

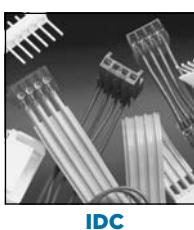
CONNECTORS/APPLIANCES

MTA, CST-100 II AND SL-156 CONNECTORS

Contents

Introduction

This catalog has been designed to assist you, our customer, identify products to satisfy your connector needs for printed circuit board headers, mass termination connectors preloaded with contacts, crimp-snap contacts and housings, and card edge connectors with preloaded contacts. The list at right identifies by centerline the types of product available and is meant to be of assistance to you in the product selection process.



IDC
MTA-100



Crimp
CST-100 II



IDC
MTA-156

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.100 [2.54] Centerline Connectors

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.156 [3.96] Centerline Connectors

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Need More Information?

Call Technical Support at the numbers listed on the back of this catalog. Technical Support is staffed with specialists well versed in TE products. They can provide you with:

- Technical support
- Catalogs
- Technical Documents
- Product Samples
- Authorized Distributor Locations

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CONNECTOR SELECTION GUIDE

Product Name	Centerline	Contact Termination	Wire-to-Wire Options	No. of Positions	Wire Size (AWG)	Wire Insulation Dia. Max.	Current Rating (A)**	Voltage Rating Max. (VAC)	Operating Temp. Range (°C)	UL Flammability	Replacement Contacts	Approvals
.100" Centerline												
MTA-100 IDC Connectors and Headers	.100 2.54	IDC	Planned	2-28	28-22	.060* 1.52	5	250	-55 to +105	V-0 & V-2	Yes	
CST-100 II Contacts and Housings	.100 2.54	Crimp	Planned	2-28	26-22	.065 1.65	4	250	-55 to +105	V-0	Yes	
.156" Centerline												
MTA-156 Connectors and Headers	.156 3.96	IDC	Yes	2-24	16-18	.095* 2.41	7	600	-55 to +105	V-0 & V-2	Yes	
SL-156 Contacts and Housings	.156 3.96	Crimp	No	1-24; 2-10 w/ through board latch	24-18	.105 2.67	10	250	-25 to +105	V-0	Yes	
SL-156 Large Ins. Dia. (LID) Contacts and Housings	.156 3.96	Crimp	No	2-24	24-16	.112 2.84	10	250	-25 to +105	V-0	Yes	

*When terminated one position at a time.

**Current Rating is application dependent.

MTA, CST-100 II and SL-156 Connectors

.100 [2.54] Centerline MTA-100 IDC Connectors and Headers

PRODUCT FACTS

- Connectors and headers for 2 through 28 positions; wire sizes of 22, 24, 26 and 28 AWG [0.4-0.08 mm²]
- Wire-to-Post Connectors preloaded with dual beam contacts
- Connectors and headers, except shrouded headers, are end-to-end stackable
- Connector styles include both closed end and feed thru connectors with locking ramps, with and without polarizing tabs
- Molded ribs on housing do not allow reverse mating
- Posted connectors for 2 through 19 positions
- Connectors preloaded with IDC contacts
- All contacts are slotted for insulation displacement (IDC) terminal technique
- Contacts are lubricated for fretting corrosion protection
- Benefits derived from the MTA-100 system include increased quality and ease of handling such as:
 - One-step assembly
 - No wire stripping
 - No contact damage
 - Reduced wiring errors
 - Simpler tooling
 - Simple maintenance and repair
- Meets the material requirements of Table 23.1 of UL1410 Standards for Television Receiver and Video Products (wire-to post connectors only)
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476 
- Certified by Canadian Standards Association, File No. LR7189 

Technical Documents Product Specification

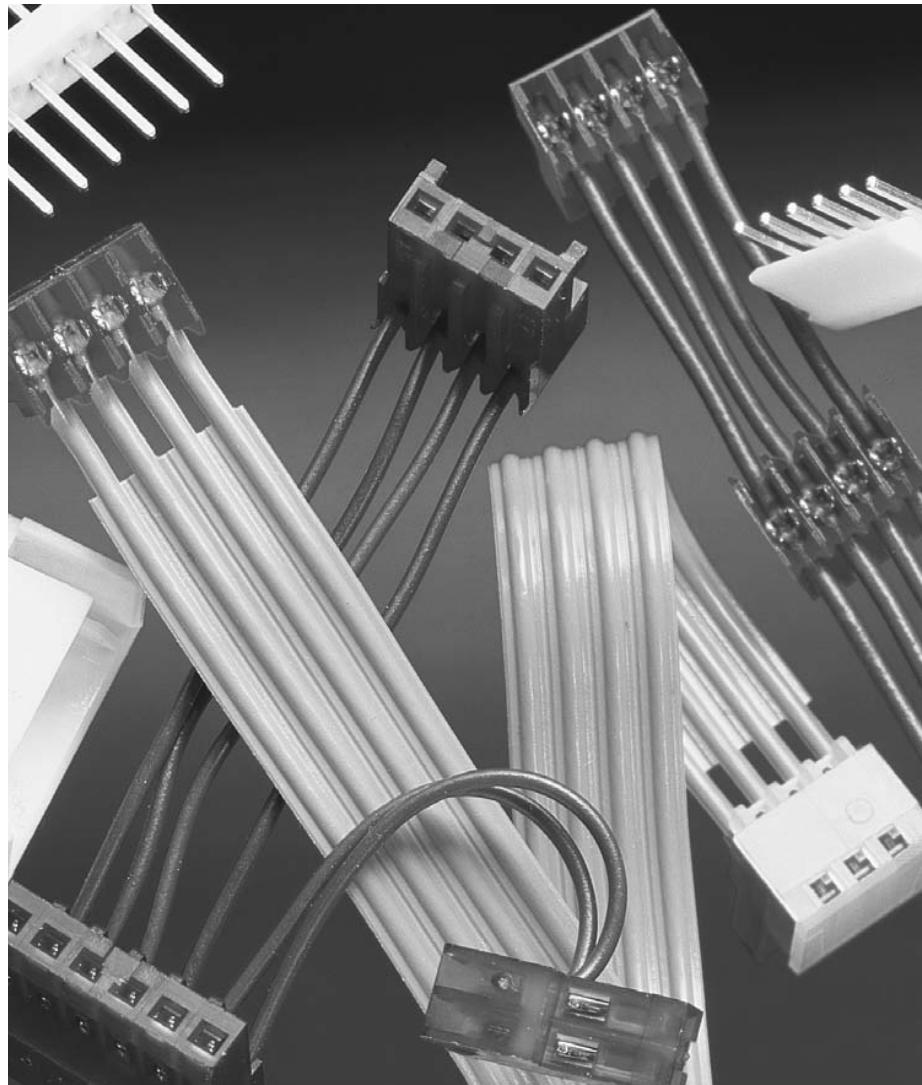
108-1050 MTA-100 Connectors

Application Specifications

114-1019 MTA-100 Connectors

114-1031 MTA-100 Ribbon Cable Assembly

MTA-100 connectors accept discrete and ribbon cable wire sizes ranging from 22-28 AWG [0.4-0.08 mm²] with maximum insulation outside diameter of .060 [1.52] for terminating single wire and .050 [1.27] for mass termination of wires. Tin



plated solid, fused stranded, or stranded (7 strands) wire with PVC insulation can be used on 22-28 AWG [0.4-0.9 mm²] MTA-100 connectors and 19 stranded wire on 22-24 AWG [0.4-0.2 mm²] MTA-100 connectors. Only one wire to be terminated into an IDC contact slot.

The wire-to-post connector housing material is flame retardant thermoplastic, either UL94V-2 or UL94V-0 rated.

A full line of .100 [2.54] centerline headers completes the system. Headers are available with straight or right-angle posts, in flat, polarized or friction lock styles. Headers are available in 2 through 28 positions. Shrouded headers are available in 2 through 14 positions.

Performance Data*

Voltage Rating—250 vac

Current Rating—5 amp max.

Low-Level Resistance—

6 mΩ max. initial

Dielectric Withstanding Voltage—

750 vac/1 min.

Insulation Resistance—

5000 MΩ min. initial

Operating Temperature—

-55° C to +105° C

Note: Refer to page 52 for approved wire listings.

*Refer to the Product Specification for additional electrical, mechanical and environmental performance tests and requirements.

MTA, CST-100 II and SL-156 Connectors

MTA-100 IDC Connectors—Closed End and Feed-Thru

Material and Finish

Housing—UL94V-2 rated, nylon, see below for color; or UL94V-0 rated, nylon, black

Contacts—Phosphor bronze, post tin plated, .000030 [0.00076] or .000015 [0.00038] post gold-plated over nickel

Color Coding by Wire Size for UL94V-2 Connectors

- 28 AWG—Green
- 26 AWG—Blue
- 24 AWG—White
- 22 AWG—Red

All wire sizes in UL94V-0—Black

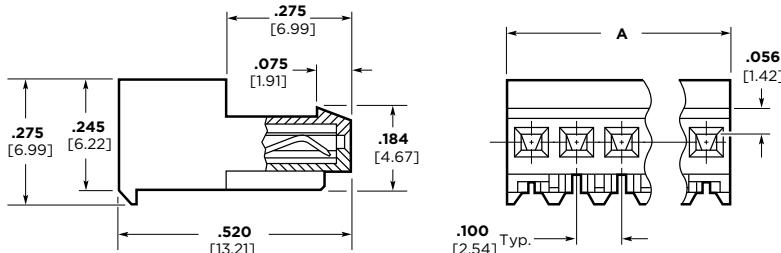
For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see pages 13 thru 23.

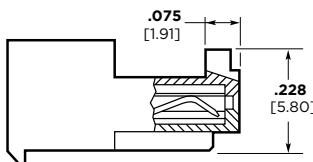
Notes:

1. Refer to pages 52-56 for approved wire listing.
2. For strain reliefs and dust covers, see page 9.
3. For keying plugs, see page 10.
4. Other circuit sizes are available upon request. Minimums may apply.
5. Connector circuits can be molded closed for keying purposes. Minimums may apply.
6. Where no part numbers appear in the chart, parts can be made available upon request. Minimums may apply.
7. To determine connector overall length (dim. A), multiply .100 x the number of circuits. Example: .100 x 10 circuits equals 1.000 inch [25.4 mm].

Closed End Connectors

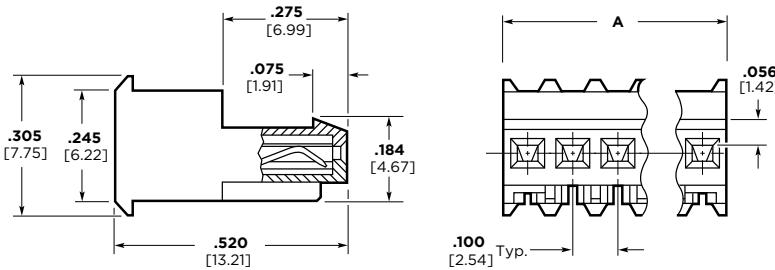


Without Polarizing Tabs

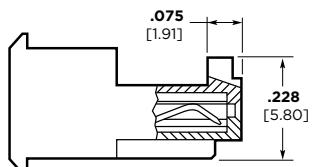


With Polarizing Tabs

Feed-Thru Connectors



Without Polarizing Tabs



With Polarizing Tabs

MTA, CST-100 II and SL-156 Connectors

MTA-100 IDC Connectors—Closed End and Feed-Thru (continued)

Connector Ordering Information

The "Base Part Numbers" Chart at right shows the base part number, and their RoHS (Restrictions on Certain Hazardous Substances) Compliant (lead free) equivalent available for the described connectors.

Prefixes and suffixes are determined by the number of circuit positions in the connector. For example, the complete part number for a 10-position closed end connector without polarizing tabs for 22 AWG wire would be:

Base number **640440** plus prefix-and-suffix
4- -- -0

The correct ordering number is
4-640440-0

All part numbers are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-640440-2
3	3-640440-3
4	3-640440-4
5	3-640440-5
6	3-640440-6
7	3-640440-7
8	3-640440-8
9	3-640440-9
10	4-640440-0
11	4-640440-1
12	4-640440-2
13	4-640440-3
14	4-640440-4
15	4-640440-5
16	4-640440-6
17	4-640440-7
18	4-640440-8
19	4-640440-9
20	5-640440-0
21	5-640440-1
22	5-640440-2
23	5-640440-3
24	5-640440-4
25	5-640440-5
26	5-640440-6
27	5-640440-7
28	5-640440-8

