



## Quick Reference Guide

### Micro MATE-N-LOK Connector System

The Micro MATE-N-LOK 3 mm connector system offers wire-to-wire and wire-to-board connections with contacts on a 3 mm [.118] centerline and current ratings up to 5 Amps max. per line. Both single-row and dual-row configurations are available. Crimp, snap-in pin and receptacle contacts are used to terminate 30-18 [0.05-0.9 mm<sup>2</sup>] AWG wire with insulation diameters up to 1.52 mm. Plug and receptacle housings allow wire-to-wire and wire-to-panel configurations and header assemblies offer wire-to-board connections in vertical and right angle configurations. These IR reflow process compatible headers are available in through-hole and surface mount configurations with multiple board mount options.

#### FEATURES AND BENEFITS

- Wire-to-wire and wire-to-board pin and receptacle connector system
- Contacts are on 3 mm centerline spacing and are available in strip form or loose piece
- Panel mount or free-hanging versions
- Dual beam receptacle contact design for improved reliability
- PCB mount pin header assemblies available in both vertical and right angle styles and surface mount or through hole versions
- Available in low profile design (<4.7 mm)
- Discrete wire interconnect available in 2-12 position single row and 2-24 position dual row
- Housings available to accommodate 18 AWG wire in select circuits up to 6 position
- UL, CSA & VDE approved

