmentally sealed connector system supporting both low-level signal applications as well as power applications up to 40.0A, from marine applications to off-road construction equipment applications. The system is comprised of wire-to-wire, wire-to-panel and wire-to-board configurations.

These innovative mat-sealed connectors are based upon the 1.50 and 2.50mm (.059 and .098”) blade-type terminals. This design eliminates the need to purchase, handle and crimp individual wire seals to lower applied cost. The mat-seal design is a single silicone-based seal with individual wire openings and a seal cap to protect, securely retain, and provide strain relief to the seal. The cost-effective connector design features all-in-one plug and receptacle housings with pre-assembled mat-wire and interfacial connector seals. Integral Terminal Position Assurance (TPA) and optional Connector Position Assurance (CPA) components eliminate time-consuming and costly assembly operations. Completing the application is as simple as crimping the appropriate terminal lead and seating the TPA to its final locked position. No additional components are required.

Tooling solutions include FineAdjust™ crimp press applicators for high-volume production, as well as hand tools for low-volume production and field repairs.

Features and Benefits

Pre-assembled connector housings, seals, TPA components and mat-seal cap shipped in one piece to provide applied labor and cost savings

Integral TPA assures that crimped terminal leads are properly locked into connector (TPA will not seat into final lock position and connector system will not latch if terminal is not locked properly into position)

Conforms to UL 1977, which allows for a UL recognized sealed connector system for use in data, signal, control and power applications

Superior electrical and mechanical performance capabilities surpass performance of most mature competitive products in market

Audible and tactile clicks on insertion, extraction and mating feedback facilitates reliable mating and terminal loading and removal

Unused circuits can be blocked using plastic seal plugs, which facilitates flexibility of sealing unused circuits without adding complexity to part numbers and customer inventory

Integral locking latch with secondary, pre-loaded CPA option assures that connector system is properly latched. CPA will not move to final locked position if connector is not latched. Confirms positive mating of connector

Sealed panel mount plugs are equipped with a blind hole boss feature which reduces extra hardware while improving the sealing process during assembly by eliminating a leak path

Integral, 2-way mat and interface seals designed and tested to IEC IP 67 standards exceeds “waterproof” demands as a true sealed connector system tested under submersed conditions in various fluids

Easy terminal insertion and extraction provides quick, low-cost field repairs using common screw driver, needle nose pliers and terminal extraction tool

Protective mat-seal cap protects, securely retains, and provides strain relief to wire seal interface

Simple crimp, poke and plug application eliminates need to crimp individual wire seals
MX150L™ Industrial Sealed Connector System - Exploded View

RECEPTACLE CONNECTOR

Terminal Position Assurance (TPA)

Interface Seal

Housing

 Seal Cap

Mat Seal

Connector Position Assurance (CPA) - Optional

PLUG CONNECTOR

Terminal Position Assurance (TPA)

Housing

Retainer Clip

Mat Seal

Seal Cap

NOTE: All discrete components shown above for both the receptacle and plug housings are pre-assembled. Terminals are simply crimped and poked into the housings. No additional wire seals, wedge locks or CPA locks are required.
14 to 22 AWG Wire-to-Wire and Panel-Mount Applications

19417 Male Terminal
14-22 AWG
page 6

19419 Plug
pages 8, 10

19429 Panel Mount Plug
Through Hole Flange
pages 13, 14

19429 Panel Mount Plug
Rear Mount Flange
pages 11, 12

19435 Sealed Panel Mount Plug
page 15

19420 Female Terminal
14-22 AWG
page 5

19418 Receptacle
pages 7, 9

19427 PCB Mount Right Angle Header
pages 16, 17

19428 PCB Mount Standard Profile Vertical Header
pages 18, 19

19428 PCB Mount Low Profile Vertical Header
pages 20, 21

8, 10 and 12 AWG Wire-to-Wire, Panel-Mount and Wire-to-Board (PCB Mount) Applications

19431 8, 10, 12 AWG Male Terminal
page 24

19433 Plug
pages 26, 28

19436 Sealed Panel Mount Plug
pages 29, 30

19434 8, 10, 12 AWG Female Terminal
page 23

19432 Receptacle
pages 25, 27

19437 PCB Mount Right Angle Header
page 31

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Specifications

Features and Benefits
Mat seal friendly design features
center seam and coined edges
Anti-over stress beam
gallery feature
Low insertion force

Reference Information
UL File No.: E152602
Designed In: Inches
Used With: 19418

Electrical
Current: 18.0A

Physical
Contact: Copper Alloy
Plating: Tin or Gold

Mechanical
Contact Insertion Force: 1.0 lb. max.
Durability:
Tin Plating—25 cycles
Gold Plating—100 cycles

