



The MX150™ high-performance Sealed Connector System offers a reduced package size, meets or exceeds USCAR-2 Class 3 requirements and is ideal for SAE and ISO-style wire in single and dual-row configurations up to 22.0A, supporting low-level signal and power applications for on-engine automotive to off-road construction equipment

The MX150™ Sealed Connector System consists of matte- and cable-sealed blade and receptacle connectors, providing customers flexibility to choose the best solution based on manufacturing costs. This system is based upon the 1.50mm ISO blade-type terminal system, available in tin, gold or silver contact finishes, therefore eliminating the need to purchase, handle and crimp individual wire seals to lower applied cost.

Applications

Automotive and non-automotive

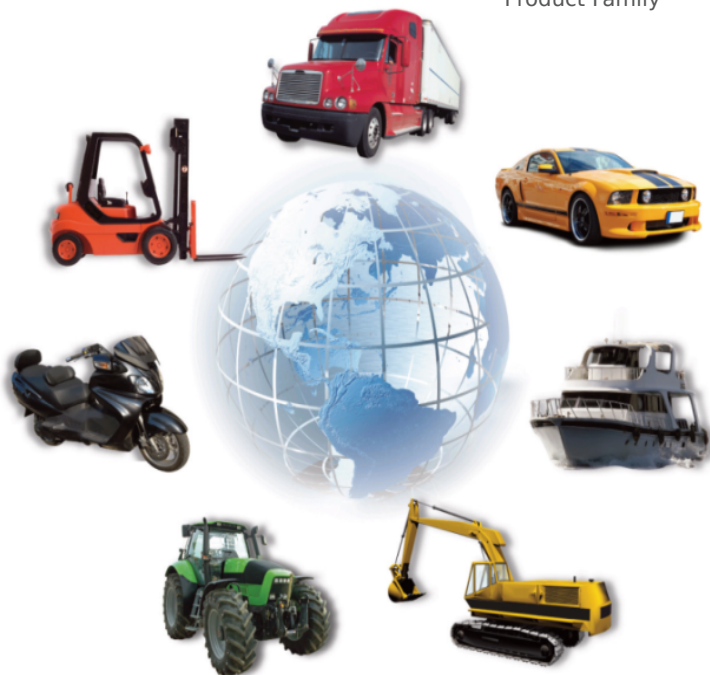
- Commercial vehicles
- Recreational vehicles
- Industrial vehicles and equipment
- Construction equipment
- Marine equipment

Panel-Mount Connectors only

- Headlamp modules
- Hybrid, electric battery cases
- Firewall harnesses
- Tail lamps
- Power control modules
- Bulkhead applications
- Speedometers



MX150™ Sealed Connector System Product Family



MX150™ Sealed Connector System 3.50mm Pitch

Standard MX150 System

33471 Single-Row Receptacle Connectors

33472 Dual-Row Receptacle Connectors

33481 Single-Row Blade Connectors

33482 Dual-Row Blade Connectors

33476 Hybrid Receptacle Connectors

34986 Hybrid Blade Connectors

34345 Cavity Plugs

Sealed Headers

34829 Dual-Row, Right Angle, Solder Tail

34830 Dual-Row, Right Angle, Compliant Pin

Panel-Mount Connectors

47725 Panel-Mount Connectors

Twist-Lock Sealed Bulkhead Connectors

34840 Twist-lock Connectors

Backshells

34949 Receptacles, 1-by-2

34951 Receptacles, 2-by-3, 2-by-6

34948 Blades, 1-by-2

34950 Blades, 2-by-3, 2-by-6 Standard and M3 Grip Terminals

33000 Tin, Male Blades

33001 Silver and Gold, Female Receptacles

33011 Silver and Gold, Male Blades

33012 Tin, Female Receptacles

Features and Benefits

Standard Connector System

Reduced 3.50mm pitch housing design	Supports single-row configurations for 2, 3, 4, 5 and 6 circuits and dual-row configurations for 4, 6, 8, 12, 16, 20 and 16 circuit hybrid
Pre-assembled housing, seal, TPA components and matte-seal connector shipped as single assembly	Offers labor and cost savings
Simple crimp, poke and plug design	Removes the need to crimp individual wire seals
Integral locking latch with secondary, pre-loaded connector position assurance (CPA) option	Confirms positive mating of connector and proper latching (CPA will not move to final locked position if connector is not latched)
Superior electrical and mechanical performance capabilities	Surpass performance of most mature competitive products in the market
Conforms to USCAR-20 (FCLT) / USCAR-2 Rev 4 / USCAR-21	Supports use in on-engine, high-vibration, under-hood and under-chassis applications at Class 3 temperatures (-40 to +125°C)
Integral, matte and interfacial seals designed and tested to IEC IP6K7 and IP6K9K and SAE USCAR-2 Rev 4 standards	Exceed “waterproof” demands as a true sealed connector system tested under submersed conditions in various fluids

