

Universal MATE-N-LOK Connectors (Continued)

Universal MATE-N-LOK Connector Mating Combinations

Connector Part Number ⁷					Mating Connector Part Number										
Number of Circuits	Flammability Rating	Style	Plug Part Number ²	Cap Part Number ²	Plating	Vertical Pin ²			Vertical Socket ²			Right-Angle ²			
						Standard Tail	Standard Tail Polarized	Long Tail	Standard Tail	Standard Tail Polarized	Long Tail	Pin	Socket		
1		—	1-350867-0	770421-1	—	—	—	—	—	—	—	—	—		
			UL94V-0	350865-1	350866-1	—	—	—	—	—	—	—	—	—	
2	In-Line	—	1-480698-0 794814-1 ³	1-480699-0 794815-1 ³	Pre-tin	350428-1	641963-1	350582-1	350759-4	643411-1	350986-4	—	—		
					Duplex ¹	350428-4	641963-3	350582-4	350759-5	—	—	—	—		
			UL94V-0	In-Line	350777-1	350778-1	Pre-tin	350786-1	641964-1 1-641964-1 ⁵	350787-1	350824-1	643412-1	350831-1	1-350942-0	643226-1
							Duplex ¹	350786-3	641964-3	350787-3	350824-4	643412-3	—	3-350942-0	—
3	UL94V-2	In-Line ⁶	1-480700-0 794901-1 ³	1-480701-0 794900-1 ³	Pre-tin	350429-1	641965-1	350583-1	350760-4	643413-1	350987-4	—	—		
					Duplex ¹	350429-4	—	350583-4	350760-5	—	—	—	—		
4	UL94V-0	In-Line	350766-1	350767-1	Pre-tin	350789-1	641966-1 1-641966-1 ⁴	350790-1	350825-1	643414-1	350832-1	1-350943-0	643228-1		
					Duplex ¹	350789-3	—	350790-3	350825-4	643414-3	350832-4	3-350943-0	3-643228-0		
5	UL94V-2	In-Line	1-480702-0 794899-1 ³	1-480703-0 794707-1 ³	Pre-tin	350430-1	641967-1	350584-1	350761-4	643415-1	350988-4	1-350948-0	—		
					Duplex ¹	350430-4	—	350584-4	350761-5	—	350988-5	—	—		
6	UL94V-0	In-Line	350779-1	350780-1	Pre-tin	350792-1	641968-1	350793-1	350826-1	643416-1	350833-1	1-350944-0	643230-1		
					Duplex ¹	350792-3	—	350793-3	350826-4	—	350833-4	3-350944-0	3-643230-0		
7	UL94V-2	In-Line	1-480763-0	1-480764-0 ³ 794863-1 ³	Pre-tin	640466-1	643405-1	—	640467-1	—	—	1-350949-0	—		
					Duplex ¹	640466-3	—	—	640467-3	—	—	—	—		
8	UL94V-0	In-Line	350809-1	350810-1	Pre-tin	640900-1	643406-1	—	640901-1	—	—	1-350945-0	643232-1		
					Duplex ¹	640900-3	—	—	640901-3	—	3-350945-0	3-643232-0			
9	UL94V-2	In-Line	640585-1	926307-1	Pre-tin	641832-1	643407-1	—	—	—	—	640587-1	—		
					Duplex ¹	641832-3	—	—	—	—	—	—	—		
10	UL94V-0	In-Line	640581-1	926307-3	Pre-tin	641831-1	643408-1	—	770262-1	—	—	640583-1	643234-1		
					Duplex ¹	641831-3	—	—	770262-3	—	—	640583-3	3-643234-0		
11	UL94V-2	Matrix ⁶	1-480704-0 794535-1 ³ 794096-1 ⁵	1-480705-0 794536-1 ³	Pre-tin	350431-1	641969-1	350585-1	350762-4	643423-1	350989-4	—	—		
					Duplex ¹	350431-4	—	350585-4	350762-5	—	350989-5	—	—		
12	UL94V-0	Matrix	350715-1	350781-1	Pre-tin	350711-1	641970-1	350732-1	350827-1	643424-1	350834-1	—	—		
					Duplex ¹	350711-4	641970-3	350732-4	350827-4	643424-3	350834-4	—	—		
13	UL94V-2	In-Line	640586-1	926308-1	Pre-tin	641825-1	—	770143-1	—	—	—	—	—		
					Duplex ¹	—	—	—	—	—	—	—	—		
14	UL94V-0	In-Line	640582-1	926308-3	Pre-tin	641828-1	643410-1	—	—	—	—	640584-1	643236-1		
					Duplex ¹	—	643410-3	—	—	—	—	640584-3	3-643236-0		
15	UL94V-2	Matrix	1-480706-0 794537-1 ³	1-480707-0 794538-1 ³	Pre-tin	350432-1	641971-1	350586-1	350763-4	643425-1	350990-4	—	—		
					Duplex ¹	350432-4	641971-3	350586-4	350763-5	—	350990-5	—	—		
16	UL94V-0	Matrix	350720-1	350782-1	Pre-tin	350712-1	641972-1 1-641972-1 ⁴	350742-1	350828-1	643426-1	350835-1	—	—		
					Duplex ¹	350712-4	641972-3	350742-4	350828-4	643426-3	350835-4	—	—		
17	UL94V-2	In-Line	926302-1	926309-1	Pre-tin	—	—	—	—	—	—	—	—		
					Duplex ¹	—	—	—	—	—	—	—	—		
18	UL94V-0	In-Line	926302-3	926309-3	Pre-tin	—	—	—	—	—	—	—	—		
					Duplex ¹	—	—	—	—	—	—	—	—		
19	UL94V-2	Matrix	1-480708-0 794851-1 ³	1-480709-0 794727-1 ³	Pre-tin	350433-1	641973-1	350587-1	350764-4	—	350991-4	—	—		
					Duplex ¹	350433-4	—	350587-4	350764-5	—	350991-5	—	—		
20	UL94V-0	Matrix	350735-1	350783-1	Pre-tin	350713-1	641974-1 1-641974-1 ⁴	350737-1	350829-1	643428-1	350836-1	—	—		
					Duplex ¹	350713-4	641974-3	350737-4	350829-4	—	350836-4	—	—		
21	UL94V-2 ⁶	Matrix	1-480710-0 794546-1 ³	1-480711-0 794545-1 ³	Pre-tin	350434-1	641975-1	350588-1	350765-4	643429-1	350992-4	—	—		
					Duplex ¹	350434-4	—	350588-4	350765-5	—	—	—	—		
22	UL94V-0	Matrix	350736-1	350784-1	Pre-tin	350714-1	641976-1	350738-1	350830-1	643430-1	350837-1	—	—		
					Duplex ¹	350714-4	641976-4	350738-4	350830-4	—	350837-4	—	—		

