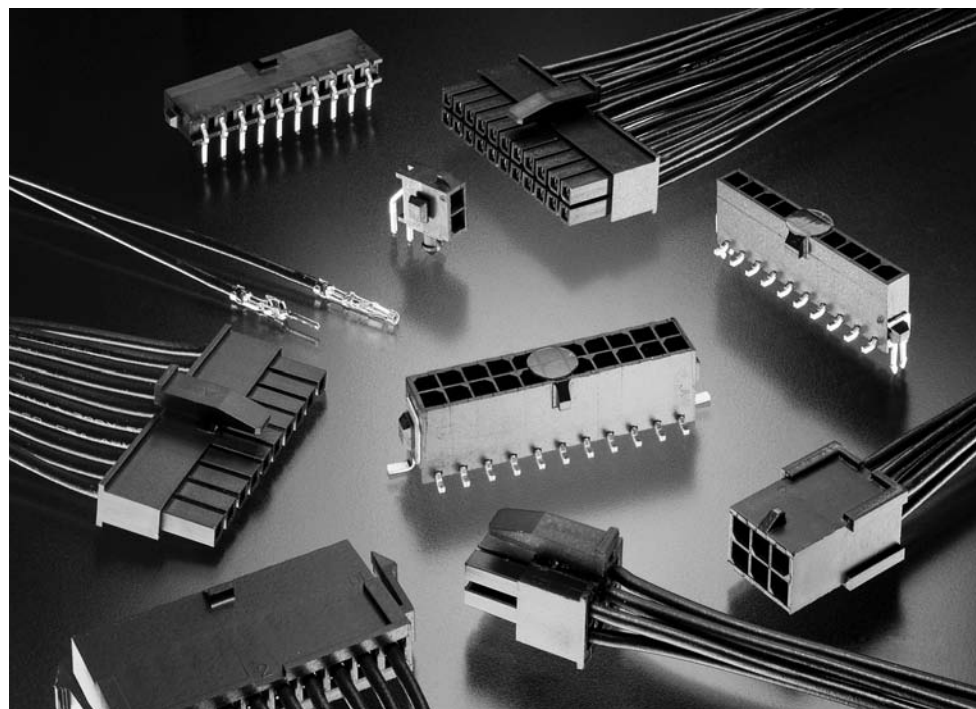


Micro MATE-N-LOK 3 mm Connector System

Product Facts

- Wire-to-wire and wire-to-board pin and receptacle connector system
- Contacts are on 3 mm [.118] centerline spacing
- 2-12 contact positions – single row
- 2-24 contact positions – dual row
- Panel mount or free-hanging wire-to-wire configurations
- Dual beam contact design for reliable interconnection
- Contacts accept 24-20 [0.2-0.6] and 30-26 [0.05-0.15] AWG wire with insulation diameter of .060 [1.52] maximum
- Contacts available in strip form or loose piece
- Pcb mount pin header assemblies in both vertical and right-angle styles
- Surface mount or through-hole pcb pin header attachment
- Pcb headers are IR reflow process compatible
- Recognized under the Component Program of Underwriters Laboratories Inc.  to US and Canadian Standards, File No. E28476
- Passed Tests for VDE under Registration Number 40005280/Continuous Surveillance 



The Micro MATE-N-LOK 3 mm Connector System is a wire-to-wire and wire-to-board connector system with contacts on a 3 mm [.118] centerline. Both single-row and dual-row configurations are available. Crimp, snap-in pin and receptacle contacts are used to terminate 24-20 [0.2-0.6] and 30-26 [0.05-0.15] AWG wire. Plug and receptacle housings allow wire-to-wire and wire-to-panel configurations.

Header assemblies for wire-to-board interconnections include vertical and right-angle components. These IR reflow process compatible headers are available in through-hole and surface mount configurations.

Typical uses of the Micro MATE-N-LOK 3 mm Connector System include the appliance, instrumentation, industrial machinery, home equipment, and security system industries.

