The field-proven MX150 Sealed Connector System with a USCAR interface offers a compact package, a superior operating temperature and a current rating up to 22.0A for power and signal automotive and commercial vehicle applications.

### Features and Advantages: **Sealed Single- and Dual-Row Connector System**

- **Matte seal technology**
  - Eliminates the need for individual cable seals which provides reduced package size and reduced cost, while still meeting S2 sealing requirements.

- **Connector position assurance (CPA) option available**
  - Assures connectors have been fully mated and prevents accidental disconnection.

- **Temperature class 4 (-40 to +150°C) and 22.0A current rating**
  - Delivers superior performance.

- **Preassembled terminal position assurance (TPA) housing**
  - Ensures crimped terminal leads are properly locked into connector.

- **Conforms to USCAR-2/USCAR-21/GMW3191**
  - For use in on-engine, high-vibration, under-hood and under-chassis environments at temp class 4.

- **V0 versions available (UL1977 certified)**
  - Meets stringent safety requirements.

- **Grommet cap**
  - Protects the mat seal and assures proper alignment of the terminals.

- **Flashover options available**
  - (custom void patterns) Provides design flexibility.

- **4 polarization and color options**
  - Facilitates quick visual installation.

### Features and Advantages: **Hybrid Connector**

- **16-, 12- and 8-circuit versions currently available**
  - (9- and 10-circuit versions available in Q4 2019)
  - Offers versatility to meet a range of applications.

- **Mat Seal Technology**
  - Eliminates the need for individual cable seals which provides reduced package size and reduced cost, while still meeting S2 sealing requirements.

- **Grommet Cap**
  - Protects the mat seal and assures proper alignment of the terminals.

- **Pre-assembled terminal position assurance (TPA) housing**
  - Ensures crimped terminal leads are properly locked into connector.

- **Clip-slot feature standard on blade connectors, optional on receptacle**
  - Fastens/attaches clips.
  - USCAR standard 11.00mm clip slot.

- **Backshells/wire dress covers available**
  - Provides additional protection of the wires out the back of the connector.
  - Secures cable bundle.
  - Provides strain relief.

- **Flashover options (i.e., custom void patterns) available**
  - Provides design flexibility.

- **11.00mm clip slot standard on blade connector and optional on receptacle**
  - Fastens/attaches clips.
**Features and Advantages: Hybrid Connector (Continued)**

**Backshells/wire dress covers available**
Secures cable. Provides strain relief

**Connector position assurance (CPA) option available**
Assures connectors have been fully mated and prevents accidental disconnection

**Meets GMW3191 and USCAR-2 specifications**
Ensures reliable performance. Mates with USCAR interfaces

Hybrid 8-Way Receptacle:
Six 1.5A circuits and two 6.3A circuits
Terminal cavity:
1.50mm: MX150 matte sealed
6.3mm: FCI Apex Sealed
Wire ranges (ISO):
1.5mm terminals: 0.35 - 1.50mm²
6.3mm terminals: 6.00mm²

Hybrid 12-Way Connector System, Blade and Receptacle:
Ten 1.5A circuits and two 2.8A circuits
Terminal cavity:
• 1.50mm: MX150 mat sealed
• 2.80mm: Sumitomo unsealed (mat sealed)
Wire ranges (ISO):
• 1.50mm terminals: 0.35 - 1.50mm²
• 2.80mm terminals: 1.00 - 2.50mm²

**Features and Advantages: Terminals**

**Tin, Silver and Gold options available for blade and receptacle matte seal and cable seal terminals**
Offers reliable, economic connectivity

**Current rating up to 22.0A**
Delivers superior performance

**Validated to latest specification revisions:**
USCAR-21, USCAR-2 and GMW3191 specs
Meets industry standards

**Validated wires to GM, Ford, PSA and JASO specifications**
Meets requirements of major auto manufacturers

**4 key options available**
Facilitates quick visual installation

**Hybrid 8-Way Receptacle:**
Six 1.5A circuits and two 6.3A circuits
Terminal cavity:
1.50mm: MX150 matte sealed
6.3mm: FCI Apex Sealed
Wire ranges (ISO):
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Wire ranges (ISO):
• 1.50mm terminals: 0.35 - 1.50mm²
• 2.80mm terminals: 1.00 - 2.50mm²

**Markets and Applications**

**Automotive and Commercial Vehicle**
- Transmissions
- Head/tail lamps
- Body harnesses
- Wipers, washers, defoggers
- Speedometers
- A/C modules
- Turn signals
- Airbag harnesses
- Speakers
- Door connectors
- Brake modules
- Horns

**Sensors**
- ECU
- Headlamp
- Hood Switch
- Battery Pack
- Full Injectors
- Transmission
- Tail lamp
- Horn
- Body Harness
- Speedometer
- A/C Module
- Turn Signals
- Airbag Harness
- Speakers
- Seat Harness