¹Duplex Finish — Plated with .000030 [.000762] min. gold in mating area, matte tin on solder tail end over .000050 [.00127] min. nickel underplate on entire contact.

²Universal MATE-N-LOK Plug and Cap housings accept pin or socket contacts. Use the appropriate contacts in the Plug housing as required by the mating component.

³Housing material has 125°C temperature rating.

⁴Black in color.

⁵Tool Removable

⁶UV Resistant housing material available.

⁷European glow wire housing material available.

Note: All part numbers are RoHS Compliant.

Universal MATE-N-LOK Connectors (Continued)

Contacts

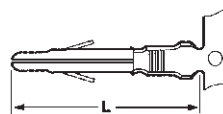
Solid pin diameter .084 [2.13]
Stock thickness .012 [.305] unless otherwise noted.
These contacts can be used in either Universal MATE-N-LOK Plug or Cap housings **only**.

Related Product Data

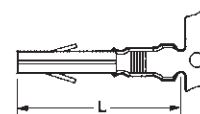
Product Specification
108-1031 Universal MATE-N-LOK Connectors

Application Specification
114-1010 Universal MATE-N-LOK Contacts

Performance Characteristics—
pages 169-170
Technical Documents— pages 169 and 205-206
Application Tooling— pages 207-210
Housings— page 174