Technical Documents

Application Specification

114-13000 Micro MATE-N-LOK Connectors

Product Specification

108-1836 3 mm Micro MATE-N-LOK Connector

Performance Characteristics

Voltage Rating—250 vac

Current Rating—5 amp max. on 20 AWG wire

Contact Resistance—20 milliohms max. final

Dielectric Withstanding Voltage—1500 VAC

Insulation Resistance—1000 megohms min.

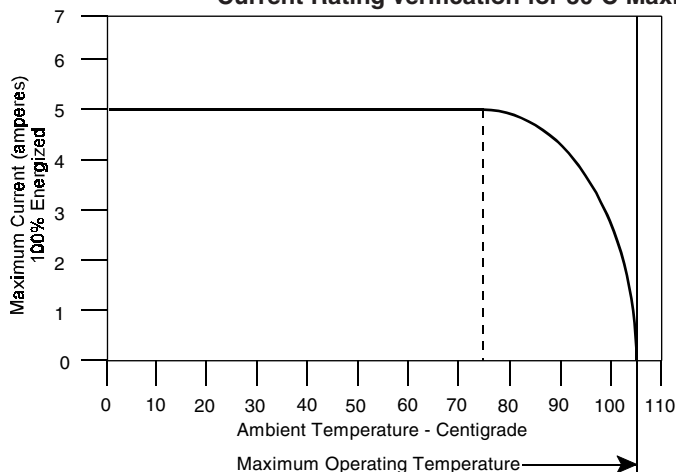
Operating Temperature—-40°C to +105°C

Mating Force—1.5lb [6.67N] max per contact

Micro MATE-N-LOK 3 mm Connector System (Continued)

Connector Application	19-21
Crimp, Snap-In Contacts	22
Receptacle Housings	
Single Row	23
Dual Row	24
Plug Housings	
Single Row, Free-Hanging	25
Single Row, Panel Mount	26
Dual Row, Free-Hanging	27
Dual Row, Panel Mount	28
Vertical Header Assemblies	
Low Profile Receptacle Housings,	
Right Angle Surface Mount Housings	29
Single Row, Through-Hole, with Retention Feature	
on Solder-tail and Polarization Feature to PCB	30
Single Row, Through-Hole, with Metal Through-Hole Hold-down	31
Single Row, Surface Mount, with Metal Through-Hole Hold-down	32
Single Row, Surface Mount, with Surface Mount Hold-down	33
Dual Row, Through-Hole, with Retention Feature on Solder-tail	34
Dual Row, Through-Hole, with Retention Feature	
on Solder-tail and Metal Through-Hole Hold-down	35
Dual Row, Surface Mount, with Metal Through-Hole Hold-down	36
Dual Row, Surface Mount, with Surface Mount Hold-down	37
Right-Angle Header Assemblies	
Single Row, Through-Hole, with Metal Through-Hole Hold-down	38
Single Row, Through-Hole, with Plastic Boardlock	39
Single Row, Surface Mount, with Metal Through-Hole Hold-down	40
Single Row, Surface Mount, with Surface Mount Hold-down	41
Single Row, Surface Mount, with Plastic Boardlock	42
Dual Row, Through-Hole, with Metal Through-Hole Hold-down	43
Dual Row, Through-Hole, with Plastic Boardlock	44
Dual Row, Surface Mount, with Metal Through-Hole Hold-down	45
Dual Row, Surface Mount, with Plastic Boardlock	46
Dual Row, Surface Mount, with Surface Mount Hold-down	47

Current Rating Verification for 30°C Maximum Temperature Rise 100% Energized



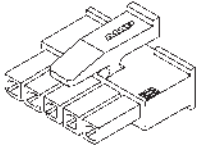
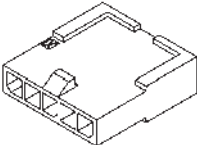
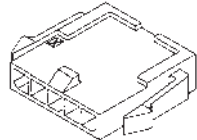
Number of Circuit Positions	Multiplication Factor	
	Wire Size (AWG)	
	28	20
2 to 6	0.40	1
8 to 20	0.40	0.85
22 to 24	0.36	0.85

To determine acceptable current carrying capacity for connector size and wire gage indicated, use the Multiplication Factor from the chart above and multiply it times the Base rated Current at the maximum ambient operating temperature shown in the current rating figure.

