

Customer Presentation

CLIK-MATE CONNECTORS

EXTERNAL

PRESENTER NAME:

DATE:



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creating connections for life

CLIK-Mate Connectors

Ideal for demanding applications requiring reliable, space-saving solutions, CLIK-Mate Connectors offer compact, high-density and durable connections for challenging systems. These connectors enable customization, reduce assembly complexity and provide exceptional mating accuracy.

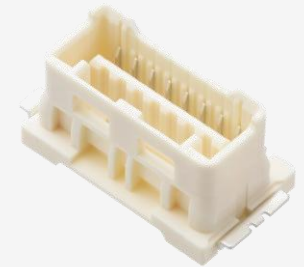
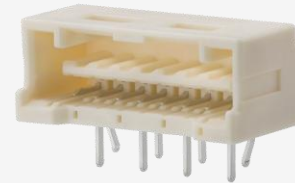
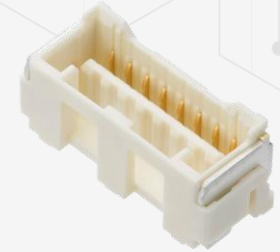
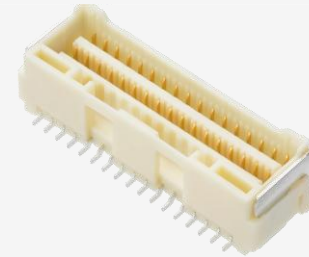
Key Product Information

Category: Wire-to-board connectors

Current (max.): 4.0A

Pitch: 1.25, 1.50 and 2.00mm

Voltage: 50, 100 and 250V



[View Product Landing Page](#)

[Download Datasheet](#)

Vital Product Information

CLIK-Mate Connectors

What makes this product different from the competition?

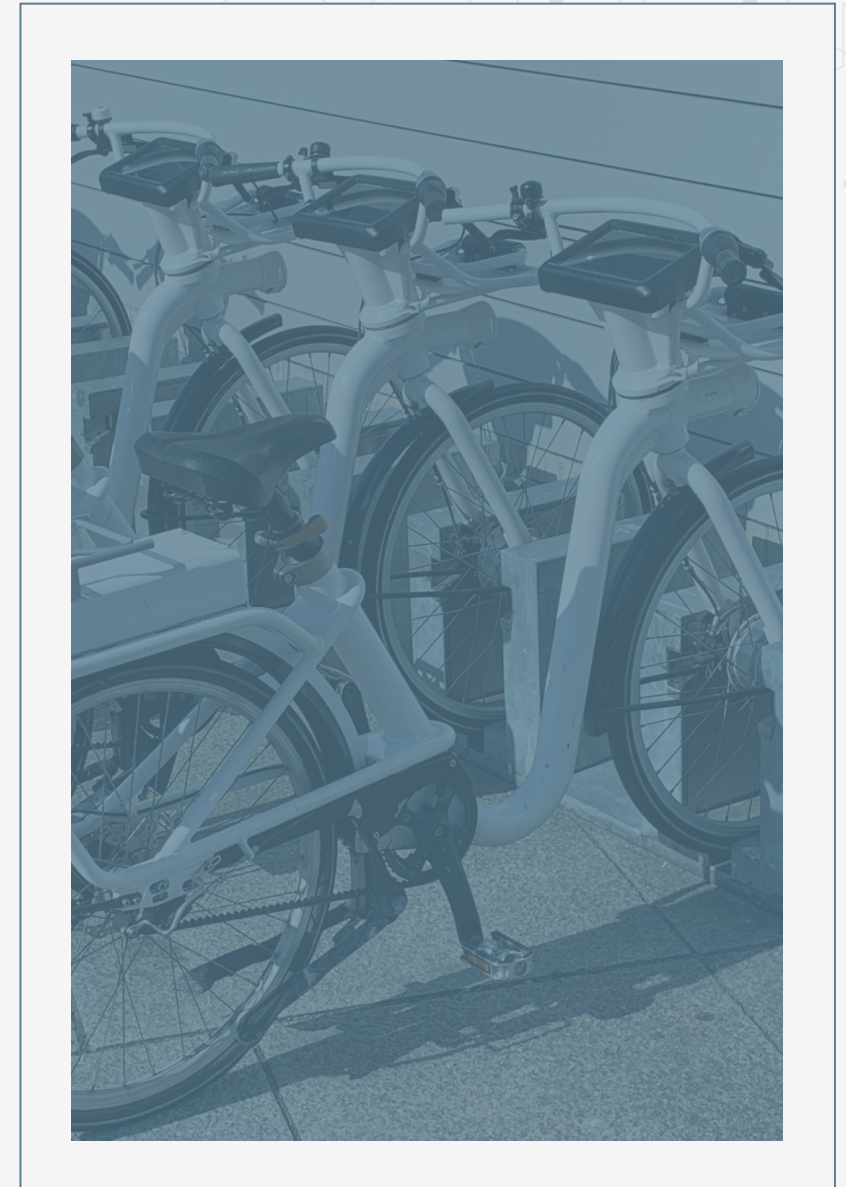
Without compromising connection reliability in compact systems, CLIK-Mate Connectors enable designers to place more pins in less space. These connectors are designed with robust features for many applications, from small appliances to large machinery.