Solid Pin



Socket

Wire Size Range AWG [mm ²]	Ins. Dia. Range	L Dim.		Material & Finish	Contact Part Numbers				HDM Applicator Part No.	Hand Tool Part No.
		Pin	Socket		Pin		Socket			
					Strip Form	Loose Piece	Strip Form	Loose Piece		
30-26 [.05-.12]	.032-.057 .813-1.45	.790 20.06	.760 19.30	Brass, Pre-tin	350924-1	770672-1	350925-1	770673-1	466616-2 ⁶ 466616-3 ⁶	58439-1
				Phos. Brz., Gold ²	350924-6	770672-6	350925-6	—		
24-18 [.2-.8]	.040-.100 1.02-2.54	.790 20.06	.760 19.30	Brass, Pre-tin	350561-1	350690-1	350851-1 350570-1 ¹	350689-1 ¹	466320-1 ⁶ 466320-2 ⁶ 466320-4 ⁶	91510-1
				Brass, Gold ²	350561-2	350690-2	350851-2	640347-2		
				Brass, Select Gold ³	350561-7	350690-7	350851-7 350570-7 ¹	350689-7 ¹		
				Phos. Brz., Pre-tin	350561-3	350690-3	350570-3 ¹	350689-3 ¹		
				Phos. Brz., Select Gold ³	—	—	350570-6 ¹	—		
20-14 [.5-2.0]	.060-.130 1.52-3.30	.790 20.06	.760 19.30	Brass, Pre-tin	350218-1	350547-1	350536-1	350550-1	687763-1 ⁶ 687763-2 ⁶ 687763-6 ⁶	91500-1
				Brass, Gold ²	350218-2	350547-2	350536-2	350550-2		
				Brass, Select Gold ³	350218-7	350547-7	350536-7	350550-7		
				Phos. Brz., Pre-tin	350218-3	350547-3	350536-3	350550-3		
				Phos. Brz., Select Gold ³	350218-6	350547-6	350536-6	350550-6		
20-14 [.5-2.0] or 2 @ 18 [.8]	.130-.200 3.30-5.08	.810 20.57	.780 19.81	Brass, Pre-tin	350538-1	350552-1	350537-1	350551-1	687926-1 ⁶ 687926-2 ⁶ 687926-6 ⁶	91508-17 91506-17
				Brass, Gold ²	350538-2	350552-2	350537-2	350551-2		
				Brass, Select Gold ³	350538-7	350552-7	350537-7	350551-7		
				Phos. Brz., Pre-tin	350538-3	350552-3	350537-3	350551-3		
18-14 ⁴ [.8-2.0]	.130-.200 3.30-5.08	.810 20.57	.780 19.81	Brass, Pre-tin	350873-1	—	350874-1	—	466588-1 ⁶ 466588-2 ⁶ 466588-3 ⁶	91508-17 91506-17
				Phos. Brz., Pre-tin	350873-3	350918-3	350874-3	350919-3		
12-10 [3.0-5.0]	.200 max. ⁵ 5.08	.810 20.57	.780 19.81	Phos. Brz., Pre-tin	350922-3	640309-3	350923-3	640310-3	466597-1 ⁶ 466597-2 ⁶ 466597-3 ⁶	69710-17
				Phos. Brz., Select Gold ³	350922-6	640309-6	350923-6	640310-6		

¹Socket Contact — .010 [.254] stock thickness

²Gold Finish — Plated with .000030 [.000762] min. gold in mating area and inside wire barrel over .000050 [.00127] min. nickel underplate on entire contact.

³Select Gold Finish — Plated with .000030 [.000762] min. gold in mating area over .000050 [.00127] min. nickel underplate on entire contact.

⁴Recommended for predominant use of 14 AWG wire.

⁵There is no insulation barrel on this contact. Insulation maximum diameter is limited by the housing.

⁶HDM Applicator part number ending in -1 is used on AMPOMATOR CLS Machine with T or G Terminators, -2 is used on AMP-O-LECTRIC Model K Machine, -3, -4 & -6 are used on AMP-O-LECTRIC Model G Machine. See pages 207-210 for further information.

⁷Hand Tool No. **91508-1** is for wire size 20-18 AWG. Hand Tool No. **91506-1** is for wire size 16-14 AWG. Hand Tool No. **69710-1** use die set No. **58380-1** for 12 AWG and No. **58380-2** for 10 AWG.

Note: Phosphor bronze material contacts should be used in high temperature/humidity cycling applications.

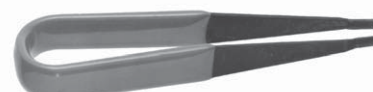
Note: All part numbers are RoHS Compliant.



Contact Retention Test Tool
Part No. 1586701-1
IS 408-10003



Contact Extraction Tool
Part No. 318851-1
IS 408-4371



Contact Insertion Tool
(For inserting contacts applied to small diameter wire)
Part No. 91002-1
IS 408-7347

Universal MATE-N-LOK Connectors (Continued)

Contacts

Split pin diameter .086 [2.18]
Stock thickness .012 [.305]
These contacts can be used in either Universal MATE-N-LOK Plug or Cap housings **only**.