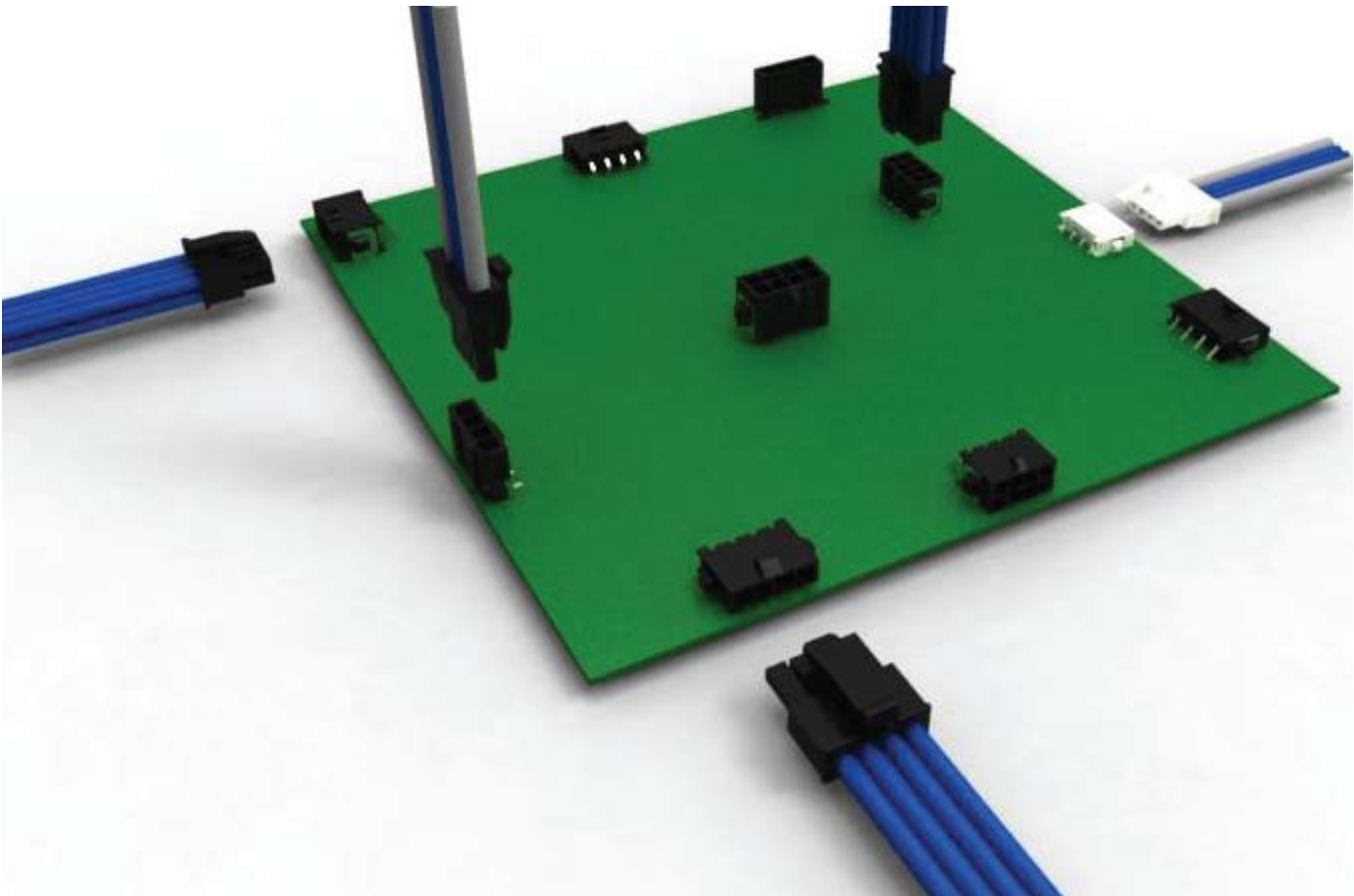
#### PRODUCT APPLICATIONS

- Household appliances
- Lighting
- Factory automation
- Data storage
- Gaming
- Vending
- Garage door openers
- Security systems

| CONTACTS                        |                                 |            |     |                            |             |         |          |          |                         |           |
|---------------------------------|---------------------------------|------------|-----|----------------------------|-------------|---------|----------|----------|-------------------------|-----------|
| Wire Size<br>Range AWG<br>(mm2) | Insulation<br>Diameter<br>Range | Receptacle | Pin | Contact Base Part No. (PN) |             | Plating |          |          | Application<br>Tooling* | Hand Tool |
|                                 |                                 |            |     | Strip Form                 | Loose Piece | Tin     | 15µ Gold | 30µ Gold |                         |           |
| 26-30<br>0.12-0.05              | .035-.060<br>0.89-1.52          | x          |     | 794607                     | 794611      | PN-1    | 1-PN-1   | 1-PN-2   | 680894-x                | 91502-1   |
| 20-24<br>0.50-0.20              | .035-.060<br>0.89-1.52          | x          |     | 794606                     | 794610      | PN-1    | 1-PN-1   | 1-PN-2   | 680893-x                | 91501-1   |
| 22-18<br>0.3-0.9                | .059-.110<br>1.50-2.79          | x          |     | 2008625                    |             | PN-1    | PN-2     | PN-3     | 1530194-1               |           |
| 26-30<br>0.12-0.05              | .035-.060<br>0.89-1.52          |            | x   | 794609                     | 794613      | 1-PN-0  | 1-PN-1   | 1-PN-2   | 1385377-x               | 91502-1   |
| 20-24<br>0.50-0.20              | .035-.060<br>0.89-1.52          |            | x   | 794608                     | 794612      | 1-PN-0  | 1-PN-1   | 1-PN-2   | 1385194-x               | 91501-1   |

\*For application tooling, use -1 for AMPOMATOR CLS Machine, -2 for AMP-O-LECTRIC Model K Terminator, -3 for AMP-O-LECTRIC Model G Terminator.

**Note:** To select a contact and plating, first select the contact base part number and add appropriate plating prefix and suffix. For example, for a loose piece receptacle with 30µ gold plating, select base part number 794610 and add the plating prefix and suffix for 30µ gold to obtain part number 1-794610-2.