Catalog Drawing (For Reference only)

Ordering Information

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<th>Wire Range (AWG)</th>
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www.molex.com
Features and Specifications

Features and Benefits
Mat seal friendly design features
center seam and coined Electrical
Low insertion force

Reference Information
UL File No.: E152602
Designed In: Inches
Used With: 19419, 19429 and 19435

Electrical
Current: 18.0A

Physical
Contact: Copper Alloy
Plating: Tin or Gold

Mechanical
Contact Insertion Force: 1.0 lb. max.
Durability:
Tin Plating—25 cycles
Gold Plating—100 cycles

Catalog Drawing (For Reference only)

Ordering Information

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Features and Specifications

Features and Benefits
- Environmentally sealed to IP67
- Integrated mat wire seal
- Integrated interface seal and terminal position assurance (TPA)
- Optional connector position assurance (CPA)
- Simple crimp-and-poke application
- Field serviceable contact removal system
- Tactile and audible mating feedback

Reference Information
- UL File No.: E152602
- Designed In: Inches
- Mates With: 19419, 19429

Electrical
- Dielectric Withstanding Voltage: 2200V AC min.
- Insulation Resistance: 1000 Megohms
- Voltage: 600V

Mechanical
- Mating force: 75N max.
- Unmating force: 75N max.

Physical
- Housing: SPS Glass-Filled Crystalline Polymer
- Operating Temperature: -40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

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<thead>
<tr>
<th>Circuits</th>
<th>Wire Range (AWG)</th>
<th>Mat Seal Color</th>
<th>Order No. with CPA</th>
<th>Order No. without CPA</th>
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Features and Specifications

Features and Benefits
Environmentally sealed to IP67
Integrated mat wire seal and
terminal position assurance (TPA)
Simple crimp-and-poke application
Field serviceable contact
removal system
Tactile and audible mating feedback

Reference Information
UL File No.: E152602
Designed In: Inches
Mates With: 19418

Electrical
Dielectric Withstanding Voltage:
2200V AC min.
Insulation Resistance: 1000 Megohms
Voltage: 600V

Mechanical
Mating force: 75N max.
Unmating force: 75N max.

Physical
Housing:
SPS Glass-Filled Crystalline Polymer
Operating Temperature:
-40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

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<tr>
<th>Circuits</th>
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Features and Specifications

Features and Benefits
Environmentally sealed to IP67
Integrated mat wire seal and
 terminal position assurance (TPA)
Optional connector position assurance (CPA)
Simple crimp-and-poke application
Field serviceable contact removal system
Tactile and audible mating feedback

Electrical
Dielectric Withstanding Voltage: 2200V AC min.
Insulation Resistance: 1000 Megohms
Voltage: 600V

Mechanical
Mating force: 75N max.
Unmating force: 75N max.

Physical
Housing:
SPS Glass-Filled Crystalline Polymer
Operating Temperature:
-40 to +125°C

Features and Benefits

Reference Information
UL File No.: E152602
Designed In: Inches
Mates With: 19419, 19429 and 19435

Catalog Drawing (For Reference only)

Electrical

- Dielectric Withstanding Voltage: 2200V AC min.
- Insulation Resistance: 1000 Megohms
- Voltage: 600V

Mechanical

- Mating force: 75N max.
- Unmating force: 75N max.

Physical

- Housing: SPS Glass-Filled Crystalline Polymer
- Operating Temperature: -40 to +125°C

Ordering Information

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Features and Specifications

Features and Benefits
Environmentally sealed to IP67
Integrated mat wire seal and
terminal position assurance (TPA)
Simple crimp-and-poke application
Field serviceable contact
removal system
Tactile and audible mating feedback

Reference Information
UL File No.: E152602
Designed In: Inches
Mates With: 19418

Electrical
Dielectric Withstanding Voltage:
2200V AC min.
Insulation Resistance: 1000
Megohms
Voltage: 600V

Mechanical
Mating force: 75N max.
Unmating force: 75N max.

Physical
Housing:
SPS Glass-Filled Crystalline Polymer
Operating Temperature:
-40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

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Features and Specifications

Features and Benefits
Environmentally sealed to IP67 when mated
Integrated terminal position assurance (TPA)
Simple crimp-and-poke application
Field serviceable contact removal system
Tactile and audible mating feedback
For outside or inside panel mount applications with sufficient sealing area
Use with molded silicone panel gasket
Blind hole boss feature eliminates leak path and reduces extra sealing process during assembly

Reference Information
UL File No.: E152602
Designed In: Inches
Mates With: 19418

Electrical
Dielectric Withstanding Voltage: 2200V AC min.
Insulation Resistance: 1000 Megohms
Voltage: 600V

Mechanical
Mating force: 75N max.
Unmating force: 75N max.