Related Product Data

Product Specification

108-1031 Universal MATE-N-LOK Connectors

Application Specification

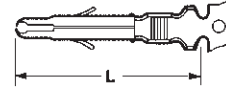
114-1010 Universal MATE-N-LOK Contacts

Performance Characteristics—
pages 169-170

Technical Documents—pages 169
and 205-206

Application Tooling—pages 207-210
Housings—page 174

Split Pins



Wire Size Range AWG [mm²]	Ins. Dia. Range	L Dim.	Material & Finish	Contact Part Number		HDM Applicator Part No.	Hand Tool Part No.
				Strip Form	Loose Piece		
24-18 [.2-.8]	.040-.100 1.02-2.54	.790 20.06	Brass, Pre-tin	350699-1	350706-1	466320-1 ³ 466320-2 ³ 466320-4 ³	91510-1
			Brass, Gold ¹	350699-2	350706-2		
			Brass, Select Gold ²	350699-7	350706-7		
20-14 [.5-2.0]	.060-.130 1.52-3.30	.790 20.06	Brass, Pre-tin	350687-1	350705-1	687763-1 ³ 687763-2 ³ 687763-6 ³	91500-1
			Brass, Gold ¹	350687-2	350705-2		
			Brass, Select Gold ²	350687-7	350705-7		
20-14 [.5-2.0] or 2@18 [.8]	.130-.200 3.30-5.08	.810 20.57	Brass, Pre-tin	350700-1	350707-1	687926-1 ³ 687926-2 ³ 687926-6 ³	91508-1 ⁴ 91506-1 ⁴
			Brass, Gold ¹	350700-2	350707-2		
			Brass, Select Gold ²	350700-7	350707-7		

¹Gold Finish—Plated with .000030 [.000762] min. gold in mating area and inside wire barrel over .000050 [.00127] min. nickel underplate on entire contact.

²Select Gold Finish—Plated with .000030 [.000762] min. gold in mating area over .000050 [.00127] min. nickel underplate on entire contact.

³HDM Applicator part number ending in -1, is used on AMPOMATOR CLS Machine with T or G Terminators, -2 is used on AMP-O-LECTRIC Model K Machine, -4 & -6 are used on AMP-O-LECTRIC Model G Machine. See pages 207-210 for further information.

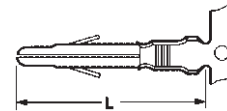
⁴Hand Tool No. **91508-1** for wire size 20-18 AWG. Hand Tool No. **91506-1** for wire size 16-14 AWG.

Notes:

1. Split pins recommended for use in housings having 6, 9, 12 and 15 circuits to reduce mating force.
2. Phosphor bronze material contacts are available for use in high temperature/humidity cycling applications, consult Tyco Electronics.

Grounding Pins

(.100 [2.54] longer than standard pin)
(Mate first, break last, not for interrupting current)



Wire Size Range AWG [mm²]	Ins. Dia. Range	L Dim.	Material & Finish	Contact Part Number		HDM Applicator Part No.	Hand Tool Part No.
				Strip Form	Loose Piece		
24-18 [.2-.8]	.060-.130 1.52-3.30	.890 22.60	Brass, Pre-tin	770210-1	—	567216-2 ² 567216-3 ²	—
				350654-1	350669-1		
20-14 [.5-2.0]	.060-.130 1.52-3.30	.890 22.60	Brass, Pre-tin	350654-1	350669-1	687763-1 ² 687763-2 ² 687763-6 ²	91500-1
				770234-3	—		
12-10 [3.0-5.0]	.200 max. ¹ 5.08	.910 23.11	Phos. Brz., Pre-tin	770234-3	—	466597-1 ² 466597-2 ² 466597-3 ²	—

¹There is no insulation barrel on this contact. Insulation maximum diameter is limited by the housing.

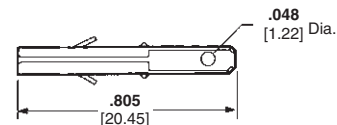
²HDM Applicator part number ending in -1 is used on AMPOMATOR CLS Machine with T or G Terminators, -2 is used on AMP-O-LECTRIC Model K Machine, -3 & -6 are used on AMP-O-LECTRIC Model G Machine. See pages 207-210 for further information.

**Programmable Connector
Contact**

(Socket with 110 Series Special FASTON Tab)

Material and Finish

Brass, pre-tin



Part Number
350877-1

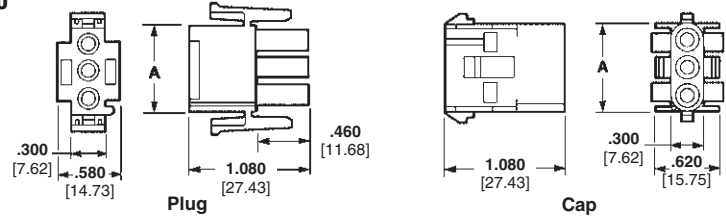
Note: This contact will accept a 110 Series FASTON Receptacle—Part No. **350871-1** (strip form) allowing simple field wiring or wiring changes.