**Wipers, washers, defoggers**
**Specifications**

**SEALED CONNECTORS AND RECEPTACLES**

**REFERENCE INFORMATION**
Packaging:
- Housings – Bulk pack
- Terminals – Reel

Use With:
- Receptacle Connectors, Series 33471, 33472, 34985
- Blade Connectors, Series 33481, 33482, 34986

Mates With:
- Receptacle Connectors, Series 33471, 33472, 34985
- Blade Connectors, Series 33481, 33482, 34986

Packaging:
- Housings – Bulk pack
- Terminals – Reel

**REFERENCE INFORMATION**
Packaging:
- Headers – Trays

Mates With:
- Receptacle Connectors, Series 33472

**REFERENCE INFORMATION**
Packaging:
- Housings – Packed in trays

Mates With:
- Receptacle Connectors, Series 33472

**ELECTRICAL**
- Voltage (max.): 500V DC
- Current (max.): 22.0A
- Contact Resistance (max.): 10 milliohms max.
- Dielectric Withstanding Voltage: 1000V
- Isolation Resistance (min.): 20 Megohms min.

**MECHANICAL/ELECTRICAL/SEALING**
- Durability (max.): 10 milliohms at 10 cycles
- Sealing: IP67K & IP66K with Backshells

**PHYSICAL**
- Housing: PBT 30% Glass Filled
- Terminal: Copper (Cu) Alloy
- Size: 1.20 X 0.80 mm
- Plating: Tin (Sn) Silver (Ag) coming soon
- Underplating: Nickel (Ni)
- PCB Interface: Solder tail or Compliant pin
- Module attachment type: Adhesive
- Operating Temperature: -40 to +125°C

**REFERENCE INFORMATION**
Packaging:
- Headers – Trays

Mates With:
- Receptacle Connectors, Series 33472

**REFERENCE INFORMATION**
Packaging:
- Housings – Packed in trays

Mates With:
- Receptacle Connectors, Series 33472

**ELECTRICAL**
- Voltage (max.): 500V DC
- Current (max.): 22.0A
- Contact Resistance (max.): 10 milliohms max.
- Dielectric Withstanding Voltage: 1000V
- Isolation Resistance (min.): 20 Megohms min.

**MECHANICAL/ELECTRICAL/SEALING**
- Durability: 8 milliohms max. at 10 cycles
- Sealing: GMW3191 Sealing Class 2, IP67K & IP66K with Backshells

**PHYSICAL**
- Housing: SPS/Nylon 20% Glass Filled
- TPA: SPS/Nylon Blend 20%GF
- Contact (Cu) Alloy
- Plating: Contact Area — Tin (Sn), Gold (Au) or Silver (Ag)
- Underplating — Nickel (Ni)
- Wire Gauge: ISO Wire: 0.35 to 1.50mm² SAE Wire:22AWG to 14AWG
- Insulation Diameter: 2.70 to 1.50mm
- Operating Temperature: -40 to +125°C (Sn), -40 to +150°C (Ag)

**REFERENCE INFORMATION**
Packaging:
- Housings – Bulk pack

Mates With:
- Receptacle Connectors, Series 33471, 33472, 34985
- Blade Connectors, Series 33481, 33482, 34986

Packaging:
- Housings – Bulk pack

Mates With:
- Receptacle Connectors, Series 33471, 33472, 34985
- Blade Connectors, Series 33481, 33482, 34986

**ELECTRICAL**
- Voltage (max.): 500V DC
- Current (max.): 22.0A
- Contact Resistance (max.): 10 milliohms max.
- Dielectric Withstanding Voltage: 1000V AC min.
- Isolation Resistance: 20 Megohms min.

**MECHANICAL/ELECTRICAL/SEALING**
- Durability (max.): 10 milliohms at 10 cycles
- Sealing: GMW3191 Sealing Class 2, IP67K & IP66K with Backshells

**PHYSICAL**
- Housing: SPS/Nylon Blend 20%GF, UL 94-HB
- TPA: SPS/Nylon Blend 20%GF
- Contact (Cu) Alloy
- Plating: Contact Area — Tin (Sn), Gold (Au) or Silver (Ag)
- Underplating — Nickel (Ni)
- Wire Gauge: ISO Wire: 0.35 to 1.50mm² SAE Wire:22AWG to 14AWG
- Insulation Diameter: 2.70 to 1.50mm
- Operating Temperature: -40 to +125°C (Sn), -40 to +150°C (Ag)

**REFERENCE INFORMATION**
Packaging:
- Headers – Trays

Mates With:
- Receptacle Connectors, Series 33472

**REFERENCE INFORMATION**
Packaging:
- Headers – Trays

Mates With:
- Receptacle Connectors, Series 33472

**ELECTRICAL**
- Voltage (max.): 500V DC
- Current (max.): 22.0A
- Contact Resistance (max.): 10 milliohms max.
- Dielectric Withstanding Voltage: 1000V AC min.
- Isolation Resistance: 20 Megohms min.