Physical
Housing:
SPS Glass-Filled Crystalline Polymer
Operating Temperature:
-40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

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Note: Recommended Mounting Hardware: (2) #10 x .62/18.9 long, plastic thread cutting screws
Suggested Source: ITW Shakeproof BosScrew™ or equivalent
Features and Benefits
Environmentally sealed to IP67
Integrated terminal position assurance (TPA)
Simple crimp-and-poke application
Field serviceable contact removal system
Tactile and audible mating feedback
For outside or inside panel mount applications with sufficient sealing area
Use with molded silicone panel gasket
Blind hole boss feature eliminates leak path and reduces extra sealing process during assembly

Reference Information
UL File No.: E152602
Designed In: Inches
Mates With: 19418

Electrical
Dielectric Withstanding Voltage: 2200V AC min.
Insulation Resistance: 1000 Megohms
Voltage: 600V

Mechanical
Mating force: 75N max.
Unmating force: 75N max.

Physical
Housing: SPS Glass-Filled Crystalline Polymer
Operating Temperature: -40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

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Note: Recommended Mounting Hardware: (2) #10 x .62/18.9 long, plastic thread cutting screws
Suggested Source: ITW Shakeproof BosScrew™ or equivalent
Features and Specifications

Features and Benefits
- Environmentally sealed to IP67 when mated
- Integrated terminal position assurance (TPA)
- Simple crimp-and-poke application
- Field serviceable contact removal system
- Tactile and audible mating feedback
- For outside or inside panel mount applications with sufficient sealing area
- Use with molded silicone panel gasket

Reference Information
- UL File No.: E152602
- Designed In: Inches
- Mates With: 19418

Electrical
- Dielectric Withstanding Voltage: 2200V AC min.
- Insulation Resistance: 1000 Megohms
- Voltage: 600V

Mechanical
- Mating force: 75N max.
- Unmating force: 75N max.

Physical
- Housing: SPS Glass-Filled Crystalline Polymer
- Operating Temperature: -40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

<table>
<thead>
<tr>
<th>Circuits</th>
<th>Wire Range (AWG)</th>
<th>Order No. With Gasket</th>
<th>Order No. Without Gasket</th>
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**Features and Specifications**

**Features and Benefits**
- Environmentally sealed to IP67
- Integrated terminal position assurance (TPA)
- Simple crimp-and-poke application
- Field serviceable contact removal system
- Tactile and audible mating feedback
- For outside or inside panel mount applications with sufficient sealing area
- Use with molded silicone panel gasket

**Reference Information**
- UL File No.: E152602
- Designed In: Inches
- Mates With: 19418

**Electrical**
- Dielectric Withstanding Voltage: 2200V AC min.
- Insulation Resistance: 1000 Megohms Voltage: 600V

**Mechanical**
- Mating force: 75N max.
- Unmating force: 75N max.

**Physical**
- Housing: SPS Glass-Filled Crystalline Polymer
- Operating Temperature: -40 to +125°C

**Catalog Drawing (For Reference only)**

**Ordering Information**

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<tr>
<th>Circuits</th>
<th>Wire Range (AWG)</th>
<th>Order No.</th>
<th>Dimension</th>
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Note: Recommended Mounting Hardware: (2) #10 x .62/18.9 long, plastic thread cutting screws
Suggested Source: ITW Shakeproof BosScrew™ or equivalent
Specifications

Features and Benefits
Environmentally sealed to IP67
Mates with existing MX150L receptacles
Supports non-closed in panels
Field serviceable contact removal system
Tactile and audible mating feedback
Blind hole boss feature eliminates leak path and reduces extra sealing process during assembly

Reference Information
UL File No.: E152602
Designed in: Inches
Mates with: 19418

Electrical
Dielectric Withstanding Voltage: 2200V AC min
Insulation Resistance: 1000 Megohms min.
Voltage: 600v

Mechanical
Mating Force: 75N max
Unmating Force: 75N max

Physical
Housing: Glass-Filled PBT
Operating Temperature: -40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

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<thead>
<tr>
<th>Circuits</th>
<th>Wire Range (AWG)</th>
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Note: Recommended Mounting Hardware: (2) #10 x .62/18.9 long, plastic thread cutting screws
Suggested Source: ITW Shakeproof BosScrew™ or equivalent
Features and Specifications

Features and Benefits
Environmentally sealed to IP67
Mates with existing MX150L receptacles
Molded silicone panel gasket included
Available in tin or gold plating
Supports 14-22 AWG receptacle
Tactile and audible mating feedback
Blind hole boss feature eliminates leak path and reduces extra sealing process during assembly