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Base Part Numbers

Connector Type & Wire Size	Closed End				Feed-Thru			
	Without Tabs	With Tabs	Without Tabs	With Tabs	Connector Part Nos.	RoHS Equiv.	Connector Part Nos.	RoHS Equiv.
Standard UL94V-2, Tin Plated								
22 AWG 0.3-0.4 mm ²	640440	32-58	643813	32-58	640620	32-58	644540 ¹	32-45
24 AWG 0.2 mm ²	640441	32-58	643814	32-58	640621	32-58	644563 ¹	32-54
26 AWG 0.12-0.15 mm ²	640442	32-58	643815	32-58	640622	32-58	644564 ¹	32-45
28 AWG 0.08-0.09 mm ²	640443	32-58	643816	32-58	640623	32-58	644565 ¹	32-45
Tape Mounted on Reel UL94V-2, Tin Plated								
22 AWG 0.3-0.4 mm ²	640468	32-58	644511	42-68	641311	32-58	—	—
24 AWG 0.2 mm ²	640469	32-58	644512	32-58	641312	32-58	—	—
26 AWG 0.12-0.15 mm ²	640470	32-58	644513	32-58	641313	32-58	—	—
28 AWG 0.08-0.09 mm ²	640471	32-58	644514	32-58	641314	32-58	—	—
Standard UL94V-2, .000030 [0.00076] Gold Plated								
22 AWG 0.3-0.4 mm ²	641237	32-58	644042	32-58	641241	32-58	644702 ¹	32-45
24 AWG 0.2 mm ²	641238	32-58	644020	32-58	641242	32-58	—	—
26 AWG 0.12-0.15 mm ²	641239	32-58	644043 ¹	32-44	641243	32-58	644726 ¹	32-45
28 AWG 0.08-0.09 mm ²	641240	32-58	644044 ¹	32-44	641244	32-58	—	—
Standard UL94V-2, .000015 [0.00038] Gold Plated								
22 AWG 0.3-0.4 mm ²	641190	32-58	644038 ¹	32-44	641198	32-58	647477	32-46
24 AWG 0.2 mm ²	641191	32-58	1744020 ¹	32-44	641199	32-58	—	—
26 AWG 0.12-0.15 mm ²	641192	32-58	644040 ¹	32-44	641200	32-58	647480	32-43
28 AWG 0.08-0.09 mm ²	641193	32-58	—	—	641201	32-58	—	—
LED*, UL94V-2, Tin Plated (See Note 1)								
22 AWG 0.3-0.4 mm ²	641534	32-33	—	—	641653	32-33	—	—
24 AWG 0.2 mm ²	641535	32-33	644795	32-33	641654	32-33	—	—
26 AWG 0.12-0.15 mm ²	641536	32-33	—	—	641655	32-33	—	—
28 AWG 0.08-0.09 mm ²	641537	32-33	—	—	641656	32-33	—	—
Standard UL94V-0, Tin Plated (Gold is available, minimums may apply.) (Black in color)								
22 AWG 0.3-0.4 mm ²	643498 ¹	32-45	644083 ¹	32-45	644575 ¹	32-45	644578 ¹	32-45
24 AWG 0.2 mm ²	644574 ¹	32-45	644312 ¹	32-45	644576 ¹	32-45	644579 ¹	32-45
26 AWG 0.12-0.15 mm ²	643828 ¹	32-45	644313 ¹	32-45	644577 ¹	32-45	644497 ¹	32-45

*LED connectors are designed to mate with .014-.020 [0.36-0.51] diameter posts or square leads.

¹ Other circuit sizes are available upon request. Minimums may apply.

² Tape mounted.

Note: Blocked circuit configurations are available. Contact product engineer or product manager for details. Minimums may apply.

MTA, CST-100 II and SL-156 Connectors

MTA-100 IDC Connector Accessories

Covers

Material (RoHS Compliant)

Strain Relief Cover—UL94V-2 rated, nylon, white

Dust Covers—UL94V-0 rated, polyester, white

Cover Ordering Information

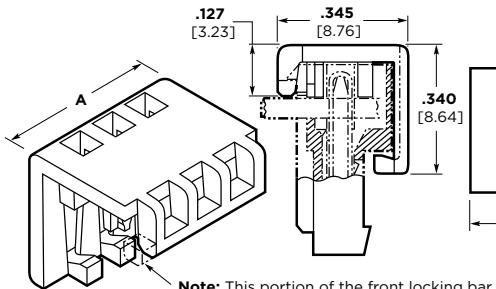
The “Base Part Numbers” Chart at right shows the base part number and number of circuits available for the described cover.

Prefixes and suffixes are determined by the number of circuit positions in the cover. For example, the complete part number for a 10-position closed end strain relief cover would be:

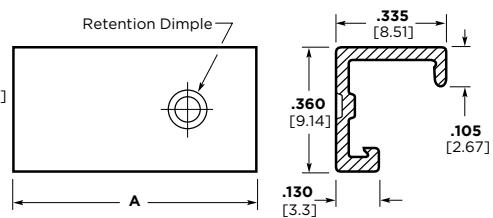
Base number **643075** plus prefix-and-suffix
1- - - 0

The correct ordering number is
1-643075-0

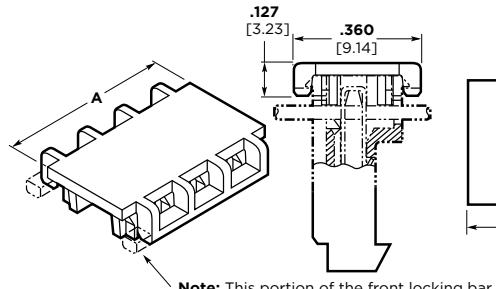
Closed End Strain Relief Covers



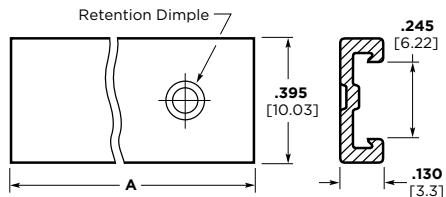
Closed End Dust Covers



Feed-Thru Strain Relief Covers



Feed-Thru Dust Covers



Base Part Numbers

Closed End				Feed-Thru			
Strain Relief Covers		Dust Covers		Strain Relief Covers		Dust Covers	
Cover Part Nos.	No. of Circuits	Cover Part Nos.	No. of Circuits	Cover Part Nos.	No. of Circuits	Cover Part Nos.	No. of Circuits
643075	2-28	640550	2-28	643077	2-28	640642	3-28

Cover Length

No. of Circuits	Dim. A	Prefix/Suffix
2	.200 5.08	-2
3	.300 7.62	-3
4	.400 10.16	-4
5	.500 12.7	-5
6	.600 15.24	-6
7	.700 17.78	-7
8	.800 20.32	-8

No. of Circuits	Dim. A	Prefix/Suffix
9	.900 22.86	-9
10	1.00 25.4	1- -0
11	1.100 27.94	1- -1
12	1.200 30.48	1- -2
13	1.300 33.02	1- -3
14	1.400 35.56	1- -4
15	1.500 38.1	1- -5

No. of Circuits	Dim. A	Prefix/Suffix
16	1.600 40.64	1- -6
17	1.700 43.18	1- -7
18	1.800 45.72	1- -8
19	1.900 48.26	1- -9
20	2.000 50.8	2- -0
21	2.100 53.34	2- -1
22	2.200 55.88	2- -2

No. of Circuits	Dim. A	Prefix/Suffix
23	2.300 58.42	2- -3
24	2.400 60.96	2- -4
25	2.500 63.5	2- -5
26	2.600 66.04	2- -6
27	2.700 68.58	2- -7
28	2.800 71.12	2- -8

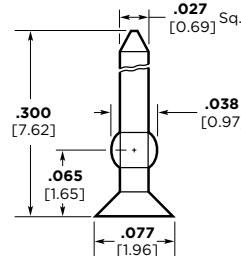
MTA, CST-100 II and SL-156 Connectors

MTA-100 IDC Connector Accessories (continued)

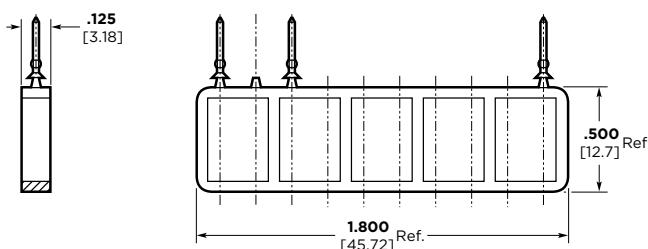
Keying Plug with Carrier Strip (10 plugs per strip) Part No. 641994-1

Material (RoHS Compliant)

UL94V-2 rated, nylon, natural color



Note: Removal of contact is not necessary when using keying plug.



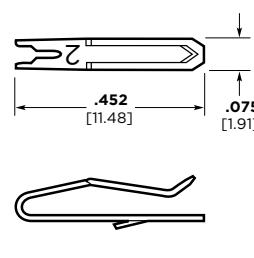
Replacement IDC Contacts

Material and Finish

Phosphor bronze, post tin plated;
.000030 [0.00076] or .000015
[0.00038] post gold plated over nickel

Note: TE does not recommend terminating an MTA contact more than one time. Use replacement contacts when required for field repairs or wire changes.

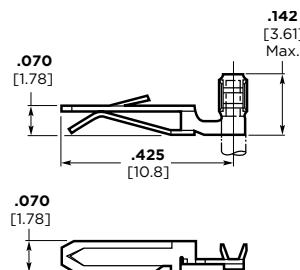
Wire Size		Part Numbers		
AWG	mm ²	Standard Tin Plated	.000030 [0.00076] Gold Plated	.000015 [0.00038] Gold Plated
22	0.3-0.4	640636-3	641186-4	641186-3
24	0.2	640637-3	641187-4	641187-3
26	0.12-0.15	640638-3	641188-4	641188-3
28	0.08-0.09	640639-3	641189-4	641189-3



Crimp Snap-In Contacts

Material and Finish

Phosphor bronze, tin plated.



Wire Size		Part Nos.	
AWG	mm ²	Loose Piece*	Strip**
26-22	0.12-0.4	640709-2	640708-2

*Hand Tool No. 59836-1 (IS 408-6527)

**Applicator No. 466747-1 (IS 408-8040)

Special applications for crimp snap-in contacts are:

1. Double wire per contact
2. Coax or shielded wire
3. Mixed wire size in same connector

Note: Only one crimp snap-in contact per connector.

MTA, CST-100 II and SL-156 Connectors

MTA-100 Connector/Connector Mateability Guide

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-100 posted connector and connector combination. Where a "Y" is indicated the combination is a valid mating pair. Where an "N" is indicated the combination is not acceptable for mating.

**Matrix for
Tin Plated
Part Numbers**

Posted Connectors		647000	647001	647002	647003	647004	647005	647006	647007
Connectors	640440	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	640441	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	640442	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	640443	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	640468	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	640469	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	640470	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	640471	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	640620	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	640621	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	640622	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	640623	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	641311	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	641312	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	641313	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	641314	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	641534	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	641535	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	641536	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	641537	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	641653	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	641654	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	641655	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	641656	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	643498	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	643813	Y* Y*							
	643814	Y* Y*							
	643815	Y* Y*							
	643816	Y* Y*							
	643828	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	644083	Y* Y*							
	644312	Y* Y*							
	644313	Y* Y*							
	644497	Y* Y*							
	644511	Y* Y*							
	644512	Y* Y*							
	644513	Y* Y*							
	644514	Y* Y*							
	644540	Y* Y*							
	644563	Y* Y*							
	644564	Y* Y*							
	644565	Y* Y*							
	644574	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	644575	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	644576	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	644577	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y	Y Y
	644578	Y* Y*							
	644579	Y* Y*							
	644795	Y* Y*							
	1375820	N N	N N	N N	N N	N N	N N	N N	N N

*2 & 3 position MTA-100 Posted Connectors can not mate with MTA-100 connectors with polarizing tabs.

MTA, CST-100 II and SL-156 Connectors

MTA-100 Connector/Connector Mateability Guide (continued)

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-100 posted connector and connector combination. Where a "Y" is indicated the combination is a valid mating pair. Where an "N" is indicated the combination is not acceptable for mating.

**Matrix for
.000030
[0.00076]
Gold Plated
Part Numbers**

		Posted Connectors							
		647008	647009	647010	647011	647012	647013	647014	647015
Connectors	641237	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641238	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641239	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641240	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641241	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641242	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641243	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641244	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	644020	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	
	644042	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	
	644043	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	
	644044	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	
	644702	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	
	644726	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	
	1375820	N N N	N N N	N N N	N N N	N N N	N N N	N N N	

*2 & 3 position MTA-100 Posted Connectors can not mate with MTA-100 connectors with polarizing tabs.

**Matrix for
.000015
[0.00038]
Gold Plated
Part Numbers**

		Posted Connectors							
		647008	647009	647010	647011	647012	647013	647014	647015
Connectors	641190	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641191	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641192	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641193	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641198	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641199	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641200	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	641201	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	
	644038	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	
	644040	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	
	647477	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	
	644726	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	
	647480	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	Y* Y*	
	1375820	N N N	N N N	N N N	N N N	N N N	N N N	N N N	
	1744020	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	

*2 & 3 position MTA-100 Posted Connectors can not mate with MTA-100 connectors with polarizing tabs.

MTA, CST-100 II and SL-156 Connectors

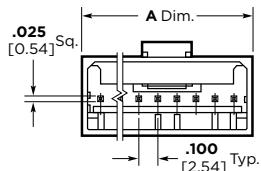
MTA-100 IDC Posted Connectors (Wire-to-Wire)—Closed End, Feed-Thru

Material and Finish

Housing—UL94V-2 rated, nylon, see chart for color

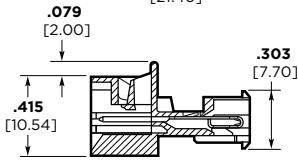
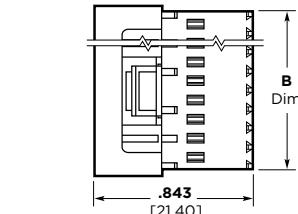
Contacts—Copper alloy, post tin or gold plated over nickel (see chart)

Note: 1. Mating half visuals — pages 7 & 8.
2. Use feed thru strain relief covers & feed thru dust covers (if needed)—page 9.
3. Approved wire listing—pages 52-56.



Closed End

Feed-Thru



Connector Ordering Information

The “Base Part Numbers” Chart at right shows the base part number.

Prefixes and suffixes are determined by the number of circuit positions in the connector. For example, the complete part number for a 12-position closed end connector for 22 AWG wire would be:

Base number **647000** plus prefix-and-suffix
4- -- 2

The correct ordering number is
4-647000-2

All part numbers are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-647000-2
thru	
19	4-647000-9

See page 8 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Color Coding by Wire Size for UL94V-2 Connectors

22 AWG—Red

24 AWG—White

26 AWG—Blue

28 AWG—Green

Performance Data

Voltage Rating—250 vac

Current Rating—5 amp max.

