

Mini-Fit Sigma Connectors >

Design engineers are often challenged with space constraints, the need for Glow Wire compatible products and increasing costs associated with the bill of materials (BOM). Mini-Fit Sigma Connectors offer a slim profile and mate with existing Mini-Fit headers, allowing for space savings without changing the bill of materials. These receptacles also include TPA for secure and stable connections to avoid terminal backout issues and provide Glow Wire compatible options to meet the European standard for electrical requirements. Mini-Fit Sigma Connectors overcome many challenges PCB designers encounter and provide excellent features for reliability.

ADVANTAGES AND FEATURES



TPA DOES NOT EXTEND PAST THE HOUSING, WHICH ALLOWS FOR SPACE SAVINGS
Improved TPA with slim profile design



OFFERS REDUNDANT, SECONDARY CURRENT PATHS FOR LONG TERM PERFORMANCE AND RELIABILITY
Multiple points of contact; low mating force option with 30% reduction from standard terminal available



HELPS PREVENT TERMINAL BACKOUT AND PROVIDES RECEPTACLE HOUSING STABILITY
TPA

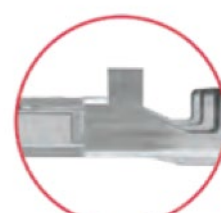
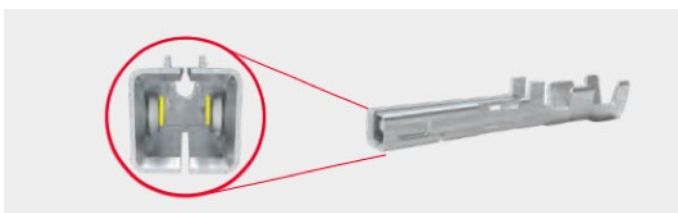


MEETS SAFETY AND ENVIRONMENTAL REQUIREMENTS MANDATED BY THE HOME APPLIANCE INDUSTRY
V0/Glow Wire resin



REDUCES THE NEED FOR ADDITIONAL PARTS ON THE BOM AND SAVES SPACE
Mates with existing Mini-Fit receptacles and headers (see compatibility chart on last page)

Number of Circuits	2 to 6 Single-Row 2 to 18 Dual-Row
Pitch	4.20mm
Wire Size	16 to 24 AWG
Current Rating	Up to 11.5/13.5A options
Flammability Rating	V0
Glow-Wire Capable	Yes
Operating Temp	40 to +105°C (Tin) 40 to +125°C (Gold)
TPA Option	Yes



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SINGLE ROW, WIRE-TO-WIRE / WIRE-TO-PANEL



Circuits	Plug V0 Glow Wire	Mounting	Receptacle V0 Glow Wire	Optional TPA
2	200471-1002	Free Hanging	200453-1002	172709-2002
	200488-2002	Panel Mount		
3	200471-1003	Free Hanging	200453-1003	172709-2003
	200488-2003	Panel Mount		
4	200471-1004	Free Hanging	200453-1004	172709-2004
	200488-2004	Panel Mount		
5	200471-1005	Free Hanging	200453-1005	172709-2005
	200488-2005	Panel Mount		
6	200471-1006	Free Hanging	200453-1006	172709-2006
	200488-2006	Panel Mount		

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DUAL ROW, WIRE-TO-WIRE / WIRE-TO-PANEL



Circuits*	Plug V0 Glow Wire	Mounting	Receptacle V0 Glow Wire	Optional TPA
2	172762-1002	Free Hanging	172708-1002	172709-2001
	172767-3002	Panel Mount		
4	172762-1004	Free Hanging	172708-1004	172709-2002
	172767-3004	Panel Mount		
6	172762-1006	Free Hanging	172708-1006	172709-2003
	172767-3006	Panel Mount		
8	172762-1008	Free Hanging	172708-1008	172709-2004
	172767-3008	Panel Mount		
10	172762-1010	Free Hanging	172708-1010	172709-2005
	172767-3010	Panel Mount		
12	172762-1012	Free Hanging	172708-1012	172709-2006
	172767-3012	Panel Mount		
14	172762-1014	Free Hanging	172708-1014	172709-2007
	172767-3014	Panel Mount		

Additional circuit sizes available up to 18 positions. See molex.com for more details.

