

# CMC Connector System

A sealed, high density and modular connection system for transportation industry



**molex**<sup>®</sup>

# CMC HYBRID CONNECTORS STANDARD AND POWER VERSIONS

The CMC connector family from Molex is a sealed, high-density connection system developed for the transportation industry. It is a cost-effective, modular, hybrid system that fits with various headers.

Standard version CMC hybrid connectors hold two different terminal sizes, 0.635mm (.025") and 1.50mm (.059"). Power version CMC hybrid connectors hold three different terminal sizes, 0.635mm (.025"), 1.50mm (.059") and 2.80mm (.110"). Both connector versions run at operating temperatures between -40 and +125°C.

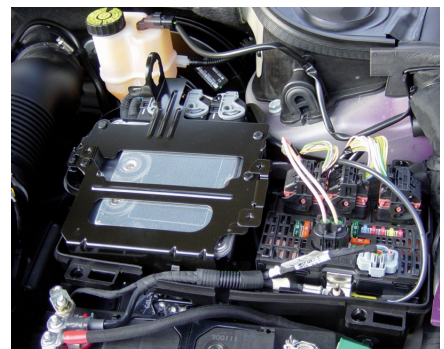
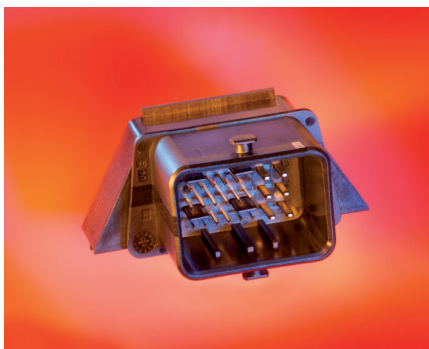
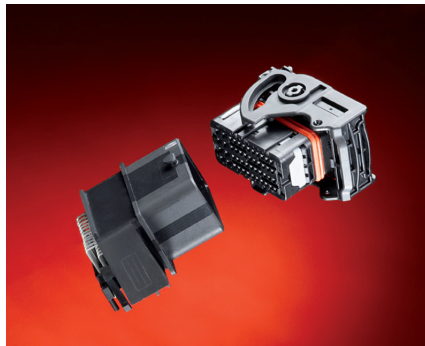
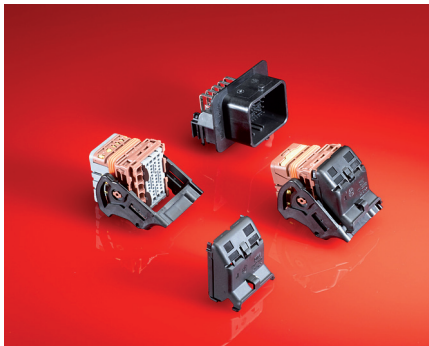
## Features and Benefits

- High performing sealed connection system using matte seal technology for CP 0.635mm (.025") and 1.50mm (.059") terminals and using single wire seal (SWS) technology for CP 2.80mm (.110") terminals
- High density system due to compact connector design and fine pitch size of 2.54mm (.100")
- Hybrid connection system using 3 different terminal sizes CP 0.635mm, CP 1.50mm and CP 2.80mm terminals
- Modular connector system with a choice of different circuit sizes, such as: 22, 24, 28, 32, 36, 48 and 53
- System offers several colour codings and mechanical polarization
- Can perform in sealed applications where IPx9K rating and 500mbar watertightness are required
- Requires reduced space on customer printed circuit boards (PCB) or engine compartments
- Supports low, medium and high current applications from 2.5A up to 21A to perform in harsh environments and high-conductivity applications
- Cost effective system; uses same connector type for different harness size needs
- Reduces cycle time during harness assembly due to easy visual installation and avoids mis-mating of the headers and connectors

## Markets and Applications

CMC can be used in the following markets: cars, trucks, busses, agricultural equipment, motorcycle or marine.


This wire-to-board application can run on Powertrain applications such as Engine Control Units, Gear Boxes, Suspension Controllers but also on Body Electronics like Junction Box, Lightning Control Systems or Electrical Doors.



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## CMC Hybrid Connector Family – Part Number overview list

Circuits	Part No.	Description	Color (Keying)	Wire Output	Matte Seal	Mates with	Terminal loading	
22	64326-1001	Power CMC Receptacle	Black	Right	Yes	Contact Molex	20 x CP 0.60mm terminal 2 x CP 2.80mm terminal	
	64326-1005		Brown					
	64326-1009		Blue					
	64326-1002		Black	Left				
	64326-1006		Brown					
	64326-1010		Blue					
24	64319-2211	Standard CMC Receptacle	Black	Left				
	64319-2218		Gray					
	64319-4211		Black	Right				
	64319-4218		Gray					
	64319-1201	Wire Cap for 24-circuit Standard CMC Receptacle	N/A	N/A				
28	64318-1011	Power CMC Receptacle	Black	Left				
	64318-1018		Gray					
	64318-1019		Brown					
	64318-3011		Black	Right				
	64318-3018		Gray					
	64318-3019		Brown					
	64320-1301	Wire Cap for 28-circuit Power CMC Receptacle	N/A	N/A				
32	64319-1211	Standard CMC Receptacle	Black	Left				
	64319-1216		Blue					
	64319-1218		Gray					
	64319-1219		Brown					
	64319-3211		Black	Right				
	64319-3216		Blue					
	64319-3218		Gray					
	64319-3219		Brown					
	64319-1201		Wire Cap for 32-circuit Standard CMC Receptacle		N/A	N/A		
	36		64320-2311	Standard CMC Receptacle	Black	Left		
64320-2319		Brown						
64320-4311		Black	Right					
64320-4319		Brown						
64320-1301		Wire Cap for 36-circuit Standard CMC Receptacle	N/A	N/A				
48	64320-1311	Standard CMC Receptacle	Black	Left				
	64320-1315		Green					
	64320-1318		Gray					
	64320-1319		Brown					
	64320-3311		Black	Right				
	64320-3315		Green					
	64320-3318		Gray					
	64320-3319		Brown					
	64320-1301		CMC Wire Cap for 48-circuit Standard CMC Receptacle		N/A	N/A		

Circuits	Part No.	Description	Color (Keying)	Wire Output	Matte Seal	Mates with	Terminal loading	
53	64321-1011	Power CMC Receptacle	Black	Left	Yes	98997-1002	40 x CP 0.60mm terminal 8 x CP 1.50mm terminal 5 x CP 2.80mm terminal	
	64321-1018		Gray			98997-1002		
	64321-1019		Brown			Contact Molex		
	64321-2011		Black	98997-1002				
	64321-2018		Gray	154-circuit Compliant Pin Header				
	64321-2019		Brown	34763-000x Pocket Z				
	64321-1101	CMC Wire Cap for 53-circuit Power CMC Receptacle	N/A	N/A		Contact Molex		

## Single Wire Seals

Part No.	Description	Color	Mates with	
64325-1162	CMC Single Wire Seal for CP 2.80, for cable 1.29 to 2.06mm	Red	CMC CP 2.80mm terminal	
64325-1175	CMC Single Wire Seal for CP 2.80, for cable 2.03 to 2.80mm	Green		
64325-1188	CMC Single Wire Seal for CP 2.80, for cable 2.80 to 3.50mm	Gray		
64325-1196	CMC Single Wire Seal for CP 2.80, for cable 3.50 to 4.21 mm	Blue		




















## Blind Plugs

Part No.	Description	Mates with	
64325-1010	CMC Blind Plug for CP terminal cavity 0.60mm	32-circuit CMC Receptacle 48-circuit CMC Receptacle 28-circuit CMC Receptacle 53-circuit CMC Receptacle	
64325-1023	CMC Blind Plug for CP terminal cavity 1.50mm		
64325-1091	CMC Blind Plug for CP terminal cavity 2.80mm		

