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

3-circuit circular components available

Provides a compact connector that fits in an area as small as a 15.30mm-diameter tube



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



UL1977 finger-test-certified receptacle

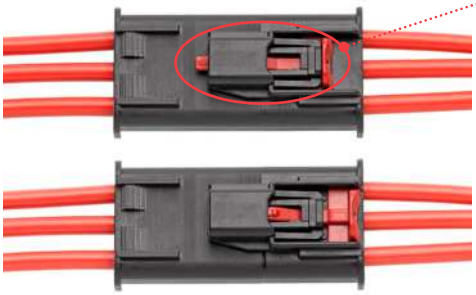
Meets safety standards for many consumer applications. Reduces risk of contact with live terminals



-40 to +150°C operating temperature range

Enables use in harsh-temperature environments

CPA is properly engaged



2-piece hermaphroditic backshell

Secure cable. Provides strain relief. Easy access to actuate CPA

Patent-pending visual connector position assurance (CPA) feature

Visual assurance that connector is properly engaged

Latch provides audible feedback

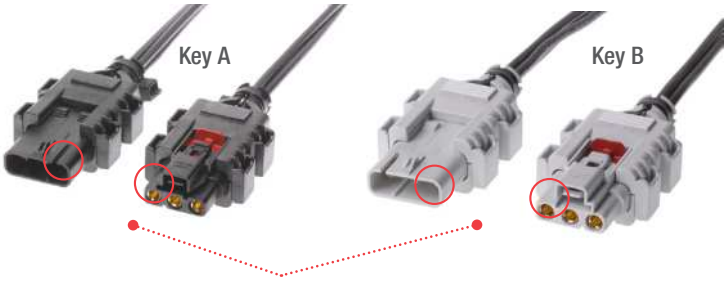
Completely mated systems allow the CPA to actuate

Cannot throw CPA if system is not completely mated

Prevents accidental latch disengagement

Manual mating / unmating

Facilitates quick assembly. Prevents mis-mating



2 keying options; 2 housing color options (black and gray). Polarization incorporated into latch

Eliminates assembly errors. Removes need for separate polarizing tabs

MultiCat High-Power Connector System with Precision-Machined Contacts

molex

Features and Advantages For Precision-Machined Contacts

Mating cycles at least 500
Provides longer life. Withstands high-mating cycle applications

Mating force per contact: ≤ 24N; Unmating force per contact: ≥ 5N
Enables easy connection/ disconnection. Lessens operator fatigue



Solid mass contact
Provides reliability and long life cycle. Resistant to damage in blind-mate applications. Supports high power.

High-current: 16.0 to 40.0A per contact
Delivers design flexibility for high-current applications

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

Molex is a registered trademark of Molex, LLC in the United States of America and may be registered in other countries; all other trademarks listed herein belong to their respective owners.

Order No. 987651-4731 Rev. 2 USA/0k/GF/2019.02

©2019 Molex