Ordering Information

Standard Receptacle and Blade Connectors

Order No.	Component	Rows	Circuit Size	Clip Slot
33471-020*	Receptacle Connector	1-by-2	2	Not Available
33471-030*		1-by-3	3	
33471-040*		1-by-4	4	
33471-050		1-by-5	5	
33471-060*		1-by-6	6	
33472-040*		2-by-2	4	Standard
33472-060*		2-by-3	6	
33472-070*		2-by-3	6	
33472-080*		2-by-4	8	
33472-090*		2-by-4	8	Standard
33472-120*		2-by-6	12	Not Available
33472-130*		2-by-6	12	Standard
33472-160*		2-by-8	16	Not Available
33472-200*		2-by-10	20	
33476-160*		2-by-8 Hybrid	16	
33476-1841		2-by-8 Hybrid	16	Standard
33481-020†	Blade wwConnector	1-by-2	2	Standard
33481-030†		1-by-3	3	
33481-040†		1-by-4	4	
33481-050†		1-by-5	5	
33481-060†		1-by-6	6	
33482-040†		2-by-2	4	
33482-060†		2-by-3	6	
33482-080†		2-by-4	8	
33482-120†		2-by-6	12	
33482-160†		2-by-8	16	
33482-200†		2-by-10	20	
34986-160†		2-bv-8 Hvbrid	16	



Cavity Plug – for unused cavity

Order No.	Gender
34345-0001	Male / Female (Interchangeable)

*Denotes polarization, housing color and CPA information:

1 = A, Black, no CPA 2 = B, Light Gray, no CPA 3 = C, Brown, no CPA 4 = D, Green, no CPA 6 = A, Black, CPA 7 = B, Light Gray, CPA 8 = C, Brown, CPA 9 = D, Green, CPA

†Denotes polarization and housing color: 1 = A, Black; 2 = B, Light Gray; 3 = C, Brown; 4 = D, Green



Features and Benefits

Sealed Headers

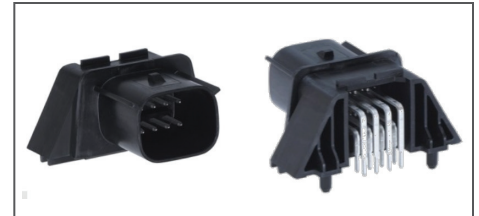
High-temperature thermoplastic housing

Withstands wave soldering processing and tin/lead infrared (IR)-reflow soldering. Withstands Class 3 (-40 to +125°C) operating environments

Solder-tail and compliant-pin electrical interfaces

Provides module design flexibility. Compliant-pin headers can be utilized for lead-free, IR reflow applications

MX150™ Sealed Connector System 3.50mm Pitch



MX150™ Sealed Headers
(Series 34829, 34830)

Ordering Information

Sealed Headers

Order No.	Terminal Interface	Configuration	Circuit Size	Polarization	Color	Mating Connector Order No. without CPA	Mating Connector Order No. with CPA
34830-0801	Solder Tail	2-by-4	8	A	Black	33472-0801	33472-0806
34830-0802				B	Gray	33472-0802	33472-0807
34830-0803				C	Dark Gray	33472-0879	33472-0881
34830-0804				D	Stone Gray	33472-0880	33472-0882
34829-0801	Compliant Pin			A	Black	33472-0801	33472-0806
34829-0802				B	Gray	33472-0802	33472-0807
34829-0803				C	Dark Gray	33472-0879	33472-0881
34829-0804				D	Stone Gray	33472-0880	33472-0882
34830-2001	Solder Tail	2-by-10	20	A	Black	33472-2001	33472-2006
34830-2002				B	Gray	33472-2002	33472-2007
34830-2003				C	Dark Gray	33472-2060	33472-2062
34830-2004				D	Stone Gray	33472-2061	33472-2063
34829-2001	Compliant Pin			A	Black	33472-2001	33472-2006
34829-2002				B	Gray	33472-2002	33472-2007
34829-2003				C	Dark Gray	33472-2060	33472-2062
34829-2004				D	Stone Gray	33472-2061	33472-2063

Features and Benefits

Panel-Mount Connectors

Gasket seal

Meets IP6K7 and IP6K9K sealing requirements

High-temperature thermoplastic housing

Withstands Class 3 (-40 to +125°C) operating environments

Easy terminal extraction and insertion

Provides simple serviceability

Mounts from the inside-out of the module

Allows the operator quicker installation

Housing can be molded into plastic or die-cast materials

Supports design flexibility



MX150™ Panel-Mount Connectors
available in four polarization colors

Ordering Information

Panel-Mount Connectors

Order No.	Rows	Circuit Size	Polarization	Color
47725-2010	2-by-6	12	A	Black
47725-2020			B	Gray
47725-2030			C	Dark Gray
47725-2040			D	Stone Gray



