MLX™
2.13MM (.084") DIAMETER
Pin and Socket Power Connector System
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.

### 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
- Slit pin design of male terminals

### Benefit
- The caps and plugs will mate together in one alignment
- Improves connector reliability
- Better insulation and protects the contacts
- 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

* 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

MLX™ PIN AND SOCKET POWER CONNECTOR SYSTEM

Vertical Polarization
Header in Glow Wire Compliant Material

Crimp Housing Plug

Pin and Socket Receptacle

Housing Temperature Index 105°C for Standard Housing

TERMINAL TEMPERATURE VERSUS CURRENT FOR BRASS TERMINALS

+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™ Current Derating

TERMINAL TEMPERATURE VERSUS CURRENT FOR BRASS TERMINALS

Panel Retention Strength: 75 lbs. (34.1 Kg) min.
Positive Latch Retention Strength: 35 lbs. (15.9 Kg) min.

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.
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Operating Temperature: -55°C – 105°C

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MLX™ PIN AND SOCKET POWER CONNECTOR SYSTEM

Vertical Polarization
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Housing Temperature Index 105°C for Standard Housing

TERMINAL TEMPERATURE VERSUS CURRENT FOR BRASS TERMINALS

+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.
**Ordering Information**

### WIRE TO WIRE SYSTEM

**Plug Housing - Series 42021**

<table>
<thead>
<tr>
<th>Circuits</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>9</th>
<th>12</th>
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<tr>
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<tr>
<td>UL 94V-2 (Natural)</td>
<td>366640001</td>
<td>366640002</td>
<td>366640003</td>
<td>366640004</td>
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<tr>
<td>UL 94V-0 (White)</td>
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<td>366640011</td>
<td>366640012</td>
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<td>366640015</td>
<td>366640016</td>
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<td></td>
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<tr>
<td>UL 94V-2 (Black)</td>
<td>366640100</td>
<td>366640101</td>
<td>366640102</td>
<td>366640103</td>
<td>366640104</td>
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**Plug Housing - Series 36643**

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<tr>
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<tr>
<td>UL 94V-2 (Gray Wire Compliant)</td>
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<tr>
<td>UL 94V-0 (White)</td>
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<td>UL 94V-2 (Black)</td>
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**Receptacle Housing - Series 42022**

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**Receptacle Housing - Series 36644**

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### WIRE TO BOARD SYSTEM

**Vertical Header - Series 42002 (Contacts are Phosphor Bronze)**

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<th>Housing</th>
<th>Plating</th>
<th>Terminal</th>
<th>Part Numbers</th>
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<tr>
<td>UL 94V-2 (Natural)</td>
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<td>Pin</td>
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<td>UL 94V-0 (White)</td>
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<td>Pin</td>
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**Vertical Header With Polarization - Series 43255 (Contacts are Phosphor Bronze)**

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<td>UL 94V-0 (White)</td>
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### Male Terminals - Split Pin Crimp Terminal

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<th>Plating</th>
<th>Wire Size AWG</th>
<th>Insulation Diameter</th>
<th>Packaging</th>
<th>Use With</th>
<th>Mates With</th>
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<tr>
<td>42023</td>
<td>Brass</td>
<td>Tin</td>
<td>14 - 20</td>
<td>1.52 - 3.10 mm (0.06 - 0.13 inches)</td>
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### Female Terminals - Socket Crimp Terminal

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<th>Wire Size AWG</th>
<th>Insulation Diameter</th>
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<th>Use With</th>
<th>Mates With</th>
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<tbody>
<tr>
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<td>Tin</td>
<td>14 - 20</td>
<td>1.52 - 3.10 mm (0.06 - 0.13 inches)</td>
<td>2081001</td>
<td>2081002</td>
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Note: Contact Molex Global Product Manager for queries on part number developments.

www.molex.com/product/power/mlx.html

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