Reference Information
Packaging: Tray
UL File No.: E152602
Designed in: Inches
Mates with: 19418

Electrical
Dielectric Withstanding Voltage:
2200V AC min
Insulation Resistance:
1000 Megohms min.
Voltage: 600v

Mechanical
Durability:
Tin Plating—25 cycles
Gold Plating—100 cycles

Physical
Housing: Glass-Filled PBT
Contact: Copper Alloy
Plating:
Contact Area – Tin or Gold
Solder Tail Area – Tin
PCB Thickness: 1.60mm (.062") max.
Operating Temperature:
-40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

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Note: Recommended Mounting Hardware: (2) #10 x .62/15.9 long, plastic thread cutting screws
Suggested Source: ITW Shakeproof BosScrew™ or equivalent
Features and Specifications

Features and Benefits
Environmentally sealed to IP67
Mates with existing MX150L receptacles
Molded silicone panel gasket included
Available in tin or gold plating
Supports 14-22 AWG
Tactile and audible mating feedback
Blind hole boss feature eliminates leak path and reduces extra sealing process during assembly

Reference Information
Packaging: Tray
UL File No.: E152602
Designed in: Inches
Mates with: 19418

Electrical
Dielectric Withstanding Voltage:
2200V AC min
Insulation Resistance:
1000 Megohms min.
Voltage: 600V

Mechanical
Durability:
Tin Plating—25 cycles
Gold Plating—100 cycles

Physical
Housing: Glass-Filled PBT
Contact: Copper Alloy
Plating:
Contact Area – Tin or Gold
Solder Tail Area – Tin
PCB Thickness: 1.60mm (.062") max.
Operating Temperature:
-40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

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Note: Recommended Mounting Hardware: (2) #10 x .62/18.9 long, plastic thread cutting screws
Suggested Source: ITW Shakeproof BosScrew™ or equivalent
Features and Specifications

Features and Benefits
Environmentally sealed to IP67
Mates with existing MX150L receptacles
Molded silicone panel gasket included
Available in tin or gold plating
Supports 14-22 AWG receptacles
Tactile and audible mating feedback
Blind hole boss feature eliminates leak path and reduces extra sealing process during assembly

Reference Information
Packaging: Tray
UL File No.: E152602
Designed in: Inches
Mates with: 19418

Electrical
Dielectric Withstanding Voltage:
2200V AC min
Insulation Resistance:
1000 Megohms min.
Voltage: 600v

Mechanical
Durability:
Tin Plating—25 cycles
Gold Plating—100 cycles

Physical
Housing: Glass-Filled PBT
Contact: Copper Alloy
Plating:
Contact Area – Tin or Gold
Solder Tail Area – Tin
PCB Thickness: 1.60mm (.062”) max.
Operating Temperature:
-40 to +125°C

Catalog Drawing (For Reference only)

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<td>22.23 (.875)</td>
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Note: Recommended Mounting Hardware: (2) #10 x .62/18.9 long, plastic thread cutting screws
Suggested Source: ITW Shakeproof BosScrew™ or equivalent

www.molex.com 18
Features and Specifications

Features and Benefits
Environmentally sealed to IP67
Mates with existing MX150L receptacles
Molded silicone panel gasket included
Available in tin or gold plating
Supports 14-22 AWG receptacle
Tactile and audible mating feedback
Blind hole boss feature eliminates leak path and reduces extra sealing process during assembly

Reference Information
Packaging: Tray
UL File No.: E152602
Designed in: Inches
Mates with: 19418

Electrical
Contact Resistance: milliohms max.
Dielectric Withstanding Voltage: 2200V AC min
Insulation Resistance: 1000 Megohms min.
Voltage: 600v

Mechanical
Durability:
Tin Plating—25 cycles
Gold Plating—100 cycles

Physical
Housing: Glass-Filled PBT
Contact: Copper Alloy
Plating:
Contact Area – Tin or Gold
Solder Tail Area – Tin
PCB Thickness: 1.60mm (.062”) max.
Operating Temperature: -40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

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<th>Circuits</th>
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Note: Recommended Mounting Hardware: (2) #10 x .62/18.9 long, plastic thread cutting screws
Suggested Source: ITW Shakeproof BosScrew™ or equivalent
Features and Specifications

Features and Benefits
Environmentally sealed to IP67
Mates with existing MX150L receptacles
Molded silicone panel gasket included
Available in tin or gold plating
Supports 14-22 AWG
Tactile and audible mating feedback

Reference Information
Packaging: Tray
UL File No.: E152602
Designed in: Inches
Mates with: 19418

Electrical
Dielectric Withstanding Voltage:
2200V AC min
Insulation Resistance:
1000 Megohms min.
Voltage: 600V

Catalog Drawing (For Reference only)