## Terminals

Description	Plating	Part No.	Wire Size	Mates with				
CP terminal 0.60mm	Tin	64322-1019	0.35mm <sup>2</sup>	32-circuit CMC Receptacle 48-circuit CMC Receptacle 28-circuit CMC Receptacle 53-circuit CMC Receptacle				
CP terminal 0.60mm		64322-1029	0.75mm <sup>2</sup>					
CP terminal 0.60mm		64322-1039	0.50mm <sup>2</sup>					
CP terminal 0.60mm	1.27µ Gold	64322-1219	0.75mm <sup>2</sup>					
CP terminal 0.60mm		64322-1229	0.35mm <sup>2</sup>					
CP terminal 0.60mm		64322-1239	0.50mm <sup>2</sup>					
CP terminal 0.60mm HP		64322-1339	0.75mm <sup>2</sup>					
CP terminal 0.60mm HP		64322-1349	0.35mm <sup>2</sup>					
CP terminal 0.60mm HP		64322-1359	0.50mm <sup>2</sup>					
CP terminal 1.50mm	Tin	64323-1029	0.50 to 1.00mm <sup>2</sup>	32-circuit CMC Receptacle 48-circuit CMC Receptacle 28-circuit CMC Receptacle 53-circuit CMC Receptacle				
CP terminal 1.50mm		64323-1039	> 1.00 to 2.00mm <sup>2</sup>					
CP terminal 1.50mm	1.27µ Gold	64323-1219	> 1.00 to 2.00mm <sup>2</sup>					
CP terminal 1.50mm		64323-1319	0.50 to 1.00mm <sup>2</sup>					
CP terminal 2.80mm		Tin	64324-1019			> 3.00 to 5.00mm <sup>2</sup>	28-circuit CMC Receptacle 53-circuit CMC Receptacle	
CP terminal 2.80mm			64324-1029			> 2.00 to 3.00mm <sup>2</sup>		
CP terminal 2.80mm	64324-1039		> 1.00 to 2.00mm <sup>2</sup>					
CP terminal 2.80mm	64324-1049		0.50 to 1.00mm <sup>2</sup>					
CP terminal 2.80mm	1.27µ Gold	64324-1119	> 3.00 to 5.00mm <sup>2</sup>					
CP terminal 2.80mm		64324-1129	> 2.00 to 3.00mm <sup>2</sup>					
CP terminal 2.80mm		64324-1139	> 1.00 to 2.00mm <sup>2</sup>					
CP terminal 2.80mm		64324-1149	0.50 to 1.00mm <sup>2</sup>					

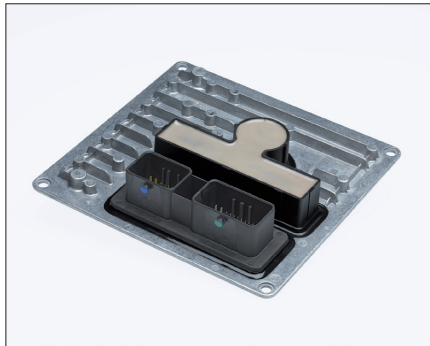
## CMC Hybrid Header Family - Part Number overview list

Circuits	Part No.	Mates with CMC Connector	Description	No. of pockets	Pins count 0.63mm	Pins count 1.50mm	Pins count 2.80mm	Terminal Type									
32	64334-0100	64319-3211	32-circuit CMC header	1	24	8	0	Solder pin									
	64334-0300	64319-3219															
36	36638-0006	64320-2311 or 64320-4311	36-circuit CMC header		30	6			0								
	36638-0008																
	36638-0007	64320-2319 or 64320-4319	36-circuit CMC header - Signal pins in AU 1.27µ									36-circuit CMC header based on 500762-0481	48	8			
	36638-0009																
	36638-0013	64320-2311 or 64320-4311	36-circuit CMC header based on 500762-0481									40	8				
47732-0361																	
48	500762-0481	64320-1311 or 64320-3311	48-circuit CMC header		40	8											
	36638-0002	64320-1311 or 64320-3311										53	8	5			
	36638-0004																
	36638-0003	64320-1319 or 64320-3319															
53	98997-1002	64321-1011 or 64321-2011	53-circuit Header	40	8	5											
72	36638-0001	64320-2319 and 64320-4311	72-circuit Header (36 + 36)	2	60	12	0										
	36638-0010																
80	502225-0801	64320-1319 and 64319-3211	80-circuit Header (48 + 32)		64	16	0										
96	36638-0011	64320-1319 and 64320-3311	96-circuit Header (48 + 48)		80	16	0										
	36638-0012																
112	64333-0100	64319-3211 and 64320-3319 and 64319-1218	112-circuit Header (32 + 48 + 32)		88	24	0										
154	34763-0001	64321-2011 and 64321-2019 and 64320-1318	154-circuit Header (48 + 53 + 53)		3	120	24			10	Compliant pin EON style						

**CMC Hybrid Connector Application Examples**



CMC 48-circuit header, 36638 series  
Mating to CMC 48-circuit connector, 64320 series,  
used for LPG application (LPG = Liquid Power Gas)



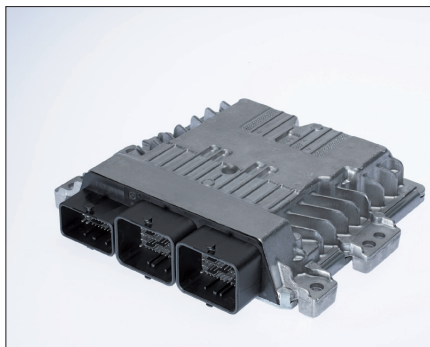
CMC 80-circuit header, custom design  
Mating to CMC 32- and 48-circuit connector, 64319 and 64320 series,  
used for Gear Box application



CMC 28-circuit headers, custom design  
Mating to CMC 28-circuit connectors, 64318 series,  
used for Fuse Box application



CMC 48-circuit header, 500762 series  
Mating to CMC 48-circuit connector, 64320 series,  
used for Engine Control Unit



CMC 154-circuit header in compliant pin, 34763 series  
Mating to CMC 48-, 53- circuit connector, 64320 and 64321 series,  
used for Engine Control Unit

# 2.54mm (.100") 4.20mm (.170") 8.40mm (.331") Pitch Wire-to-Board CMC Power Hybrid Connector

## Wire Cap, Plug and Single Wire Seals

### 64326 22-Circuit Receptacle Left and right wire output



#### Features and Benefits

- Small connector size, same size as 32-circuit 64319 series
- 2 x CP 2.80mm (.110") power terminals and 20 x CP 0.635mm (.025") signal pins
- Matte-seal technology used for CP 0.635mm (.025") signal contacts
- Single wire-seal technology used for CP 2.80mm (.110")
- Blind plugs for unused circuits
- Perimeter seal
- Color coding
- Audible 'click' during locking

#### Reference Information

Product Specification: PS-64326-001  
Application Specification: AS-64326-001  
Sales Drawing: SD-64326-001

Mates with:  
22 circuit CMC header  
please contact Molex for details

Use with:  
Terminal: 64322 CP 0.635mm (.025")  
64324 CP 2.80mm (.110")

Plug: 64325-1010 Plug 0.635mm (.025") cavity  
64325-1091 Plug 2.80mm (.110") cavity

Wire Cap: 64319-1201 CMC Wire Cap

Designed in: Millimeters

#### Electrical

Voltage (max.): 250V AC

Current (max.):  
CP 0.635mm (.025") terminals - max 4.5A  
(0.75mm<sup>2</sup> wire)\*  
CP 2.80mm (.110") terminals - max 26.0A  
(5.00mm<sup>2</sup> wire)\*

\* current tested on a fully loaded connector, current for temperature increase of 40°C

- Requires small space in the application
- Supports high-current applications but as well applications requiring high number of signal pins
- High-performance sealing due to seal cavity design using several sealing lips
- Secure and reliable sealing for power terminals
- Secure sealing system when flexibility is required for unused cavities with a standard backplate
- Secures sealing between the connector and mating header
- Easy visual installation
- Ensures connector and header are mated securely

Contact Resistance (low level):  
0.635mm (.025") terminal : 8 milliohms max  
2.80mm (.110") terminal : 3 milliohms max

