

MLX™ 2.13mm (.084")

Pin and Socket

Power Connector System



FEATURES AND SPECIFICATIONS



2.13mm (.084") Diameter MLX™ Pin and Socket Power Connector System

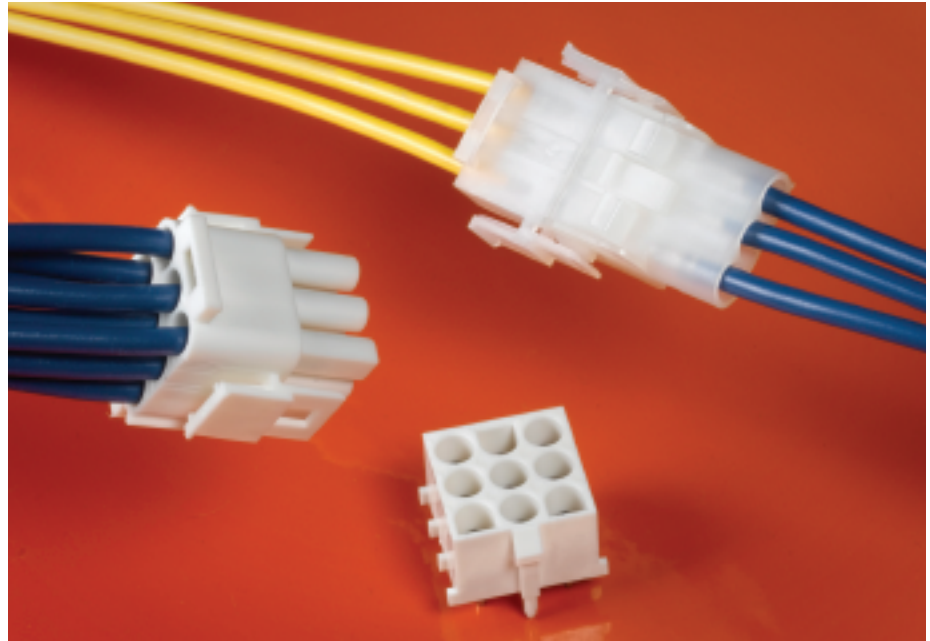
The MLX family is an industry compatible line of 2.13mm (.084") diameter plug and cap power connections. It is interchangeable, intermateable and intermountable with industry standard products. This allows for greater flexibility in mating with existing wire harnesses, connectors or PCB headers. The connectors are recognized by UL and certified by CSA.

Housings: MLX connectors are offered in a variety of popular configurations. Housings are molded in Nylon 6/6 material in UL 94V-2 rating and UL 94V-0 rating. 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.

Terminals: The pin (male) and socket (female) terminals are each available in a variety of material and plating options. Both terminals are designed to run in Molex application tooling and in other commercially available, compatible equipment.

Features and Benefits

- Cross-tested to ensure industry compatibility
 - Housing-to-housing
 - Terminal-to-terminal
 - Terminal retention
 - Crimp strength
 - Panel retention
 - Electrical properties
- Utilizes Molex and/or industry compatible termination equipment
- UL recognized File No. E-29179
- CSA certified File No. LR-19980



SPECIFICATIONS

Electrical

Voltage*: 600V
 Current†: 13.5A max.
 Temperature Rise: +30°C max. (carrying rated current load)

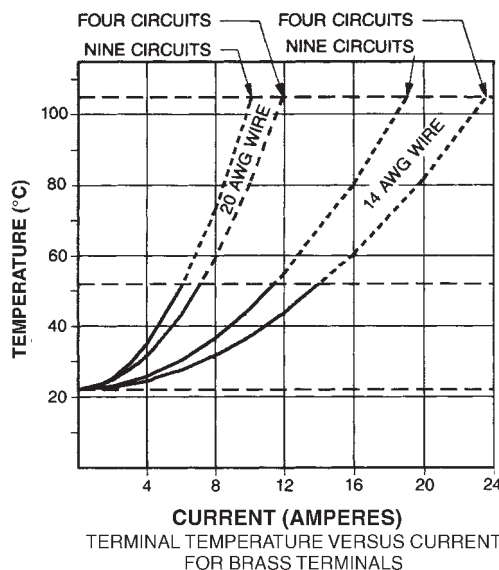
Mechanical

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—White 6/6 nylon
 UL 94V-0—White 6/6 nylon