## SINGLE ROW HEADERS

| Part No.<br>(PN) | Position | Single Row | Plating Style |          |          | Vertical | Right Angle | SMT | Thru-hole | SMT Hold Down | Metal Hold Down | Plastic Hold Down | Packing Type |             | Mating Half |
|------------------|----------|------------|---------------|----------|----------|----------|-------------|-----|-----------|---------------|-----------------|-------------------|--------------|-------------|-------------|
|                  |          |            | Tin           | 15µ gold | 30µ gold |          |             |     |           |               |                 |                   | Tray         | Tape & Reel |             |
| x-1445050-x      | 2-12     | x          | x             |          |          | x        |             |     | x         |               |                 | x                 | x            |             | x-1445022-x |
| x-1445051-x      | 2-12     | x          | x             |          |          | x        |             | x   | x         |               | x               |                   | x            |             | x-1445022-x |
| x-1445052-x      | 2-12     | x          | x             |          |          | x        |             | x   | x         |               | x               |                   |              | x           | x-1445022-x |
| x-1445053-x      | 2-12     | x          | x             |          |          | x        |             | x   |           | x             |                 |                   |              |             | x-1445022-x |
| x-1445054-x      | 2-12     | x          | x             |          |          |          | x           |     | x         |               | x               |                   | x            |             | x-1445022-x |
| x-1445055-x      | 2-12     | x          | x             |          |          |          | x           |     | x         |               |                 | x                 | x            |             | x-1445022-x |
| x-1445056-x      | 2-12     | x          | x             |          |          |          | x           | x   | x         |               | x               |                   |              | x           | x-1445022-x |
| x-1445057-x      | 2-12     | x          | x             |          |          |          | x           | x   |           | x             |                 |                   |              | x           | x-1445022-x |
| x-1445058-x      | 2-12     | x          | x             |          |          |          | x           | x   |           |               |                 | x                 |              | x           | x-1445022-x |
| x-1445084-x      | 2-12     | x          |               | x        |          | x        |             |     | x         |               |                 | x                 | x            |             | x-1445022-x |
| x-1445085-x      | 2-12     | x          |               | x        |          | x        |             | x   | x         |               | x               | x                 | x            |             | x-1445022-x |
| x-1445086-x      | 2-12     | x          |               | x        |          | x        |             | x   | x         |               | x               |                   |              | x           | x-1445022-x |
| x-1445087-x      | 2-12     | x          |               | x        |          | x        |             | x   |           | x             |                 |                   |              |             | x-1445022-x |
| x-1445088-x      | 2-12     | x          |               | x        |          |          | x           |     | x         |               | x               |                   | x            |             | x-1445022-x |
| x-1445089-x      | 2-12     | x          |               | x        |          |          | x           |     | x         |               |                 | x                 | x            |             | x-1445022-x |
| x-1445090-x      | 2-12     | x          |               | x        |          |          | x           | x   | x         |               | x               |                   |              | x           | x-1445022-x |
| x-1445091-x      | 2-12     | x          |               | x        |          |          | x           | x   |           | x             |                 |                   |              | x           | x-1445022-x |
| x-1445092-x      | 2-12     | x          |               | x        |          |          | x           | x   |           |               |                 | x                 |              | x           | x-1445022-x |
| x-1445093-x      | 2-12     | x          |               |          | x        | x        |             |     | x         |               |                 | x                 | x            |             | x-1445022-x |
| x-1445094-x      | 2-12     | x          |               |          | x        | x        |             |     |           |               |                 |                   | x            |             | x-1445022-x |
| x-1445095-x      | 2-12     | x          |               |          | x        | x        |             | x   | x         |               | x               |                   |              | x           | x-1445022-x |
| x-1445096-x      | 2-12     | x          |               |          | x        | x        |             | x   |           | x             |                 |                   |              |             | x-1445022-x |
| x-1445097-x      | 2-12     | x          |               |          | x        |          | x           |     | x         |               | x               |                   | x            |             | x-1445022-x |
| x-1445098-x      | 2-12     | x          |               |          | x        |          | x           |     | x         |               |                 | x                 | x            |             | x-1445022-x |
| x-1445099-x      | 2-12     | x          |               |          | x        |          | x           | x   | x         |               | x               |                   |              | x           | x-1445022-x |
| x-1445100-x      | 2-12     | x          |               |          | x        |          | x           | x   |           | x             |                 |                   |              | x           | x-1445022-x |
| x-1445101-x      | 2-12     | x          |               |          | x        |          | x           | x   |           |               |                 | x                 |              | x           | x-1445022-x |



## PART NUMBER EXPLANATION

|        |                    |
|--------|--------------------|
| 2-PN-2 | 2 Position Header  |
| 2-PN-3 | 3 Position Header  |
| 2-PN-4 | 4 Position Header  |
| 2-PN-5 | 5 Position Header  |
| 2-PN-6 | 6 Position Header  |
| 2-PN-7 | 7 Position Header  |
| 2-PN-8 | 8 Position Header  |
| 2-PN-9 | 9 Position Header  |
| 3-PN-0 | 10 Position Header |
| 3-PN-1 | 11 Position Header |
| 3-PN-2 | 12 Position Header |