Dielectric Withstanding Voltage:  
No breakdown

Insulation Resistance:  
100 Megohms min

#### Mechanical

Contact Insertion Force:  
0.635mm (.025") terminal: 12.00N max  
2.80mm (.110") terminal: 25.00N max  
Contact Retention to Housing:  
0.635mm (.025") terminal: 60.00N min  
2.80mm (.110") terminal: 100.00N min

Wire Pull-Out Force: 100.00N min

Durability: 20 mating cycles

#### Physical

Housing: PBT Polyester, Class UL-V0, Glass-filled  
Contact: See details in SD-64322-001  
SD-64324-001

Operating Temperature: -40 to +125°C

#### Connectors

Order No.	Color Key Coding	Wire Output
64326-1001	Black	Right
64326-1005	Brown	
64326-1009	Blue	
64326-1002	Black	Left
64326-1006	Brown	
64326-1010	Blue	

#### Blind Plug

Order No.	Terminal Width	Color
64325-1010	0.635mm (.025")	White
64325-1023	1.50mm (.059")	Orange
64325-1091	2.80mm (.110")	Black

#### Wire Cap

Order No.	Circuits	Color
64319-1201	32	Black

#### Single Wire Seals

Order No.	Description	Color
64325-1162	For cable 1.29mm to 2.06mm	Red
64325-1175	For cable 2.03mm to 2.80mm	Green
64325-1188	For cable 2.80mm to 3.50mm	Gray
64325-1196	For cable 3.50mm to 4.21mm	Blue

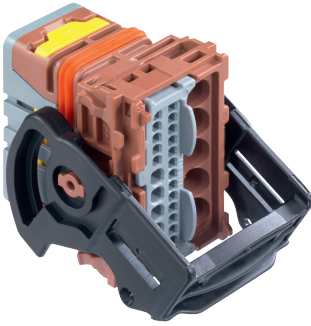


# 2.54mm (.100") 3.50mm (.138") 6.75mm (.266") Pitch Wire-to-Board CMC Power Hybrid Connector

## Wire Cap, Plug and Single Wire Seals

**64318**

### 28-Circuit Receptacle Left and right wire output



#### Features and Benefits

- 3 different color codings
- Mechanical polarization
- Audible 'click' during locking
- 5 x CP 2.80mm (.110") power terminals
- Matte seal technology used for CP 0.635mm (.025") and 1.50mm (.059") terminals
- Single wire-seal technology used for CP 2.80mm (.110") terminals
- Blind plugs for unused circuits

#### Reference Information

Product Specification: PS-64318-001  
Application Specification: AS-64318-001  
Sales Drawing: SD-64318-001

**Mates with:**  
28 circuit CMC header  
please contact Molex for details

**Use with:**  
**Terminal:** 64322 CP 0.635mm (.025")  
64323 CP 1.50mm (.059")  
64324 CP 2.80mm (.110")  
**Plug:** 64325-1010 Plug 0.635mm (.025") cavity  
64325-1023 Plug 1.50mm (.059") cavity  
64325-1091 Plug 2.80mm (.110") cavity  
**Single Wire Seals:** 64325-1162  
64325-1175  
64325-1188  
64325-1196  
**Wire Cap:** 64320-1301 CMC Wire Cap for 48 circuit and 28 circuit CMC Receptacle

Designed in: Millimeters

#### Electrical

Voltage: 250V AC

Current: \*  
2.5A for CP 0.635mm (.025") terminal (0.75mm<sup>2</sup> wire)  
12.0A for CP 1.50mm (.059") terminal (1.5mm<sup>2</sup> wire)  
21.0A for CP 2.80mm (.110") terminals (2.8mm<sup>2</sup>)

\* current tested on a fully loaded connector, current for temperature increase of 40°C

- Easy visual installation
- Avoids mis-mating
- Ensures connector and header are mated securely
- Support high-current applications
- High-performing sealing due to seal cavity design using several sealing lips
- Secure and reliable sealing for CP 2.80mm (.110") terminals
- Secure sealing system when flexibility is required for unused cavities with a standard backplate

**Contact Resistance:**  
CP 0.635mm (.025"): 8 milliohms max.  
CP 1.50mm (.059"): 4 milliohms max.  
CP 2.80mm (.110"): 3 milliohms max.

**Dielectric Withstanding Voltage:**  
1000V AC for 1 minute

**Insulation Resistance:**  
100 Megohms min.

#### Mechanical

**Contact Insertion Force:**  
CP 0.635mm (.025"): 12.00N max.  
CP 1.50mm (.059"): 20.00N max.  
CP 2.80mm (.110"): 25.00N max.  
**Contact Retention to Housing:**  
CP 0.635mm (.025"): 60.00N min.  
CP 1.50mm (.059"): 100.00N min.  
CP 2.80mm (.110"): 100.00N min

Wire Pull-Out Force: min. 100.00 N

Insertion Force to PCB: N/A

Mating Force: 70.00N max  
Unmating Force: 70.00N max  
Normal Force: N/A

Durability: 20 mating cycles

#### Physical

Housing: PBT Glass-filled  
Operating Temperature: -40 to +125°C

#### Connectors

Order No.	Circuits	Color Key Coding	Wire Output
64318-3011	28	Black	Right
64318-3018		Grey	
64318-3019		Brown	
64318-1011		Black	Left
64318-1018		Grey	
64318-1019		Brown	

#### Blind Plug

Order No.	Terminal Width	Color
64325-1010	0.635mm (.025")	White
64325-1023	1.50mm (.059")	Orange
64325-1091	2.80mm (.110")	Black

#### Wire Cap

Order No.	Circuits	Color
64319-1201	32	Black

#### Single Wire Seals

Order No.	Description	Color
64325-1162	For cable 1.29mm to 2.06mm	Red
64325-1175	For cable 2.03mm to 2.80mm	Green
64325-1188	For cable 2.80mm to 3.50mm	Gray
64325-1196	For cable 3.50mm to 4.21mm	Blue

# 2.54mm (.100") 3.70mm (.146") Pitch Wire-to-Board CMC Hybrid Connector

## Wire Cap and Plug

### 64319 32-Circuit Receptacle Left and right wire output



#### Features and Benefits

- 4 different color codings
- Mechanical polarization
- Audible 'click' during locking
- 24 x CP 0.635mm (.025") terminals  
8 x CP 1.50mm (.059") terminals
- Matte seal technology used for CP 0.635mm (.025") and 1.50mm (.059") terminals
- Blind plugs for unused circuits
- Easy visual installation
- Avoids mis-mating
- Ensures connector and header are mated securely
- Support low and medium current applications
- High-performing sealing due to seal cavity design using several sealing lips
- Secure sealing system when flexibility is required for unused cavities with a standard backplate

#### Reference Information

Product Specification: PS-64319-001  
Application Specification: AS-64319-001  
Sales Drawing: SD-64319-001

#### Mates with:

32-ckt CMC Header – 1 pocket

64334-0100

64334-0300

80-ckt CMC Header – 2 pocket

502225-0801

112-ckt CMC Header – 3 pocket

64333-0100

#### Use with:

Terminal: 64322 CP 0.635mm (.025")

64323 CP 1.50mm (.059")

Plug: 64325-1010 Plug 0.635mm (.025") cavity

64325-1023 Plug 1.50mm (.059") cavity

Wire Cap: 64319-1201 CMC Wire Cap for 32 circuit  
CMC Receptacle

Designed in: Millimeters

#### Electrical

Voltage: 250V AC

#### Current: \*

6.0A for CP 0.635mm (.025") terminal (0.75mm<sup>2</sup> wire)

12.0A for CP 1.50mm (.059") terminal (2.0mm<sup>2</sup> wire)

\* current tested on a 5 terminals loaded connector, current for temperature increase of 40°C

#### Contact Resistance:

CP 0.635mm (.025"): 8 milliohms max.

CP 1.50mm (.059"): 4 milliohms max.

#### Dielectric Withstanding Voltage:

1000V AC for 1 minute

#### Insulation Resistance:

100 Megohms min.

#### Mechanical

##### Contact Insertion Force:

CP 0.635mm (.025"): 12.00N max.