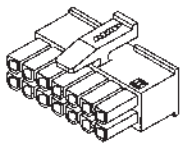
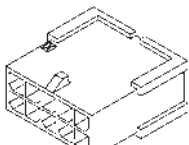
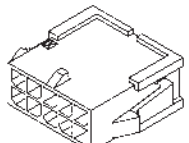
Micro MATE-N-LOK 3 mm Connector System (Continued)

Connector Application — Wire-to-Wire and Wire-to-Panel

Single Row

Receptacle		Plug	
Contact	Housing	Contact	Housing
 □-794606-□, □-794607-□, □-794610-□, □-794611-□ Page 22	 □-1445022-□ Page 23	 □-794608-□, □-794609-□, □-794612-□, □-794613-□ Page 22	 Free-Hanging □-1445049-□ Page 25
			 Panel Mount □-1445048-□ Page 26

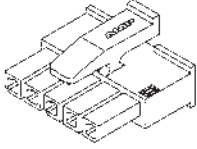
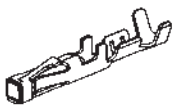
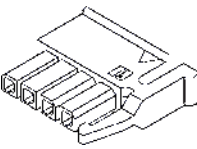
Dual Row

Receptacle		Plug	
Contact	Housing	Contact	Housing
 □-794606-□, □-794607-□, □-794610-□, □-794611-□ Page 22	 □-794617-□ Page 24	 □-794608-□, □-794609-□, □-794612-□, □-794613-□ Page 22	 Free-Hanging □-794616-□ Page 27
			 Panel Mount □-794615-□ Page 28

Micro MATE-N-LOK 3 mm Connector System (Continued)

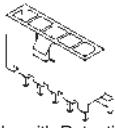
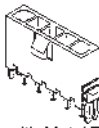
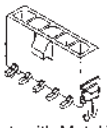
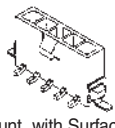
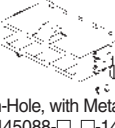
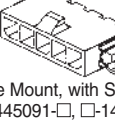
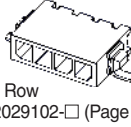
Connector Application — Wire-to-PCB

Single Row

Receptacle	
Contact	Housing
 □-794606-□, □-794607-□, □-794610-□, □-794611-□ (Page 22)	 □-1445022-□ (Page 23)
 □-794606-□, □-794607-□, □-794610-□, □-794611-□ (Page 29)	 □-2029047-□, □-2029102-□, □-2029030-□, □-2029104-□ (Page 29)

Low Profile, Single Row

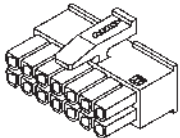
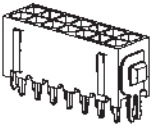
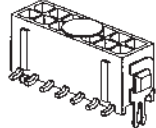
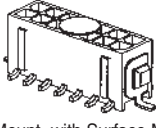
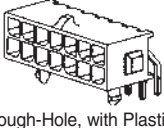
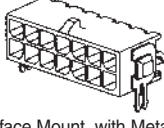
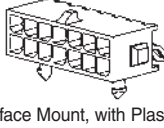
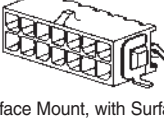
Header