**Note:** To select the complete part number:

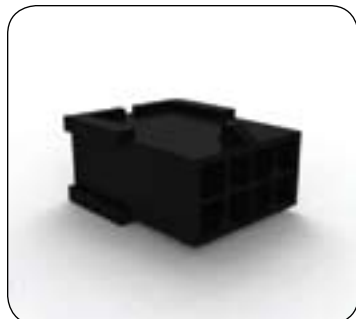
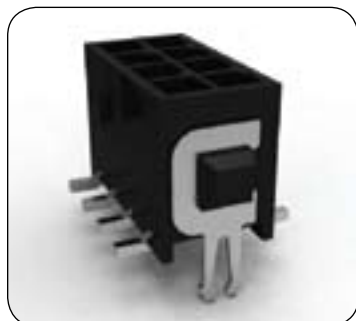
- Use 2- prefix for single row headers up to 9 positions.
  - Use 3- prefix for single row headers from 10 to 12 positions.
  - The -X suffix indicates number of positions.
- (Example: 2-1445050-5 would be a 5 position header.  
3-1445050-1 would be an 11 position header.)

## DOUBLE ROW HEADERS

| Part No.<br>(PN) | Position | Double<br>Row | Plating Style |          |          | Vertical | Right<br>Angle | SMT | Thru-<br>hole | SMT<br>Hold<br>Down | Metal<br>Hold<br>Down | Plastic<br>Hold<br>Down | Packing Type |                | Mating Half |
|------------------|----------|---------------|---------------|----------|----------|----------|----------------|-----|---------------|---------------------|-----------------------|-------------------------|--------------|----------------|-------------|
|                  |          |               | Tin           | 15µ Gold | 30µ Gold |          |                |     |               |                     |                       |                         | Tray         | Tape &<br>Reel |             |
| x-794618-x       | 2-24*    | x             | x             |          |          |          | x              |     | x             |                     |                       | x                       | x            |                | x-794617-x  |
| x-794619-x       | 2-24*    | x             |               | x        |          |          | x              |     | x             |                     |                       | x                       | x            |                | x-794617-x  |
| x-794620-x       | 2-24*    | x             |               |          | x        |          | x              |     | x             |                     |                       | x                       | x            |                | x-794617-x  |
| x-794621-x       | 2-24*    | x             | x             |          |          |          | x              | x   |               |                     |                       | x                       |              | x              | x-794617-x  |
| x-794622-x       | 2-24*    | x             |               | x        |          |          | x              | x   |               |                     |                       | x                       |              | x              | x-794617-x  |
| x-794623-x       | 2-24*    | x             |               |          | x        |          | x              | x   |               |                     |                       | x                       |              | x              | x-794617-x  |
| x-794624-x       | 2-24*    | x             | x             |          |          |          | x              | x   | x             |                     | x                     |                         |              | x              | x-794617-x  |
| x-794625-x       | 2-24*    | x             | x             |          |          |          | x              | x   | x             |                     | x                     |                         |              | x              | x-794617-x  |
| x-794626-x       | 2-24*    | x             |               |          | x        |          | x              | x   | x             |                     | x                     |                         |              | x              | x-794617-x  |
| x-794627-x       | 2-24*    | x             | x             |          |          |          | x              | x   |               | x                   |                       |                         |              | x              | x-794617-x  |
| x-794628-x       | 2-24*    | x             |               | x        |          |          | x              | x   |               | x                   |                       | x                       |              | x              | x-794617-x  |
| x-794629-x       | 2-24*    | x             |               |          | x        |          | x              | x   |               | x                   |                       | x                       |              | x              | x-794617-x  |
| x-794630-x       | 2-24*    | x             | x             |          |          | x        |                |     | x**           |                     |                       |                         | x            |                | x-794617-x  |
| x-794631-x       | 2-24*    | x             |               | x        |          | x        |                |     | x**           |                     |                       |                         | x            |                | x-794617-x  |
| x-794632-x       | 2-24*    | x             |               |          | x        | x        |                |     | x**           |                     |                       |                         | x            |                | x-794617-x  |
| x-794633-x       | 2-24*    | x             | x             |          |          | x        |                | x   |               |                     | x                     |                         |              | x              | x-794617-x  |
| x-794634-x       | 2-24*    | x             |               | x        |          | x        |                | x   |               |                     | x                     |                         |              | x              | x-794617-x  |
| x-794635-x       | 2-24*    | x             |               |          | x        | x        |                | x   |               |                     | x                     |                         |              | x              | x-794617-x  |
| x-794636-x       | 2-24*    | x             | x             |          |          | x        |                | x   |               | x                   |                       |                         |              | x              | x-794617-x  |
| x-794637-x       | 2-24*    | x             |               | x        |          | x        |                | x   |               | x                   |                       |                         |              | x              | x-794617-x  |
| x-794638-x       | 2-24*    | x             |               |          | x        | x        |                | x   |               | x                   |                       |                         |              | x              | x-794617-x  |
| x-794677-x       | 2-24*    | x             | x             |          |          |          | x              |     | x             |                     | x                     |                         | x            |                | x-794617-x  |
| x-794678-x       | 2-24*    | x             |               | x        |          |          | x              |     | x             |                     | x                     |                         | x            |                | x-794617-x  |
| x-784679-x       | 2-24*    | x             |               |          | x        |          | x              |     | x             |                     | x                     |                         | x            |                | x-794617-x  |
| x-794680-x       | 2-24*    | x             | x             |          |          | x        |                |     | x**           |                     | x                     |                         | x            |                | x-794617-x  |
| x-794681-x       | 2-24*    | x             |               | x        |          | x        |                |     | x**           |                     | x                     |                         | x            |                | x-794617-x  |
| x-794682-x       | 2-24*    | x             |               |          | x        | x        |                |     | x**           |                     | x                     |                         | x            |                | x-794617-x  |

