

## **MICRO MATE-N-LOK CONNECTOR SYSTEM**

## Quick Reference Guide

The Micro MATE-N-LOK 3 mm connector system offers wire-to-wire and wire-to-board connections with contacts on a 3 mm (0.118) 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 mm²) 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)</li>
- 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 and VDE approved

## **PRODUCT APPLICATIONS**

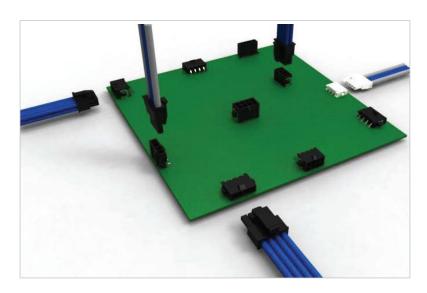
- Household appliances
- Lighting
- Factory automation
- Data storage
- Gaming
- Vending
- Garage door openers
- Security systems

## **CONTACTS**

Wire Size Range	Insulation	Dagantagla	Pin		se Part No. N)		Plating		Application	Hand Tool	
AWG (mm²)	Diameter Range	Receptacle	Pin	Strip Form	Loose Piece	Tin	15µ Gold	30μ Gold	Tooling*	Hand 1001	
26-30 0.12-0.05	.035060 0.89-1.52	X	-	794607	794611	PN-1	1-PN-1	1-PN-2	2151142-1	91502-1	
20-24 0.50-0.20	.035060 0.89-1.52	X	-	794606	794610	PN-1	1-PN-1	1-PN-2	2151022-1	91501-1	
22-18 0.3-0.9	.059110 1.50-2.79	х	-	2008625	-	PN-1	PN-2	PN-3	2266495-1	2217299-1 (18AWG)	
26-30 0.12-0.05	.035060 0.89-1.52	-	Х	794609	794613	1-PN-0	1-PN-1	1-PN-2	2836146-1	91502-1	
20-24 0.50-0.20	.035060 0.89-1.52	-	Х	94608	794612	1-PN-0	1-PN-1	1-PN-2	2151616-1	91501-1	

<sup>\*</sup> For application tooling, see 114-13000 for AMPOMATOR CLS Machine, AMP-O-LECTRICC Model K Terminator and AMP-O-LECTRIC Model GTerminator.

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



## **SINGLE ROW HEADERS**

<del>2</del>			Pla	ating St	yle		Φ			Jown	Metal			feature Tail		:king /pe	<b>-</b>
Part No. (PN)	Position	Single Row	Tin	15µ gold	30µ gold	Vertical	Right Angle	SMT	Thruhole	SMT Hold Down	Thru-hole Metal Hold Down	Plastic Hold Down	Kapton	Retention feature on Solder Tail	Tray	Tape and Reel	Mating Half
x-1445050-x	2-12	X	Х			Х			X			X		X	X		x-1445022-x
x-1445051-x	2-12	×	Х			X			X		X				X		x-1445022-x
x-1445052-x	2-12	X	Х			X		Х			Х		Х			X	x-1445022-x
x-1445053-x	2-12	X	Х			X		Х		X			Х			Х	x-1445022-x
x-1445054-x	2-12	X	Х				Х		Х		Х				X		x-1445022-x
x-1445055-x	2-12	X	Х				X		X			X			X		x-1445022-x
x-1445056-x	2-12	X	Х				Х	Х			Х					Х	x-1445022-x
x-1445057-x	2-12	X	X				×	X		X						X	x-1445022-x
x-1445084-x	2-12	X		X		×			Х			X		X	X		x-1445022-x
x-1445085-x	2-12	×		×		×			Х		Х				×		x-1445022-x
x-1445086-x	2-12	X		X		X					Х		Х			х	x-1445022-x
x-1445087-x	2-12	Х		X		Х				Х			Х			х	x-1445022-x
x-1445088-x	2-12	X		X			×		Х		Х				Х		x-1445022-x
x-1445089-x	2-12	×		×			×		Х			×			Х		x-1445022-x
x-1445090-x	2-12	X		X			Х	Х			Х					х	x-1445022-x
x-1445091-x	2-12	Х		Х			×	Х		Х						Х	x-1445022-x
x-1445093-x	2-12	×			×	×			Х			×		Х	Х		x-1445022-x
x-1445094-x	2-12	X			×	×			Х		Х				Х		x-1445022-x
x-1445095-x	2-12	X			X	Х		Х			Х		Х			х	x-1445022-x
x-1445096-x	2-12	×			×	×		X		Х			Х			х	x-1445022-x
x-1445097-x	2-12	×			×		Х		Х		Х				Х		x-1445022-x
x-1445098-x	2-12	×			×		х		Х			×			Х		x-1445022-x
x-1445099-x	2-12	×			×		Х	×			Х					х	x-1445022-x
x-1445100-x	2-12	Х			Х		×	Х		х						Х	x-1445022-x