CP 1.50mm (.059"): 25.00N max.

##### Contact Retention to Housing:

CP 0.635mm (.025"): 60.00N min.

CP 1.50mm (.059"): 100.00N min.

Wire Pull-Out Force: min. 100.00 N

Insertion Force to PCB: N/A

Mating Force: 70.00N max

Unmating Force: 70.00N max

Normal Force: N/A

Durability: 20 mating cycles

#### Physical

Housing: PBT Glass-filled

Operating Temperature: -40 to +125°C

#### Connectors

Order No.	Circuits	Color Key Coding	Wire Output
64319-3211	32	Black	Right
64319-3216		Blue	
64319-3218		Grey	
64319-3219		Brown	
64319-1211		Black	Left
64319-1216		Blue	
64319-1218		Grey	
64319-1219		Brown	
64319-2211	24	Black – Row 1 closed	Left
64319-2218		Grey – Row 4 closed	Left
64319-4211		Black – Row 1 closed	Right
64319-4218		Grey – Row 4 closed	Right

#### Blind Plug

Order No.	Terminal Width	Color
64325-1010	0.635mm (.025")	White
64325-1023	1.50mm (.059")	Orange

#### Wire Cap

Order No.	Circuits	Color
64319-1201	32	Black

# 2.54mm (.100") 3.70mm (.146") Pitch Wire-to-Board CMC Hybrid Connector

## Wire Cap and Plug

**64320**

### 48-Circuit Receptacle Left and right wire output



#### Features and Benefits

- 4 different color codings
- Mechanical polarization
- Audible 'click' during locking
- 24 x CP 0.635mm (.025") terminals  
8 x CP 1.50mm (.059") terminals
- Matte seal technology used for CP 0.635mm (.025") and 1.50mm (.059") terminals
- Blind plugs for unused circuits
- Easy visual installation
- Avoids mis-mating
- Ensures connector and header are mated securely
- Support low and medium current applications
- High-performing sealing due to seal cavity design using several sealing lips
- Secure sealing system when flexibility is required for unused cavities with a standard backplate

#### Reference Information

Product Specification: PS-64319-001  
Application Specification: AS-64319-001  
Sales Drawing: SD-64320-001

#### Mates with:

48-ckt CMC Header - 1-pocket  
500762-0481  
36638-0002 / -0004  
36638-0003 / -0005  
80-ckt CMC Header - 2-pocket  
502225-0801  
112-ckt CMC Header - 3-pocket  
64333-0100  
154-ckt CMC Header - 3-pocket  
34763-000x

#### Use with:

Terminal: 64322 CP 0.635mm (.025")

64323 CP 1.50mm (.059")

Plug: 64325-1010 Plug 0.635mm (.025") cavity  
64325-1023 Plug 1.50mm (.059") cavity

Wire Cap: 64320-1301 CMC Wire Cap for 48 circuit and 28 circuit CMC Receptacle

Designed in: Millimeters

#### Electrical

Voltage: 250V AC

#### Current: \*

6.0A for CP 0.635mm (.025") terminal (0.75mm<sup>2</sup> wire)

12.0A for CP 1.50mm (.059") terminal (2.0mm<sup>2</sup> wire)

\* current tested on a 5 terminals loaded connector, current for temperature increase of 40°C

#### Contact Resistance:

CP 0.635mm (.025"): 8 milliohms max.

CP 1.50mm (.059"): 4 milliohms max.

#### Dielectric Withstanding Voltage:

1000V AC for 1 minute

#### Insulation Resistance:

100 Megohms min.

#### Mechanical

##### Contact Insertion Force:

CP 0.635mm (.025"): 12.00N max.

CP 1.50mm (.059"): 25.00N max.

##### Contact Retention to Housing:

CP 0.635mm (.025"): 60.00N min.

CP 1.50mm (.059"): 100.00N min.

Wire Pull-Out Force: min. 100.00 N

Insertion Force to PCB: N/A

Mating Force: 70.00N max

Unmating Force: 70.00N max

Normal Force: N/A

Durability: 20 mating cycles

#### Physical

Housing: PBT Glass-filled

Operating Temperature: -40 to +125°C

#### Connectors

Order No.	Circuits	Color Key Coding	Wire Output
64320-3311	48	Black	Right
64320-3315		Green	
64320-3318		Grey	
64320-3319		Brown	
64320-1311		Black	Left
64320-1315		Green	
64320-1318		Grey	
64320-1319		Brown	
64320-2311	36	Black – Row 1 closed	Left
64320-2319		Brown – Row 1 closed	Left
64320-4311		Black – Row 1 closed	Right
64320-4319		Brown – Row 1 closed	Right

#### Blind Plug

Order No.	Terminal Width	Color
64325-1010	0.635mm (.025")	White
64325-1023	1.50mm (.059")	Orange

#### Wire Cap

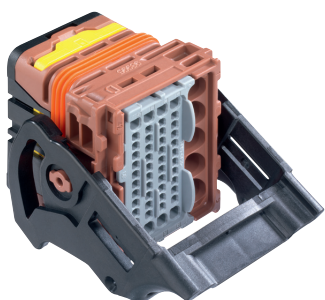
Order No.	Circuits	Color
64320-1301	48	black

# 2.54mm (.100") 3.50mm (.138") 7.00mm (.276") Pitch Wire-to-Board CMC Power Hybrid Connector

## Wire Cap, Plug and Single Wire Seals

**64321**

### 53-Circuit Receptacle Left and right wire output



#### Features and Benefits

- 3 different color codings
- Mechanical polarization
- Audible 'click' during locking
- 40 x CP 0.635mm (.025") terminals  
8 x CP 1.50mm (.059") terminals  
5 x CP 2.80mm (.110") terminals
- Matte seal technology used for CP 0.635mm (.025") and 1.50mm (.059") terminals
- Single wire-seal technology used for CP 2.80mm (.110") terminals
- Blind plugs for unused circuits
- Easy visual installation
- Avoids mis-mating
- Ensures connector and header are mated securely
- Support low, medium and high current applications
- High-performing sealing due to seal cavity design using several sealing lips
- Secure and reliable sealing for CP 2.80mm (.110") terminals
- Secure sealing system when flexibility is required for unused cavities with a standard backplate

#### Reference Information

Product Specification: PS-64321-001  
Application Specification: AS-64321-001  
Sales Drawing: SD-64321-001

#### Mates with:

53-ckt CMC Header – 1 pocket  
98997-1002  
154-ckt CMC Header – 3 pocket  
34763-0001

#### Use with:

Terminal: 64322 CP 0.635mm (.025")  
64323 CP 1.50mm (.059")  
64324 CP 2.80mm (.110")

Plug: 64325-1010 Plug 0.635mm (.025") cavity  
64325-1023 Plug 1.50mm (.059") cavity  
64325-1091 Plug 2.80mm (.110") cavity

Single Wire Seals: 64325-1162  
64325-1175  
64325-1188  
64325-1196

Wire Cap: 64321-1101 CMC Wire Cap for  
53 circuit CMC Receptacle

Designed in: Millimeters

#### Electrical

Voltage: 250V AC

#### Current: \*

2.5A for CP 0.635mm (.025") terminal (0.75mm<sup>2</sup> wire)  
12.0A for CP 1.50mm (.059") terminal (2.0mm<sup>2</sup> wire)  
21.0A for CP 2.80mm (.110") terminals (5.0mm<sup>2</sup>)

\* current tested on a fully loaded connector, current for temperature increase of 40°C

#### Contact Resistance:

CP 0.635mm (.025"): 8 milliohms max.  
CP 1.50mm (.059"): 4 milliohms max.  
CP 2.80mm (.110"): 3 milliohms max.

#### Dielectric Withstanding Voltage:

1000V AC for 1 minute

#### Insulation Resistance:

100 Megohms min.

#### Mechanical

##### Contact Insertion Force:

CP 0.635mm (.025"): 12.00N max.  
CP 1.50mm (.059"): 20.00N max.  
CP 2.80mm (.110"): 25.00N max.

