

MLX™ 2.13MM (.084") DIAMETER

Pin and Socket Power Connector System



MLX™ 2.13MM (.084") PIN AND SOCKET POWER CONNECTOR SYSTEM >

- 42021 Crimp Housing Plug
- 42022 Pin and Socket Receptacle
- 42002 Vertical Header Series
- 43255 Vertical Polarization Header
- 42023, 36536, 36663 Split Pin Male Crimp Terminal
- 42024, 36535, 36664 Socket Female Crimp Terminal



Industry standard compatible line of 2.13mm (.084") diameter plugs and caps with Glow Wire Capable interconnect solutions.

The **MLX™ family** is interchangeable, intermateable and intermountable with industry standard products. This allows for greater flexibility in mating with existing wire harnesses, connectors or PCB headers. The connectors are recognized by UL and certified by CSA.

MLX™ connectors are offered in a variety of popular configurations. Housings are molded in Nylon 6/6 material in UL 94V-2 rating, UL 94V-0 rating and also offered in Glow Wire Compliant material. The housings are designed for both male and female Molex terminals. Additionally the housings will accept industry compatible terminals. As an added convenience, Molex has provided circuit identification grooves for circuits 2 and 3 along with the industry standard identification rib for circuit 1.

The pin (male) and socket (female) terminals are each available in a variety of material and plating options.

Applications

Commercial Vehicle

- ATVs
- Boating
- Construction equipment
- Heavy equipment systems
- Marine equipment
- Recreational vehicles

Consumer

- ATM Machines
- Refrigerator

Industrial Automation

- Automation equipment
- Conveyor belt

Networking

- Fan Tray Assemblies
- Rack-mount server

Feature

- Cap and plug housing are polarized
- Positive lock design
- Fully isolated contacts
- Cap and plugs can each accept both male or female terminals
- Plugs are available in panel mount or free hanging versions
- Circular contacts and positive locking of terminals in housing
- Caps, plugs and terminals are compatible with industry standard versions

Benefit

- The caps and plugs will mate together in one alignment
- Improves connector reliability
- Better insulation and protects the contacts
- Design flexibility
- Design flexibility
- Terminal self align during mating and dual locking lances minimize no terminal back out and optimize contact stability
- Parts are intermateable and interchangeable with industry standard versions
- Will help in reduced mating forces

Specifications

REFERENCE INFORMATION

UL File No.: E29179
 CSA File No.: LR19980
 This product is for glow-wire applications.
 For more information, please see
http://www.molex.com/images/about/glow_wire_statement.pdf

ELECTRICAL

Voltage*: 600V
 Current†: 13.5A max./22A‡

MECHANICAL

Mating Force†: 1.5 lbs. (0.7 Kg)
 per circuit
 Panel Retention Strength:
 75 lbs. (34.1 Kg) min.
 Positive Latch Retention Strength:
 35 lbs. (15.9 Kg) min.

PHYSICAL

Contact: Brass or Phosphor Bronze
 Plating: Tin
 Housing: UL 94V-2 – Natural PA66 nylon
 UL 94V-0 – White PA66/6 nylon
 Glow Wire Compliant Material
 Temperature Rise: +30°C max.
 (carrying rated current load)
 Operating Temperature: -55°C – 105°C

MLX™ PIN AND SOCKET POWER CONNECTOR SYSTEM



Vertical Polarization Header in Glow Wire Compliant Material

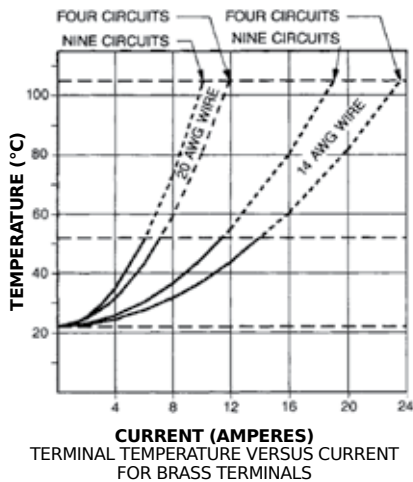


Crimp Housing Plug

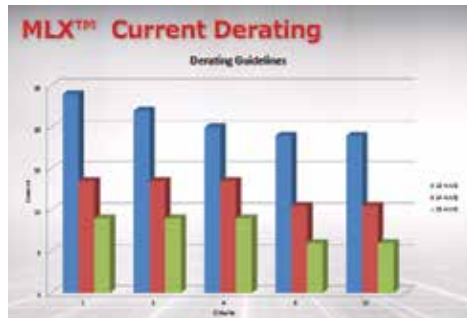


Pin and Socket Receptacle

* Per circuit, based on fully loaded housings, using 14 AWG wire
 † Based on socket (female) terminal mated to split pin (male) terminal
 ‡ 2 circuits with 10AWG wire



Housing Temperature Index 105°C for Standard Housing



+30°C Rise Over Ambient Temperature
 Note: Graph shows average performance and is not to be used as a specification of product capability in a specific application.