Ordering Information

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</table>
Features and Benefits
- Environmentally sealed to IP67
- Mates with existing MX150L receptacles
- Molded silicone panel gasket included
- Available in tin or gold plating
- Supports 14-22 AWG receptacle
- Tactile and audible mating feedback

Reference Information
- Packaging: Tray
- UL File No.: E152602
- Designed in: Inches
- Mates with: 19418

Electrical
- Dielectric Withstanding Voltage: 2200V AC min
- Insulation Resistance: 1000 Megohms min.
- Voltage: 600v

Catalog Drawing (For Reference only)

Ordering Information

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<th>Circuits</th>
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<td>19428-0016</td>
<td>19428-0032</td>
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</table>
Features and Specifications

With the application of optional circuit plugs, the MX150L system supports the ability to implement sealed blank cavities in both plug and receptacle housings. The circuit plugs occupy and fully seal the unused cavity and can be extracted and replaced with a standard male blade or female receptacle terminal. This feature provides the ability to plan for possible future circuit additions while maintaining the sealing integrity of the mated pair.

Reference Information
Use With: 19418, 19419 and 19435

Physical
Material:
SPS Glass-Filled Crystalline Polymer
Operating Temperature:
-40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

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*For use with 19418 receptacles when mating to PCB headers or plugs with all contacts populated.
Specifications

Features and Benefits
- Mat seal friendly design features
- Center seam and coined edges
- High current
- Low insertion force

Reference Information
- UL File No.: E152602
- Designed in: Inches
- Use with: 19432

Electrical
- Current:
  - 10-12 AWG—30.0A
  - 8 AWG—40.0A

Physical
- Contact: Copper Alloy
- Plating: Tin

Mechanical
- Contact Insertion Force: 1lb
- Durability: 25 cycles

Features and Benefits
- Mat seal friendly design features
- Center seam and coined edges
- High current
- Low insertion force

Reference Information
- UL File No.: E152602
- Designed in: Inches
- Use with: 19432

Electrical
- Current:
  - 10-12 AWG—30.0A
  - 8 AWG—40.0A

Physical
- Contact: Copper Alloy
- Plating: Tin

Mechanical
- Contact Insertion Force: 1lb
- Durability: 25 cycles

Catalog Drawing (For Reference only)

Ordering Information

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<th>Insulation Diameter mm (In)</th>
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**Features and Specifications**

**Features and Benefits**
Mat seal friendly design features
- center seam and coined edges
- High current
- Low insertion force
- Mates With: 19433 and 19436

**Reference Information**
UL File No.: E152602
Designed in: Inches
Use with: 19433 and 19436

**Electrical**
Current:
- 10-12 AWG—30.0A
- 8 AWG—40.0A

**Physical**
Contact: Copper Alloy
Plating: Tin

**Mechanical**
Contact Insertion Force: 1lb
Durability: 25 cycles

---

**Catalog Drawing (For Reference only)**

---

**Ordering Information**

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<th>Wire Range (AWG)</th>
<th>Insulation Diameter mm (In)</th>
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<td>6.02 (.237)</td>
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</table>
Features and Specifications

Features and Benefits
- Environmentally sealed to IP67
- Integrated mat wire seal and terminal position assurance
- High current
- Field serviceable contact removal system
- Simple crimp-and-poke application
- Tactile and audible mating feedback
- CPA connector position assurance included

Electrical
- Dielectric Withstanding Voltage: 2200V AC min
- Insulation Resistance: 1000 Megohms min.
- Voltage: 600V

Mechanical
- Mating Force: 75N max
- Unmating Force: 75N max

Physical
- Housing: Glass-Filled PBT
- Operating Temperature: -40 to +125°C

Reference Information
- UL File No.: E152602
- Designed in: Inches
- Mates with: 19433 and 19436
- Use with: 19434

Catalog Drawing (For Reference only)

Ordering Information

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<tr>
<th>Circuits</th>
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<th>Order No. with CPA</th>
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**Features and Specifications**

**Features and Benefits**
- Environmentally sealed to IP67
- Integrated mat wire seal and terminal position assurance
- High current
- Field serviceable contact removal system
- Simple crimp-and-poke application
- Tactile and audible mating feedback

**Reference Information**
- UL File No.: E152602
- Designed in: Inches
- Mates with: 19433 and 19436
- Use with: 19431

**Electrical**
- Dielectric Withstanding Voltage: 2200V AC min
- Insulation Resistance: 1000 Megohms min.
- Voltage: 600V

**Mechanical**
- Mating Force: 75N max
- Unmating Force: 75N max

**Physical**
- Housing: Glass-Filled PBT
- Operating Temperature: -40 to +125°C

**Catalog Drawing (For Reference only)**

**Ordering Information**

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<th>Circuits</th>
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</table>
**Features and Specifications**

