

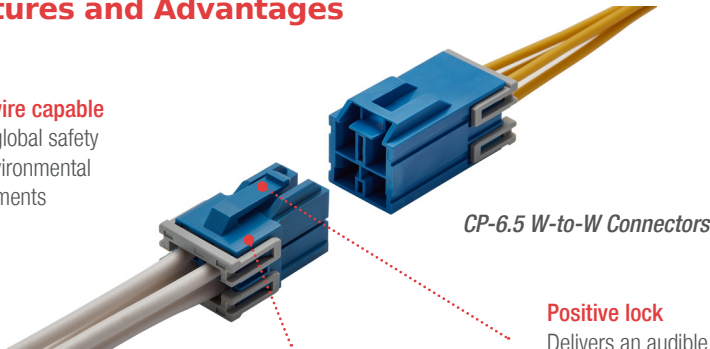
CP-6.5 Wire-to-Board and Wire-to-Wire Connector System

molex

Leveraging full keying and color-pairing features, foolproof CP-6.5 W-to-B and W-to-W connectors and harnesses enhance user-safety while speeding up consumer and industrial interconnect assembly applications

Features and Advantages

Glow wire capable
Meets global safety and environmental requirements

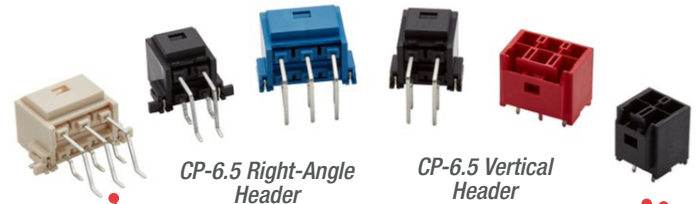
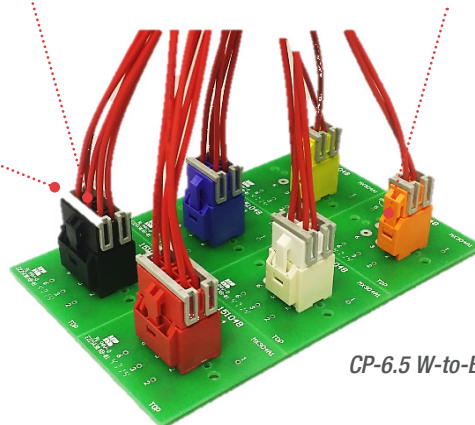


Raised housing block on the adjacent sides
Prevents snagging of wires under the latch during harness manufacturing and storage

Positive lock
Delivers an audible mating click, latch protection, and secure terminal and mating retention

Polarization keys on housing ribs
Prevent mis-mating, which can cause electrical shorting

260°C wave or reflow soldering capable headers
Delivers high-temperature assembly processing



Pegs on housing
Provide robust PCB retention during soldering

Kinked solder tails
Offer added header-to-PCB retention during solder reflow

Wide spectrum of housing colors
Allows quick identification of mating combinations for assembly and repair purposes

Absence of drain holes in PCB headers
Ensures compatibility with conformal coating (potting)

2, 4 and 6 circuits in vertical and right-angle orientation with SMT and TH mounting styles
Offer design flexibility

Markets and Applications

Consumer / Home Appliances

- Refrigerators
- Washing machines
- Water heaters
- Air-conditioners

Industrial / Industrial Automation

- Industrial controls
- HVAC
- Copiers
- Vending machines
- Security systems



Home Appliances



Vending Machines



Water Heaters



Air Conditioning System



Copier Machines

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Specifications

REFERENCE INFORMATION

Packaging
 Terminal: Reel/Bag
 Header: Tube/Reel/Tray
 Housing and Retainer: Bag
 Designed In: millimeters
 RoHS: Yes
 Halogen Free: Not low halogen
 Glow-wire Compliant:
 Wire-to-Board – Yes
 Wire-to-Wire – Yes

ELECTRICAL

Voltage (max.): 600V AC
 Wire-to-Board (Vertical): 2.0A to 10.0A
 Wire-to-Board (Right-Angle): 5.6A to 11.8A
 Wire-to-Wire: 5.0A to 12.5A
 Low-level Contact Resistance (max.): 10 milliohms
 Dielectric Withstanding Voltage: 1,500V AC
 Insulation Resistance (min.): 1,000 Megohms

MECHANICAL

Lock Strength (min.): 49.0N
 Receptacle Crimp Pull-out Force: 14.7 to 127.4N
 Terminal Retention Force (min.): 39.2N
 Durability (max.): 30 cycles

