



CMC 22-Circuit Power Connector

Introducing the CMC 22-circuit power connector from Molex with innovative dual-terminal design; combining 0.635mm signal contacts with 2.80mm power contacts to achieve both low and high-current performance in a high-density connector for transportation applications

The 22-circuit CMC power connector is a fully sealed, high-density and high-performance connector optimized for transportation applications when high-current is needed.

Molex originally designed the CMC power connector with 22-circuits for an electric parking-break system manufacturer, with the end customer for this system being a global car-maker. The product started serial production in September 2007.

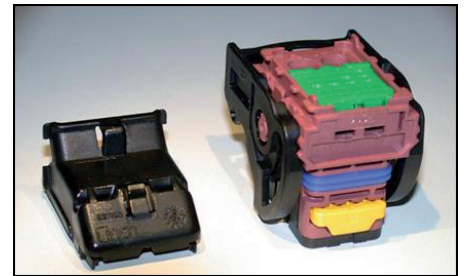
Specific to the 22-circuit CMC power connector is the innovative dual-terminal connection system with a terminal loading of 20 x CP 0.635mm (.025") signal contacts and 2 x CP 2.80mm (.110") power contacts. This can be compared to the 28- and 53-circuit CMC power connectors which are three-terminal versions; having CP 0.635mm (.025") signal pins together with CP 1.50mm (0.59") and CP 2.80mm (.110") power pins. Robust CP terminals are specially designed to perform in high-conductivity applications and offer selective plating in tin (Sn) or gold (Au) to maintain performance characteristics in harsh environments.

In the 22-circuit power connector the 2 x 2.80mm (.110") CP power contacts provide high-current electrical performance with up to 26A, whilst the 20 x 0.635mm (.025") CP signal pins provide 4.5A to support low-current performance. The connector is suitable for any transportation application requiring high-current on 2-circuits and a high number of signal in one connector. Another key benefit of the 22-circuit power connector is its small size. Even having 2 x 2.80mm (.110") power terminals loaded, the connector is the same size as the 32-circuit standard CMC female connector, 64319 series. As a result, the 22-circuit and the 32-circuit connectors use the same wire-cap.

All CMC connectors offer various colour codings associated with mechanical keying for easy mating with CMC headers. The integrated locking-lever ensures the connector and header are locked together with audible 'click'. A wire-cap guides the wires away from the connector either to the right or left side. The 22-circuit connector follows the same harness assembly process as all other CMC connectors. A clear application specification is available with this product.

64326 22-Circuit Female 2.50mm, 4.20mm and 8.40mm Centerline Spacing

The 22-circuit female power connector mates with a specially designed 22-circuit header from Molex. Please contact the Global Product Manager for further details.



FEATURES AND BENEFITS

- 2 x CP 2.80mm (.110") power terminals to support high-current applications
- Single wire-seal technology used for CP 2.80mm (0.110") for secure and reliable sealing of power terminals
- 20 x 0.635mm (.025") CP signal pins provide 4.5A to support low-current performance
- High performance matte-seal technology used for CP 0.635mm (.025") signal contacts
- Blind plugs for secure sealing of unused cavities
- Secure perimeter seal between the connector and mating header
- Colour coding for easy visual installation
- Audible 'click' during locking to ensure the connector and header are securely mated

MARKETS AND APPLICATIONS

- Automotive applications:
 - Wire-to-board connections
 - Powertrain applications
 - Electric parking brakes
 - Engine control units (ECU's)
 - Electric doors
- Other transportation markets:
 - Trucks
 - Buses
 - Motorcycle
 - Marine



SPECIFICATIONS



CMC 22-Circuit Power Connector

**64326 22-Circuit Female
2.50mm, 4.20mm and
8.40mm Centerline Spacing**

Reference Information

Packaging: Connector: Carton box with interleaves
Wire Cap: Bulk pack in carton box
Mates with: Please contact Global Product Manager for details
Use With:
Terminals: Series 64322 CP 0.635mm (.025")
Series 64324 CP 2.80mm (.110")
Blind Plugs: 64325-1010 for CP 0.635mm (.025") cavity
64325-1091 for CP 2.80mm (.110") cavity
Wire Cap: 64319-1201

