Built around the field-proven MX150™ terminal system with a design-to-cost approach, MX150™ Unsealed Connectors achieve space-savings over traditional USCAR 1.50mm interfaces and optimum performance for mid-power harness applications

The MX150™ Unsealed connector system for direct connect or in-line mid-power harness applications provides overall reduced package size compared to conventional USCAR 1.50mm terminal connection systems.

Molex’s design-to-cost approach provides a high-performance connector at a competitive cost via an integrated TPA lock on the hinge, minimal mold costs and low production cycle times.

This connection system utilises the existing and proven MX150™ terminal and offers compatibility with Yazaki YESC terminals. For additional information visit: www.molex.com/link/mx150unsealed.html

Features and Benefits

<table>
<thead>
<tr>
<th>Designed with legacy MX150™ 1.50mm low-insertion-force terminal system</th>
<th>Proven, widely deployed terminal system provides high-performance connection for mid-power (14 to 22 AWG wire) applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced package sizes versus USCAR 1.50mm counterparts; receptacles 52% smaller, male in-line connectors 28% smaller</td>
<td>Overall 37% space savings achieved over traditional USCAR 1.50mm connectors</td>
</tr>
<tr>
<td>Integral locking-latch</td>
<td>Confirms positive mating of connector and proper latching</td>
</tr>
<tr>
<td>Integrated Terminal Position Assurance (TPA) lock molded into receptacle housing</td>
<td>Assures crimped terminal leads are properly locked into connector; TPA will not seat into final locked position and connector system will not latch if terminal is not locked. One-piece housing and TPA provides applied cost savings</td>
</tr>
<tr>
<td>Enlarged push surface with ergonomic design</td>
<td>Convenient mating and unmating USCAR-25 compliant</td>
</tr>
<tr>
<td>Custom clip-slots available</td>
<td>Provides design flexibility</td>
</tr>
<tr>
<td>Four polarisation options: black, natural, grey and dark grey</td>
<td>Facilitates quick visual installation</td>
</tr>
<tr>
<td>Utilises existing MX150™ Sealed connector field-service tools deployed at numerous harness makers</td>
<td>Provides cost efficiency by eliminating additional tooling charges</td>
</tr>
</tbody>
</table>

Applications

**Automotive**
- Interior lighting consoles
- Vanity mirrors
- Center High Mounted Stop Lights (CHiMSL)
- Seat interconnections
- Door locks

**Commercial vehicle**
- Interior lighting consoles
- Door locks in the dry zone
- All Terrain vehicles (ATVs), 2- and 3-wheelers, Segways, scooters; dependent on customer IP rating requirements

**Consumer**
- White goods
- Exercise equipment
- Vending machines
- Slot and gaming consoles
- Heating Ventilation and Air Conditioning (HVAC)
Specifications

Connectors

REFERENCE INFORMATION
Packaging:
- Housings – 4-cell bulk pack
- Terminals – reels
Use with:
- Receptacle terminals – Series 33012
- Blade terminals – Series 33000
Designed in: Millimeters
RoHS: Yes
Halogen free: Yes

ELECTRICAL
Voltage (max.): 500V DC
Current (max.): 22.0A
Contact resistance: 8 milliohms max.
Dielectric withstanding voltage: 1000V AC min. for 60sec.
Insulation resistance: 100 Megohms min.

MECHANICAL
Contact insertion force: 12N max.
Contact forward push stop: 50N min.
Contact insertion TPA locked: 35N min.
Contact retention to housing: 90N min.
Contact retention TPA locked: 100N min.
Terminal to cavity polarization: 20N min.
TPA closure: 30N max.
TPA closure with term detection: 65N min.
Connector mating force: 22N max.
Connector un-mating force: 22N max.
Connector un-mating, with primary lock engaged: 110N min.
Hinge cycling: 10 operations min.