Note: All part numbers are RoHS Compliant.

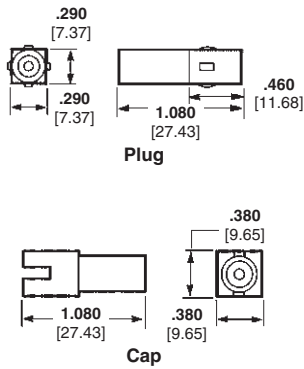
Universal MATE-N-LOK Connectors (Continued)

Housings
Free-Hanging or Panel Mount
.250 [6.35] Centerline spacing

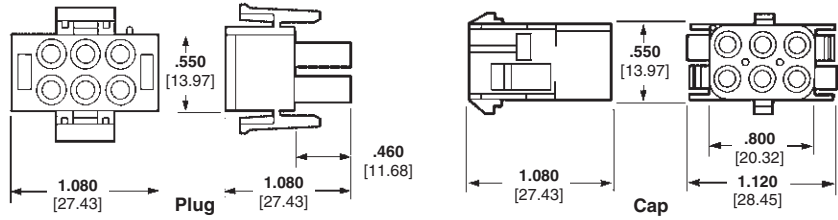
2, 3, 4, 5, 6, 8 and 10
Circuit, In-Line



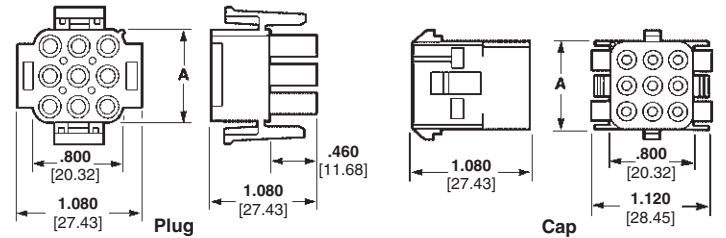
1 Circuit, Free-Hanging



6 Circuit, Matrix



9, 12 and 15 Circuit, Matrix



Related Product Data

- Product Specification**
108-1031 Universal MATE-N-LOK Connectors
- Performance Characteristics**—
pages 169-170
- Contacts**—pages 172-173
- Panel Cutout**
- Recommendations**—page 175
- Keying Plug**—page 175
- Strain Reliefs**—pages 175-176
- Technical Documents**—pages 169 and 205-206
- Mating Headers**—pages 182-183 and 185
- Other Mating Connectors**
Universal MATE-N-LOK II Housings—
pages 193-194

Note: See charts on page 182 to order Plug and Cap Housings in colors.

Number of Circuits	A Dim.	Housing Part Numbers			
		UL94V-2 Nylon, Natural Color ²		UL94V-0 Nylon ³	
		Plug	Cap	Plug	Cap
1	—	1-350867-0	770421-1	350865-1	350866-1
2	.550 13.97	1-480698-0 ¹	1-480699-0 ¹	350777-1 ¹	350778-1 ¹
3	.800 20.32	1-480700-0 ¹	1-480701-0 ¹	350766-1 ¹	350767-1 ¹
4	1.050 26.67	1-480702-0 ¹	1-480703-0 ¹	350779-1 ¹	350780-1 ¹
5	1.300 33.02	1-480763-0 ¹	1-480764-0 ¹	350809-1 ¹	350810-1 ¹
6	1.550 39.37	640585-1 ¹	926307-1 ¹	640581-1 ¹	926307-3 ¹
		1-480704-0 794096-1 ⁴	1-480705-0	350715-1	350781-1
8	2.050 52.07	640586-1 ¹	926308-1 ¹	640582-1 ¹	926308-3 ¹
9	.800 20.32	1-480706-0	1-480707-0	350720-1	350782-1
10	2.550 64.77	926302-1 ¹	926309-1 ¹	926302-3 ¹	926309-3 ¹
12	1.050 26.67	1-480708-0	1-480709-0	350735-1	350783-1
15	1.300 33.02	1-480710-0	1-480711-0	350736-1	350784-1

¹In-Line style.
²Housing material has 125°C temperature rating.
³Housing material has 120°C temperature rating.
⁴Tool Removable.

Note: All part numbers are RoHS Compliant.

Standard Density
Universal MATE-N-LOK Connectors
.250 [6.35] Centerline