##### Contact Retention to Housing:

CP 0.635mm (.025"): 60.00N min.  
CP 1.50mm (.059"): 100.00N min.  
CP 2.80mm (.110"): 100.00N min

Wire Pull-Out Force: min. 100.00 N

Insertion Force to PCB: N/A

Mating Force: 80.00N max

Unmating Force: 80.00N max

Normal Force: N/A

Durability: 20 mating cycles

#### Physical

Housing: PBT Glass-filled

Operating Temperature: -40 to +125°C

#### Connectors

Order No.	Circuits	Color Key Coding	Wire Output
64321-2011	53	Black	Right
64321-2018		Grey	
64321-2019		Brown	
64321-1011		Black	Left
64321-1018		Grey	
64321-1019		Brown	

#### Blind Plug

Order No.	Terminal Width	Color
64325-1010	0.635mm (.025")	White
64325-1023	1.50mm (.059")	Orange
64325-1091	2.80mm (.110")	Black

#### Wire Cap

Order No.	Circuits	Color
64321-1101	53	black

#### Single Wire Seals

Order No.	Description	Color
64325-1162	For cable 1.29mm to 2.06mm	Red
64325-1175	For cable 2.03mm to 2.80mm	Green
64325-1188	For cable 2.80mm to 3.50mm	Gray
64325-1196	For cable 3.50mm to 4.21mm	Blue

# 0.635mm (.025") Width Terminal Female Crimp CMC CP Terminal

64322



## Features and Benefits

- 2 piece terminal design
- Tang locking system
- Robust design with fully protected beam
- Various ISO wire size compatibility
- Available in tin and gold plating

## Reference Information

Product Specification:  
please refer to product specification of the relevant CMC connector

Crimping Specification:  
CS-64322-001

Sales Drawing:  
SD-64322-001 and SD-64322-002 for the HP version (High-Performance)

Mates with:  
CMC connector series 64318, 64319, 64320, 64321

Designed in: Millimeters

## Electrical

Voltage: 250V AC

Current: \*  
6.0A for CP 0.635mm (.025") terminal (0.75mm<sup>2</sup> wire)

\* current tested on a 5 terminals loaded connector, current for temperature increase of 40°C

Contact Resistance:  
CP 0.635mm (.025"): 8 milliohms max.

Dielectric Withstanding Voltage:  
1000V AC for 1 minute

Insulation Resistance:  
100 Megohms min.

## Mechanical

Contact Insertion Force between male and female terminal:

CP 0.635mm (.025"): 4.00N max.

Contact Insertion Force into Housing (sealed connector):

CP 0.635mm (.025"): 12.00N min.

Wire Pull-Out Force:  
min. 100.00N for wire size of 0.50mm<sup>2</sup>

Mating / Unmating Force:

Please refer to product specification of the relevant CMC connector the terminal is used with

Durability: 20 mating cycles

## Physical

Contact: Phosphor Bronze

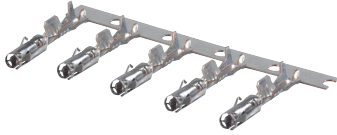
Plating: available in tin and gold

Insulation diameter: see table

## Terminals

Order No.	Width	Plating	Wire Size in mm <sup>2</sup>	Wire Insulation Diameter in mm
64322-1019	0.635mm (.025")	Tin (Sn)	0.35	1.25 - 1.40
64322-1029			0.75	1.60 - 1.90
64322-1039			0.50	1.40 - 1.70
64322-1219		1.27 µm Gold (Au)	0.75	1.60 - 1.90
64322-1229			0.35	1.25 - 1.40
64322-1239			0.50	1.40 - 1.70
64322-1339	0.635mm (.025") HP		0.75	1.60 - 1.90
64322-1349			0.35	1.25 - 1.40
64322-1359		0.50	1.40 - 1.70	

# 1.50mm (.059") Width Terminal Female Crimp CMC CP Terminal 64323



## Features and Benefits

- 2 piece terminal design
- Tang locking system
- Robust design with fully protected beam
- Various ISO wire size compatibility
- Available in tin and gold plating

## Reference Information

Product Specification:  
please refer to product specification of the relevant CMC connector

Crimping Specification:  
CS-64323-001

Sales Drawing:  
SD-64323-001

Mates with:  
CMC connector series 64318, 64319,  
64320, 64321

Designed in: Millimeters

## Electrical

Voltage: 250V AC

Current: \*  
12.0A for CP 1.50mm (.059") terminal (2.00mm<sup>2</sup> wire)

\* current tested on a 5 terminals loaded connector, current for temperature increase of 40°C

Contact Resistance:  
CP 1.50mm (.059"): 4 milliohms max.

Dielectric Withstanding Voltage:  
1000V AC for 1 minute

Insulation Resistance:  
100 Megohms min.

## Mechanical

Contact Insertion Force between male and female terminal:  
CP 1.50mm (.059"): 5.50N max.

Contact Insertion Force into Housing (sealed connector):  
CP 1.50mm (.059"): 25.00N min.

Wire Pull-Out Force:  
min. 100.00N for wire size of 0.50mm<sup>2</sup>

Mating / Unmating Force:  
Please refer to Product Specification of the relevant CMC connector the terminal is used with

Durability: 20 mating cycles

## Physical

Contact: Phosphor Bronze  
Plating: available in tin and gold  
Insulation diameter: see table

## Terminals

Order No.	Width	Plating	Wire Size in mm <sup>2</sup>	Wire Insulation Diameter in mm
64323-1029	1.50mm (.059")	Tin (Sn)	0.50 to 1.00	1.40 – 2.15
64323-1039			> 1.00 to 2.00	2.10 – 2.80
64323-1219		1.27µm Gold (Au)	0.50 to 1.00	1.40 – 2.15
64323-1319				

# 2.80mm (.110") Width Terminal Female Crimp CMC CP Terminal Single Wire Seal

64324

64325



## Features and Benefits

- 2 piece terminal design
- Tang locking system
- Robust design with fully protected beam
- Various ISO wire size compatibility
- Available in tin and gold plating

## Reference Information

Product Specification:  
please refer to product specification of the relevant CMC connector

Crimping Specification: CS-64324-001

Sales Drawing: SD-64324-001

Mates with:  
CMC connector series 64318, 64321

Used with:  
Single Wire Seals  
64325-1162  
64325-1175  
64325-1188  
64325-1196

Designed in: Millimeters

## Electrical

Voltage: 250V AC

Current: \*  
21.0A for CP 2.80mm (.110") terminals (5.00mm<sup>2</sup>)

\* current tested on a fully loaded connector, current for temperature increase of 40°C

Contact Resistance:  
CP 2.80mm (.110"): 3 milliohms max.

Dielectric Withstanding Voltage:  
1000V AC for 1 minute

Insulation Resistance:  
100 Megohms min.

## Mechanical

Contact Insertion Force between male and female terminal:  
CP 2.80mm (.110"): 7.00N max.