 Vertical Through-Hole, with Retention Feature on Solder Tail and Polarization Feature to PCB □-1445050-□, □-1445084-□, □-1445093-□ (Page 30)
 Vertical Through-Hole, with Metal Through-Hole Hold-down □-1445051-□, □-1445085-□, □-1445094-□ (Page 31)
 Vertical Surface Mount, with Metal Through-Hole Hold-down □-1445052-□, □-1445086-□, □-1445095-□ (Page 32)
 Vertical Surface Mount, with Surface Mount Hold-down □-1445053-□, □-1445087-□, □-1445096-□ (Page 33)
 Right-angle, Through-Hole, with Metal Through-Hole Hold-down □-1445054-□, □-1445088-□, □-1445097-□ (Page 38)
 Right-angle, Through-Hole, with Plastic Boardlock □-1445055-□, □-1445089-□, □-1445098-□ (Page 39)
 Right-angle, Surface Mount, with Metal Through-Hole Hold-down □-1445056-□, □-1445090-□, □-1445099-□ (Page 40)
 Right-angle, Surface Mount, with Surface Mount Hold-down □-1445057-□, □-1445091-□, □-1445100-□ (Page 41)
 Right-angle, Surface Mount, and Plastic Boardlock □-1445058-□, □-1445092-□, □-1445101-□ (Page 42)
 Low Profile, Single Row □-2029030-□, □-2029102-□ (Page 29)

Micro MATE-N-LOK 3 mm Connector System (Continued)

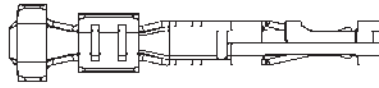
Connector Application — Wire-to-PCB

Dual Row

Receptacle			Header
Contact	Housing		
 □-794606-□, □-794607-□, □-794610-□, □-794611-□ (Page 22)	 □-794617-□ (Page 24)		 Vertical Through-Hole, with Retention Feature on Solder-tail and Optional Metal Through-Hole Hold-down □-794630-□, □-794631-□, □-794632-□, (Page 34) □-794680-□, □-794681-□, □-794682-□ (Page 35)
			 Vertical Surface Mount, with Metal Through-Hole Hold-down □-794633-□, □-794634-□, □-794635-□ (Page 36)
			 Vertical Surface Mount, with Surface Mount Hold-down □-794636-□, □-794637-□, □-794638-□ (Page 37)
			 Right-angle, Through-Hole, with Metal Through-Hole Hold-down □-794677-□, □-794678-□, □-794679-□ (Page 43)
			 Right-angle, Through-Hole, with Plastic Boardlock □-794618-□, □-794619-□, □-794620-□ (Page 44)
			 Right-angle, Surface Mount, with Metal Through-Hole Hold-down □-794624-□, □-794625-□, □-794626-□ (Page 45)
			 Right-angle, Surface Mount, with Plastic Boardlock □-794621-□, □-794622-□, □-794623-□ (Page 46)
			 Right-angle, Surface Mount, with Surface Mount Hold-down □-794627-□, □-794628-□, □-794629-□ (Page 47)

Micro MATE-N-LOK 3 mm Connector System (Continued)

Crimp, Snap-In Contacts



Material and Finish

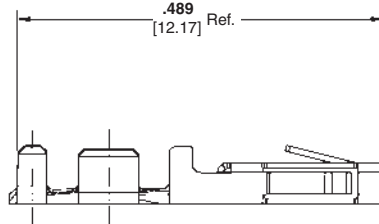
Receptacle — Phosphor Bronze

Plug — Brass

Plating A — .000100 (.000254) minimum bright tin entire stock over .000050 (.000127) minimum nickel entire stock

Plating B — .000015 (.000038) minimum gold in localized gold plate area. .000100 (.000254) minimum bright tin in localized tin plate area, both over .000050 (.000127) minimum nickel on entire stock

Plating C — .000030 (.000076) minimum gold in localized gold plate area. .000100 (.000254) minimum bright tin in localized tin plate area, both over .000050 (.000127) minimum nickel on entire stock

