



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

Designed with legacy MX150™ 1.50mm low-insertion-force terminal system	Proven, widely deployed terminal system provides high-performance connection for mid-power (14 to 22 AWG wire) applications
Reduced package sizes versus USCAR 1.50mm counterparts; receptacles 52% smaller, male in-line connectors 28% smaller	Overall 37% space savings achieved over traditional USCAR 1.50mm connectors
Integral locking-latch	Confirms positive mating of connector and proper latching
Integrated Terminal Position Assurance (TPA) lock molded into receptacle housing	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
Enlarged push surface with ergonomic design	Convenient mating and unmating USCAR-25 compliant
Custom clip-slots available	Provides design flexibility
Four polarisation options: black, natural, grey and dark grey	Facilitates quick visual installation
Utilises existing MX150™ Sealed connector field-service tools deployed at numerous harness makers	Provides cost efficiency by eliminating additional tooling charges

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)

MX150™ Unsealed Connector System 3.50mm Pitch

34796 Single-row, 2-circuit receptacles

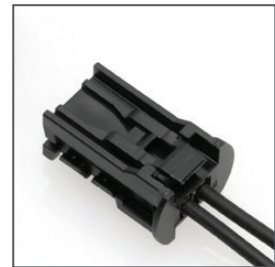
34797 Single-row, 2-circuit Male in-line connectors

33012 Receptacle Terminals

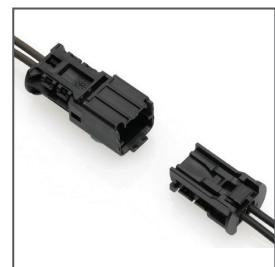
33000 Male Blade Terminals



Male Connector



Female Connector



MX150™ Unsealed Connector System

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.

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

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/ Mn max.

Material must be self-extinguishing

ELECTRICAL

Current (max.): 22.0A

10.0A – 0.35mm² (22 AWG)

22.0A – 2.00mm² (14 AWG)

MX150™ Unsealed Connector System 3.50mm Pitch



Interior lighting consoles



Seat interconnections



White Goods

Product Family Overview

	2 Circuit	3 Circuit	4 Circuit
Receptacle			
In-Line Male Connector	 Shown with GM style clip-slot	 Shown with Ford style clip-slot	 Shown with GM style clip-slot and CPA option

Ordering Information

Male and Female Connectors

Circuits	Polarization	Color	Receptacle Order No.	Mating Male Connector	
				/w GM Style Clip-Slot	/w Ford Style Clip-Slot
2	A	Black	34796-0201	34797-0201	34797-0205
	B	Natural	34796-0202	34797-0202	34797-0206
	C	Grey	34796-0203	34797-0203	34797-0207
	D	Dark Grey	34796-0204	34797-0204	34797-0208
3	A	Black	34796-0301	34797-0301	34797-0305
	B	Natural	34796-0302	34797-0302	34797-0306
	C	Grey	34796-0303	34797-0303	34797-0307
	D	Dark Grey	34796-0304	34797-0304	34797-0308
4	A	Black	34796-0401	34797-0401	34797-0405
	B	Natural	34796-0402	34797-0402	34797-0406
	C	Grey	34796-0403	34797-0403	34797-0407
	D	Dark Grey	34796-0404	34797-0404	34797-0408

- 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

Gender	Order No. (Right Reel Payoff)	Order No. (Left Reel Payoff)	Grip Size: AWG	OEM Ratchet Hand Crimper	Grip Size: mm ²	OEM Ratchet Hand Crimper	Plating
Male Blade Terminals	33000-0001	33000-1001	14	63811-2400	1.5	N/A	Tin (Sn)
	33000-0002	33000-1002	16		63811-2600		
	33000-0003	33000-1003	22	0.35, 0.50			
Female Terminals	33012-2001	33012-3001	14, 16	63811-5900	1.5	63811-6100	
	33012-2002	33012-3002	18, 20	63811-6000	0.75	63811-6200	
	33012-2003	33012-3003	22		1	63811-6100	
					0.5	63811-6200	