

MultiCat High-Power Connector System with Precision-Machined Contacts

molex

Compact MultiCat High-Power Connectors with Precision-Machined Contacts can be mated quickly, ensure superior durability and proper connection via connector position assurance (CPA) making it effective in multiple industry categories

Features and Advantages

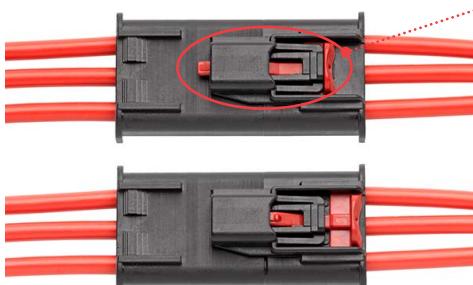
Lightweight and compact wire-to-wire (W-to-W), wire-to-board (W-to-B) configuration. Accommodates up to 8 and 18 AWG wire, 3- and 4-circuit circular and inline available

Offers design flexibility. Ideal for use in applications with space and weight constraints



-40 to +150°C operating temperature range

Enables use in harsh-temperature environments



Patent-pending visual connector position assurance (CPA) feature

Visual assurance that connector is properly engaged

Latch provides audible feedback

Completely mated systems allow the CPA to actuate

Cannot throw CPA if system is not completely mated

Prevents accidental latch disengagement

Manual mating / unmating

Facilitates quick assembly. Prevents mis-mating

CPA is properly engaged

3-circuit circular components available
Provides a compact connector that fits in an area as small as a 15.30mm-diameter tube



UL1977 finger-test-certified receptacle

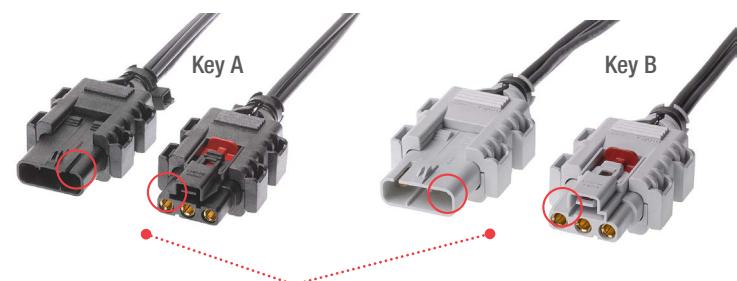
Meets safety standards for many consumer applications. Reduces risk of contact with live terminals



2-piece hermaphroditic backshell

Secure cable. Provides strain relief.

Easy access to actuate CPA



2 keying options; 2 housing color options

(black and gray). Polarization incorporated into latch

Eliminates assembly errors. Removes need for separate polarizing tabs

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Features and Advantages For Precision-Machined Contacts

Mating cycles at least 500

Provides longer life.
Withstands high-mating cycle applications



Solid mass contact

High-current: 16.0 to 40.0A per contact

Delivers design flexibility for high-current applications

Provides reliability and long life cycle.

Resistant to damage in blind-mate applications. Supports high power.

Mating force per contact: $\leq 24\text{N}$;

Unmating force per contact: $\geq 5\text{N}$

Enables easy connection/ disconnection. Lessens operator fatigue

Low contact resistance (≤ 1 milliohms)

Offers large mating surface to support maximum current-carrying capacity. Transfers more power than stamped contact in a smaller interface

Applications

Aerospace and Defense

Unmanned vehicles

Consumer

Drones

Industrial Automation

Industrial motors

Medical

Diagnostic equipment

Telecommunications

Receivers

Satellite dish

Specifications

REFERENCE INFORMATION

Packaging: See Packaging Spec
UL File No.: E29179
Terminal Used: Crimp
Designed In: Millimeters
RoHS: Compliant by Exemption
Halogen Free: No
Glow Wire Compliant: No

MECHANICAL

Contact Insertion Force into Housing (max.): 40N
Contact Retention to Housing (min.): 175N
Latch Strength (min.): 200N
Mating Force (max.): 24N per Circuit
Unmating Force (min.): 5N per Circuit
Durability (max.): 500 cycles

ELECTRICAL

Voltage (max.): 1000V AC/DC
Current (max.): 40.0A per Contact
Contact Resistance (max.): 1 milliohms
Dielectric Withstanding Voltage: 3000V AC

PHYSICAL

Housing: PEI
Contact: Copper (Cu) alloy
Plating:
Contact Area — Gold (Au)
PCB Thickness: 2.50mm
Operating Temperature: -40 to +150°C

Ordering Information

Multicat Connector System

Series No.	Component	Circuit Size	Features
201840	Plug Housing	3 and 4	2 polarization options and colors
201841	Receptacle Housing		
201842	Vertical Housing		
201843	Right-Angle Housing		
200915	Circular Receptacle Housing	3	
200914	Circular Plug		
201844	Hermaphroditic Backshell	3 and 4	Two pieces, one part number

Precision-Machined Contacts

Series No.	Component	Configuration
201845	Plug Terminal	W-to-W
201846	Receptacle Terminal	W-to-W

Pre-Crimped Leads

Series No.	Description
79758	MultiCat Pre-Crimped Leads

Cable Assemblies

Custom Product	Description
Contact Molex	MultiCat Cable Assemblies

www.molex.com/link/multicat.html