How does this product create value for our customers?

CLIK-Mate Connectors feature a positive-locking mechanism for durability and provide an audible click for secure mating assurance, even in hard-to-reach areas that are not visible. These connectors provide a quality solution for challenging environments, such as those subject to mechanical shock and vibration. Customers benefit from easier system integration and greater confidence in industry applications, regardless of a rigorous environment.

What is the Molex advantage?

Global manufacturing capability, robust engineering support, and the latest and high-performance components make Molex a trustworthy source for quality solutions.



Product Overview

CLIK-Mate Connectors

Reliable, Secure Connections

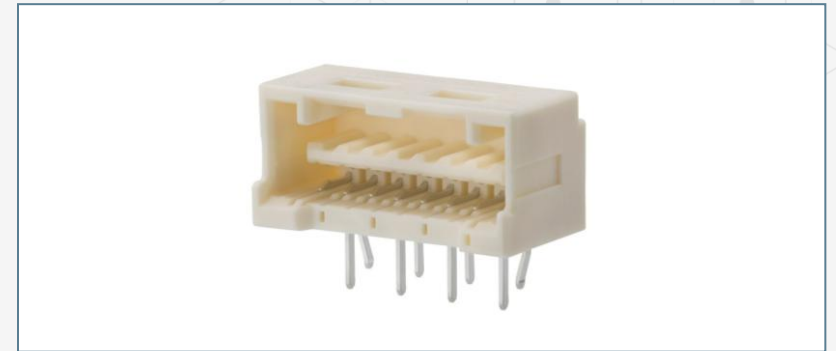
CLIK-Mate Connectors feature an inner positive lock and a unique tuning-fork terminal design, which ensure strong, durable and reliable electrical connections. Meeting the automotive USCAR V2 standard for vibration and mechanical shock, these connectors ensure stable connections in harsh environments and simplify maintenance.

Ease of Use for Connections

CLIK-Mate Connectors feature low insertion force and locking mechanisms to facilitate efficient and secure mating during assembly. This reduces assembly time and the risk of connection errors. The audible click ensures connectors are properly mated even when invisible to the operator.

Various Options for Enhanced Design Flexibility

CLIK-Mate Connectors offer exceptional design flexibility through their extensive range of features and configurations, making them ideal for diverse application needs. Available in multiple pitch options, circuit sizes and plating types, these connectors provide several mounting and orientation styles to enable seamless integration into various PCB layouts.