MLX™ PIN AND SOCKET POWER CONNECTOR SYSTEM

Ordering Information



Crimp Housing Plug



Vertical Polarization Header



Split Pin Male Crimp Terminal



Socket Female Crimp Terminal

WIRE TO WIRE SYSTEM									
Circuits	1	2	3	4	5	6	9	12	15
Plug Housing - Series 42021									
Housing	Part Numbers								
UL 94V-2 (Natural)	050-84-1010	050-84-1020	050-84-1030	050-84-1040	-	050-84-1060	050-84-1090	050-84-1120	050-84-1150
UL 94V-0 (White)	050-84-1015	050-84-1025	050-84-1035	050-84-1045	-	050-84-1065	050-84-1095	050-84-1125	050-84-1155
UL 94V-2 (Black)	366480001	366480002	366480003	366480004	-	366480005	366480006	366480007	366480008
Plug Housing - Series 36643									
Housing	Part Numbers								
UL 94V-2 (Glow Wire Compliant)	366430001	366430002	366430003	366430004	366430010	366430005	366430006	366430007	366430008
Use With	Can be loaded with either male or female terminals (series mentioned below table) based on the need								
Mates With	Receptacle (Series 42022)								
Receptacle Housing - Series 42022									
Housing	Part Numbers								
UL 94V-2 (Natural)	050-84-2010	050-84-2020	050-84-2030	050-84-2040	-	050-84-2060	050-84-2090	050-84-2120	050-84-2150
UL 94V-0 (White)	050-84-2012	050-84-2022	050-84-2032	050-84-2042	-	050-84-2062	050-84-2092	050-84-2122	050-84-2152
UL 94V-2 (Black)	366480021	366480022	366480023	366480024	-	366480025	366480026	366480027	366480028
Receptacle Housing - Series 36644									
Housing	Part Numbers								
UL 94V-2 (Glow Wire Compliant)	366440001	366440002	366440003	366440004	366440010	366440005	366440006	366440007	366440008
Use With	Can be loaded with either male or female terminals (series mentioned below table) based on the need								
Mates With	Plug (Series 42021)								

WIRE TO BOARD SYSTEM										
Circuits	1	2	3	4	5	6	9	12	15	
Vertical Header - Series 42002 (Contacts are Phosphor Bronze)										
Housing	Plating	Terminal	Part Numbers							
UL 94V-2 (Natural)	Tin	Pin	10-84-4020	10-84-4030	10-84-4040	-	10-84-4060	10-84-4090	10-84-4120	10-84-4150
		Socket	10-84-4022	10-84-4032	10-84-4042	-	10-84-4062	10-84-4092	10-84-4122	10-84-4152
UL 94V-0 (White)	Tin	Pin	10-84-5020	10-84-5030	10-84-5040	-	10-84-5060	10-84-5090	10-84-5120	10-84-5150
		Socket	10-84-5021	10-84-5031	10-84-5041	-	10-84-5061	10-84-5091	10-84-5121	10-84-5151
UL 94V-2 (Black)	Tin	Pin	367590101	367590102	367590103	-	367590104	367590105	367590106	367590107
		Socket	367590141	367590142	367590143	-	367590144	367590145	367590146	367590147
UL 94V-2 (Glow Wire Compliant)	Tin	Pin	367570101	367570102	367570103	-	367570104	367570105	367570106	367570107
		Socket	367570141	367570142	367570143	-	367570144	367570145	367570146	367570147
Vertical Header With Polarization - Series 43255 (Contacts are Phosphor Bronze)										
Housing	Plating	Terminal	Part Numbers							
UL 94V-2 (Natural)	Tin	Pin	432550113	432550121	432550129	-	432550137	432550145	432550153	432550161
		Socket	432550115	432550123	432550131	-	432550139	432550147	432550155	432550163
UL 94V-0 (White)	Tin	Pin	432550059	432550067	432550075	-	432550083	432550091	432550099	432550107
		Socket	432550003	432550011	432550019	-	432550027	432550035	432550043	432550051
UL 94V-2 (Black)	Tin	Pin	367590021	367590022	367590023	-	367590024	367590025	367590026	367590027
		Socket	367590061	367590062	367590063	-	367590064	367590065	367590066	367590067
UL 94V-2 (Glow Wire Compliant)	Tin	Pin	367570021	367570022	367570023	-	367570024	367570025	367570026	367570027
		Socket	367570061	367570062	367570063	-	367570064	367570065	367570066	367570067

Male Terminals - Split Pin Crimp Terminal								
Series	Type	Plating	Wire Size AWG	Insulation Diameter	Packaging		Use With	Mates With
					Reel	Bag		
					Part Numbers			
42023	Brass	Tin	14 - 20	1.52 - 3.30 mm (0.06 - 0.13 inches)	2082003	2082004	Plug Housing Series 42021 and Cap Housing Series 42022	Socket Terminal Series 42024
	Phosphor Bronze				2082005	2082006		
	Brass		18 - 20	1.65 - 2.95 mm (0.065 - 0.116 inches)	42023-2013	N.A.		
	Phosphor Bronze				42023-2014			
	Brass		22 - 24	1.20 - 1.80 mm (0.047 - 0.070 inches)	42023-2015	N.A.		
Phosphor Bronze	42023-2016							
36663	Brass	-	10 - 12	5.08 mm max. (0.20 inches max.)	366630001	366630002	Socket Terminal Series 36664	

Female Terminals - Socket Crimp Terminal								
Series	Type	Plating	Wire Size AWG	Insulation Diameter	Packaging		Use With	Mates With
					Reel	Bag		
					Part Numbers			
42024	Brass	Tin	14 - 20	1.52 - 3.30 mm (0.06 - 0.13 inches)	2081001	2081002	Plug Housing Series 42021 and Cap Housing Series 42022	Split Pin Terminal Series 42023
	Phosphor Bronze				2081003	2081004		
	Brass		18 - 20	1.65 - 2.95 mm (0.065 - 0.116 inches)	42024-1017	N.A.		
	Phosphor Bronze				42024-1018			
	Brass		22 - 24	1.20 - 1.80 mm (0.047 - 0.070 inches)	42024-1019	N.A.		
Phosphor Bronze	42024-1020							
36664	Brass	-	10 - 12	5.08 mm max. (0.20 inches max.)	366640001	366640002	Socket Terminal Series 36663	

Note: Contact Molex Global Product Manager for queries on part number developments.