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") 100.00N min
Wire Pull-Out Force: 100.00N min
Mating Force: 80.00N max
Unmating Force: 80.00N max
Durability (min.): 20 mating cycles

Electrical

Voltage (max.): 250V AC
Current (max.):
CP 0.635mm (.025") terminals - max 4.5A (0.75mm² wire)*
CP 2.80mm (.110") terminals - max 26.0A (5.00mm² wire)*
*Current tested on a fully loaded connector, current for temperature increase of 40°C

Connector

Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes
Glow Wire Compliant: N/A

Physical

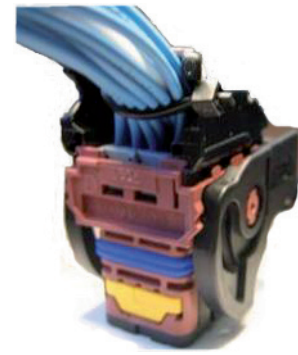
Housing: PBT Polyester, Class UL-V0, Glass-filled
Contact: See details in SD-64322-001
SD-64324-001
Operating temperature: -40 up to +125°C

Contact Resistance (low level):

0.635mm (.025") terminal: 8 milliohms max
2.80mm (.110") terminal: 3 milliohms maximum

Dielectric Withstanding Voltage: No breakdown

Insulation Resistance: 100 Megohms min



CONNECTOR INTERFACE COMPARISON

	22-Circuit	24-Circuit	28-Circuit	32-Circuit	36-Circuit	48-Circuit	53-Circuit
0.635mm (.025") CP terminal count	20	18	18	24	30	40	40
1.50mm (.059") CP terminal count	-	6	5	8	6	8	8
2.80mm (.110") CP terminal count	2	-	5	-	-	-	5
Connector interface							



CMC 22-Circuit Power Connector

Connector

Order No.	Colour Key Coding	Wire Output	Plant No. for Samples
64326-1001	Black	Right	5102
64326-1005	Brown		
64326-1009	Blue		
64326-1002	Black	Left	
64326-1006	Brown		
64326-1010	Blue		

- 64326 22-Circuit Female**
- 64319 Wire Cap**
- 64325 Blind Plugs**
- 64322 0.635mm (.025") CP Terminals**
- 64324 2.80mm (.110") CP Terminals**
- 64325 Wire Seals**

Wire Cap

Order No.	Colour	Plant No. for Samples
64319-1201	Black	5102

Blind Plugs

Order No.	Terminal Width	Housing Colour	Plant No. for Samples
64325-1010	0.635mm (.025")	White	5102
64319-1291	2.80mm (.110")	Black	

Terminals

Order No.	For Cavity No.	Width	Plating	Wire Size (mm ²)	Wire Insulation Diameter (mm)	Wire Size (AWG)	Wire Seal Order No.	Plant No. for Samples	
64322-1019	1 to 2	0.635mm (.025")	Tin (Sn)	0.35	1.25-1.40	22,24	N/A	5102	
64322-1029				0.75	1.60-1.90	N/A	N/A		
64322-1039				0.50	1.40-1.70	N/A	N/A		
64322-1219			1.27µm Gold (Au)	0.75	1.60-1.90	N/A	N/A		
64322-1229				0.35	1.25-1.40	22,24	N/A		
64322-1239				0.50	1.40-1.70	N/A	N/A		
64324-1019	3 to 22	2.80mm (.110")	Tin (Sn)	>3.0 to 5.0	3.40-4.00	N/A	64325-1196		
64324-1029				>2.0 to 3.0	2.65-3.45	N/A	64325-1188		
64324-1039				>1.0 to 2.0	2.10-2.80	N/A	64325-1175		
64324-1049				0.5 to 1.0	1.40-2.15	N/A	64325-1162		
64324-1119				1.27µm Gold (Au)	>3.0 to 5.0	3.40-4.00	N/A		64325-1196
64324-1129					>2.0 to 3.0	2.65-3.45	N/A		64325-1188
64324-1139			>1.0 to 2.0		2.10-2.80	N/A	64325-1175		
64324-1149			0.5 to 1.0		1.40-2.15	N/A	64325-1162		

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