**MECHANICAL/ELECTRICAL/SEALING**
- Durability: 8 milliohms max. at 10 cycles
- Sealing: GMW3191 Sealing Class 2, IP67K & IP66K with Backshells

**PHYSICAL**
- Housing: SPS/Nylon 20% Glass Filled, UL 94-HB
- TPA: 20% Glass Filled SPS/Nylon
- Wire Gauge: ISO Wire: 0.35 to 1.50mm² SAE Wire: 22 to 14 AWG
- Insulation Diameter: 2.69 to 1.20mm (.106 to .047")
- Operating Temperature: -40 to +125°C
Specifications

TWIST-LOCK SEALED BULKHEAD CONNECTORS

REFERENCE INFORMATION
Packaging: Housings – Packed in trays
Mates With: Receptacle Connectors, Series 33472
Use With: Blade Terminals, Series 33000 and 33011
Designed in: Millimeters

ELECTRICAL
Voltage (max.): 14V DC
Current (max.): 22.0A
Contact Resistance (max.): 8 milliohms
Dielectric Withstanding Voltage: 1000V
Isolation Resistance (min.): 100 Megohms min.

MECHANICAL/ELECTRICAL/SEALING
Durability: 8 milliohms max. at 10 cycles
Sealing: (GMW3191) and IP67K

PHYSICAL
Housing: SPS/Nylon 20% GF, UL 94-HB
TPA: 20% Glass-Filled SPS/Nylon
Wire Gauge: ISO Wire: 0.35 to 1.50mm2, SAE Wire: 22 to 14 AWG
Operating Temperature: -40 to +105°C

STANDARD AND M3 GRIP TERMINALS

REFERENCE INFORMATION
Packaging: Reel (terminals are not packaged with connectors)
Use With: Receptacle Connector Series 33471, 33472, 34985
Blade Connector Series 33481, 33482, 34986
Designed in: Millimeters

ELECTRICAL
Voltage (max.): 500V
Current (max.): 12.5A

PHYSICAL
Contact: Copper (Cu) Alloy
Plating: Contact Area — Tin (Sn), Silver (Ag), Gold (Au)
Underplating — Nickel (Ni)
Wire Gauge: ISO Wire: 0.35 to 2.00mm2
SAE Wire: 22 to 14 AWG
Operating Temperature: -40 to +125°C – Tin (Sn)
Operating Temperature: -40 to +155°C – Silver (Ag)

12W HYBRID CONNECTORS

REFERENCE INFORMATION
Packaging: Housings – Bulk Pack
Mates With: MX150 Receptacle Terminals, Series 33012, 33001
MX150 Blade Terminals, Series 33000, 33011
Sumitomo Receptacle Terminal Part Numbers, 8240-0423, 8240-0424
Sumitomo Blade Terminal PN’s, 8230-5257, 8230-5258
Designed in: Millimeters

ELECTRICAL
Voltage (max.): 500V DC
Current (max.): 22.0A
Contact Resistance: 8 milliohms max.
Dielectric Withstanding Voltage: 1000V AC min.
Isolation Resistance: 100 Megohms min.

MECHANICAL/ELECTRICAL/SEALING
Durability: 8 milliohms max. at 10 cycles
Sealing: USCAR-2 Sealing Class 2, IP67K

PHYSICAL
Housing: Nylon 40% Glass Filled
TPA: Nylon 40% Glass Filled
Wire Gauge:
MX150 Terminals ISO Wire: 0.35 to 1.50mm2, SAE Wire: 22 to 14 AWG
Sumitomo 2.80mm Terminals: 1.00mm² thru 2.50mm²
Insulation Diameter: 2.69 to 1.20mm (.106 to .047”)
Operating Temperature: -40 to +125°C

8W HYBRID RECEPTACLE CONNECTORS

REFERENCE INFORMATION
Packaging: Housings – Bulk Pack
Use With: MX150 Receptacle Terminals, Series 33012, 33001
Apex 6.3mm Receptacle Terminal PN: 33140138
Designed in: Millimeters

ELECTRICAL
Voltage (max.): 500V DC
Current (max.): 22.0A
Contact Resistance: 8 milliohms max.
Dielectric Withstanding Voltage: 1000V AC min.
Isolation Resistance: 100 Megohms min.

MECHANICAL/ELECTRICAL/SEALING
Durability: 8 milliohms max. at 10 cycles
Sealing: USCAR-2 Sealing Class 2, IP67K

PHYSICAL
Housing: Nylon 40% Glass Filled
TPA: Nylon 40% Glass Filled
Wire Gauge:
MX150 Terminals ISO Wire: 0.35 to 1.50mm2, SAE Wire: 22 to 14 AWG
Sumitomo 2.80mm Terminals: 6.00mm²
Insulation Diameter: 2.69 to 1.20mm (.106 to .047”)
Operating Temperature: -40 to +125°C

More information at www.molex.com/link/mx150.html