\*Available in even positions only.

\*\*With retention feature on solder tail.



## PART NUMBER EXPLANATION

|        |                    |
|--------|--------------------|
| 3-PN-2 | 2 Position Header  |
| 3-PN-4 | 4 Position Header  |
| 3-PN-6 | 6 Position Header  |
| 3-PN-8 | 8 Position Header  |
| 4-PN-0 | 10 Position Header |
| 4-PN-2 | 12 Position Header |
| 4-PN-4 | 14 Position Header |
| 4-PN-6 | 16 Position Header |
| 4-PN-8 | 18 Position Header |
| 5-PN-0 | 20 Position Header |
| 5-PN-2 | 22 Position Header |
| 5-PN-4 | 24 Position Header |

**Note:** To select the complete part number:

- Use 3- prefix for dual row headers up to 8 positions.
  - Use 4- prefix for dual row headers from 10 to 18 positions.
  - Use 5- prefix for dual row headers from 20 to 24 positions.
  - The -X suffix indicates number of positions.
- (Example: 3-794630-4 would be a 4 position header.  
4-794630-4 would be a 14 position header. 5-794630-4 would be a 24 position header.)

## HOUSINGS

| No. of Circuits | Part No.    | Plug | Receptacle | Single Row | Double Row | Free Hanging | Panel Mount | With Mates                                         |
|-----------------|-------------|------|------------|------------|------------|--------------|-------------|----------------------------------------------------|
| 2-12            | x-1445049-x | x    |            | x          |            | x            |             | x-1445022-x                                        |
| 2-12            | x-1445048-x | x    |            | x          |            |              | x           | x-1445022-x                                        |
| 2-24*           | x-794616-x  | x    |            |            | x          | x            |             | x-794617-x                                         |
| 2-24*           | x-794615-x  | x    |            |            | x          |              | x           | x-794617-x                                         |
| 2-12            | x-1445022-x |      | x          | x          |            |              |             | x-1445049-x, x-1445048-x<br>All single row headers |
| 2-24*           | x-794617-x  |      | x          |            | x          |              |             | x-794616-x, x-794615-x,<br>All double row headers  |

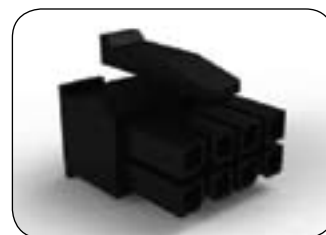
**Note:** Use the prefix and suffix to indicate position size. (Example: 794617-2 would be a 2 position housing and 2-794617-4 would be a 24 position housing.)

## SELECT 18 AWG RECEPTACLE HOUSINGS

| No. of Position | Part No. <sup>1</sup> | 18 AWG Circuits <sup>2</sup> | Black | Top Latch | Side Latch |
|-----------------|-----------------------|------------------------------|-------|-----------|------------|
| 2               | 2008570-2             | 1, 2                         | x     |           | x          |
| 3               | 2008570-3             | 1, 3                         | x     |           | x          |
| 4               | 2008570-4             | 1, 4                         | x     |           | x          |
| 5               | 2008570-5             | 1, 3, 5                      | x     |           | x          |
| 6               | 2008570-6             | 1, 3, 6                      | x     |           | x          |
| 2               | 2008571-2             | 1, 2                         | x     | x         |            |
| 3               | 2008571-3             | 1, 3                         | x     | x         |            |
| 4               | 2008571-4             | 1, 4                         | x     | x         |            |
| 5               | 2008571-5             | 1, 3, 5                      | x     | x         |            |
| 6               | 2008571-6             | 1, 3, 6                      | x     | x         |            |