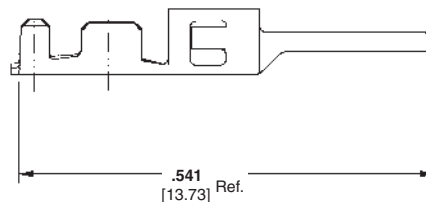
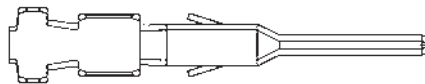


Receptacle Contacts

Wire Size Range AWG [mm ²]	Ins. Dia. Range	Finish	Contact Part Numbers		Tooling Part Numbers	
			Strip Form	Loose Piece	Applicator	Hand Tool
20-24 0.50 - 0.20	.035 - .060 0.89-1.52	Plating A	794606-1	794610-1	680893-□*	91501-1
		Plating B	1-794606-1	1-794610-1		
		Plating C	1-794606-2	1-794610-2		
26-30 0.12 - 0.05	.035 - .060 0.89-1.52	Plating A	794607-1	794611-1	680894-□*	91502-1
		Plating B	1-794607-1	1-794611-1		
		Plating C	1-794607-2	1-794611-2		

*1=AMPOMATOR CLS Machine, 2=AMP-O-LECTRIC Model K Terminator, 3=AMP-O-LECTRIC Model G Terminator

Note: All part numbers are RoHS Compliant.



Plug Contacts

Wire Size Range AWG [mm ²]	Ins. Dia. Range	Finish	Contact Part Numbers		Tooling Part Numbers	
			Strip Form	Loose Piece	Applicator	Hand Tool
20-24 0.50 - 0.20	.035 - .060 0.89-1.52	Plating A	1-794608-0	1-794612-0	1385194-□*	91501-1
		Plating B	1-794608-1	1-794612-1		
		Plating C	1-794608-2	1-794612-2		
26-30 0.12 - 0.05	.035 - .060 0.89-1.52	Plating A	1-794609-0	1-794613-0	1385377-□*	91502-1
		Plating B	1-794609-1	1-794613-1		
		Plating C	1-794609-2	1-794613-2		

*1=AMPOMATOR CLS Machine, 2=AMP-O-LECTRIC Model K Terminator, 3=AMP-O-LECTRIC Model G Terminator

Note: All part numbers are RoHS Compliant.

Related Product Data

Connectors used with:

Receptacle Contacts used with Receptacle Housings — pages 23-24

Plug Contacts used with Plug Housings — pages 25-28

Application Tooling — pages 207-210

Contact Extraction Tools

Part Number 843996-6 for Receptacle Contacts Part Number 1586344-1 for Plug Contacts

Micro MATE-N-LOK 3 mm Connector System (Continued)

Receptacle Housings

Single Row

Material

Nylon, Black
Flammability Rating—UL 94V-0

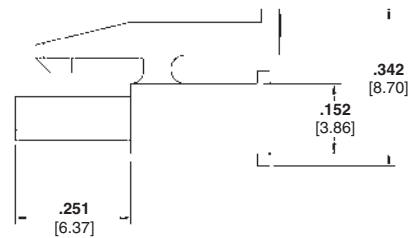
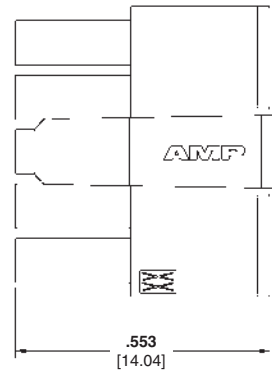
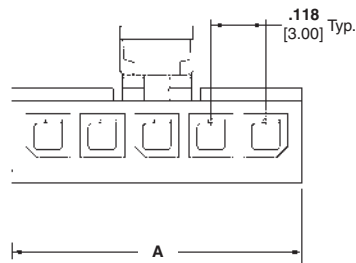
Related Product Data

Contacts:

Receptacle Contacts—page 22

Mateable Housings and Headers:

Single Row Plug Housings—
pages 25-26
Single Row Vertical Pin Header
Assemblies—pages 30-37
Single Row Right-Angle Pin Header
Assemblies—pages 38-47



Number of Circuits	Dimension A	Part Numbers
2	.276 7.00	1445022-2
3	.394 10.00	1445022-3
4	.512 13.00	1445022-4
5	.630 16.00	1445022-5
6	.748 19.00	1445022-6
7	.866 22.00	1445022-7
8	.984 25.00	1445022-8
9	1.102 28.00	1445022-9
10	1.220 31.00	1-1445022-0
11	1.339 34.00	1-1445022-1
12	1.457 37.00	1-1445022-2

Note: All part numbers are RoHS Compliant.