PHYSICAL

Plug Housing: Nylon, UL 94V-0 (at all instances), G/W
 Receptacle Housing: PBTB or PA66, UL 94V-0, G/W
 Header Housing (Vertical): PA, UL 94V-0, G/W
 Header Housing (Right-Angle): Nylon, UL 94V-0, G/W
 Retainer: PBTP, UL 94V-0
 Terminal: Copper Alloy Tin-Plated
 Header Plating:
 Contact: Tin-Plated
 Solder tail: Tin-Plated over Nickel Underplate
 Operating Temperature: -40 to +105 °C

Ordering Information

HEADERS

Product Type	Packaging	Circuit	Colors	Ordering Number	Color Code Table	
					Standard	Custom
Vertical Header	Tray	2	12	15104812xx	00-Orange 01-Blue 03-Yellow 06-Black 09-Red 11-Natural	02-Gray 04-Purple 05-Pink 07-Green 08-Brown 10-Mint
		4	4	15104814xx		
		6	4	15104816xx		
	Tube	2	12	15104822xx		
Right-Angle Through-Hole Header	Tube	2	4	2035551x12	2 Circuit 0-Red 1-Blue 2-Black 3-Natural	4 and 6 Circuit 0-Blue 1-Black 2-Natural
		4	3	2035551x14		
		6	3	2035551x16		
	Reel	2	4	2035551x22		
		4	3	2035551x24		
		6	3	2035551x26		
Right-Angle SMT Header	Tube	2	4	2035552x12	2 Circuit 0-Red 1-Blue 2-Black 3-Natural	4 and 6 Circuit 0-Blue 1-Black 2-Natural
		4	3	2035552x14		
		6	3	2035552x16		
	Reel	2	4	2035552x22		
		4	3	2035552x24		
		6	3	2035552x26		

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Ordering Information

HOUSING

Product Type	Resin	Circuit	Colors	Ordering Number	Color Code Table	
					2 Circuit	4 and 6 Circuit
Receptacle Housing	PBTP	2	12	15104922xx	00-Orange 01-Blue 02-Gray* 03-Yellow 04-Purple* 05-Pink* 06-Black 07-Green* 08-Brown* 09-Red 10-Mint* 11-Natural *Custom colors	01-Blue 06-Black 09-Red 11-Natural
		4	3	15104924xx		
		6	4	15104926xx		
	PA66 G/W	2	12	15120722xx		
		4	4	15120724xx		
		6	4	15120726xx		
Plug Housing	PA66 G/W	2	12	20343822xx		
		4	4	20343824xx		
		6	4	20343826xx		

TERMINAL

Connector Type	Product Type	Ordering No.		Barrel Size
		Chain	Loose	
Wire-to-Board	Female Terminal	505978000	505978100	Large (16 to 22 AWG)
		505988000	505988100	Medium (20 to 26 AWG)
Wire-to-Wire	Female Terminal	505978010	505978110	Large (16 to 20 AWG)
		505988010	505988110	Medium (22 to 24 AWG)
	Male Terminal	2050338000	-	Large (16 to 20 AWG)
		2050328000	-	Medium (22 to 24 AWG)

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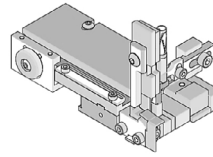
Application Tooling



Extractor



Hand Crimping Tool



T2 Termination Tooling



Applicator

Crimp Terminal (Part Number 50597-8000)		Crimp Terminal (Part Number 50598-8000)	
Global			
Part No.	Type	Part No.	Type
63819-7600	Hand crimp tool for Wire-to-Wire and Wire-to-Board Terminals	-	-
63901-2300	FineAdjust applicator for 3.96mm pitch Wire-to-Wire and Wire-to-Board crimp terminal	63901-9900	FineAdjust applicator for 3.96mm pitch crimp terminal, 24 AWG
63901-2200	Fine adjust applicator for 3.96mm pitch Wire-to-Wire and Wire-to-Board crimp terminal	63901-9800	FineAdjust applicator for 3.96mm pitch crimp terminal, 20 to 26 AWG
63911-2200	T2 terminator for 3.96mm pitch Wire-to-Wire and Wire-to-Board crimp terminal	63911-9900	T2 terminator for 3.96mm pitch crimp terminal, 24 AWG
63819-7500	Hand crimp tool for Wire-to-Wire and Wire-to-Board terminals	63823-5300	Hand crimp tool for Wire-to-Wire and Wire-to-Board terminals
63819-7700	Hand crimp tool for Wire-to-Wire and Wire-to-Board terminals	63823-5400	Hand crimp tool for Wire-to-Wire and Wire-to-Board terminals
63813-2700	Extraction tool	63813-2700	Extraction tool
63911-2300	T2 terminator for 3.96mm pitch Wire-to-Wire and Wire-to-Board crimp terminal	63911-9800	T2 terminator for 3.96mm pitch crimp terminal, 20 to 26 AWG

www.molex.com/link/cp65.html

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