

# CMC/CMX Connector System >

The CMC/CMX Connector System helps manufacturers transform vehicle architectures with a wide range of sealed, high-density, hybrid, wire-to-board and wire-to-wire off-the-shelf solutions designed for reliability in harsh environments and high-performance applications.



## ADVANTAGES AND FEATURES

### Withstands high-vibration environments

Rugged construction

### Accommodates wire and bundle sizes for greater design flexibility

Wire dress covers available with left- or right-wire output options

Interfaces	CMC: 22-, 28-, 32-, 48-, 53-way CMX: 55-, 65-, 70-, 104-, 120-way
Number of Circuits	22 to 154
Terminal Sizes	0.64, 1.50, 2.80mm
Header Configurations	Right angle, vertical, panel mount
Terminal Attachment	THT wave soldering, press-fit EON
Operating Temperatures	-40 to +125°C



### Offers flexibility with wide interchangeability between CMC and CMX products

Interchangeable connectors include 32-, 48- and 53-circuit connectors

### Supports ease of assembly, reduces operator fatigue and helps prevent mis-mating errors

Multiple polarization and color-keying options available

### Prevents water and dust ingress

Seal offers IPx7 or IPx9K rating



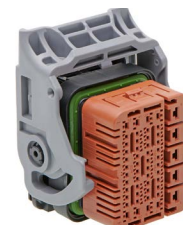
### Endures environmental extremes, with a wide operating temperature range of -40 to +125°C

Appropriate for motor controls and engine compartments



### Features sealing protection for terminals with available IPx7 and IPx9K seal ratings

Connectors offer available matte seal for 0.64 and 1.50mm terminals and single-wire seal for 2.80mm terminals



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## ADVANTAGES AND FEATURES - CMC PRODUCTS

### Offers design flexibility and faster time-to-market solutions

Wide range of vertical and right-angle header options



### Provides high mechanical and electrical performance with two-piece female terminals

Copper alloy body with Stainless Steel outer sleeve is available with Tin or Gold plating



### Helps ensure secure and reliable connectivity in vibration- and shock-prone applications

Individual secondary locking (ISL) with improved terminal position and retention assurance



## ADVANTAGES AND FEATURES - CMX PRODUCTS

### Protects seal before and during connector mating and un-mating

Moveable perimeter seal protector



### Eases servicing operations and lowers costs

One-piece, clean body female terminals available in Tin or Silver plating



### Offers extra assurance for a reliable connection

Connector and terminal position assurance (CPA and TPA)



## MARKETS AND APPLICATIONS

### Automotive

- Automatic transmission control units
- Electric/hybrid vehicles
- Engine control units
- Internal combustion engine vehicles
- Inverters
- Motor control units
- On-board chargers
- Parking brakes
- Power distribution units
- Suspension controllers
- Vehicle control units



Electric/Hybrid Vehicles



Engine Control Units



Construction Equipment

### Commercial Vehicle

- Agricultural equipment
- Buses
- Construction equipment
- Marine equipment
- Motorcycles
- Trucks

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## SPECIFICATIONS

### Reference Information

Packaging: Carton box

Use With:

CMC: CP 2-piece terminals

CMX: CTX 1-piece terminals

Designed in: Millimeters

RoHS: Yes

Halogen Free: Yes

Glow Wire Capable: Yes

### Physical

Housing: PBT GF30

Contact: Copper Alloy

Plating: Tin or Gold (CMC), Tin or Silver (CMX)

Operating Temperatures: -40 to +125°C

### Electrical

Voltage (max.): 32V DC per IEC 60664,  
pollution degree 2

Current (max.):

0.64mm terminal: 2.5A (CMC), 2.0 to 3.0A (CMX)

1.50mm terminal: 12.0A (CMC), 6.0 to 10.0A

(CMX)

2.80mm terminal: 21.0A (CMC), 15.0A (CMX)

Contact Resistance (max.):

0.64mm terminal: 8 milliohms (CMC), 10

milliohms (CMX)

1.50mm terminal: 4 milliohms (CMC), 5 milliohms

(CMX)

2.80mm terminal: 3 milliohms (CMC and CMX)

Dielectric Withstanding Voltage: 1,000V AC

Insulation Resistance: 100 Megohms

### Mechanical

Circuit Size: 22 to 154

Interfaces:

CMC: 22-, 28-, 32-, 48-, 53-way

CMX: 55-, 65-, 70-, 104-, 120-way

Contact Insertion Force (max.):

0.64mm terminal: 12N (CMC), 8N (CMX)

1.50mm terminal: 20N (CMC), 15N (CMX)

2.80mm terminal: 25N (CMC), 15N (CMX)

Contact Retention to Housing (min.):

0.64mm terminal: 60N (CMC and CMX)

1.50mm terminal: 100N (CMC and CMX)

2.80mm terminal: 100N (CMC and CMX)

Mating/Un-Mating Force (max.):

70N (CMC), 60N (CMX)

Durability (max.): 20 cycles