## PART NUMBER EXPLANATION

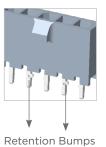
2-PN-2	2 Position Header
2-PN-3	3 Position Header
2-PN-4	4 Position Header
2-PN-5	5 Position Header
2-PN-6	6 Position Header
2-PN-7	7 Position Header
2-PN-8	8 Position Header
2-PN-9	9 Position Header
3-PN-0	10 Position Header
3-PN-1	11 Position Header
3-PN-2	12 Position Header

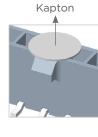
Note: To select the complete part number,

- 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**

- 		>	Pla	ating Sty	yle		o o			Jown	Down	d Down		eature ail		king pe	
Part No. (PN)	Position	Double Row	Tin	15µ gold	30µ gold	Vertical	Right Angle	SMT	Thruhole	SMT Hold Down	Metal Hold	Plastic Hold Down	Kapton	Retention feature on Solder Tail	Tray	Tape and Reel	Mating Half
x-794618-x	2-24	X	X				X		Х			X			Х		x-794617-x
x-794619-x	2-24	X		X			X		Х			X			Х		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-794617-x
x-794624-x	2-24	X	×				X	×			×					×	x-794617-x
x-794625-x	2-24	X		X			X	X			X					X	x-794617-x
x-794626-x	2-24	Х			X		X	Х			X					×	x-794617-x
x-794627-x	2-24	Х	X				X	Х		Х						×	x-794617-x
x-794628-x	2-24	X		X			X	×		×						×	x-794617-x
x-794629-x	2-24	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			Х					X	×		x-794617-x
x-794632-x	2-24	X			X	X			Х					Х	×		x-794617-x
x-794633-x	2-24	X	X			X		Х			X		X			X	x-794617-x
x-794634-x	2-24	Х		Х		X		Х			Х		×			X	x-794617-x
x-794635-x	2-24	X			X	X		×			×		×			×	x-794617-x
x-794636-x	2-24	X	X			X		X		X			X			X	x-794617-x
x-794637-x	2-24	X		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	Х		X			Х		Х		Х				Х		x-794617-x
x-794679-x	2-24	Х			Х		Х		Х		Х				Х		x-794617-x
x-794680-x	2-24	Х	×			×			×		×			×	×		x-794617-x
x-794681-x	2-24	Х		×		Х			Х		Х			×	Х		x-794617-x
x-794682-x	2-24	Х			Х	Х			Х		х			×	Х		x-794617-x

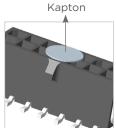
## PART NUMBER EXPLANATION

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

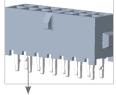
Note: To select the complete part number,

- 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 positio header.)









Retention Bumps

## **HOUSINGS**

No. of Circuits	Part No.	Plug	Receptacle	Single Row	Double Row	Free Hanging	Panel Mount	With Mates	Terminals
2-12	x-1445049-x	X		×		×		x-1445022-x	x-794608-x
2-12	x-1445048-x	Х		X			×	x-1445022-x	x-794609-x
2-24*	x-794616-x	X			×	X		x-794617-x	x-794612-x
2-24*	x-794615-x	X			×		×	x-794617-x	x-794613-x
2-12	x-1445022-x		×	×				x-1445049-x, x-1445048-x All single row headers	x-794606-x x-794607-x
2-24*	x-794617-x		х					x-794616-x, x-794615-x, All double row headers	x-794610-x x-794611-x 2008625-x

#### 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)
- · Receptacle terminals mate in the Receptacle housings and Pin terminals mate in the Plug housings

## **SELECT 18 AWG RECEPTACLE HOUSINGS**

No. of Position	Part No	18 AWG Circuits	Black	Top Latch	Side Latch
2	2008570-2	1, 2	X		Х
3	2008570-3	1, 3	Х		Х
4	2008570-4	1, 4	Х		Х
5	2008570-5	1, 3, 5	X		Х
6	2008570-6	1, 3, 6	X		Х
2	2008571-2	1, 2	X	X	
3	2008571-3	1, 3	X	×	
4	2008571-4	1, 4	X	X	
5	2008571-5	1, 3, 5	X	×	
6	2008571-6	1, 3, 6	X	Х	









#### Notes:

- For natural color add 1- prefix to base part number
- Remaining circuits accommodate 20 AWG wire or smaller using standard contacts

# LOW PROFILE RECEPTACLE HOUSING

No. of	Color and	Part No.				
Position	Natural	Black				
2	2029102-2	2029047-2				
3	2029102-3	2029047-3				
4	2029102-4	2029047-4				

# LOW PROFILE RIGHT ANGLE SURFACE MOUNT HEADERS

No. of	Color and	Part No.				
Position	Natural	Black				
2	2029104-2	2029030-2				
3	2029104-3	2029030-3				
4	2029104-4	2029030-4				