Features and Benefits

Twist-Lock Sealed Bulkhead Connectors

Twist-lock latching design with audible, tactile and visual feedback	Ensures reliable mating and locking upon assembly. Eliminates the need for additional fasteners
Integral ring seal	Meets industry-standard sealing requirements, using proven interfacial seal technology to facilitate reliable sealing
Outside-in mounting design with a 42.00mm pass-through hole	Eliminates the potential to push the bulkhead connector back into the module. Improves high-pressure spray capability. Allows for easy access inside and outside of the module
Terminal Positioning Assurance (TPA) and TPA with probe hole	Ensures terminals are fully seated and will not back out during mating while probe hole allows simple terminal serviceability

MX150™ Sealed Connector System
3.50mm Pitch



MX150™ Twist-Lock Sealed Bulkhead Connectors (Series 34840)

Ordering Information

Twist-Lock Sealed Bulkhead Connectors

Order No.	Configuration	Circuit Size	Polarization	Color	Mating Receptacle Connector Order No. without CPA	Mating Receptacle Connector Order No. with CPA
34840-3010	2-by-3	6	A	Black	33472-0601	33472-0606
34840-3020			B	Light Gray	33472-0602	33472-0607
34840-3030			C	Dark Gray	33472-0668	33472-0670
34840-3040			D	Stone Gray	33472-0669	33472-0671
34840-4010	2-by-4	8	A	Black	33472-0801	33472-0806
34840-4020			B	Light Gray	33472-0802	33472-0807
34840-4030			C	Dark Gray	33472-0879	33472-0881
34840-4040			D	Stone Gray	33472-0880	33472-0882
34840-6010	2-by-6	12	A	Black	33472-1201	33472-1206
34840-6020			B	Light Gray	33472-1202	33472-1207
34840-6030			C	Dark Gray	33472-1253	33472-1259
34840-6040			D	Stone Gray	33472-1254	33472-1260
34840-8010	2-by-8	16	A	Black	33472-1601	33472-1606
34840-8020			B	Light Gray	33472-1602	33472-1607
34840-8030			C	Dark Gray	33472-1767	33472-1769
34840-8040			D	Stone Gray	33472-1768	33472-1770

Features and Benefits

Backshells

Single-piece hinge design

Protects the connector from dust, moisture and other contaminants. Easy-to-use and -close backshell at harness makers plants. Secure sealing class IP6K7, IP6K9K

Encased wires and connector

Addresses the new OEM trend for engine beautification

MX150™ Sealed Connector System 3.50mm Pitch



MX150™ Backshells
Left: closed; Right: open

Ordering Information

Backshells

Order No. With Ribs	Order No. Without Ribs	Component	Configuration	Use with Connector Order No.
34949-0210	34949-0220	Receptacle Connector	1-by-2	33471-0206
34951-0610	34951-0620		2-by-3	33472-0606
34951-1210	34951-1220		2-by-6	33472-1206
34948-0210	34948-0220	Blade Connector	1-by-2	33481-0201
34950-0610	34950-0620		2-by-3	33482-0601
34950-1210	34950-1220		2-by-6	33482-1201

Features and Benefits

Standard and M3 Grip Blade and Grip Receptacle Terminals

Two ISO-wire sizes available, 0.35 and 0.50mm²

Provide optimum sealing performance and contribute less weight in the vehicle

Plating available in tin, silver or gold

Provides high-performance connection options. Tin terminals provide a lower-cost option



MX150™ Standard and M3 Grip Terminals
(Series 33000, 33001, 33011, 33012)

Ordering Information

Standard and M3 Grip Blade and Grip Receptacle Terminals

Order No.				Plating	Grip Code	Wire Application	
Blade Terminals		Receptacle Terminals				SAE (AWG)	ISO (mm²)
Right Payout, B Wound	Left Payout, D Wound	Right Payout, B Wound	Left Payout, D Wound				
33000-0001	33000-1001	33012-2001	33012-3001	Tin	14	14 to 16	2.00 to 1.50
33000-0002	33000-1002	33012-2002	33012-3002		18	18 to 20	1.00 to 0.75
33000-0003	33000-1003	33012-2003	33012-3003		22	Not Applicable	0.35 to 0.50
33000-0004	33000-1004	33012-2004	33012-3004		M3		
33011-2001	33011-3001	33001-4001	33001-5001	Silver	14	14 to 16	2.00 to 1.50
33011-2002	33011-3002	33001-4002	33001-5002		18	18 to 20	1.00 to 0.75
33011-2003	33011-3003	33001-4003	33001-5003		22	Not Applicable	0.35 to 0.50
33011-2004	33011-3004	33001-4005	33001-5005		M3		
33011-1002	33011-0003	33001-2003	33001-3003	Gold	14	14 to 16	2.00 to 1.50
33011-1004	33011-0004	33001-2004	33001-3004		18	18 to 20	1.00 to 0.75
33011-1006	33011-0005	33001-2005	33001-3005		22	Not Applicable	0.35 to 0.50
33011-1007	33011-0006	33001-2006	33001-3006		M3		

B wound parts are maintained in sample plant only.