Contact Insertion Force into Housing (sealed connector):  
CP 2.80mm (.110"): 25.00N min

Wire Pull-Out Force:  
min. 100.00N for wire size of 0.50mm<sup>2</sup>

Mating / Unmating Force:  
Please refer to product specification of the relevant CMC connector the terminal is used with

Durability: 20 mating cycles

## Physical

Contact: Phosphor Bronze  
Plating: available in tin and gold  
Insulation diameter: see table

## CP Terminals

Order No.	Width	Plating	Wire Size in mm <sup>2</sup>	Wire Insulation Diameter in mm
64324-1019	2.80mm (.110")	Tin (Sn)	> 3.00 to 5.00	3.40 – 4.00
64324-1029			> 2.00 to 3.00	2.65 – 3.45
64324-1039			> 1.00 to 2.00	2.10 – 2.80
64324-1049			0.50 to 1.00	1.40 – 2.15
64324-1119		1.27µm Gold (Au)	> 3.00 to 5.00	3.40 – 4.00
64324-1129			> 2.00 to 3.00	2.65 – 3.45
64324-1139			> 1.00 to 2.00	2.10 – 2.80
64324-1149			0.50 to 1.00	1.40 – 2.15

## Single Wire Seals

Order No.	Description	Color
64325-1162	For cable 1.29mm to 2.06mm	Red
64325-1175	For cable 2.03mm to 2.80mm	Green
64325-1188	For cable 2.80mm to 3.50mm	Gray
64325-1196	For cable 3.50mm to 4.21mm	Blue

**Blind Plug  
CMC Hybrid Connector  
CMC Blind Plug  
For  
CP terminal cavity  
0.635mm (.025")  
CP terminal cavity  
1.50mm (.059")  
CP terminal cavity  
2.80mm (.110")  
64325**



**Features and Benefits**

- CMC Blind plugs secure a high performing CMC sealing system, when flexibility is required for unused cavities

**Reference Information**

**Product Specification:**

please refer to product specification of the relevant CMC connector

**Application Specification:**

please refer to application specification of the relevant CMC connector

Sales Drawing: SD-64325-001 for CP 0.635mm (.025") cavity  
SD-64325-002 for CP 1.50mm (.059") cavity  
SD-64325-004 for CP 2.80mm (.110") cavity

Mates with: CMC Plug 0.635mm (.025") and CMC Plug 1.50mm (.059"); with CMC connector series 64318, 64319, 64320, 64321

CMC Plug 2.80mm (.110"); with CMC connector series 64318, 64321

Designed in: Millimeters

**Electrical**

Voltage: N/A

Current: N/A

Contact Resistance: N/A

Dielectric Withstanding Voltage: N/A

Insulation Resistance: N/A

**Mechanical**

Contact Insertion Force: N/A

Contact Retention to Housing: N/A

Wire Pull-Out Force: N/A

Insertion Force to PCB: N/A

Mating Force: N/A

Unmating Force: N/A

Normal Force: N/A

Durability: N/A

**Physical**

CMC CP Plug 0.635mm (.025"):

Polyamid - White color

CMC CP Plug 1.50mm (.059"):

Polyamid - Orange color

CMC CP Plug 2.80mm (.110"):

Rubber - Black color

Operating Temperature:

-40 to +125°C

**CP Terminals**

Order No.	Terminal Width	Color
64325-1010	0.635mm (.025")	White
64325-1023	1.50mm (.059")	Orange
64325-1091	2.80mm (.110")	Black



# 2.54mm (.100") 3.70mm (.146") Pitch Wire-to-Board 1 pocket CMC Header

**64334**  
**32-circuit**



## Features and Benefits

- 32-circuit, single-pocket, right-angle header
- Terminals mate with CP 0.635mm (.025") and CP 1.50mm (.059") solder-mount terminals
- Designed to CMC standard interface
- Housing made out of high flammability V0 plastic material
- Plastic material is suitable for epoxy adhesion
- Plastic material is hydrolytically stable
- Headers are off shelf available
- Mates with CMC receptacle 32-circuit in grey or black coding
- For low- and medium-current applications
- Mates with any CMC connector range
- Achieves OEM specification requirements
- Allows glueing process at Engine Control Unit manufacturer
- Suitable for sealed applications
- No custom tooling cost

## Reference Information

Product Specification:  
please refer to product specification of the relevant mating CMC connector

Packaging: Trays in carton box

Mates With: 64319-3211  
32ckt Connector black

64319-3219  
32ckt Connector brown

Use With: 64325-1010 Blind Plug 0.635mm  
64325-1023 Blind Plug 1.50mm  
64319-1201 32ckt Wire Cap

64322 series CP Terminals 0.60mm (.025")  
64323 series CP Terminals 1.50mm (.059")

Designed In: Millimeters  
RoHS: Yes  
Halogen Free: Yes

## Electrical

Voltage: 250V AC

Current: \*

CP 0.635mm (.025") terminals – max 6.0A (0.75mm<sup>2</sup> wire)\*

CP 1.50mm (.059") terminals – max 12.0A (2.00mm<sup>2</sup> wire)\*

\* current tested on a 5 terminals loaded connector, current for temperature increase of 40°C

Contact Resistance:

0.635mm (.025") terminals: 8 milliohms max.  
1.50mm (.059") terminals: 4 milliohms max.

Dielectric Withstanding Voltage:

1000V AC for 1 minute

Insulation Resistance:

100 Megohms min.

## Mechanical

Contact Insertion Force:

0.635mm (.025") terminal: 12.00N max  
1.50mm (.059") terminal: 25.00N max

Contact Retention to Housing:

0.635mm (.025") terminal: 60.00N min.  
1.50mm (.059") terminal: 100.00N min

Wire Pull-Out Force: min 100.00N

Mating Force: 70.00N max.

Unmating Force: 70.00N max.

Durability: 20 mating cycles

## Physical

Housing: PBT, Glass-filled

Lead-Free: Yes

Operating Temperature: -40 to +125°C

## Header

Order No.	Circuits	Mates with	Pin Count 0.63mm	Pin Count 1.50mm	Terminal Type
64334-0100	32	64319-3211	24	8	Solder pin
64334-0300		64319-3219			

# 2.54mm (.100") 3.70mm (.146") Pitch Wire-to-Board 1 pocket CMC Header

**500762-0481**  
**48-circuit**



## Features and Benefits

- 48-circuit, 1-pocket, right-angle header
- Compact design of CMC header
- Terminals mate with CP 0.635mm (.025") and CP 1.50mm (.059") solder-mount terminals
- Housing made out of high flammability V0 plastic material
- Plastic material is suitable for epoxy adhesion
- Plastic material is hydrolytically stable
- Headers are off shelf available
- Mates with CMC receptacle 48-circuit connector
- Needs less space
- For low- and medium-current applications
- Achieves OEM specification requirements
- Allows glueing process at Engine Control Unit manufacturer
- Suitable for sealed applications
- No custom tooling costs

## Reference Information

### Product Specification:

Please refer to product specification of the relevant mating CMC connector.

Packaging: Trays in carton box

Mates With: 64320-1311 or  
64320-3311

### Use With:

On Connector side: 64325-1010 Blind Plug 0.635mm  
64325-1023 Blind Plug 1.50mm

64320-1301 48ckt Wire Cap

64322 series  
CP Terminals 0.60mm (.025")  
64323 series  
CP Terminals 1.50mm (.059")

Designed In: Millimeters

RoHS: Yes

Halogen Free: Yes

## Electrical

Voltage: 250V AC

### Current: \*

CP 0.635mm (.025") terminals – max 6.0A  
(0.75mm<sup>2</sup> wire)\*

CP 1.50mm (.059") terminals – max 12.0A  
(2.00mm<sup>2</sup> wire)\*

\* current tested on a 5 terminals loaded connector, current for temperature increase of 40°C

### Contact Resistance:

0.635mm (.025") terminals: 8 milliohms max.

1.50mm (.059") terminals: 4 milliohms max.

Dielectric Withstanding Voltage: 1000V AC for 1 minute

### Insulation Resistance:

100 Megohms min.

## Mechanical

### Contact Insertion Force:

0.635mm (.025") terminal: 12.00N max

1.50mm (.059") terminal: 25.00N max

### Contact Retention to Housing:

0.635mm (.025") terminal: 60.00N min.

1.50mm (.059") terminal: 100.00N min

### Wire Pull-Out Force:

min 100.00N

Mating Force: 70.00N max.

Unmating Force: 70.00N max.