Micro MATE-N-LOK 3 mm Connector System (Continued)

Receptacle Housings (Continued)

Dual Row

Material

Nylon, Black
Flammability Rating—UL 94V-0

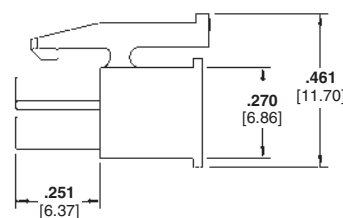
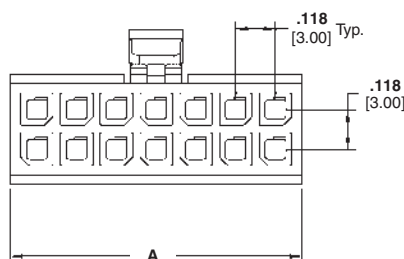
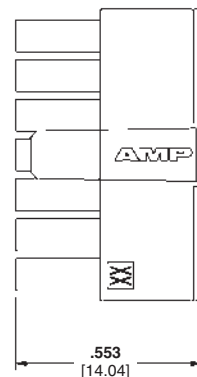
Related Product Data

Contacts:

Receptacle Contacts—page 22

Mateable Housings and Headers:

Dual Row Plug Housings—pages 27-28
Dual Row Vertical Pin Header Assemblies—pages 34-37
Dual Row Right-Angle Pin Header Assemblies—pages 43-47



Number of Circuits	Dimension A	Part Numbers
2	.157 4.00	794617-2
4	.276 7.00	794617-4
6	.394 10.00	794617-6
8	.512 13.00	794617-8
10	.630 16.00	1-794617-0
12	.748 19.00	1-794617-2
14	.866 22.00	1-794617-4
16	.984 25.00	1-794617-6
18	1.102 28.00	1-794617-8
20	1.220 31.00	2-794617-0
22	1.339 34.00	2-794617-2
24	1.457 37.00	2-794617-4

Note: All part numbers are RoHS Compliant.

Micro MATE-N-LOK 3 mm Connector System (Continued)

Plug Housings

Single Row, Free-Hanging

Material

Nylon, Black

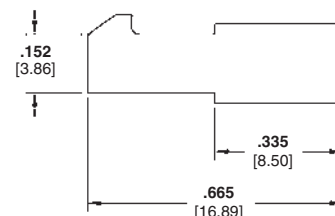
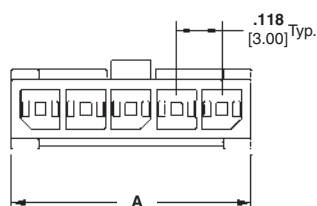
Flammability Rating—UL 94V-0

Related Product Data

Contacts:

Plug Contacts—page 22

Mateable Housings:

Single Row Receptacle Housings—
page 23


Number of Circuits	Dimension A	Part Numbers
2	.270 6.85	1445049-2
3	.388 9.85	1445049-3
4	.506 12.85	1445049-4
5	.624 15.85	1445049-5
6	.742 18.85	1445049-6
7	.860 21.85	1445049-7
8	.978 24.85	1445049-8
9	1.096 27.85	1445049-9
10	1.215 30.85	1-1445049-0
11	1.333 33.85	1-1445049-1
12	1.451 36.85	1-1445049-2

Note: All part numbers are RoHS Compliant.