**Features and Benefits**
- Environmentally sealed to IP67
- Integrated mat wire seal and terminal position assurance
- High current
- Field serviceable contact removal system
- Simple crimp-and-poke application
- Tactile and audible mating feedback

**Electrical**
- Dielectric Withstanding Voltage: 2200V AC min
- Insulation Resistance: 1000 Megohms min.
- Voltage: 600V

**Mechanical**
- Mating Force: 75N max
- Unmating Force: 75N max

**Physical**
- Housing: Glass-Filled PBT
- Operating Temperature: -40 to +125°C

**Features and Benefits**
- Environmentally sealed to IP67
- Integrated mat wire seal and terminal position assurance
- High current
- Field serviceable contact removal system
- Simple crimp-and-poke application
- Tactile and audible mating feedback

**Reference Information**
- UL File No.: E152602
- Designed in: Inches
- Mates with: 19433 and 19436
- Use with: 19434

**Catalog Drawing (For Reference only)**

**Ordering Information**

<table>
<thead>
<tr>
<th>Circuits</th>
<th>Wire Range (AWG)</th>
<th>Mat Seal Color</th>
<th>Order No. with CPA</th>
<th>Order No. without CPA</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>10-12</td>
<td>Yellow</td>
<td>19432-0001</td>
<td>194320003</td>
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<tr>
<td>8</td>
<td>10-12</td>
<td>Red</td>
<td>19432-0002</td>
<td>194320004</td>
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</tbody>
</table>
Features and Specifications

Features and Benefits
Environmentally sealed to IP67
Integrated mat wire seal and terminal position assurance
High current
Field serviceable contact removal system
Simple crimp-and-poke application
Tactile and audible mating feedback
Mates With: 19432

Reference Information
UL File No.: E152602
Designed in: Inches
Mates with: 19432
Use with: 19431

Electrical
Dielectric Withstanding Voltage: 2200V AC min
Insulation Resistance: 1000 Megohms min.
Voltage: 600V

Mechanical
Mating Force: 75N max
Unmating Force: 75N max

Physical
Housing: Glass-Filled PBT
Operating Temperature: -40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

<table>
<thead>
<tr>
<th>Circuits</th>
<th>Wire Range (AWG)</th>
<th>Mat Seal Color</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>10-12</td>
<td>Yellow</td>
<td>19433-0001</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Red</td>
<td>19433-0002</td>
</tr>
</tbody>
</table>
Features and Specifications

**Features and Benefits**
- Environmentally sealed to IP67
- Mates with existing MX150L receptacles
- Supports non-closed in panels
- Field serviceable contact removal system
- Tactile and audible mating feedback
- Blind hole boss feature eliminates leak path and reduces extra sealing process during assembly

**Electrical**
- Dielectric Withstanding Voltage: 2200V AC min
- Insulation Resistance: 1000 Megohms min.
- Voltage: 600v

**Mechanical**
- Mating Force: 75N max
- Unmating Force: 75N max

**Physical**
- Housing: Glass-Filled PBT
- Operating Temperature: -40 to +125°C

Reference Information
- UL File No.: E152602
- Designed in: Inches
- Mates with: 19432
- Use with: 19431

Catalog Drawing (For Reference only)

Ordering Information

<table>
<thead>
<tr>
<th>Circuits</th>
<th>Wire Range (AWG)</th>
<th>Order No. With Gasket</th>
<th>Order No. Without Gasket</th>
<th>Gasket</th>
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<tbody>
<tr>
<td>2</td>
<td>10-12</td>
<td>19436-0213</td>
<td>19436-0211</td>
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</tr>
<tr>
<td>8</td>
<td>19436-0214</td>
<td>19436-0212</td>
<td></td>
<td>19436-0001</td>
</tr>
</tbody>
</table>

Note: Recommended Mounting Hardware: (2) #10 x .62/18.9 long, plastic thread cutting screws
Suggested Source: ITW Shakeproof BosScrew™ or equivalent
Features and Specifications

Features and Benefits
Environmentally sealed to IP67
Mates with existing MX150L receptacles
Supports non-closed in panels
Field serviceable contact removal system
Tactile and audible mating feedback
Blind hole boss feature eliminates leak path and reduces extra sealing process during assembly

Reference Information
UL File No.: E152602
Designed in: Inches
Mates with: 19432
Use with: 19431

Electrical
Dielectric Withstanding Voltage: 2200V AC min
Insulation Resistance: 1000 Megohms min.
Voltage: 600v

Mechanical
Mating Force: 75N max
Unmating Force: 75N max

Physical
Housing: Glass-Filled PBT
Operating Temperature: -40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