Durability: 20 mating cycles

## Physical

Housing: PBT, Glass-filled

Lead-Free: Yes

Operating Temperature: -40 to +125°C

## Header

Order No.	Circuits	Mates with	Pin Count 0.63mm	Pin Count 1.50mm	Terminal Type
500762-0481	48	64320-1311 or 64320-3311	40	8	Solder pin

**2.54mm (.100")  
3.50mm (.138")  
7.00mm (.276") Pitch  
Wire-to-Board  
1 pocket  
CMC Header**

**98997-1002  
53-circuit**



**Features and Benefits**

- 53-circuit, 1-pocket, right-angle header
- Offers a power connection using 2.80mm tabs
- Terminals mate with CP 0.635mm (.025"), CP 1.50mm (.059") and CP 2.80mm (.110") solder-mount terminals
- Plastic material is suitable for epoxy adhesion
- Headers are off shelf available
- Mates with CMC receptacle 53-circuit connector
- Support high current applications
- For low-, medium- and high-current applications
- Allows glueing process at Engine Control Unit manufacturer
- No custom tooling costs

**Reference Information**

**Product Specification:**  
Please refer to product specification of the relevant mating CMC connector.

**Packaging:** Trays in carton box

**Mates With:** 64321-1011 or 64321-2011

**Use With:**  
On Connector side: 64325-1010 Blind Plug 0.635mm  
64325-1023 Blind Plug 1.50mm  
64325-1091 Blind Plug 2.80mm  
64321-1101 53ckt Wire Cap

64322 series  
CP Terminals 0.60mm (.025")  
64323 series  
CP Terminals 1.50mm (.059")  
64324 series  
CP Terminals 2.80mm (.110")

Designed In: Millimeters  
RoHS: Yes  
Halogen Free: Yes

**Electrical**

Voltage: 250V AC

Current: \*  
2.5A for CP 0.635mm (.025") terminal  
(0.75mm<sup>2</sup> wire)  
12.0A for CP 1.50mm (.059") terminal  
(2.0mm<sup>2</sup> wire)  
21.0A for CP 2.80mm (.110") terminals  
(5.00mm<sup>2</sup>)

\* current tested on a fully loaded connector, current for temperature increase of 40°C

**Contact Resistance:**  
CP 0.635mm (.025"): 8 milliohms max.  
CP 1.50mm (.059"): 4 milliohms max.  
CP 2.80mm (.110"): 3 milliohms max.

**Dielectric Withstanding Voltage:**  
1000V AC for 1 minute

**Insulation Resistance:**  
100 Megohms min.

**Mechanical**

**Contact Insertion Force:**  
CP 0.635mm (.025"): 12.00N max.  
CP 1.50mm (.059"): 20.00N max.  
CP 2.80mm (.110"): 25.00N max.

**Contact Retention to Housing:**  
CP 0.635mm (.025"): 60.00N min.  
CP 1.50mm (.059"): 100.00N min.  
CP 2.80mm (.110"): 100.00N min

Wire Pull-Out Force: min. 100.00N

Insertion Force to PCB: N/A  
Mating Force: 80.00N max  
Unmating Force: 80.00N max  
Normal Force: N/A

Durability: 20 mating cycles

**Physical**

Housing: PBT Glass-filled  
Operating Temperature: -40 to +125°C

**Header**

Order No.	Circuits	Mates with	Pin Count 0.63mm	Pin Count 1.50mm	Pin Count 2.80mm	Terminal Type
98997-1002	53	64321-1011 or 64321-2011	40	8	5	Solder pin

# 2.54mm (.100") 3.70mm (.146") Pitch Wire-to-Board 2 pocket CMC Header

**502225-0801**  
**80-circuit**



## Features and Benefits

- 80-circuit, 2-pocket, right-angle header
- Compact design of CMC header
- Terminals mate with CP 0.635mm (.025") and CP 1.50mm (.059") solder-mount terminals
- Housing made out of high flammability V0 plastic material
- Plastic material is suitable for epoxy adhesion
- Plastic material is hydrolytically stable
- Headers are off shelf available
- Mates with CMC receptacles 32-circuit and 48-circuit connector
- Needs less space
- For low- and medium-current applications
- Achieves OEM specification requirements
- Allows glueing process at Engine-Control Unit manufacturer
- Suitable for sealed applications
- No custom tooling costs needed

## Reference Information

### Product Specification:

Please refer to product specification of the relevant mating CMC connector.

Packaging: Trays in carton box

Mates With: 64320-1319 and  
64319-3211

### Use With:

On Connector side: 64325-1010 Blind Plug 0.635mm  
64325-1023 Blind Plug 1.50mm

64319-1201 32ckt Wire Cap  
64320-1301 48ckt Wire Cap

64322 series  
CP Terminals 0.60mm (.025")  
64323 series  
CP Terminals 1.50mm (.059")

Designed In: Millimeters  
RoHS: Yes  
Halogen Free: Yes

## Electrical

Voltage: 250V AC

### Current: \*

CP 0.635mm (.025") terminals – max 6.0A  
(0.75mm<sup>2</sup> wire)\*  
CP 1.50mm (.059") terminals – max 12.0A  
(2.00mm<sup>2</sup> wire)\*

\* current tested on a 5 terminals loaded connector, current for temperature increase of 40°C

### Contact Resistance:

0.635mm (.025") terminals: 8 milliohms max.  
1.50mm (.059") terminals: 4 milliohms max.

### Dielectric Withstanding Voltage:

1000V AC for 1 minute

### Insulation Resistance:

100 Megohms min.

## Mechanical

### Contact Insertion Force:

0.635mm (.025") terminal : 12.00N max  
1.50mm (.059") terminal : 25.00N max

### Contact Retention to Housing:

0.635mm (.025") terminal : 60.00N min.  
1.50mm (.059") terminal : 100.00N min

### Wire Pull-Out Force:

min 100.00N

Mating Force: 70.00N max.

Unmating Force: 70.00N max.

Durability: 20 mating cycles

## Physical

Housing: PBT, Glass-filled

Lead-Free: Yes

Operating Temperature: -40 to +125°C

## Header

Order No.	Circuits	Mates with	Pin Count 0.63mm	Pin Count 1.50mm	Terminal Type
502225-0801	80 (32 + 48)	64320-1319 and 64319-3211	64	16	Solder pin

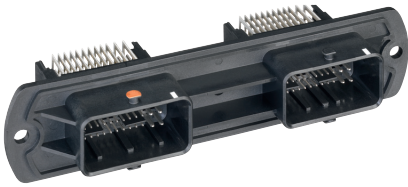
# 2.54mm (.100") 3.70mm (.146") Pitch Wire-to-Board 1 pocket CMC Header

## 36-circuit and 48-circuit



## 2 pocket CMC Header

## 72-circuit and 96-circuit 36638



### Features and Benefits

- 1 or 2-pocket CMC header in right-angled version
- Different circuit sizes options for 1 and 2 pocket headers
- Offers optional a snap-in peg
- Terminals mate with CP 0.635mm (.025") and CP 1.50mm (.059") solder-mount terminals
- Mounting to customer box by screwing
- Headers are off shelf available
- Mates with CMC receptacle 48-circuit connector
- Provides configuration flexibility
- Supports retention of the header to the PCB
- For low- and medium-current applications
- Safe and robust mounting
- No custom tooling costs needed

### Reference Information

Product Specification:  
Please refer to product specification of the relevant mating CMC connector.

Packaging: Trays in carton box

Mates With: 64320 series  
See details below

Use With:  
On Connector side: 64325-1010 Blind Plug 0.635mm  
64325-1023 Blind Plug 1.50mm

64319-1201 32ckt Wire Cap  
64320-1301 48ckt Wire Cap

64322 series  
CP Terminals 0.60mm (.025")  
64323 series  
CP Terminals 1.50mm (.059")

Designed In: Millimeters  
RoHS: Yes  
Halogen Free: Yes

### Electrical

Voltage: 250V AC

Current: \*  
CP 0.635mm (.025") terminals – max 6.0A  
(0.75mm<sup>2</sup> wire)\*  
CP 1.50mm (.059") terminals – max 12.0A  
(2.00mm<sup>2</sup> wire)\*

\* current tested on a 5 terminals loaded connector, current for temperature increase of 40°C

Contact Resistance:

0.635mm (.025") terminals: 8 milliohms max.  
1.50mm (.059") terminals: 4 milliohms max.

Dielectric Withstanding Voltage: 1000V AC for 1 minute

Insulation Resistance:  
100 Megohms min.

### Mechanical

Contact Insertion Force:  
0.635mm (.025") terminal: 12.00N max  
1.50mm (.059") terminal: 25.00N max

Contact Retention to Housing:  
0.635mm (.025") terminal: 60.00N min.  
1.50mm (.059") terminal: 100.00N min

Wire Pull-Out Force:  
min 100.00N

Mating Force: 70.00N max.  
Unmating Force: 70.00N max.