**Notes:** 1. For natural color add 1- prefix to base part number.

2. Remaining circuits accommodate 20 AWG wire or smaller using standard contacts.



## LOW PROFILE RECEPTACLE HOUSINGS

| Positions | Color & Part No. |           |
|-----------|------------------|-----------|
|           | Natural          | Black     |
| 2         | 2029102-2        | 2029047-2 |
| 3         | 2029102-3        | 2029047-3 |
| 4         | 2029102-4        | 2029047-4 |

## LOW PROFILE RIGHT ANGLE SURFACE MOUNT

| Positions | Color & Part No. |           |
|-----------|------------------|-----------|
|           | Natural          | Black     |
| 2         | 2029104-2        | 2029030-2 |
| 3         | 2029104-3        | 2029030-3 |
| 4         | 2029104-4        | 2029030-4 |



## ADDITIONAL CONNECTOR KITS AVAILABLE

| Kit Part No. | Kit Description                                                                                      |
|--------------|------------------------------------------------------------------------------------------------------|
| 2-2110852-2  | Micro MATE-N-LOK Single Row Plug and Receptacle Connector Kit                                        |
| 2-2110852-3  | Micro MATE-N-LOK Dual Row Plug and Receptacle Connector Kit                                          |
| 2-2110852-4  | Micro MATE-N-LOK Through Hole Single Row Vertical Header and Receptacle Connector Kit                |
| 2-2110852-5  | Micro MATE-N-LOK Through Hole Single Row Right Angle Header and Receptacle Connector Kit             |
| 2-2110852-6  | Micro MATE-N-LOK Through Hole Dual Row Vertical Header and Receptacle Connector Kit                  |
| 2-2110852-7  | Micro MATE-N-LOK Through Hole Dual Row Right Angle Header and Receptacle Connector Kit               |
| 2-2110852-8  | Micro MATE-N-LOK Surface Mount Single Row Right Angle Header and Receptacle Connector Kit            |
| 2-2110852-9  | Micro MATE-N-LOK Deluxe Single and Dual Row Vertical and Right Angle Header, Plug and Receptacle Kit |

## Questions that will help you better select the product that you need:

### What are the current and voltage requirements for your application?

The Micro MATE-N-LOK 3 mm connector system has a maximum current rating of 5 Amps per line and is rated for 250 Volts AC/DC.

### What are the wire type and size requirements?

The Micro MATE-N-LOK 3 mm connector system contacts are approved for use with 22-18 [0.3-0.9], 24-20 [0.2-0.6] and 30-26 [0.05-0.15] AWG wire with a maximum insulation diameter of .110 [2.79].

### What are the number of positions?

The Micro MATE-N-LOK 3 mm connector system is available in 2-12 position single row and 2-24 position dual row configurations on a 3.0 mm pitch.

### What are the operating temperature requirements?

The Micro-MATE-N-LOK 3 mm connector system has a maximum operating temperature of 105°C. For more information regarding operating temperatures refer to Product Specification 108-1836.

### What packaging types are offered for headers and housings?

The Micro MATE-N-LOK 3 mm connector system offers tape and reel packaging for surface mount headers, tray packaging for thru-board headers and bulk packaging for all receptacle and plug housings.

### What is the benefit of choosing low-profile receptacle housings?

The Micro MATE-N-LOK 3 mm connector system offers a low profile receptacle housing for applications that need to meet minimal height requirements. This low profile design offers a mated height of only 4.7 mm and is available in 2, 3 and 4 positions, in black or natural color.

### What is the benefit of using an 18 AWG select circuit receptacle housing?

The Micro MATE-N-LOK 3 mm connector system offers a special 18 AWG wire-to-board select circuit housing for low voltage lighting applications. Designed to accommodate 18 AWG UL1007 wire in select circuits of the 2, 3, 4, 5 and 6 position housings, this product is ideal to minimize millivolt drops on long wire runs sometimes required by low voltage conventional and solid state lighting.

## FOR MORE INFORMATION

### TE Technical Support Center

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Part numbers in this brochure are RoHS Compliant\*, unless marked otherwise.

\*as defined [www.te.com/leadfree](http://www.te.com/leadfree)

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