Markets and Applications

CLIK-Mate Connectors



Drones



Vacuum Cleaners



In-Cabin Applications

AEROSPACE

- Drones
- Electric vertical take-off and landing aircrafts

APPLIANCE

- Blenders
- Coffee makers
- Printer and copy machines
- Refrigerators
- Sewing machines
- Vacuum cleaners

AUTOMOTIVE

- 2-Wheelers, 3-wheelers and e-bikes
- Control modules
- Electrification: OBC, DCDC, PDU, BMS equipment
- In-cabin applications
- Lighting and lamps
- Steering control systems and sensors
- Telematics

Markets and Applications

CLIK-Mate Connectors



Charging Stations



Air-Conditioner Units



Robotics

CHARGING INFRASTRUCTURE

- Charging stations

HVAC

- Air-conditioner units

INDUSTRIAL AUTOMATION

- Inverters
- Machine builders
- Power-distribution systems
- Robotics

Markets and Applications

CLIK-Mate Connectors



Servers



Cooling- and Thermal-Management Systems-



Switches

POWER FOR DATA CENTER

- Switches and servers

SERVER AND STORAGE

- Cooling- and thermal-management systems
- Open compute projects

TELECOMMUNICATIONS

- Switches and servers

Frequently Asked Questions

CLIK-Mate Connectors



What are CLIK-Mate Connectors?

CLIK-Mate Connectors are advanced wire-to-board connectors designed for applications that require durable and reliable connections while maintaining a compact form factor. These connectors feature an audible click for secure mating.

What makes CLIK-Mate Connectors reliable and secure?

CLIK-Mate Connectors feature an inner positive lock that provides a secure, vibration-resistant connection. Combined with a unique tuning-fork terminal design, these connectors ensure robust electrical contact with a low insertion force and long-term reliability.

Are CLIK-Mate products certified for any automotive standards?

CLIK-Mate 1.50mm-pitch connectors are USCAR2 V2 certified for vibration and mechanical shock and have excellent performance in harsh automotive environments.

What pitch sizes are available for CLIK-Mate Connectors?

CLIK-Mate Connectors are offered in multiple pitch sizes: 1.25, 1.50 and 2.00mm.

Frequently Asked Questions

CLIK-Mate Connectors

What plating and material options are available?

CLIK-Mate terminals are commonly tin plated for cost savings, with optional gold-plating variants to further extend durability. Gold-plating variants have three plating thicknesses: 0.10, 0.38 and 0.76 μ m for the 1.50mm-pitch connector. The housing uses flame-retardant materials with UL94 V-0 rated.

Are CLIK-Mate Connectors easy to assemble?

Yes. They feature low-insertion-force terminals and a positive lock for easy assembly with an audible click, which makes it easy for the operator to confirm proper mating.



Product Advantages and Features

CLIK-Mate Connectors

Avoids terminal buckling and secures contact

The unique tuning-fork terminal design reduces contact resistance and ensures high contact reliability through the two-point contact.

Enables customization

Variable plating options are available to meet specific performance, durability and/or cost requirements.

Offers design flexibility

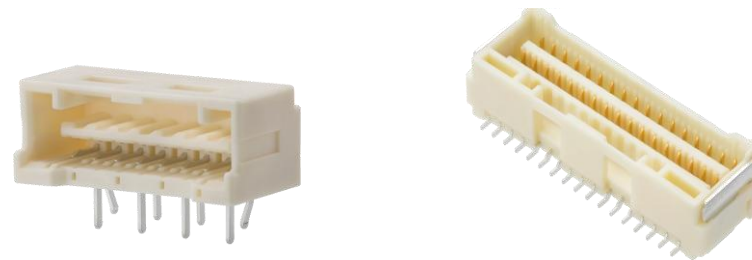
A wide variety of mounting styles, colors, orientations and rows enable various design configuration options.

