

# MX64 Connectors >

Delivering automotive-grade reliability for connections to sensors, LEDs and other modules and devices, MX64 Connectors ensure high retention force, offer versatile terminal compatibility and meet stringent industry standards. The design simplifies assembly by mating with an integrated header in the device. Features such as color-coded polarization and terminal position assurance (TPA) reduce assembly errors and improve performance in harsh automotive environments.

## ADVANTAGES AND FEATURES

### Reduces risk of connection failure

TPA and available connector position assurance offer superior reliability in high-vibration environments and help prevent unexpected disconnections, improving system reliability.

### Ensures reliable operation in challenging environments

The IP67-rated matte-seal design protects against dust or water ingress, reduces costs and improves production efficiency by eliminating individual wire seals.

### Meets industry standards

The design is tested to USCAR-2 Rev. 4 standards, ensuring reliability and compatibility with automotive specifications.

### Streamlines assembly operations

The direct attachment to an interface molded into the module helps simplify design and assembly work and reduces potential failure points.

Current	Up to 10.0A (with Molex terminals)
Voltage	Up to 14V DC
Seal Rating	IP67
Vibration Class	V1
Pitch	2.54mm (.100")
Circuit Count	2 to 8
Operating Temperatures	-40 to +125°C

### Improves design flexibility

The MX64 system supports 22 to 18 AWG (0.35 to 0.75mm<sup>2</sup>) wires as well as MX64 0.64mm, TE GET and Yazaki Kaizen terminals, meeting various customer and application requirements while maintaining use of a single, trusted product family.

### Minimizes mis-mating errors

An audible click upon mating and three color-coded polarization options help prevent mis-mating and reduce errors.

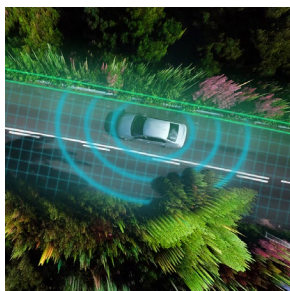


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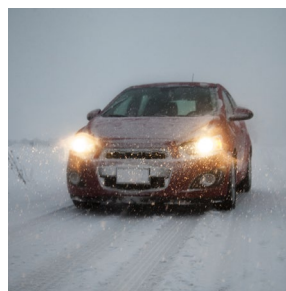
## MARKETS AND APPLICATIONS

### Automotive

Body electronics  
Center high-mounted brake lamps  
Chassis applications  
Comfort/infotainment/driver-assist devices  
Daytime running lights  
Engine-coupled connections  
Fog lamps  
Front/rear position lamps  
Headlamps  
Passive and active sensor systems  
Powertrain systems  
Rear combination lamps  
Reversing lamps  
Safety systems  
Sensors  
Side marker lamps  
Turn signal lamps



*Sensors*



*Headlamps*



*Rear Combination Lamps*

## SPECIFICATIONS

### Reference Information

Packaging: Bulk (housings), reel (terminals)  
Mates With: Interfaces molded into modules and other USCAR interfaces  
Series: 31402, 31403, 31404, 203511  
Terminals Used: 33467, 33468  
Designed in: Millimeters  
RoHS: Yes  
Low Halogen: Yes  
Glow Wire Capable: No  
Sealing Class: IP67  
Vibration Class: V1

### Electrical

Operating Voltage (max.): 14V DC  
Current (max.): 10.0A (with Molex terminals)  
Isolation Resistance (min.): 100 Megohms @ 500V DC

### Mechanical

Pitch: 2.54mm (.100")  
Wire Sizes: 0.35 to 0.75mm<sup>2</sup> (22 to 18 AWG)  
Terminal Insertion Force (max.): 70N  
Terminal Extraction Force (min.): 75N (with TPA)  
Connector Mating Force (max.): 70N  
Connector Unmating Force (min.): 75N  
Housing Holding Force (min.): 100N  
Mating Audible Click (min.): 7dB

### Physical

Connector Housing: Polybutylene terephthalate (PBT)  
Terminal Housing: Syndiotactic polystyrene/nylon 66 (SPS/PA66)  
Contact: Copper alloy  
Plating: Contact area—tin  
Solder tail area—copper alloy  
Operating Temperatures: -40 to +125°C