Low-Level Resistance—6 mΩ max. initial

Dielectric Withstanding Voltage—750 vac/1 min.

Insulation Resistance—5000 MΩ min. initial

Operating Temperature—−55° C to +105° C

Base Part Numbers

Connector Type & Wire Size	Closed End Connector		Feed-Thru Connector	
	Part Nos.	RoHS Equiv.	Part Nos.	No. of Circuits
Standard UL 94V-2, Tin Plated				
22 AWG 0.3-0.4 mm ²	647000	32-49¹	647004	— ²
24 AWG 0.2 mm ²	647001	32-49¹	647005	— ²
26 AWG 0.12-0.15 mm ²	647002	32-49¹	647006	— ²
28 AWG 0.08-0.09 mm ²	647003	32-49¹	647007	— ²
Standard UL 94V-2, .000030 [.000076] Gold Plated				
22 AWG 0.3-0.4 mm ²	647008	32-49¹	647012	— ²
24 AWG 0.2 mm ²	647009	32-49¹	647013	— ²
26 AWG 0.12-0.15 mm ²	647010	32-49¹	647014	— ²
28 AWG 0.08-0.09 mm ²	647011	32-49¹	647015	— ²
Standard UL 94V-2, .000015 [.000038] Gold Plated				
22 AWG 0.3-0.4 mm ²	647016	32-49¹	647020	— ²
24 AWG 0.2 mm ²	647017	32-49¹	647021	— ²
26 AWG 0.12-0.15 mm ²	647018	32-49¹	647022	— ²
28 AWG 0.08-0.09 mm ²	647019	32-49¹	647023	— ²

¹ 2 and 3 position MTA-100 Posted Connectors (Closed End) can not mate with MTA-100 connectors with polarizing tabs.

² Parts may be manufactured upon request. Minimums may apply. Contact product engineer or product manager for details.

No. of Circuits	Dim. A	Dim. B	No. of Circuits	Dim. A	Dim. B	No. of Circuits	Dim. A	Dim. B	No. of Circuits	Dim. A	Dim. B
2	.300 [.762]	.227 [.577]	6	.700 [.17.78]	.627 [.15.93]	10	1.100 [.27.94]	1.027 [.26.09]	14	1.500 [.38.10]	1.427 [.36.25]
3	.400 [.10.16]	.327 [.8.31]	7	.800 [.20.32]	.727 [.18.47]	11	1.200 [.30.48]	1.127 [.28.63]	15	1.600 [.40.64]	1.527 [.38.79]
4	.500 [.12.70]	.427 [.10.85]	8	.900 [.22.86]	.827 [.21.01]	12	1.300 [.33.02]	1.227 [.31.17]	16	1.700 [.43.18]	1.627 [.41.33]
5	.600 [.15.24]	.527 [.13.39]	9	1.000 [.25.40]	.927 [.23.55]	13	1.400 [.35.56]	1.327 [.33.71]	17	1.800 [.45.72]	1.727 [.43.87]

Technical Documents

Product Specification

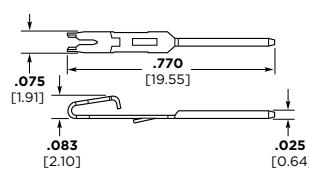
108-1050-1 MTA-100 Posted Connector

Application Specification

114-1019 MTA-100 Connectors

Replacement IDC Contacts

Material and Finish
Contacts—Copper alloy, post tin or gold plated over nickel



Part Numbers			
Wire Size	Tin Plated	.000030	.000076
AWG mm ²		Gold Plated	
22 0.3-0.4	3-647030-1	3-647030-2	
24 0.2	3-647031-1	3-647031-2	
26 0.12-0.15	3-647032-1	3-647032-2	
28 0.8-0.9	3-647033-1	3-647033-2	

MTA, CST-100 II and SL-156 Connectors

MTA-100 Flat Headers—Straight and Right-Angle

Material and Finish

Housing—UL94V-0 rated, polyester, white

Contacts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

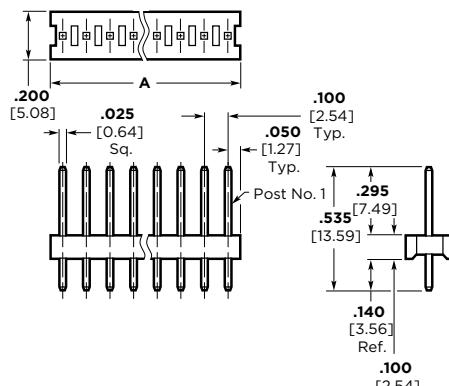
Note:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

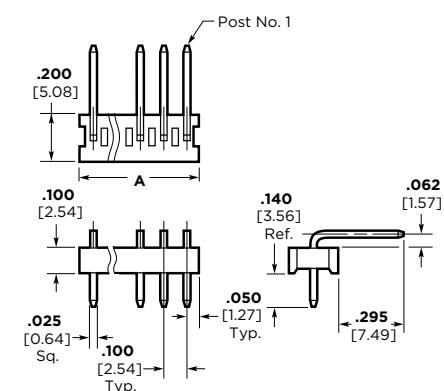
For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see pages 7, 8 and 24.

Straight Post (.025 [0.64] Square)



Right-Angle Post (.025 [0.64] Square)



Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **641211** plus prefix-and-suffix
4- -- -0

The correct ordering number is
4-641211-0

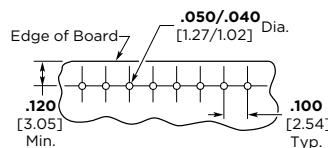
All part numbers are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-641211-2
	thru
28	5-641211-8

See page 8 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

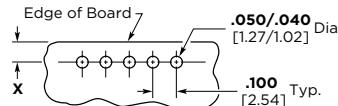
Note: Select lead headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

X = .120 [3.05] min., .240 [6.1] max. when mated with MTA-100 Connector.

X = .120 [3.05] min., when mated with CST-100 II Connector.



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Straight Posts		Right-Angle Posts	
Header Part Nos.	No. of Post RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
Standard UL94V-0, Tin Plated			
640452	2-28	640453	2-28
Standard UL94V-0, .000030 [0.00076] Gold Plated			
641211	2-28 32-58	641212	2-28 32-58
Standard UL94V-0, .000015 [0.00038] Gold Plated			
641122	2-28 32-58	641123	2-28 32-58

MTA, CST-100 II and SL-156 Connectors

MTA-100 Narrow Flat Headers—Straight and Right-Angle

Material and Finish

Housing—UL94V-0 rated, polyester, white

Contacts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

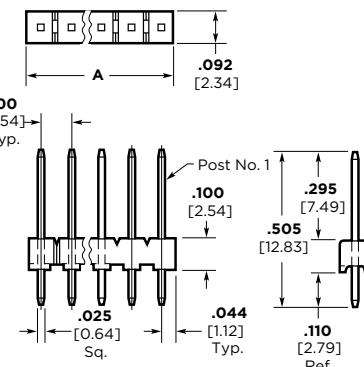
Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Headers without retentive legs are suitable for breakaway application.
- 3, 2 or 3 retentive leg(s) per header, depending upon number of positions.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- To determine header overall length (dim. A) multiply .100 x the number of posts minus (-) .012. Example: .100 x 10 posts - .012 = .988 inches [25.1 mm].

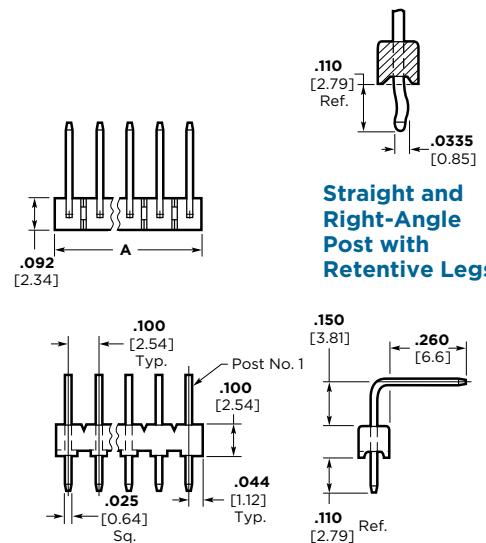
For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see pages 7, 8 and 24.

Straight Post (.025 [0.64] Square)



Right-Angle Post (.025 [0.64] Square)



Straight and Right-Angle Post with Retentive Legs

Connector Ordering Information

The “Base Part Numbers” Chart at right shows the base part number.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts and without retentive legs would be:

Base number **644456** plus prefix-and-suffix
4- -- -0

The correct ordering number is
4-644456-0

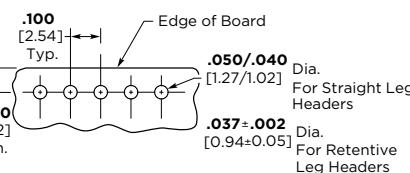
All part numbers are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-644456-2
28	5-644456-8

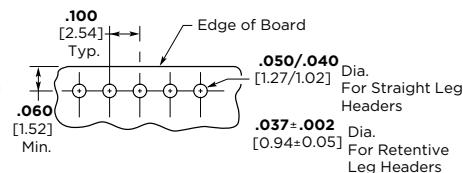
See page 8 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Note: Select lead headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Straight Posts								Right-Angle Posts							
Without Retentive Legs				With Retentive Legs				Without Retentive Legs				With Retentive Legs			
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated															
644456 32-58 644695 32-58 644457 32-58 644694 32-58															
Standard UL94V-0, .000030 [0.00076] Gold Plated															
644884 2-28 644886 2-28 644885 2-28 644887 2-28															
Standard UL94V-0, .000015 [0.00038] Gold Plated															
644888 2-28 644890 2-28 644889 2-28 644891 2-28															

High temperature product available. Please contact Sales Engineer or Product Information Center.

MTA, CST-100 II and SL-156 Connectors

MTA-100 Polarized Headers—Straight and Right-Angle

Material and Finish

Housing—UL94V-0 rated, polyester, white

Contacts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Note: 1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
3. All posts on retentive leg headers are bent.
4. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see pages 7, 8 and 24.

Connector Ordering Information

The “Base Part Numbers” Chart at right shows the base part number.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **641213** plus prefix-and-suffix
4- -0

The correct ordering number is
4-641213-0

All part numbers are the RoHS equivalent version. Example:

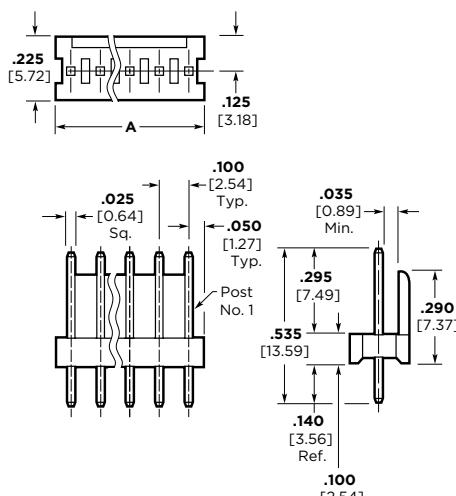
No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-641213-2
28	5-641213-8

See page 8 for an explanation of RoHS lead free equivalents.

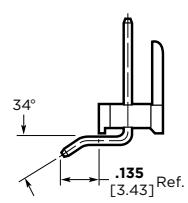
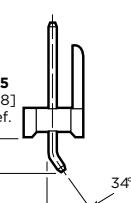
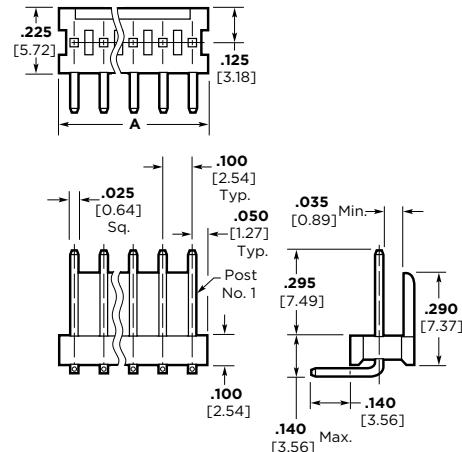
Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Note: Select lead headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

Straight Post (.025 [0.64] Square)

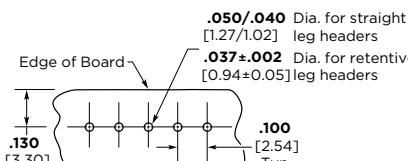


Right-Angle Post (.025 [0.64] Square)

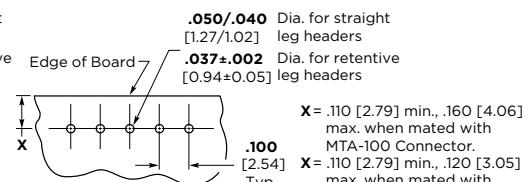


Retentive Leg

Retentive Leg



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

.050/.040 Dia. for straight leg headers
.037±.002 Dia. for retentive leg headers
X = .110 [2.79] min., .160 [4.06] max. when mated with MTA-100 Connector.
X = .110 [2.79] min., .120 [3.05] max. when mated with CST-100 II Connector.

Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Straight Posts				Right-Angle Posts			
Without Retentive Legs		With Retentive Legs		Without Retentive Legs		With Retentive Legs	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated							
640454	2-28	644876	2-28	640455	2-28	644877	2-28
Standard UL94V-0, .000030 [0.00076] Gold Plated							
641213	32-58	—	—	641214	32-58	—	—
Standard UL94V-0, .000015 [0.00038] Gold Plated							
641124	32-58	—	—	641125	32-58	—	—

MTA, CST-100 II and SL-156 Connectors

MTA-100 Friction Lock Headers—Straight and Right-Angle

Material and Finish

Housing—UL94V-0 rated, polyester, white

Contacts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Note: 1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
3. All posts on retentive leg headers are bent.
4. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see pages 7, 8 and 24.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **641215** plus prefix-and-suffix
4- -0

The correct ordering number is
4-641215-0

All part numbers are the RoHS equivalent version. Example:

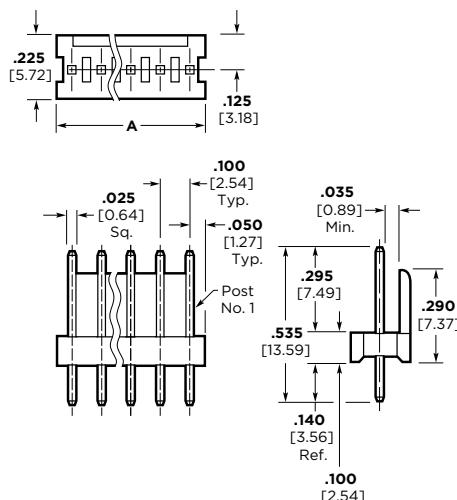
No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	641215-2	3-641215-2
28	thru	
28	2-641215-8	5-641215-8

See page 8 for an explanation of RoHS lead free equivalents.

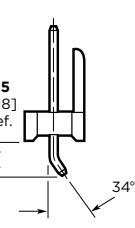
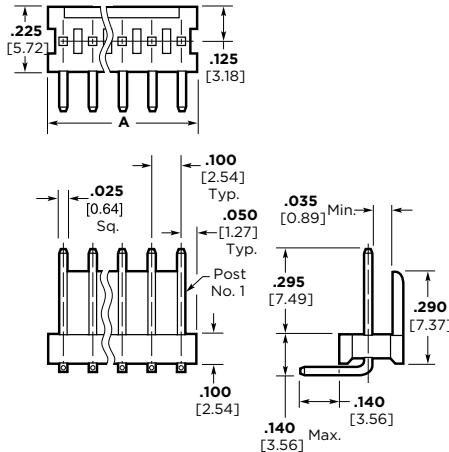
Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Note: Select lead headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

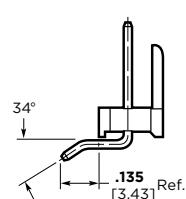
Straight Post (.025 [0.64] Square)



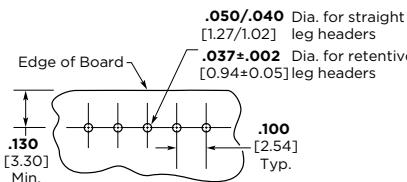
Right-Angle Post (.025 [0.64] Square)



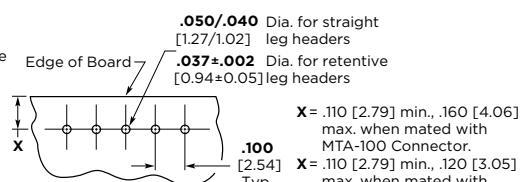
Retentive Leg



Retentive Leg



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Straight Posts				Right-Angle Posts			
Without Retentive Legs		With Retentive Legs		Without Retentive Legs		With Retentive Legs	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated							
640456	2-28	644874	2-28	640457	2-28	644875	2-28
Standard UL94V-0, .000030 [0.00076] Gold Plated							
641215	32-58	—	—	641216	32-58	—	—
Standard UL94V-0, .000015 [0.00038] Gold Plated							
641126	32-58	—	—	641127	32-58	—	—

MTA, CST-100 II and SL-156 Connectors

MTA-100 Headers with Retention Peg—Straight

Material and Finish

Housing—UL94V-0 rated, thermoplastic, black

Contacts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Note: 1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
3. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see pages 7, 8 and 24.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **647609** plus prefix-and-suffix
4- - -0

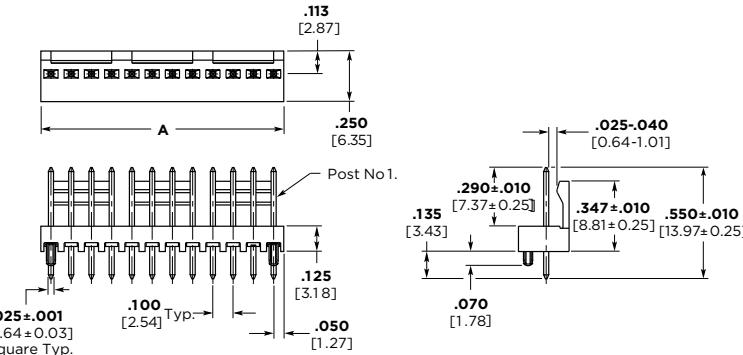
The correct ordering number is
4-647609-0

All part numbers are the RoHS equivalent version. Example:

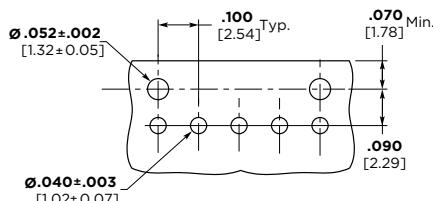
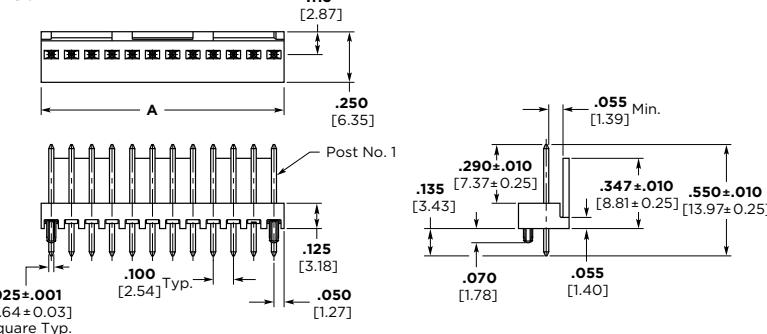
No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647609-2	3-647609-2
3	647609-3	3-647609-3
4	647609-4	3-647609-4
5	647609-5	3-647609-5
6	647609-6	3-647609-6
7	647609-7	3-647609-7
8	647609-8	3-647609-8
9	647609-9	3-647609-9
10	1-647609-0	4-647609-0
11	1-647609-1	4-647609-1
12	1-647609-2	4-647609-2

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Friction Lock



Polarized



Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Friction Lock		Polarized	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated			
647609	32-42	647623	32-42
Standard UL94V-0, .000030 [0.00076] Gold Plated			
647626	32-42	647624	32-42
Standard UL94V-0, .000015 [0.00038] Gold Plated			
647627	32-42	647625	32-42

Note:

Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA, CST-100 II and SL-156 Connectors

MTA-100 High Profile Headers—Right-Angle

Material and Finish

Housing—UL94V-0 rated, thermoplastic, black

Contacts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Note: 1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
 2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
 3. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].
 4. This product can be mounted in the middle of the PC Board as shown in the PCB layout.

For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see pages 7, 8 and 24.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with right-angle posts would be:

Base number **647630** plus prefix-and-suffix
4- - -0

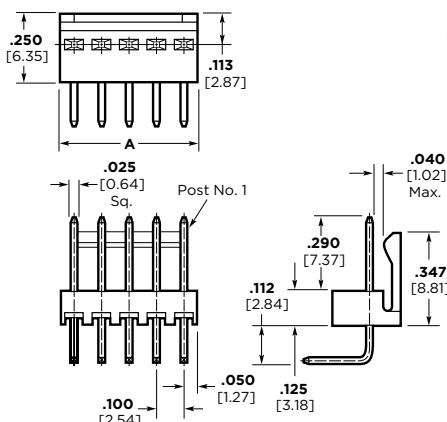
The correct ordering number is
4-647630-0

All part numbers are the RoHS equivalent version. Example:

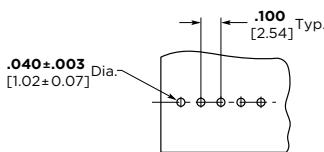
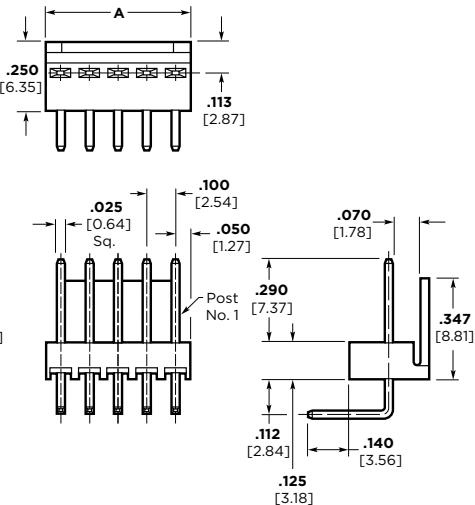
No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-647630-2
3	3-647630-3
4	3-647630-4
5	3-647630-5
6	3-647630-6
7	3-647630-7
8	3-647630-8
9	3-647630-9
10	4-647630-0
11	4-647630-1
12	4-647630-2

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Friction Lock Right-Angle Post (.025 [0.64] Square)



Polarized Right-Angle Post (.025 [0.64] Square)



Note: Consult Product Drawing for details on placing headers onto PC boards.

Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

Base Part Numbers

Friction Lock		Polarized	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated	32-42	647651	32-42
Standard UL94V-0, .000030 [0.00076] Gold Plated	32-42	647653	32-42
Standard UL94V-0, .000015 [0.00038] Gold Plated	32-42	647652	32-42

Note:

Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA, CST-100 II and SL-156 Connectors

MTA-100 Polarized High Temperature Headers—Straight and Right-Angle

Material and Finish

Housing—

2-12 Position—UL94V-0 rated, nylon, black
13-18 Position—UL94V-0 rated, LCP, black

Posts—Copper alloy, tin plated,
.000030 [0.00076] or .000015
[0.00038] gold over nickel

Note:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see pages 7, 8 and 24.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **647047** plus prefix-and-suffix
4- - -0

The correct ordering number is
4-647047-0

All part numbers are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-647047-2
	thru
12	4-647047-2
13	NA
	thru
18	NA

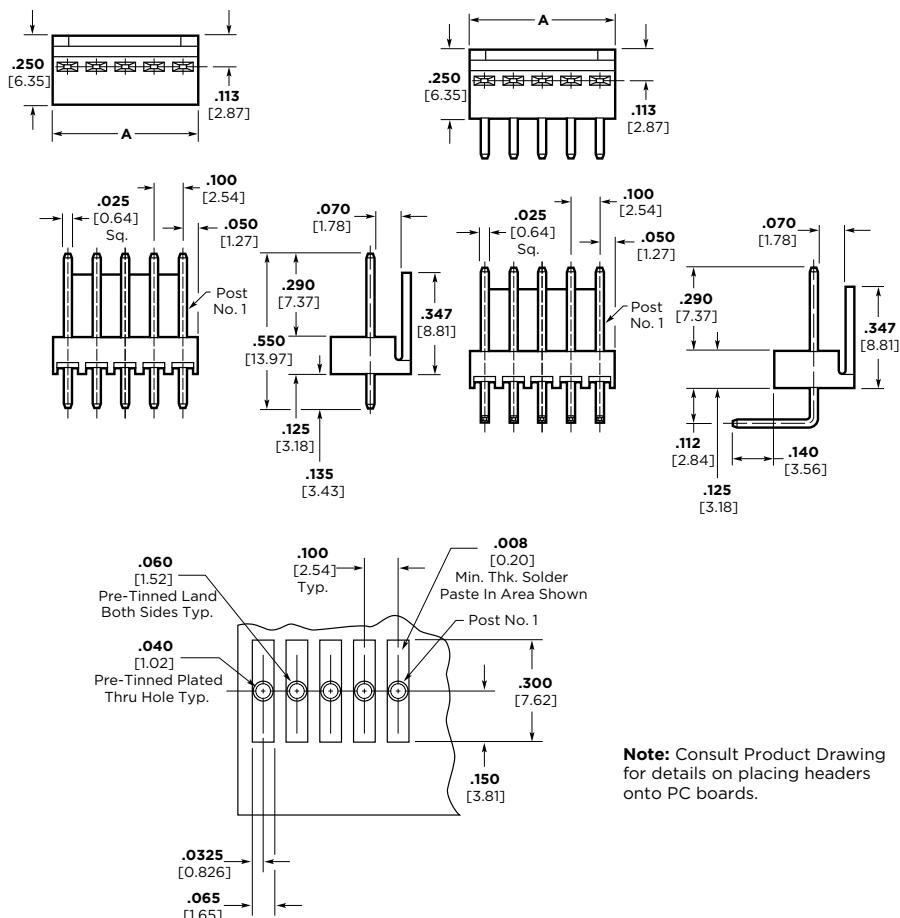
See page 8 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

For use with Infrared Reflow Process

Maximum Temperature Rating: 2-12 Position: 280°C
13-18 Position: 235°C

Straight Post (.025 [0.64] Square) Right-Angle Post (.025 [0.64] Square)



Recommended Mounting Hole Pattern for .062 [1.57] Thick PC Board

Base Part Numbers

Straight Posts		Straight Posts (Tube Loaded)		Right-Angle Posts	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated					
647047	32-42	647298	32-42	647048	32-42
Standard UL94V-0, .000030 [0.00076] Gold Plated					
647109	32-42	647300	32-42	647114	32-42
Standard UL94V-0, .000015 [0.00038] Gold Plated					
647075	32-42	647299	32-42	647076	32-42

Note: Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA, CST-100 II and SL-156 Connectors