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SINGLE ROW, WIRE-TO-BOARD



Circuits	Orientation	Mating Header V0 Glow Wire (products are in development)	Mating Header V0	Mating Header V2 Glow Wire	Receptacle V0 Glow Wire	Optional TPA
2	Vertical	172647-0202	-	172647-0102	200453-1002	172709-2002
	Right Angle	172648-0302	-	172648-0102		
3	Vertical	172647-0203	39-30-2030	172647-0103	200453-1003	172709-2003
	Right Angle	172648-6303	39-30-3036	172648-0103		
4	Vertical	172647-0204	39-30-2040	172647-0104	200453-1004	172709-2004
	Right Angle	172648-6304	39-30-3046	172648-0104		
5	Vertical	172647-0205	39-30-2050	172647-0105	200453-1005	172709-2005
	Right Angle	172648-6305	39-30-3056	172648-0105		
6	Vertical	172647-0206	-	172647-0106	200453-1006	172709-2006
	Right Angle	172648-0306	46999-0708	172648-0106		

Gold plated header options are available. See molex.com for additional options.

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DUAL ROW, WIRE-TO-BOARD



Circuits	Orientation	Mating Header V0 Glow Wire	Mating Header V0	Mating Header V2 Glow Wire	Receptacle V0 Glow Wire	Optional TPA
2	Vertical	87427-0242	46207-3002	46015-0203	172708-1002	172709-2001
	Right Angle	39-30-0020 87427-0202	-	-		
4	Vertical	87427-0442	46207-0004	46015-0403	172708-1004	172709-2002
	Right Angle	39-30-0040 87427-0402	46991-1004	-		
6	Vertical	87427-0642	46207-0006	46015-0603	172708-1006	172709-2003
	Right Angle	39-30-0060 87427-0602	46991-1006	-		
8	Vertical	87427-0842	46207-0008	46015-0803	172708-1008	172709-2004
	Right Angle	39-30-0080 87427-0802	46691-1008	-		
10	Vertical	87427-1042	46207-0010	46015-1003	172708-1010	172709-2005
	Right Angle	39-30-0100 87427-1002	46691-1010	-		
12	Vertical	87427-1242	46207-0012	46015-1203	172708-1012	172709-2006
	Right Angle	39-30-0120 87427-1212	46991-1012	-		
14	Vertical	87427-1442	46207-4014	46015-1403	172708-1014	172709-2007
	Right Angle	39-30-0140 87427-1412	-	-		

Gold plated header options and additional circuit sizes up to 18 positions are available. See molex.com for more options.

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TERMINALS

Gender	Series	Sales Drawing	Current Rating (max.)	Application Tooling (applicators, hand tools & extraction tools)	AWG
Female	172718	Link	11.5 A	See molex.com *	16 to 24
Male	172765	Link	11.5 A	See molex.com *	
Female	202988	Link	13.5 A	See molex.com *	
Male	203070	Link	13.5 A	See molex.com *	
Female	221442 Low mating force	In Development			

*Hand tools and extraction tool details are available on molex.com per terminal number.

MATING COMPATIBILITY

Receptacle - Series	Plug - Series	Comments
Mini-Fit Jr - 5557	Mini-Fit Sigma - 172762	Does not Mate
Mini-Fit TPA 2 - 172708	Mini-Fit Sigma - 172762	Mates
Mini-Fit Sigma - 172708	Mini-Fit Jr - 5559	Mates except PN# 1727082004,1727082006 as they have different polarization from 17270810**.
Mini-Fit Sigma - 172708	Mini-Fit TPA 2 - 172762	Mates
Mini-Fit Sigma - 172708	Mini-Fit Sigma - 172762	Mates

SPECIFICATIONS

Reference Information

Packaging: Bag, Reel, Tray, Tape and Reel
 UL File No.: E29179
 CSA File No.: LR19980
 Mates With: Mini-Fit PCB Headers, Mini-Fit Sigma Plugs/Receptacles
 Use With: Optional TPA 172709
 Terminals Used: 172178, 202988, 172765, 203070
 Designed In: Millimeters
 RoHS: Yes
 Halogen Free: No
 Glow-Wire Capable: Yes

Physical

Pitch: 4.20mm
 Wire Gauge: 16 to 24AWG
 PCB Thickness: 0.89 to 3.00mm thick
 Operating Temperature: -40 to +105°C (Tin)
 -40 to +125°C (Gold)

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