<table>
<thead>
<tr>
<th>Circuits</th>
<th>Wire Range (AWG)</th>
<th>Without Gasket</th>
<th>With Gasket</th>
<th>Gasket</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>10-12</td>
<td>19436-0413</td>
<td>19436-0411</td>
<td>19436-0002</td>
</tr>
<tr>
<td>8</td>
<td>19436-0414</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Features and Specifications**

**Features and Benefits**
- Environmentally sealed to IP67
- Mates with existing MX150L receptacles
- Molded silicone panel gasket included
- Available in tin or gold plating
- Supports 8-12 AWG receptacles
- Tactile and audible mating feedback
- Blind hole boss feature eliminates leak path and reduces extra sealing process during assembly

**Electrical**
- Voltage: 600V AC
- Current:
  - 8 AWG — 40.0A
  - 10 to 12 AWG — 30.0A
- Dielectric Withstanding Voltage: 2200V AC min.
- Insulation Resistance: 1000 Megohms

**Physical**
- Housing: Glass-filled PBT, Black
- Contact: Copper (Cu) Alloy
- Plating: Tin (Sn)
- Operating Temperature: -40 to +125°C
- Flammability: UL 94V-0

**Mechanical**
- Mating Force: 75N max.
- Unmating Force: 75N max.
- Sealing: IEC 529 — IP67 standard
- Durability: 100 cycles

**Catalog Drawing (For Reference only)**

**Ordering Information**

**PCB Header**

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Circuits</th>
<th>Wire Range (AWG)</th>
<th>Panel Gasket</th>
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</thead>
<tbody>
<tr>
<td>19437-0029</td>
<td>4</td>
<td>8, 10 and 12</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Features and Specifications

With the application of optional circuit plugs, the MX150L system supports the ability to implement sealed blank cavities in both plug and receptacle housings. The circuit plugs occupy and fully seal the unused cavity and can be extracted and replaced with a standard male blade or female receptacle terminal. This feature provides the ability to plan for possible future circuit additions while maintaining the sealing integrity of the mated pair.

Reference Information

Use With: 19433 and 19432

Physical

Material: Glass-Filled PBT
Operating Temperature: -40 to +125°C

Catalog Drawing (For Reference only)

Ordering Information

<table>
<thead>
<tr>
<th>Housing Series</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>19433</td>
<td>19431-0013</td>
</tr>
<tr>
<td>19432</td>
<td>19431-0013</td>
</tr>
</tbody>
</table>
Features and Specifications

FINEADJUST

Features and Benefits

FineAdjust allows users to achieve target with little effort by adjusting on increments of 0.15mm (.006") for conductor crimp height and .063mm (.0025") for insulation height.

Independent adjustment rings allow users to quickly adjust the conductor or insulation crimp height without affecting each other.

Quick tooling removal with the push of a button for fast and easy tooling change.

Track adjustment for bellmouth and cut-off tab is adjusted while the applicator is in the press for fast and easy setup.

Compatible with the Molex TM-2000™ Universal Press and most industry standard presses, however, it does not fit into Molex TM-40™/TM-42™ press.

Directly adapts to most automatic wire processing machines.

Quick set-up time; plus the crimp height, track and feed adjustments can be preset in applicator.

Applicator designed to industry standard mounting and shut height 135.80mm (5.346”).

FineAdjust available for most Molex brand terminals.

MANUAL HAND CRIMP TOOL

Features and Benefits

Ergonomically designed soft handles.

Precisely designed crimping profiles with simple contact positioning.

Easy handling due to outstanding force ratio.

This tool type reduces work related injuries.