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



Housing Temperature Index 105°C for Standard Housing

+30°C Rise over Ambient Temperature

+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

FEATURES AND SPECIFICATIONS

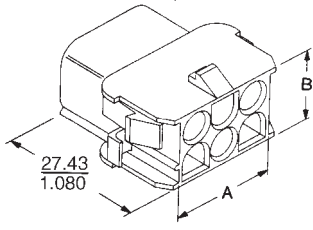


2.13mm (.084") Diameter MLX™ Pin and Socket Power Connector System

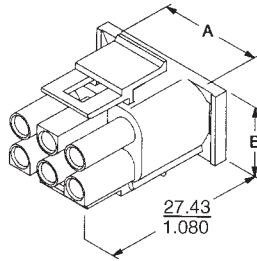
Features and Benefits

- Systems are intermateable, intermountable and interchangeable with industry standard versions
- Tested to ensure industry compatibility

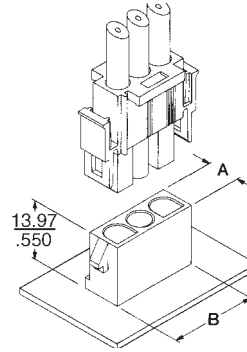
- Positive lock
- Fully isolated contacts
- Housing will accept male or female terminals



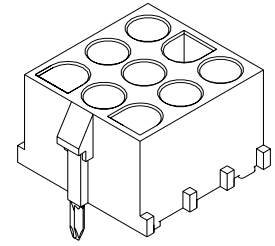
42022 Series



42021 Series



42002 Vertical Header Series



43255 Series
Vertical Polarization Header

ORDERING INFORMATION

Circuit I.D. Shown is Mating Side of Plug Wire Side of Cap									
Circuits		1	2	3	4	6	9	12	15
Current (max.)*		13.5	13.5	13.5	13.5	11	11	11	11
Voltage (max.)*		600	600	600	600	600	600	600	600
Plug Housing - 42021 Series									
UL 94V-2 (White)		50-84-1010	50-84-1020	50-84-1030	50-84-1040	50-84-1060	50-84-1090	50-84-1120	50-84-1150
UL 94V-0 (White)		50-84-1015	50-84-1025	50-84-1035	50-84-1045	50-84-1065	50-84-1095	50-84-1125	50-84-1155
Dimension A		7.37 (2.90)	7.62 (.300)	7.62 (.300)	7.62 (.300)	20.32 (.800)	20.32 (.800)	20.32 (.800)	20.32 (.800)
Dimension B		7.37 (2.90)	13.97 (.550)	20.32 (.800)	26.67 (1.050)	13.97 (.550)	20.32 (.800)	26.67 (1.050)	33.02 (1.300)
Cap Housing - 42022 Series									
UL 94V-2 (White)		50-84-2010	50-84-2020	50-84-2030	50-84-2040	50-84-2060	50-84-2090	50-84-2120	50-84-2150
UL 94V-0 (White)		50-84-2012	50-84-2022	50-84-2032	50-84-2042	50-84-2062	50-84-2092	50-84-2122	50-84-2152
Dimension A		9.65 (.380)	7.62 (.300)	7.62 (.300)	7.62 (.300)	20.32 (.800)	20.32 (.800)	20.32 (.800)	20.32 (.800)
Dimension B		9.65 (.380)	13.97 (.550)	20.32 (.800)	26.67 (1.050)	13.97 (.550)	20.32 (.800)	26.67 (1.050)	33.02 (1.300)
Panel Cutout Cf			8.64 (.340)	8.64 (.340)	8.64 (.340)	12.19 (.480)	12.19 (.480)	12.19 (.480)	12.19 (.480)
Panel Cutout D			2.41 (.095)	2.41 (.095)	2.41 (.095)	6.99 (.275)	6.99 (.275)	6.99 (.275)	6.99 (.275)
Panel Cutout E			6.35 (.250)	6.35 (.250)	6.35 (.250)	6.35 (.250)	6.35 (.250)	8.89 (.350)	8.89 (.350)
Panel Cutout F			13.46 (.530)	13.46 (.530)	13.46 (.530)	26.16 (1.030)	26.16 (1.030)	26.16 (1.030)	26.16 (1.030)
Panel Cutout G			14.35 (.565)	20.70 (.815)	27.05 (1.065)	14.35 (.565)	20.70 (.815)	27.05 (1.065)	33.40 (1.315)
Vertical Header Assembly - A-42002 Series (Contacts are Phosphor Bronze)									
UL 94V-2 (White)	Tin	Male	10-84-4020	10-84-4030	10-84-4040	10-84-4060	10-84-4090	10-84-4120	10-84-4150
		Female	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	Male	10-84-5020	10-84-5030	10-84-5040	10-84-5060	10-84-5090	10-84-5120	10-84-5150
		Female	10-84-5021	10-84-5031	10-84-5041	10-84-5061	10-84-5091	10-84-5121	10-84-5151
Vertical Header Assembly - A-43255 Series (Contacts are Phosphor Bronze)									
UL 94V-2 (White)	Tin	Male	43255-0113	43255-0121	43255-0129	43255-0137	43255-0145	43255-0153	43255-0161
		Female	43255-0115	43255-0123	43255-0131	43255-0139	43255-0147	43255-0155	43255-0163
UL 94V-0 (White)	Tin	Male	43255-0059	43255-0067	43255-0075	43255-0083	43255-0091	43255-0099	43255-0107
		Female	43255-0003	43255-0011	43255-0019	43255-0027	43255-0035	43255-0043	43255-0051
Dimension A			7.62 (.300)	7.62 (.300)	7.62 (.300)	20.32 (.800)	20.32 (.800)	20.32 (.800)	20.32 (.800)
Dimension B			13.97 (.550)	20.32 (.800)	26.67 (1.050)	13.97 (.550)	20.32 (.800)	26.67 (1.050)	33.02 (1.300)