MTA-100 Friction Lock High Temperature Headers—Straight and Right-Angle

Material and Finish

Housing—

2-12 Position—UL94V-0 rated, nylon, black
13-18 Position—UL94V-0 rated, LCP, black

Posts—Copper alloy, tin plated,
.000030 [0.00076] or .000015
[0.00038] gold over nickel

Note: 1. Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
3. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see pages 7, 8 and 24.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **647050** plus prefix-and-suffix
4- - - 0

The correct ordering number is
4-647050-0

All part numbers are the RoHS equivalent version. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647050-2	3-647050-2
	thru	
12	1-647050-2	4-647050-2
13	1-647050-3	NA
	thru	
18	1-647050-8	NA

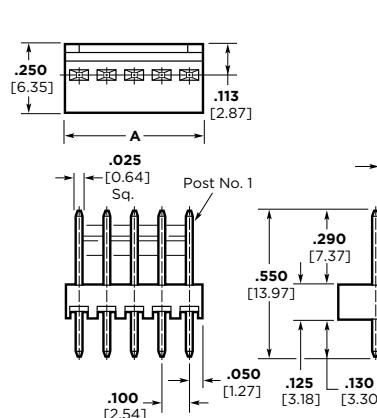
See page 8 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

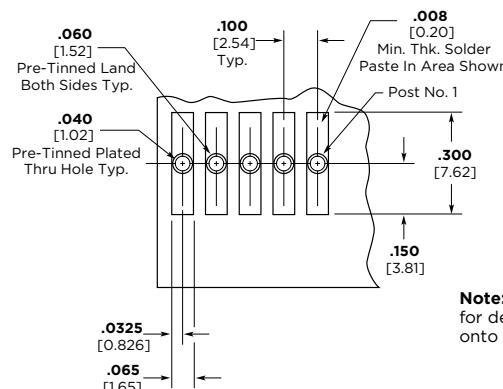
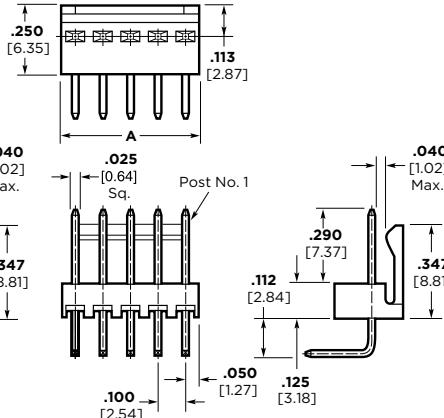
For use with Infrared Reflow Process

Maximum Temperature Rating: 2-12 Position: 280°C
13-18 Position: 235°C

Straight Post (.025 [0.64] Square)



Right-Angle Post (.025 [0.64] Square)



Note: Consult Product Drawing for details on placing headers onto PC boards.

Recommended Mounting Hole Pattern for .062 [1.57] Thick PC Board

Base Part Numbers

Straight Posts		Straight Posts (Tube Loaded)		Right-Angle Posts	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated					
647050	32-42	647295	32-42	647051	32-42
Standard UL94V-0, .000030 [0.00076] Gold Plated					
647116	32-42	647297	32-42	647117	32-42
Standard UL94V-0, .000015 [0.00038] Gold Plated					
647078	32-42	647296	32-42	647079	32-42

Note: Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA, CST-100 II and SL-156 Connectors

MTA-100 Polarized and Friction Lock Surface Mount Headers—Straight

Material and Finish

Housing—

2-12 Position—UL94V-0 rated, nylon, black
13-18 Position—UL94V-0 rated, LCP, black

Posts—Copper alloy, tin plated,
.000030 [0.00076] or .000015
[0.00038] gold over nickel

Note: 1. Post(s) can be omitted for keying purposes.
Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
2. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
3. To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see pages 7, 8 and 24.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position surface mount polarized header would be:

Base number **647106** plus prefix-and-suffix
4- — -0

The correct ordering number is
4-647106-0

All part numbers are the RoHS equivalent version. Example:

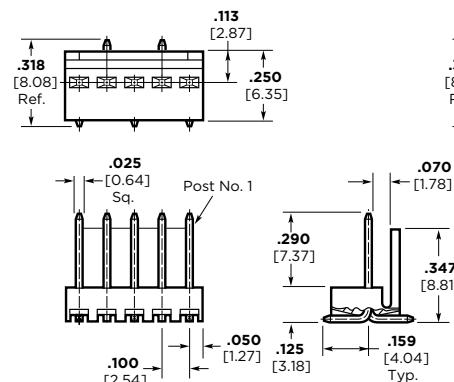
No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-647106-2
12	4-647106-2

See page 8 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

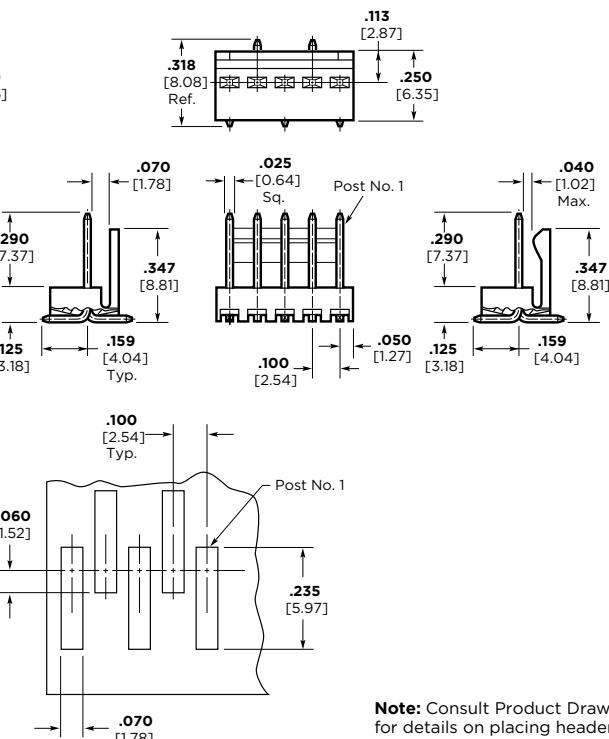
For use with Infrared Reflow Process

Polarized Header



Maximum Temperature Rating: 2-12 Position: 280°C
13-18 Position: 235°C

Friction Lock Header



Note: Consult Product Drawing for details on placing headers onto PC boards.

Recommended PC Board Layout for use with .010 [0.25] Thick Stencil

Base Part Numbers

Polarized Headers		Friction Lock Headers	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated			
647106	32-42	647166	32-42
Standard UL94V-0, .000030 [0.00076] Gold Plated			
647108	32-42	647168	32-42
Standard UL94V-0, .000015 [0.00038] Gold Plated			
647107	32-42	647167	32-42

Tape Mount Part Numbers

Polarized Headers		Friction Lock Headers	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated			
647531	32-42	647502	32-42
Standard UL94V-0, .000030 [0.00076] Gold Plated			
	1744163		32-42
Standard UL94V-0, .000015 [0.00038] Gold Plated			
	647467		32-42

Note: Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA, CST-100 II and SL-156 Connectors

MTA-100 Shrouded Headers—Straight and Right-Angle

Material and Finish

Housing—UL94V-0 rated, polyester, black
Posts—Copper alloy, tin plated, .000030 [0.00076] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Headers with .000015 [0.00038] gold plated post are available upon request. Minimums may apply.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.

For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see pages 7, 8 and 24.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts and with pegs would be:

Base number **644486** plus prefix-and-suffix
4 - - 0

The correct ordering number is
4-644486-0

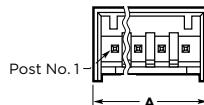
See page 15 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

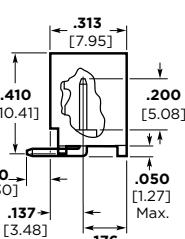
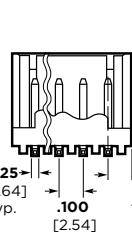
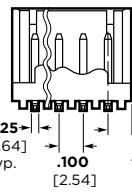
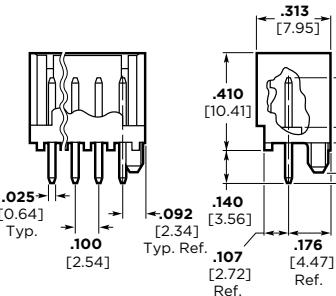
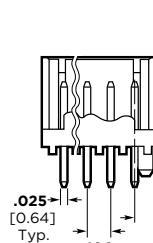
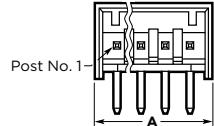
Notes:

- Select lead headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.
- MTA-100 shrouded headers do not mate with CST-100 II housings.

Straight Post (.025 [0.64] Square)



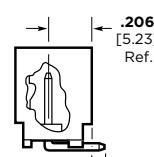
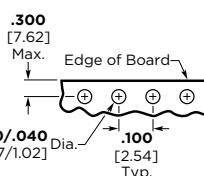
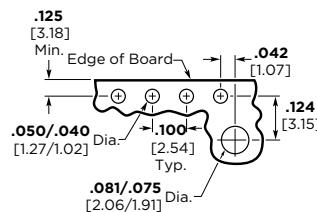
Right-Angle (.025 [0.64] Square)



Front Bend



Polarized
Retention Peg



Rear Bend

Note: Consult Product Drawing for details on placing headers onto PC boards.

Recommended Mounting Hole Pattern for .062

.062 [1.57] Thk. PC Board

(Solder Side of Board Shown)

.062 [1.57] Thk. PC Board

(Solder Side of Board Shown)

Base Part Numbers

Straight Posts				Right-Angle Posts			
With Pegs		Without Pegs		Without Pegs Only		Front Bend	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated							
644486	22-34	644861	22-34	644488	22-34	644803	22-34
Standard UL94V-0, .000030 [0.00076] Gold Plated							
644487	22-34	—	—	644489	22-34	—	—

Header Length

No. of Circuits	Dim. A	Prefix/Suffix
2	.284 7.21	3- -2
3	.384 9.75	3- -3
4	.484 12.29	3- -4
5	.584 14.83	3- -5

No. of Circuits	Dim. A	Prefix/Suffix
6	.684 17.37	3- -6
7	.784 19.91	3- -7
8	.884 22.45	3- -8
9	.984 24.99	3- -9

No. of Circuits	Dim. A	Prefix/Suffix
10	1.084 27.53	4- -0
11	1.184 30.07	4- -1
12	1.284 32.61	4- -2
13	1.384 35.15	4- -3

No. of Circuits	Dim. A	Prefix/Suffix
14	1.484 37.69	4- -4

MTA, CST-100 II and SL-156 Connectors

.100 [2.54] Centerline CST-100 II Crimp Contacts and Housings

PRODUCT FACTS

- Low cost wire-to-board interconnections
- Wide wire range for single contact
- Tin and gold plated contacts
- Mates with specified MTA and similar competitive notched headers
- Plastic latching feature in housing helps prevent contact backout
- Locking ramps and polarizing tabs are standard
- For keying purposes use keying plug 641994-1 (page 10)
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR7189



For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see pages 13 thru 23 and 25.

See page 8 for an explanation of RoHS lead free equivalents.

Performance Data

Voltage Rating—250 vac

Current Rating—4 amp max.

Low-Level Resistance—

6 mΩ max. initial; 10 mΩ max. initial

Dielectric Withstanding Voltage—

750 vac/1 min.

Insulation Resistance—1000 MΩ min. initial; 100 MΩ min. final

Operating Temperature—
-55° C to +105° C

Technical Documents

Product Specification

108-1948

Application Specifications

114-13036

Instruction Sheet

408-8493

Application Tooling

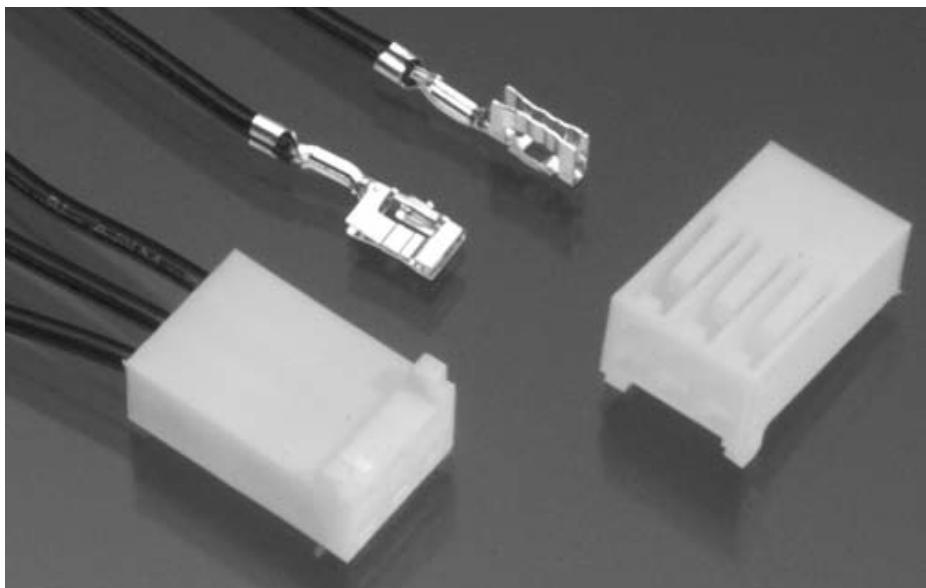
Loose Piece Contacts—Hand Tool No. 58517-3 (408-4064)

Strip Contacts—AMP-O-LECTRIC Model "G" Termination Machine* Applicator No. 567373-3 (Request Catalog 65828)

AMP-O-MATIC Stripper-Crimper Machine* Applicator No. 567910-1 or 567827-1 (with CQM) (Request Catalog 65004)

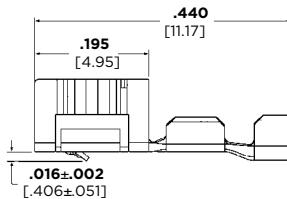
AMPOMATOR CLS IIIG Lead Making Machine* (Request Catalog 82659)

*Requires applicators. For part numbers, call Technical Support.