Ordering Information

<table>
<thead>
<tr>
<th>Terminal Series No.</th>
<th>Terminal Type</th>
<th>Tool Type</th>
<th>Order No.</th>
<th>Wire Gauge AWG (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19417/19420</td>
<td>MX150L Male and Female</td>
<td>FineAdjust Applicator</td>
<td>63900-8200</td>
<td>14-16 (2.00-1.30)</td>
</tr>
<tr>
<td>19417/19420</td>
<td>MX150L Male and Female</td>
<td>Perishable Tool Kit</td>
<td>63865-6070</td>
<td>14-16 (2.00-1.30)</td>
</tr>
<tr>
<td>19417/19420</td>
<td>MX150L Male and Female</td>
<td>T2 Terminator Die</td>
<td>63910-8200</td>
<td>14-16 (2.00-1.30)</td>
</tr>
<tr>
<td>19417</td>
<td>MX150L Male</td>
<td>FineAdjust Applicator</td>
<td>63900-8300</td>
<td>18-22 (0.80-0.35)</td>
</tr>
<tr>
<td>19417</td>
<td>MX150L Male</td>
<td>Perishable Tool Kit</td>
<td>63865-6170</td>
<td>18-22 (0.80-0.35)</td>
</tr>
<tr>
<td>19420</td>
<td>MX150L Female</td>
<td>FineAdjust Applicator</td>
<td>63900-8400</td>
<td>18-22 (0.80-0.35)</td>
</tr>
<tr>
<td>19420</td>
<td>MX150L Female</td>
<td>Perishable Tool Kit</td>
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<td>18-22 (0.80-0.35)</td>
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<tr>
<td>19420</td>
<td>MX150L Female</td>
<td>T2 Terminator Die</td>
<td>63910-8400</td>
<td>18-22 (0.80-0.35)</td>
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<td>19417/19420</td>
<td>MX150L Male and Female</td>
<td>OEM PremiumGrade™ Hand Tool</td>
<td>63811-4400</td>
<td>14-22 (2.00-0.35)</td>
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<tr>
<td>19417/19420</td>
<td>MX150L Male and Female</td>
<td>ServiceGrade™ Hand Tool</td>
<td>64016-0035</td>
<td>14-22 (2.00-0.35)</td>
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<tr>
<td>19431/19434/19420</td>
<td>MX150L Male and Female</td>
<td>Terminal Extraction Tool</td>
<td>63813-1500</td>
<td>8-22 (.237-0.35)</td>
</tr>
<tr>
<td>19431/19434</td>
<td>MX150L Male and Female</td>
<td>FineAdjust Applicator</td>
<td>63895-8200</td>
<td>10-12 (3.94-4.45)</td>
</tr>
<tr>
<td>19431/19434</td>
<td>MX150L Male and Female</td>
<td>Perishable Tool Kit</td>
<td>63832-5070</td>
<td>10-12 (3.94-4.45)</td>
</tr>
<tr>
<td>19431/19434</td>
<td>MX150L Male and Female</td>
<td>OEM PremiumGrade Hand Tool</td>
<td>63811-5300</td>
<td>10-12 (3.94-4.45)</td>
</tr>
<tr>
<td>19431/19434</td>
<td>MX150L Male and Female</td>
<td>FineAdjust Applicator</td>
<td>63832-5100</td>
<td>8 (.237)</td>
</tr>
<tr>
<td>19431/19434</td>
<td>MX150L Male and Female</td>
<td>Perishable Tool Kit</td>
<td>63832-5170</td>
<td>8 (.237)</td>
</tr>
<tr>
<td>19431/19434</td>
<td>MX150L Male and Female</td>
<td>OEM PremiumGrade Hand Tool</td>
<td>63811-5400</td>
<td>8 (.237)</td>
</tr>
<tr>
<td>19431/19434</td>
<td>MX150L Male and Female</td>
<td>ServiceGrade Hand Tool</td>
<td>64016-0170</td>
<td>10-12 (3.94-4.45)</td>
</tr>
<tr>
<td>19431/19434</td>
<td>MX150L Male and Female</td>
<td>ServiceGrade Hand Tool</td>
<td>64016-0170</td>
<td>8 (.237)</td>
</tr>
</tbody>
</table>
Sealed Receptacle Assembly - Servicability

1) Return TPA to pre-lock position
   - Carefully insert a standard screw driver into slot on top of TPA.
   - Carefully pry TPA forward and listen for audible click.
   - TPA is now in pre-lock position.

2) Release terminal from connector assembly
   - Insert and drive forward extractor tool to release terminal.
   - Pull terminal from rear of connector.

Sealed Blade Assembly - Servicability

1) Return TPA to pre-lock position
   - Use standard needle nose pliers to return TPA to pre-lock position.
   - Insert needle nose pliers into service hole and carefully pull TPA.
   - Listen for loud audible click.
   - TPA is now in pre-lock position.

2) Release terminal from connector assembly
   - Insert and drive forward extractor tool to release terminal.
   - Pull terminal from rear of connector.

Terminal Installation

Assure housing TPA is in pre-lock position. Align polarization feature on terminal with keyway in seal cap. Insert terminal and push until seated. Push receptacle TPA back to locked position. Plug TPA will return to locked position when mated with receptacle housing.
To Mate:

1. Firmly push connectors together until you feel them snap together, you should hear a click. This audible and tactile confirmation ensures the connectors are properly and fully mated.

2. Press CPA towards plug to engage the secondary lock.

To Unmate:

1. Pull back CPA

2. Fully depress locking latch

   Locking latch must be fully depressed to release the locking ramp on the plug and allow the connectors to be separated!

3. Pull connectors apart

   Locking latch shown down, cannot unmate connectors

   Locking latch shown fully depressed, latch releases locking ramp