Durability: 20 mating cycles

### Physical

Housing: PBT, Glass-filled  
Lead-Free: Yes  
Operating Temperature: -40 to +125°C

### Header

Order No.	Circuits	Mates with	Pin Count 0.63mm	Pin Count 1.50mm	Terminal Type	Plating
36638-0001	72 (36 + 36)	64320-2319 and 64320-4311	60	12	Solder	tin
36638-0002	48	64320-1311 or 64320-3311	40	8		
36638-0003		64320-1319 or 64320-3319				
36638-0004		64320-1311 or 64320-3311				
36638-0005		64320-1319 or 64320-3319				
36638-0006		36				
36638-0007	64320-2319 or 64320-4319					
36638-0008	64320-2311 or 64320-4311					
36638-0009	64320-2319 or 64320-4319					
36638-0010	72 (36 + 36)	64320-2319 and 64320-4311	60	12		
36638-0011	96 (48 + 48)	64320-1319 and 64320-3311	88	24		
36638-0012		64320-1319 and 64320-3311				
36638-0013	36	64320-2311 or 64320-4311	30	6		Gold 1.27µ Signal pins

# 2.54mm (.100") 3.70mm (.146") Pitch Wire-to-Board 3 pocket CMC Header

**64333**

**112-circuit**



## Features and Benefits

- 112-circuit, three-pocket, right-angle header
- Terminals mate with CP 0.635mm (.025") and CP 1.50mm (.059") solder-mount terminals
- Housing made out of high flammability V0 plastic material
- Plastic material is suitable for epoxy adhesion
- Plastic material is hydrolytically stable
- Headers are off shelf available
- Mates with CMC receptacle 32-circuit grey+48-circuit brown+32-circuit black coding
- For low- and medium-current applications
- Achieves OEM specification requirements
- Allows glueing process at Engine Control Unit manufacturer
- Suitable for sealed applications
- No custom tooling costs

## Reference Information

Product Specification:  
please refer to product specification of the relevant mating CMC connector

## Reference Information

Packaging: Trays in carton box

Mates With: 64319-3211 and  
64320-3319 and  
64319-1218

Use With:  
On Connector side: 64325-1010 Blind Plug 0.635mm  
64325-1023 Blind Plug 1.50mm

64319-1201 32ckt Wire Cap  
64320-1301 48ckt Wire Cap

64322 series  
CP Terminals 0.60mm (.025")  
64323 series  
CP Terminals 1.50mm (.059")

Designed In: mm  
RoHS: Yes  
Halogen Free: Yes

## Electrical

Voltage: 250V AC

Current: \*  
CP 0.635mm (.025") terminals – max 6.0A  
(0.75mm<sup>2</sup> wire)\*  
CP 1.50mm (.059") terminals – max 12.0A  
(2.00mm<sup>2</sup> wire)\*

\* current tested on a 5 terminals loaded connector, current for temperature increase of 40°C

## Contact Resistance:

0.635mm (.025") terminals: 8 milliohms max.  
1.50mm (.059") terminals: 4 milliohms max.

## Dielectric Withstanding Voltage:

1000V AC for 1 minute

## Insulation Resistance:

100 Megohms min.

## Mechanical

### Contact Insertion Force:

0.635mm (.025") terminal: 12.00N max  
1.50mm (.059") terminal: 25.00N max

### Contact Retention to Housing:

0.635mm (.025") terminal: 60.00N min.  
1.50mm (.059") terminal: 100.00N min

### Wire Pull-Out Force:

min 100.00N

Mating Force: 70.00N max.

Unmating Force: 70.00N max.

Durability: 20 mating cycles

## Physical

Housing: PBT, Glass-filled

Lead-Free: Yes

Operating Temperature: -40 to +125°C

## Header

Order No.	Circuits	Mates with	Pin Count 0.63mm	Pin Count 1.50mm	Terminal Type
64333-0100	112 (32 + 48 + 32)	64319-3211 and 64320-3319 and 64319-1218	88	24	Solder pin

**2.54mm (.100")**  
**3.50mm (.138")**  
**7.00mm (.276") Pitch**  
**Wire-to-Board**  
**3 pocket**  
**CMC Header**

**Compliant Pin**  
**Press-fit terminals**

**34763-0001**  
**154-circuit**



**Features and Benefits**

- 154-circuit, 3-pocket, right-angle header with compliant pin terminals for solder-free processing
- 154-circuit header features 120 x 0.635mm (.025") signal pins, 24 x 1.50mm (.110") terminals and 10x28mm (.110") power pins
- Sophisticated new robust design of integral guiding plate on 154-circuit header
- 154-circuit connection system is designed to perform up to 50 mating cycles
- 154-circuit header is designed with option for potting before adhesion to the casting
- Improves productivity; allows high-speed, low-cost assembly of the headers to the PCB for customers with established press-fit type mounting processes; conforms to global lead-free initiatives
- Supports high-current applications; designed for use in large ECU's (Engine Control Units)
- Protects the 5 terminal rows and ensures positioning whilst withstanding high-vibration levels up to 10G; ideal for heavy-duty agricultural equipment applications
- Allows mating and unmating of several ECU's on different applications; e.g., when changing the ECU's in a tractor to another application such as harvester
- Connection system can be fully sealed in unmated condition

**Reference Information**

**Product Specification:**  
 please refer to product specification of the relevant mating CMC connector.

**Packaging:** Trays in carton box

**Mates With:** 64321-2011  
 64321-2019  
 64320-1318

**Use With:**  
**On Connector side:** 64325-1010 Blind Plug 0.635mm  
 64325-1023 Blind Plug 1.50mm  
 64325-1091 Blind Plug 2.80mm  
 64321-1101 53ckt Wire Cap

64322 series  
 CP Terminals 0.60mm (.025")  
 64323 series  
 CP Terminals 1.50mm (.059")  
 64324 series  
 CP Terminals 2.80mm (.110")

Designed In: Millimeters  
 RoHS: Yes  
 Halogen Free: Yes

**Electrical**

**Voltage:** 250V AC

**Current: \***  
 2.5A for CP 0.635mm (.025") terminal  
 (0.75mm<sup>2</sup> wire)  
 12.0A for CP 1.50mm (.059") terminal (2.0mm<sup>2</sup> wire)  
 21.0A for CP 2.80mm (.110") terminals (5.0mm<sup>2</sup>)

\* current tested on a fully loaded connector, current for temperature increase of 40°C

**Contact Resistance:**

CP 0.635mm (.025"): 8 milliohms max.  
 CP 1.50mm (.059"): 4 milliohms max.  
 CP 2.80mm (.110"): 3 milliohms max.

**Dielectric Withstanding Voltage:**  
 1000V AC for 1 minute

**Insulation Resistance:**  
 100 Megohms min.

**Mechanical**

**Contact Insertion Force:**  
 CP 0.635mm (.025"): 12.00N max.  
 CP 1.50mm (.059"): 20.00N max.  
 CP 2.80mm (.110"): 25.00N max.

**Contact Retention to Housing:**  
 CP 0.635mm (.025"): 60.00N min.  
 CP 1.50mm (.059"): 100.00N min.  
 CP 2.80mm (.110"): 100.00N min

**Wire Pull-Out Force:**  
 min. 100.00 N

**Insertion Force to PCB:** N/A  
**Mating Force:** 80.00N max  
**Unmating Force:** 80.00N max  
**Normal Force:** N/A

**Durability:** 20 mating cycles

**Physical**

**Housing:** PBT Glass-filled  
**Operating Temperature:** -40 to +125°C

**Header**

Order No.	Circuits	Mates with	Pin Count 0.63mm	Pin Count 1.50mm	Pin Count 2.80mm	Terminal Type
34763-0001	154 (48 + 53 + 53)	64321-2011 64321-2019 64320-1318	120	24	10	Compliant Pin, Press-fit style (Eye-of-Needle)

[www.molex.com/product/cmc.html](http://www.molex.com/product/cmc.html)

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