## **VDE APPROVED CONNECTORS**

No. of Circuits	Part Number	Plug	Receptacle	Single Row	Double Row	Free Hanging	Panel Mount	With Mates	Terminals
2 to 4	2315758-x	Х			Х		Х	2315744-x	x-794608-x, x-794609-x, x-794612-x, x-794613-x
2 to 4	2315759-x	Х			Х	X		2315744-x	x-794608-x, x-794609-x, x-794612-x, x-794613-x
6 to 10	3-794615-x	Х			Х		Х	x-794617-x	x-794608-x, x-794609-x, x-794612-x, x-794613-x
6 to 10	3-794616-x	Х			Х	X		x-794617-x	x-794608-x, x-794609-x, x-794612-x, x-794613-x
2, 3 and 4	2315785-x	Х		X		Х		2315752-x	x-794608-x, x-794609-x, x-794612-x, x-794613-x
2, 3 and 4	2315786-x	Х		X			Х	2315752-x	x-794608-x, x-794609-x, x-794612-x, x-794613-x
2 to 4	2315744-x		X		х			2315758-x, 2315759-x	x-794606-x, x-794607-x, x-794610-x, x-794611-x, 2008625-x
6 to 10	3-794617-x		Х		х			x-794615-x, x-794616-x	x-794606-x, x-794607-x, x-794610-x, x-794611-x, 2008625-x
2, 3 and 4	2315752-x		×	×				2315785-x, 2315786-x	x-794606-x, x-794607-x, x-794610-x, x-794611-x, 2008625-x

#### Note:

- Use the suffix -6 (6 position housing), -8 (8 position housing) or -0 (10 position housing)
- These connectors have keying by position size different of the standard receptacle and plug connectors

## **ADDITIONAL HEADERS**

oer.	uits	*	, M	I	Plating	g		<u> </u>			Down	I Down	d Down		feature Tail		kaging Type	<del>-</del> -
Part Number	Nº of Circuits	Single Row	Double Row	Ţ	15µ Gold	30µ Gold	Vertical	Right Angle	SMT	Thru-hole	SMT Hold	Metal Hold Down	Plastic Hold	Kapton	Retention on Solder	Tray	Tape & Reel	Mating Half
x-1586835-x	12		х			Х	Х		Х		Х			Х			×	x-794617-x
x-1586842-x	2 to 8, 12, 16, 20		Х	Х			Х		Х		Х			Х			Х	x-794617-x
x-1740655-x	2, 4, 24		Х	Х				Х		Х		Х						x-794617-x
x-2029031-x	4	х		Х			Х		Х		Х						×	x-1445022-x
x-2029032-x	2	х				Х	Х		Х		Х			Х			×	x-1445022-x
2029033	3	х		Х			х			х			×		X	Х		x-1445022-x
2029037	4, 10	Х				Х	Х			х		Х				Х		x-1445022-x
2029076	2 to 5	Х		Х				Х	Х		Х						×	x-1445022-x
2029266	2 to 4	Х				Х		Х	Х		Х						Х	x-1445022-x
2029304	12		Х	Х			Х			Х					×		Х	x-794617-x
2315124	10 to 12		Х	Х			Х		Х			Х					Х	x-794617-x

### 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 0.110 (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.

#### te.com

AMP-O-LECTRIC, AMPOMATOR, MATE-N-LOK, TE Connectivity, TE Connectivity (logo) and Every Connection Counts are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

©2021 TE Connectivity. All Rights Reserved.

07/21 Original

#### TE TECHNICAL SUPPORT CENTER

+1 (800) 522-6752 USA: Canada: +1 (905) 475-6222 Mexico: +52 (0) 55-1106-0800 Latin/S. America: +54 (0) 11-4733-2200 +49 (0) 6251-133-1999 Germany: UK. +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015

## **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Crimpers / Crimping Tools category:

Click to view products by TE Connectivity manufacturer:

Other Similar products are found below:

010-0096 M225201-06 M225202-37 6-1579015-5 CT150-6-RH07 622-6441LF M322 6-304052-1 63456-0054 63484-3701 63800-8355 63819-1875 63819-2875 63819-4475 63823-3475 63827-5375 64001-0975 64001-4175 64005-0175 662903-2 690602-6 7-1579001-9 7-23471-1 762637-1 808714-1 811242-5 999-50-020083 1-21002-3 1-21002-7 12085270 1-21002-6 1-21113-6 1-22548-4 125442-1 DCE.91.073.BVC DCE.91.090.3MVM DCE.91.130.5MVU DCE.91.202.BVCM 1338300-1 1-354003-0 1338301-1 DF62/RE-MD 142321 1456088-1 1490794-1 1-45804-6 1490357-2 1490357-3 AX100749 1-59619-7