Contacts

Part Numbers		
Tin Plated	15 Au Gold Plated	30 Au Gold Plated
1375819-1 (Strip)	1375819-2 (Strip)	1375819-3 (Strip)
1445336-1 (Loose Piece)	1445336-2 (Loose Piece)	1445336-3 (Loose Piece)



Material and Finish (RoHS Compliant)

Phosphor bronze, pretinned or .000015 [.000038] gold, over nickel .000030 [0.00076] gold over nickel

Wire Range—22-26 AWG [0.35–0.13 mm²]

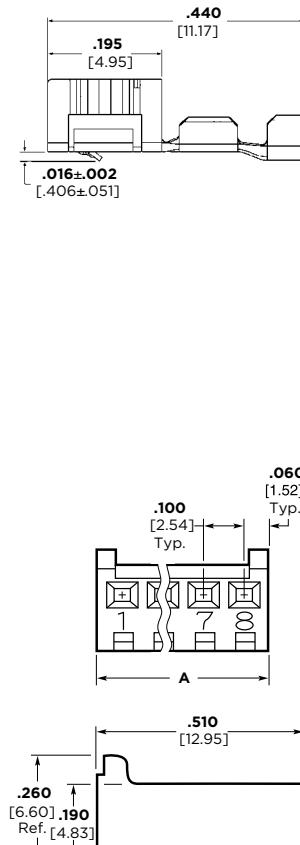
Max. Ins. Dia.—.065 [1.65]

Housing*

Material (RoHS Compliant)

UL94V-0 rated, nylon, white

No. of Pos.	Dim. A	Part Numbers	No. of Pos.	Dim. A	Part Numbers
2	.220 5.59	1375820-2	16	1.620 41.15	1-1375820-6
3	.320 8.13	1375820-3	17	1.720 43.69	1-1375820-7
4	.420 10.67	1375820-4	18	1.820 46.23	1-1375820-8
5	.520 13.21	1375820-5	19	1.920 48.77	1-1375820-9
6	.620 15.75	1375820-6	20	2.020 51.31	2-1375820-0
7	.720 18.29	1375820-7	21	2.120 53.85	2-1375820-1
8	.820 20.83	1375820-8	22	2.220 56.39	2-1375820-2
9	.920 23.37	1375820-9	23	2.320 58.93	2-1375820-3
10	1.020 25.91	1-1375820-0	24	2.420 61.47	2-1375820-4
11	1.120 28.45	1-1375820-1	25	2.520 64.01	2-1375820-5
12	1.220 30.99	1-1375820-2	26	2.620 66.55	2-1375820-6
13	1.320 33.53	1-1375820-3	27	2.720 69.09	2-1375820-7
14	1.420 36.07	1-1375820-4	28	2.820 71.63	2-1375820-8
15	1.520 38.61	1-1375820-5			



*Housings without polarizing tabs may be manufactured upon request. Minimums may apply. Contact product engineering or product manager for details.

MTA, CST-100 II and SL-156 Connectors

CST-100 II Shrouded Headers—Straight and Right-Angle

Material and Finish

Housing—UL94V-0 rated, polyester, black

Posts—Copper alloy, tin plated, or .000030 [0.00076] gold over nickel

- Notes:**
- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
 - Headers with .000015 [0.00038] gold plated post are available upon request. Minimums may apply.
 - Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.

For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see page 23.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts and with pegs would be:

Base number **644893** plus prefix-and-suffix
4- - -0

The correct ordering number is
4-644893-0

All part numbers are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-644893-2
14	4-644893-4

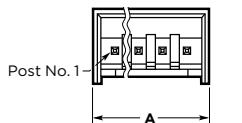
See page 8 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

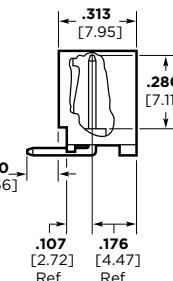
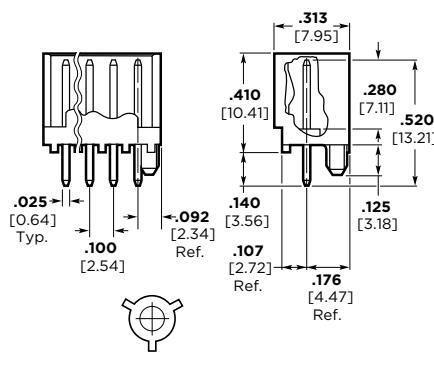
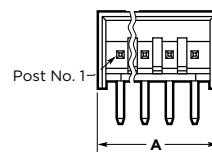
Note:

CST-100 II shrouded headers only mate with CST-100 II housings. All the MTA-100 headers except the MTA-100 shrouded headers mate with CST-100 II housings.

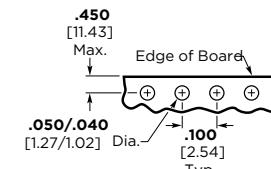
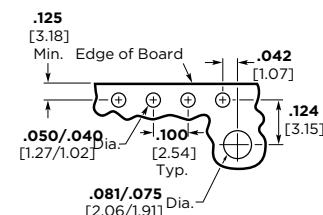
Straight Post (.025 [0.64] Square)



Right-Angle (.025 [0.64] Square)



Note: Consult Product Drawing for details on placing headers onto PC boards.



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board
(Solder Side of Board Shown)

Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board
(Solder Side of Board Shown)

Base Part Numbers

Straight Posts					
With Pegs		Without Pegs		Right-Angle Posts Without Pegs Only	
Header Part No.	No. of Posts/ RoHS Equiv.	Header Part No.	No. of Posts/ RoHS Equiv.	Header Part No.	No. of Posts/ RoHS Equiv.
Standard UL94V-0, Tin Plated					
644893	32-44	644892	32-44	644894	32-44
Standard UL94V-0, .000030 [0.00076] Gold Plated					
644897	32-44	644896	32-44	644898	32-44

Header Length

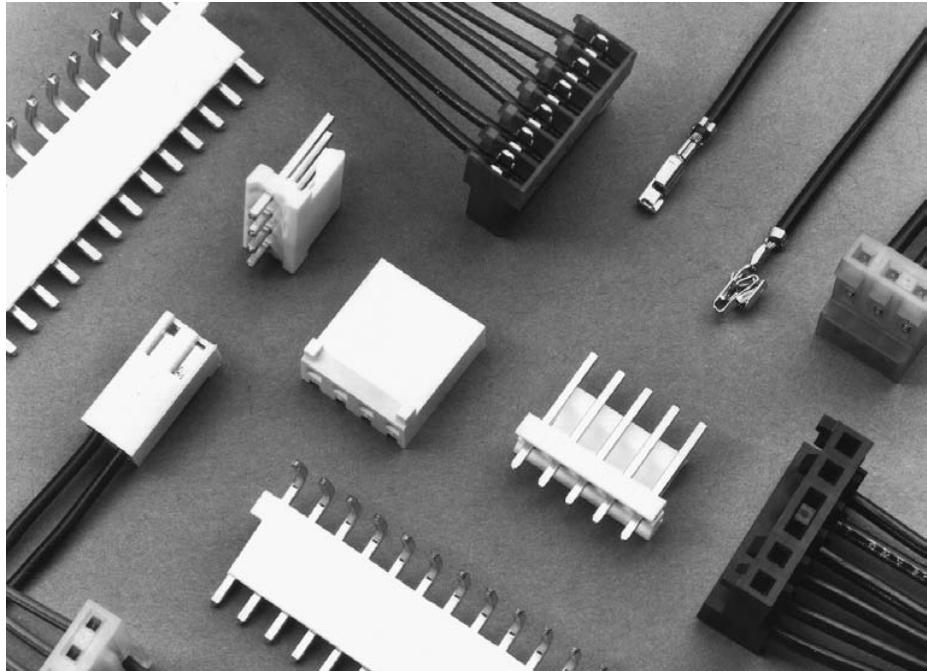
No. of Circuits	Dim. A	Prefix/Suffix	No. of Circuits	Dim. A	Prefix/Suffix	No. of Circuits	Dim. A	Prefix/Suffix
2	.284 7.21	3- -2	5	.584 14.83	3- -5	8	.884 22.45	3- -8
3	.384 9.75	3- -3	6	.684 17.37	3- -6	9	.984 24.99	3- -9
4	.484 12.29	3- -4	7	.784 19.91	3- -7	10	1.084 27.53	4- -0

MTA, CST-100 II and SL-156 Connectors

.156 [3.96] Centerline MTA-156 IDC Connectors and Headers

PRODUCT FACTS

- Connectors and headers for 2 through 24 positions; wire sizes of 18, 20, 22, 24 and 26 AWG [0.9–0.12 mm²]
- Connectors and headers, except shrouded headers, are end-to-end stackable
- Posted connectors for 2, 3, 4, 6, 9, 12, 15 and 24 positions
- Card edge connectors for 3, 6, 9, 12, 15, 18 and 20 through 24 positions
- Connectors preloaded with IDC contacts
- All contacts are slotted for insulation displacement (IDC) termination technique
- Connector styles include both closed end and feedthru, with and without locking ramps and polarizing tabs
- Molded ribs on housing do not allow reverse mating
- Contacts are lubricated for fretting corrosion protection
- Benefits derived from the MTA-156 system include increases quality and ease of handling such as—
 - One-step assembly
 - No wire stripping
 - No contact damage
 - Reduced wiring errors
 - Simpler tooling
 - Simple maintenance and repair
- Meets the material requirements of Table 23.1 of UL1410 Standards for Television Receiver and Video Products (wire-to post connectors only)
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR7189



MTA-156 connectors accept discrete and ribbon cable wire sizes ranging from 18–26 AWG [0.9–0.12 mm²] with maximum insulation outside diameter .095 [2.41] for single wire and .070 [1.78] for mass termination of wires. Tin plated solid, fused stranded or stranded (7, 16, and 19 strands) wire with PVC insulation can be used on 18 AWG [0.8–0.9 mm²] MTA-156 connectors; 7, 10, and 19 stranded wire on 20 AWG [0.5–0.6 mm²] MTA-156 connectors; and 7 and 19 stranded wire on 22–26 AWG [0.4–0.12 mm²] MTA-156 connectors.

Only one wire to be terminated into an IDC contact slot.

Mass termination of wire provides the lowest applied cost because it drastically reduces the labor content of virtually any cable or harness assembly required.

The wire-to-post connector housing material is flame retardant thermoplastic, either UL94V-2 or UL94V-0 rated.

A full line of .156 [3.96] centerline headers completes the system. Headers are available with straight or right-angle posts, in flat friction lock and shrouded styles. Headers are available in 2 through 24 positions.

Note: Refer to page 52 for approved wire listings.

Performance Data*

Voltage Rating—600 vac

Current Rating—7 amp max. for MTA-156 Connector

Low-Level Resistance—3.0 mΩ max. initial

Dielectric Withstanding Voltage—2200 vac/1 min.

Insulation Resistance—5000 MΩ min. initial

Operating Temperature—-55° C to +105° C

*Refer to the Product Specification for additional electrical, mechanical and environmental performance tests and requirements.

Technical Documents Product Specification

108-1051 MTA-156 Connectors

Application Specifications

- | | |
|----------|--|
| 114-1020 | MTA-156 Connectors, Posted Connectors and Card Edge Connectors |
| 114-1032 | MTA-156 Ribbon Cable Assembly |

MTA, CST-100 II and SL-156 Connectors

MTA-156 Connector/Header Mateability Guide (continued)

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-156 header and connector combination. Where a "Y" is indicated the combination is a valid mating pair. Where an "N" is indicated the combination is not acceptable for mating.