Offers secure mating and a low insertion force for exceptional reliability

Positive inner locks protect connectors from disengagement due to vibration or shock, and an audible click ensures locking has engaged.

Has footprint compatibility

Drop-in replacement to various competitive versions helps avoid redesign delays for cost and time savings.



Key Specifications

Current	2.5A for 2p, AWG#26 (1.25mm pitch) 3.0A for 2p, AWG#24 (1.50mm pitch) 4.0A for 2p, AWG#22 (2.00mm pitch)
Number of Circuits	2 to 34 (1.50mm pitch) 2 to 15 (1.25mm and 2.00mm pitches)
Voltage	50V (1.25mm pitch) 100V (1.50mm pitch) 250V (2.00mm pitch)
Operating Temperatures	-40 to +105°C



Unique and Useful Differentiation vs. Similar Molex Products

CLIK-Mate Connectors

	Molex CLIK-Mate Connectors		Molex Pico-SPOX Connectors	
Series Number	Receptacle	Plug	Receptacle	Plug
	213225*	502578*	202705	87439
Pitch (mm)	1.25, 1.50 and 2.00		1.50	
Voltage (V)	50, 100 and 250		250	
Current (A)	2.5A for 2p, AWG#26 (1.25 mm pitch) 3.0A for 2p, AWG#24, (1.50 mm pitch) 4.0A for 2p, AWG#22 (2.00 mm pitch)		3.5A for 2p, AWG#24	
Operating Temperatures (°C)	-40 to +105		-55 to +105	
Contact Resistance (milliohms max.)	20 milliohms (max.)		20	
Lock Type	Positive lock		Friction lock	

* As an example, this series number represents one of many Clik-Mate product series.

Product Specifications

CLIK-Mate Connectors

Reference Information

Designed in: Millimeters
Packaging: Reel (terminal)
Embossed (header)
Tray (1.50mm-pitch header through hole single row)
Bag (plug housing)
RoHS: Yes
Glow Wire Compatible: No

Electrical

Voltage (max):
250V (2.00mm pitch)
100V (1.50mm pitch)
50V (1.25mm pitch)
Current (max):
4.0A for 2p, AWG#22 (2.00mm pitch)
3.0A for 2p, AWG#24 (1.50mm pitch)
2.5A for 2p, AWG#26 (1.25mm pitch)
Contact Resistance: 20 milliohms max
Signal Contact: 35 milliohms
Nail Contact: 20 milliohms

Dielectric Withstanding Voltage:
800V (2.00mm pitch)
500V (1.50mm pitch)
500V (1.25mm pitch)
Insulation Resistance: 100 Megohms

Mechanical

Pitch: 1.25, 1.50, 2.00mm
Durability (max.): 30 cycles
Crimp Terminal Insertion Force (max.):
9.8N (2.00mm pitch)
9.8N (1.50mm pitch)
4.9N (1.25mm pitch)
Crimp Terminal Retention Force (min.):
9.8N (2.00mm pitch)
9.8N (1.50mm pitch)
6.9N (1.25mm pitch)
Housing Lock Strength (min.):
29.4N (2.00mm pitch)
29.4N (1.50mm pitch)
19.6N (1.25mm pitch)

Physical

Housing :
Header-Polyamide
Plug housing-Polybutylene terephthalate
Contact: Copper alloy
Plating:
Tin (2.00mm pitch)
Tin, gold 0.10, 0.38 and 0.76 μ m (1.50mm pitch)
Tin, gold 0.10 μ m (1.25mm pitch)
Operating Temperatures: -40 to +105°C



Additional Resources

Web Overview Page	https://www.molex.com/en-us/products/connectors/wire-to-board-connectors/clik-mate-connectors
Datasheet	987652-9232.pdf
Global Product Managers	Panji Ramadhan, PSBU, CCS (1.50mm pitch) Paul Johnson, PSBU, CCS (1.25 and 2.00mm pitches)



THANK YOU

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