*Ratings are per circuit, based on fully loaded housings

†Cap housing should be installed into panel in the same direction as the panel cutout is punched

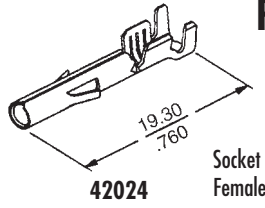
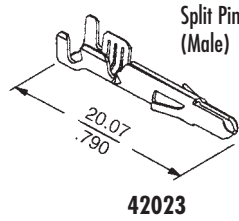
FEATURES AND SPECIFICATIONS

Features and Benefits

- Tested to ensure industry compatibility
- Available in brass or phosphor bronze
- Tin plating
- Can be terminated with Molex or commercially available terminating equipment
- Split pin (male) for reduced mating forces



2.13mm (.084") Diameter MLX™ Pin and Socket Power Connector System



ORDERING INFORMATION

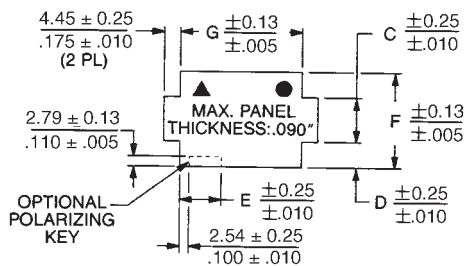
Wire Gauge	Insulation Diameter Min./Max.	Series Male / Female	Reel		Bag	
			Split Pin (Male)	Socket (Female)	Split Pin (Male)	Socket (Female)
STANDARD BRASS 0.30mm (.012")						
Tin Plated						
14-20 AWG	1.52 (.060) min. 3.30 (.130) max.	42023 / 42024	02-08-2003	02-08-1001	02-08-2004	02-08-1002
13-16 AWG	5.08 (.200) max.	36536 / 36535	36536-0001	36535-0001	36536-0002	36535-0002
10-12 AWG	5.08 (.200) max.	36663 / 36664	36663-0001	36664-0001	36663-0002	36663-0002
PHOSPHOR BRONZE 0.30mm (.012")						
Tin Plated						
14-20 AWG	1.52 (.060) min. 3.30 (.130) max.	42023 / 42024	02-08-2005	02-08-1003	02-08-2006	02-08-1004

APPLICATION TOOLING

Wire Gauge	Series	FineAdjust™	T2 Terminating Die	Hand Tool	Extraction Tool
14-16	36536 / 36535	63863-3000	63853-3000	N/A	11-01-0168
10-12	36663 / 36664	63801-5900	63841-6100	63811-4700	11-01-0168
14-16	42023 / 42024	63866-3000	63856-3000	63811-3500	11-01-0168
16-20		63866-3100	63865-3100		

MOUNTING INFORMATION

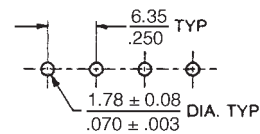
Cap Panel Cutout (Refer to Order Chart for dimensions)



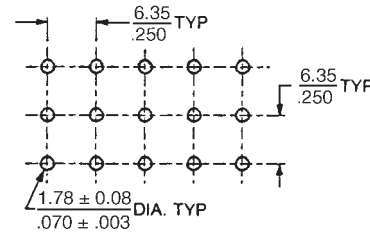
- ▲ - Circuit #1 location when using polarizing key option with 2, 3, and 4 circuit housings.
- - Circuit #1 location when using polarizing key option with 6, 9, 12 and 15 circuit housings.

Note: Cap Housing should be installed into panel in the same direction as the panel cutout is punched.

Vertical Header PCB Layout Dimensions



2, 3, and 4 Circuit Header Assemblies



6, 9, 12 and 15 Circuit Header Assemblies

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