**Matrix for
.000030
[0.00076]
Gold Plated
Part Numbers**

		Headers												
		641202	641203	641204	641207	641208	641209	641210	644631	644633	644756	644759	644760	644761
Connectors	641217	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	
	641218	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	
641219	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
641220	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
641222	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
641223	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
641224	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
641226	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
641227	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
641228	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
641229	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
641230	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
641235	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
644460	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
644662	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
644663	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
644718	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
644720	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	

**Matrix for
.000015
[0.00038]
Gold Plated
Part Numbers**

		Headers												
		641113	641119	641120	641121	644766	644767	644768	644769					
Connectors	641148	Y	Y	Y	Y	Y	Y	Y	Y	N				
	641149	Y	Y	Y	Y	Y	Y	Y	Y	N				
641150	Y	Y	Y	Y	Y	Y	Y	Y	Y	N				
641151	Y	Y	Y	Y	Y	Y	Y	Y	Y	N				
641168	Y	Y	Y	Y	Y	Y	Y	Y	Y	N				
641170	Y	Y	Y	Y	Y	Y	Y	Y	Y	N				
641175	Y	Y	Y	Y	Y	Y	Y	Y	Y					
644284	Y	Y	Y	Y	Y	Y	Y	Y	Y					
647478	Y	Y	Y	Y	Y	Y	Y	Y	Y					
647479	Y	Y	Y	Y	Y	Y	Y	Y	Y					

MTA, CST-100 II and SL-156 Connectors

MTA-156 IDC Connectors—Closed End

Material and Finish

Housing—UL94V-2 rated, nylon, see below for color; or UL94V-0 rated, nylon, black

Contacts—Phosphor bronze, post tin plated, .000030 [0.00076] or .000015 [0.00038] post gold plated over nickel

Color Coding by Wire Size for UL94V-2 Connectors

26 AWG—Blue

24 AWG—White

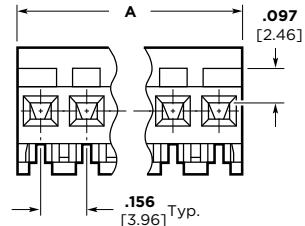
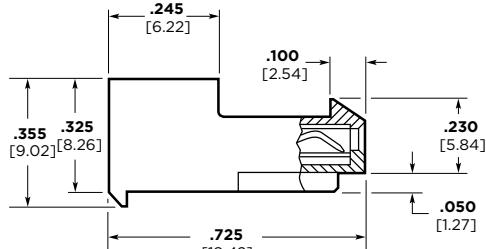
22 AWG—Red

20 AWG—Yellow

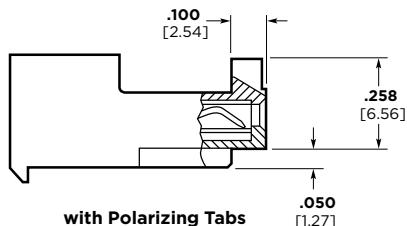
18 AWG—Orange

All wire sizes in **UL94V-0**—Black

Closed End with Locking Ramp



without Polarizing Tabs

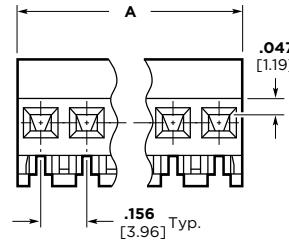
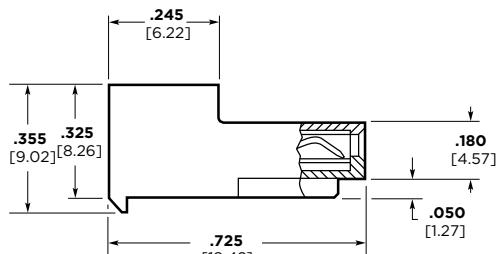


with Polarizing Tabs

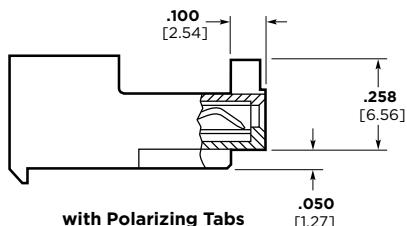
For mateability options, see matrix on pages 27 and 28.

Mating half visuals for Closed End Connectors with Locking Ramp, see pages 38 thru 41, 43, 45, and 46, (42 and 44 Front Bend Headers only).

Closed End without Locking Ramp



without Polarizing Tabs



with Polarizing Tabs

For mateability options, see matrix on pages 27 and 28.

Mating half visuals for Closed End Connectors without Locking Ramp, see pages 39 thru 46.

MTA, CST-100 II and SL-156 Connectors

MTA-156 IDC Connectors—Closed End (continued)

Connector Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of circuits available for the described connectors.

Prefixes and suffixes are determined by the number of circuit positions in the connector. For example, the complete part number for a 10-position closed end connector with locking ramp and without polarizing tabs for 18 AWG wire would be:

Base number **640426** plus prefix-and-suffix
4- -- -0

The correct ordering number is
4-640426-0

All part numbers **bold face** are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-640426-2
3	3-640426-3
4	3-640426-4
5	3-640426-5
6	3-640426-6
7	3-640426-7
8	3-640426-8
9	3-640426-9
10	4-640426-0
11	4-640426-1
12	4-640426-2
13	4-640426-3
14	4-640426-4
15	4-640426-5
16	4-640426-6
17	4-640426-7
18	4-640426-8
19	4-640426-9
20	5-640426-0
21	5-640426-1
22	5-640426-2
23	5-640426-3
24	5-640426-4

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Base Part Numbers

Connector Type & Wire Size	Closed End with Locking Ramp				Closed End without Locking Ramp			
	Without Tabs		With Tabs		Without Tabs		With Tabs	
Connector Part Nos.	RoHS Equiv.	Connector Part Nos.	RoHS Equiv.	Connector Part Nos.	RoHS Equiv.	Connector Part Nos.	RoHS Equiv.	Connector Part Nos.
Standard UL94V-2, Tin Plated								
18 AWG 0.8-0.9 mm ²	640426	32-54	643817	32-54	640431	32-54	644461 ¹	32-44
20 AWG 0.5-0.6 mm ²	640427	32-54	643818	32-54	640432	32-54	644462 ¹	32-44
22 AWG 0.3-0.4 mm ²	640428	32-54	643819	32-54	640433	32-54	644463 ¹	32-44
24 AWG 0.2 mm ²	640429	32-54	643820	32-54	640434	32-54	644464 ¹	32-44
26 AWG 0.12-0.15 mm ²	640430	32-54	643821	32-54	640435	32-54	—	—
Tape Mounted on Reel UL94V-2, Tin Plated								
18 AWG 0.8-0.9 mm ²	640472	32-54	644878	32-54	640477	32-54	—	—
20 AWG 0.5-0.6 mm ²	640473	32-54	—	—	—	—	—	—
22 AWG 0.3-0.4 mm ²	640474	32-54	644783	32-54			644791 ¹	32-44
24 AWG 0.2 mm ²	—	—	—	—	640480	32-54	—	—
26 AWG 0.12-0.15 mm ²	—	—	—	—	—	—	—	—
Standard UL94V-2, .000030 [0.000076] Gold Plated								
18 AWG 0.8-0.9 mm ²	641217	32-54	644460 ¹	32-42	641222	32-54	—	—
20 AWG 0.5-0.6 mm ²	641218	32-54	644663 ¹	32-42	641223	32-54	—	—
22 AWG 0.3-0.4 mm ²	641219	32-54	644662 ¹	32-42	641224	32-54	644687 ¹	32-44
24 AWG 0.2 mm ²	641220	32-54	—	—	641225	32-54	—	—
26 AWG 0.12-0.15 mm ²	641221	32-54	—	—	641226	32-54	—	—
Standard UL94V-2, .000015 [0.000038] Gold Plated								
18 AWG 0.8-0.9 mm ²	641148	32-54	644284 ¹	32-42	641153	32-54	—	—
20 AWG 0.5-0.6 mm ²	641149	32-54	—	—	641154	32-54	—	—
22 AWG 0.3-0.4 mm ²	641150	32-54	647478 ¹	32-42	641155	32-54	—	—
24 AWG 0.2 mm ²	641151	32-54	—	—	641156	32-54	—	—
26 AWG 0.12-0.15 mm ²	641152	32-54	—	—	641157	32-54	—	—
Standard UL94V-0, Tin Plated (Black in color)								
18 AWG 0.8-0.9 mm ²	644860	32-42	—	—	644502	32-42	644082 ¹	32-42
22 AWG 0.3-0.4 mm ²	—	—	—	—	644501	32-42	644566 ¹	32-42

¹ Other circuit sizes are available upon request. Minimums may apply.

Note: Blocked circuit configurations are available upon request. Contact product engineer or product manager for details. Minimums may apply.

MTA, CST-100 II and SL-156 Connectors

MTA-156 IDC Connectors—Feed-Thru

Material and Finish

Housing—UL94V-2 rated, nylon, see below for color; or UL94V-0 rated, nylon, black

Contacts—Phosphor bronze, post tin plated, .000030 [0.00076] or .000015 [0.00038] post gold-plated over nickel

Color Coding by Wire Size for UL94V-2 Connectors

26 AWG—Blue

24 AWG—White

22 AWG—Red

20 AWG—Yellow

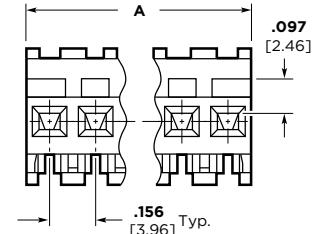
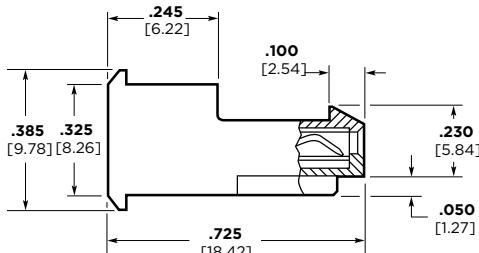
18 AWG—Orange

All wire sizes in **UL94V-0**—Black

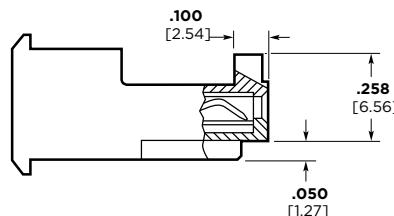
Notes:

- Only connectors with locking ramp and without polarizing tabs mate with posted connectors on page 38.
- Refer to pages 52-56 for approved wire listing.
- For strain reliefs and dust covers, see page 33 and 34.
- For keying plugs and panel mount end caps, see page 35.
- Other circuit sizes are available upon request. Minimums may apply.
- Connector circuits can be molded closed for keying purposes. Minimums may apply.
- Where no part numbers appear in the chart, parts can be made available upon request. Minimums may apply.
- To determine connector overall length (dim. A), multiply .156 x the number of circuits. Example: .156 x 10 circuits equals 1.560 inch [39.62 mm].

Feed-Thru with Locking Ramp



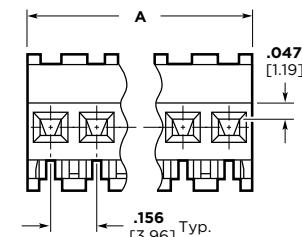
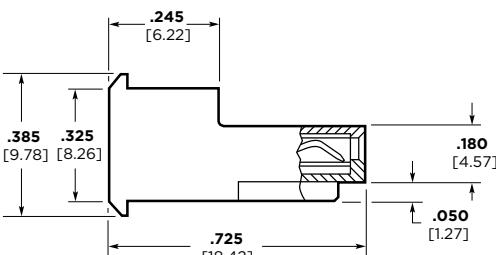
without Polarizing Tabs



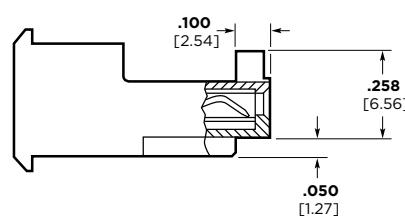
with Polarizing Tabs

For mateability options, see matrix on pages 27 and 28.
Mating half visuals for Closed End Connectors with Locking Ramp, see pages 38 thru 41, 43, 45, and 46, (42 and 44 Front Bend Headers only).

Feed-Thru without Locking Ramp



without Polarizing Tabs



with Polarizing Tabs

For mateability options, see matrix on pages 27 and 28.
Mating half visuals for Closed End Connectors without Locking Ramp, see pages 39 thru 46.

MTA, CST-100 II and SL-156 Connectors

MTA-156 IDC Connectors—Feed-Thru (continued)

Connector Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of circuits available for the described connectors.

Prefixes and suffixes are determined by the number of circuit positions in the connector. For example, the complete part number for a 10-position feed-thru connector with locking ramp and without polarizing tabs for 18 AWG wire would be:

Base number **640599** plus prefix-and-suffix
4- -- -0

The correct ordering number is
4-640599-0

All part numbers **bold face** are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-640599-2
3	3-640599-3
4	3-640599-4
5	3-640599-5
6	3-640599-6
7	3-640599-7
8	3-640599-8
9	3-640599-9
10	4-640599-0
11	4-640599-1
12	4-640599-2
13	4-640599-3
14	4-640599-4
15	4-640599-5
16	4-640599-6
17	4-640599-7
18	4-640599-8
19	4-640599-9
20	5-640599-0
21	5-640599-1
22	5-640599-2
23	5-640599-3
24	5-640599-4

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Base Part Numbers

Connector Type & Wire Size	Feed-Thru with Locking Ramp				Feed-Thru without Locking Ramp			
	Without Tabs		With Tabs		Without Tabs		With Tabs	
Connector Part Nos.	RoHS Equiv.	Connector Part Nos.	RoHS Equiv.	Connector Part Nos.	RoHS Equiv.	Connector Part Nos.	RoHS Equiv.	Connector Part Nos.
Standard UL94V-2, Tin Plated								
18 AWG 0.8-0.9 mm ²	640599	32-54	644465 ¹	32-44	640604	32-54	644469 ¹	32-44
20 AWG 0.5-0.6 mm ²	640600	32-54	644466 ¹	32-44	640605	32-54	644470 ¹	32-44
22 AWG 0.3-0.4 mm ²	640601	32-54	644467 ¹	32-44	640606	32-54	644471 ¹	32-44
24 AWG 0.2 mm ²	640602	32-54	644468 ¹	32-44	640607	32-54	—	—
26 AWG 0.12-0.15 mm ²	640595	32-54	—	—	640608	32-54	—	—
Tape Mounted on Reel UL94V-2, Tin Plated								
18 AWG 0.8-0.9 mm ²	641302	32-54	—	—	—	—	—	—
20 AWG 0.5-0.6 mm ²	—	—	—	—	—	—	—	—
22 AWG 0.3-0.4 mm ²	—	—	—	—	—	—	—	—
24 AWG 0.2 mm ²	—	—	—	—	—	—	—	—
26 AWG 0.12-0.15 mm ²	—	—	—	—	—	—	—	—
Standard UL94V-2, .00003 [.00076] Gold Plated								
18 AWG 0.8-0.9 mm ²	—	—	644718 ¹	32-44	641232	32-54	—	—
20 AWG 0.5-0.6 mm ²	—	—	—	—	641233	32-54	—	—
22 AWG 0.3-0.4 mm ²	—	—	644720 ¹	32-44	641234	32-54	—	—
24 AWG 0.2 mm ²	—	—	—	—	641235	32-54	—	—
26 AWG 0.12-0.15 mm ²	641231	32-54	—	—	641236	32-54	—	—
Standard UL94V-2, .000015 [.00038] Gold Plated								
18 AWG 0.8-0.9 mm ²	641168	32-54	647479 ¹	32-42	—	—	—	—
20 AWG 0.5-0.6 mm ²	—	—	—	—	—	—	—	—
22 AWG 0.3-0.4 mm ²	641170	32-54	647496 ¹	32-42	641175	32-54	—	—
24 AWG 0.2 mm ²	—	—	—	—	—	—	—	—
26 AWG 0.12-0.15 mm ²	—	—	—	—	—	—	—	—
Standard UL94V-0, Tin Plated								
18 AWG 0.8-0.9 mm ²	—	—	—	—	—	—	644570 ¹	32-42
22 AWG 0.3-0.4 mm ²	—	—	—	—	—	—	—	—

¹ Other circuit sizes are available upon request. Minimums may apply.