PHYSICAL
Housing: PBT unfilled
Operating temperature: -40 to +105°C
Flammability:
Per ISO3795 or GMW3191
Burn rate: 100mm/ Mm max.
Material must be self-extinguishing

Terminals

PHYSICAL
Material:
- High-Performance Copper (Cu) Alloy, 0.30mm +/-0.01 temper full hard
Plating:
- Overall underplated electro-deposited Nickel (Ni) with overall electro-deposited reflow Tin (Sn)
Wire Gauge:
- 2.00 to 0.35mm² (14 to 22 AWG)
Insulation Diameter:
- 2.70 to 1.50mm

ELECTRICAL
Current (max.): 22.0A
10.0A – 0.35mm² (22 AWG)
22.0A – 2.00mm² (14 AWG)

Product Family Overview

<table>
<thead>
<tr>
<th></th>
<th>2 Circuit</th>
<th>4 Circuit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receptacle</td>
<td><img src="shown_with_GM_style_clip-slot" alt="Image" /></td>
<td><img src="shown_with_GM_style_clip-slot" alt="Image" /></td>
</tr>
<tr>
<td>In-Line Male Connector</td>
<td><img src="shown_with_GM_style_clip-slot" alt="Image" /></td>
<td><img src="shown_with_GM_style_clip-slot" alt="Image" /></td>
</tr>
</tbody>
</table>

Interior lighting consoles

Seat interconnections

White Goods
Ordering Information

Male and Female Connectors

<table>
<thead>
<tr>
<th>Circuits</th>
<th>Polarization</th>
<th>Color</th>
<th>Receptacle Order No.</th>
<th>Mating Male Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Black</td>
<td>34796-0201</td>
<td>34797-0201</td>
<td>/w GM Style Clip-Slot</td>
</tr>
<tr>
<td>B</td>
<td>Natural</td>
<td>34796-0202</td>
<td>34797-0202</td>
<td>/w Ford Style Clip-Slot</td>
</tr>
<tr>
<td>C</td>
<td>Grey</td>
<td>34796-0203</td>
<td>34797-0203</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Dark Grey</td>
<td>34796-0204</td>
<td>34797-0204</td>
<td></td>
</tr>
</tbody>
</table>

• Custom clip-slot for male in-line connectors (GM and Ford type already tooled)
• Four polarisation options available: A-Black / B-Natural / C-Grey / D-Dark grey
• Additional circuit-count and CPA versions may be developed upon request

MX150™ Terminals

<table>
<thead>
<tr>
<th>Gender</th>
<th>Order No. (Right Reel Payoff)</th>
<th>Order No. (Left Reel Payoff)</th>
<th>Grip Size: AWG</th>
<th>OEM Ratchet Hand Crimper</th>
<th>Grip Size: mm²</th>
<th>OEM Ratchet Hand Crimper</th>
<th>Plating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Blade</td>
<td>33000-0001</td>
<td>33000-1001</td>
<td>14</td>
<td>63811-2400</td>
<td>1.5</td>
<td>N/A</td>
<td>Tin (Sn)</td>
</tr>
<tr>
<td>Terminals</td>
<td>33000-0002</td>
<td>33000-1002</td>
<td>16</td>
<td>63811-2600</td>
<td>0.75, 1.00</td>
<td>0.35, 0.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>33000-0003</td>
<td>33000-1003</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>33012-2021</td>
<td>33012-3021</td>
<td>14, 16</td>
<td>63811-5900</td>
<td>1.5</td>
<td>63811-6100</td>
<td></td>
</tr>
<tr>
<td>Terminals</td>
<td>33012-2022</td>
<td>33012-3022</td>
<td>18, 20</td>
<td>63811-6000</td>
<td>0.75, 1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>33012-2023</td>
<td>33012-3023</td>
<td>22</td>
<td></td>
<td>0.5</td>
<td>63811-6200</td>
<td></td>
</tr>
</tbody>
</table>

plating

www.molex.com/link/mx150unsealed.html