Note: Blocked circuit configurations are available upon request. Contact product engineer or product manager for details. Minimums may apply.

MTA, CST-100 II and SL-156 Connectors

MTA-156 Connector Accessories

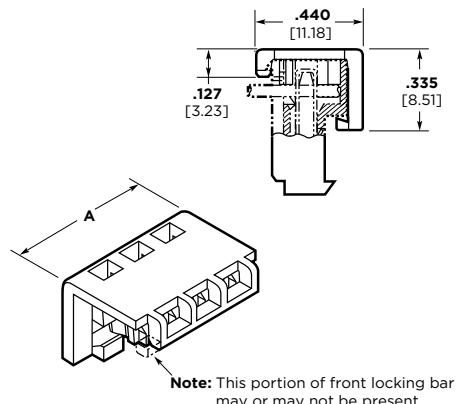
Covers

Material (RoHS Compliant)

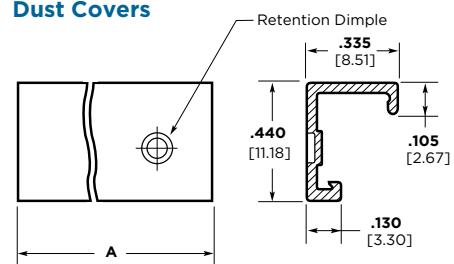
Strain Relief Covers—UL94V-2 rated, nylon, white

Dust Covers—UL94V-0 rated, polyester, white

Strain Relief Covers



Dust Covers



Base Part Numbers

Closed End			
Strain Relief Covers		Dust Covers	
Cover Part Nos.	No. of Circuits	Cover Part Nos.	No. of Circuits
643067	2-24	640551	2-24

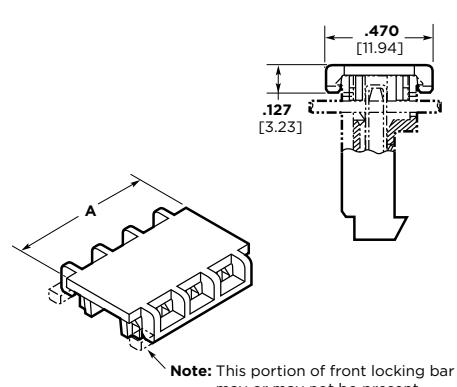
Feed-Thru Covers

Material (RoHS Compliant)

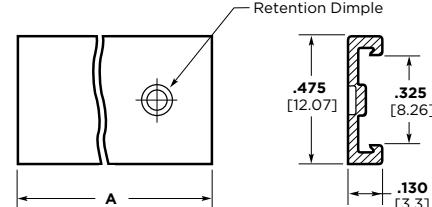
Strain Relief Cover—UL94V-2 rated, nylon, white

Dust Covers—UL94V-0 rated, polyester, white

Strain Relief Covers



Dust Covers



Base Part Numbers

Feed-Thru			
Strain Relief Covers		Dust Covers	
Cover Part Nos.	No. of Circuits	Cover Part Nos.	No. of Circuits
643071	2-24	640643	2-24

Cover Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of circuits available for the described cover.

Prefixes and suffixes are determined by the number of circuit positions in the cover. For example, the complete part number for a 10-position closed-end strain relief cover would be:

Base number **643067** plus
prefix-and-suffix
1- -- -0

The correct ordering number is
1-643067-0

Cover Length

No. of Circuits	Dim. A	Prefix/Suffix	No. of Circuits	Dim. A	Prefix/Suffix	No. of Circuits	Dim. A	Prefix/Suffix
2	.312 7.92	-2	10	1.560 39.62	1- -0	18	2.808 71.32	1- -8
3	.468 11.89	-3	11	1.716 43.59	1- -1	19	2.964 75.29	1- -9
4	.624 15.85	-4	12	1.872 47.55	1- -2	20	3.120 79.25	2- -0
5	.780 19.81	-5	13	2.028 51.51	1- -3	21	3.276 83.21	2- -1
6	.936 23.77	-6	14	2.184 55.47	1- -4	22	3.432 87.17	2- -2
7	1.092 27.74	-7	15	2.340 59.44	1- -5	23	3.588 91.14	2- -3
8	1.248 31.7	-8	16	2.496 63.4	1- -6	24	3.744 95.1	2- -4
9	1.404 35.66	-9	17	2.652 67.36	1- -7			

MTA, CST-100 II and SL-156 Connectors

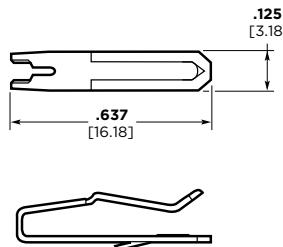
MTA-156 Connector Accessories (continued)

Replacement IDC Contacts

Material and Finish

Contacts—Phosphor bronze, post tin plated, .000030 [0.00076] or .000015 [0.00038] post gold plated over nickel

Notes: TE does not recommend terminating an MTA contact more than one time. Use replacement contacts when required for field repairs or wire changes.

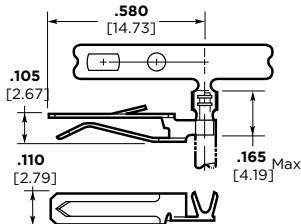


Wire Size AWG	mm ²	Part Numbers		
		Tin Plated	.000030 [0.00076] Gold Plated	.000015 [0.00038] Gold Plated
18	0.8-0.9	640631-3	641143-4	641143-3
20	0.5-0.6	640632-3	641144-4	641144-3
22	0.3-0.4	640633-3	641145-4	641145-3
24	0.2	640634-3	641146-4	641146-3
26	0.12-0.15	640635-3	641147-4	641147-3

Crimp Snap-in Contacts

Material and Finish

Contacts—Phosphor bronze, tin plated



Wire Size AWG	mm ²	Part Nos.	
		Loose Piece*	Strip**
26-22	.12-0.3	640557-3	640556-3
22-18	0.3-0.9	640559-3	640558-3

*Hand Tool No. 59837-1 (408-6528)

**AMP-O-LECTRIC Model "G" Termination Machine (Request Catalog 65828)

Note: Requires applicator. For part number, call Technical Support.

Special applications for crimp snap-in contacts are:

1. Double wire per contact
2. Coax or shielded wire
3. Mixed wire size in same connector

Note: Only one crimp snap-in contact per connector.

MTA, CST-100 II and SL-156 Connectors

MTA-156 Connector Accessories (continued)

Keying Plugs

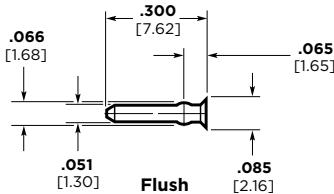
Material (RoHS Compliant)

UL94V-2 rated, nylon, natural color

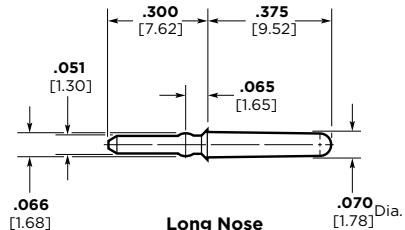
Note: Removal of contact is not necessary when using keying plug.

Loose Piece

Part No. 640629-1 (Flush) Used with keyed headers

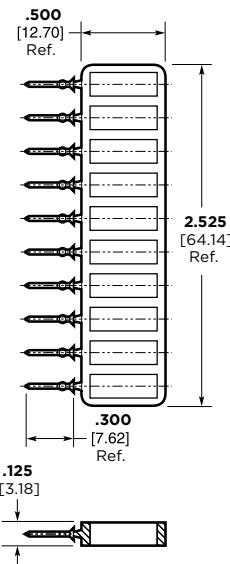


Part No. 640630-1 (Long Nose) Used with staked post



On Carrier Strip

Part No. 641623-1 (Flush) (10 per strip)



Panel Mount End Caps

Part No. 641440-1

Part No. 641533-1 (2-position only)

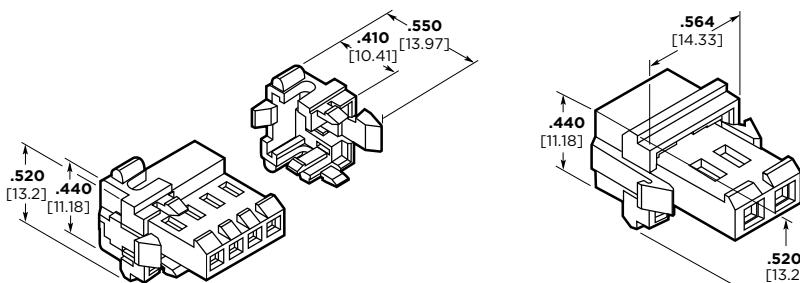
Material (RoHS Compliant)

UL94V-2 rated, nylon, black

Notes:

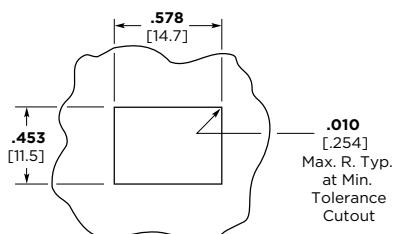
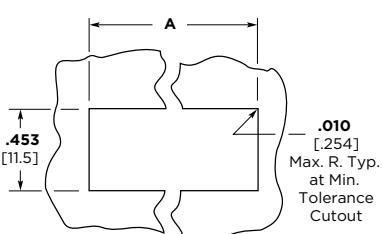
- Both left-hand and right-hand end caps are attached by a connecting tab. This tab must be broken off prior to installing on connector.
- For best results attach panel mount end caps to the MTA-156 (IDC) connectors shown on pages 29 thru 32. While not preferred, panel mount end caps can be attached to MTA-156 (IDC) posted connector on page 38.

No. of Pos.	Dim. A
3	.736 18.69
4	.892 22.66
6	1.204 30.58
9	1.672 42.47
12	2.140 54.36
15	2.608 66.24
24	4.012 101.9



3- thru 24-Position
641440-1
See Note 1

Two-Position Only
641533-1



Recommended Panel Cutout
(Recommended Panel Thickness .062 [1.57] to .067 [1.70] max.)

MTA, CST-100 II and SL-156 Connectors

MTA-156 Posted Connector/Connector Mateability Guide

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-156 posted connector and connector combination. Where a "Y" is indicated the combination is a valid mating pair. Where an "N" is indicated the combination is not acceptable for mating.

Matrix for Tin Plated Part Numbers

Posted Connectors

	641435	641436	641437	641438	641439	641522	641523	641524	641525
Connectors									
640426	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
640427	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
640428	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
640429	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
640430	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
640431	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
640432	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
640433	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
640434	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
640435	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
640472	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
640473	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
640474	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
640477	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
640480	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
640595	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
640599	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
640600	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
640601	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
640602	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
640604	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
640605	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
640606	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
640607	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
640608	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
641302	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
643817	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
643818	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
643819	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
643820	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
643821	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644082	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644461	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644462	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644463	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644464	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644465	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644466	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644467	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644468	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644469	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644470	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644471	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644501	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644502	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644566	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644570	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644783	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644791	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N
644860	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y Y	Y Y	Y Y	Y Y	Y Y
644878	N N N	N N N	N N N	N N N	N N N	N N	N N	N N	N N

MTA, CST-100 II and SL-156 Connectors

MTA-156 Posted Connector/Connector Mateability Guide (continued)

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-156 posted connector and connector combination. Where a "Y" is indicated the combination is a valid mating pair. Where an "N" is indicated the combination is not acceptable for mating.

**Matrix for
.000030
[0.00076]
Gold Plated
Part Numbers**

Posted Connectors

	644807	644809	644812	644814
Connectors				
641217	Y	Y	Y	Y
641218	Y	Y	Y	Y
641219	Y	Y	Y	Y
641220	Y	Y	Y	Y
641222	N	N	N	N
641223	N	N	N	N
641224	N	N	N	N
641226	N	N	N	N
641227	Y	Y	Y	Y
641228	Y	Y	Y	Y
641229	Y	Y	Y	Y
641230	Y	Y	Y	Y
641235	N	N	N	N
644460	N	N	N	N
644662	N	N	N	N
644663	N	N	N	N
644718	N	N	N	N
644720	N	N	N	N

**Matrix for
.000015
[0.00038]
Gold Plated
Part Numbers**

Posted Connectors

	643995	647476	647481
Connectors			
641148	Y	Y	Y
641149	Y	Y	Y
641150	Y	Y	Y
641151	Y	Y	Y
641168	Y	Y	Y
641170	Y	Y	Y
641175	N	N	N
644284	N	N	N
647478	N	N	N
647479	N	N	N

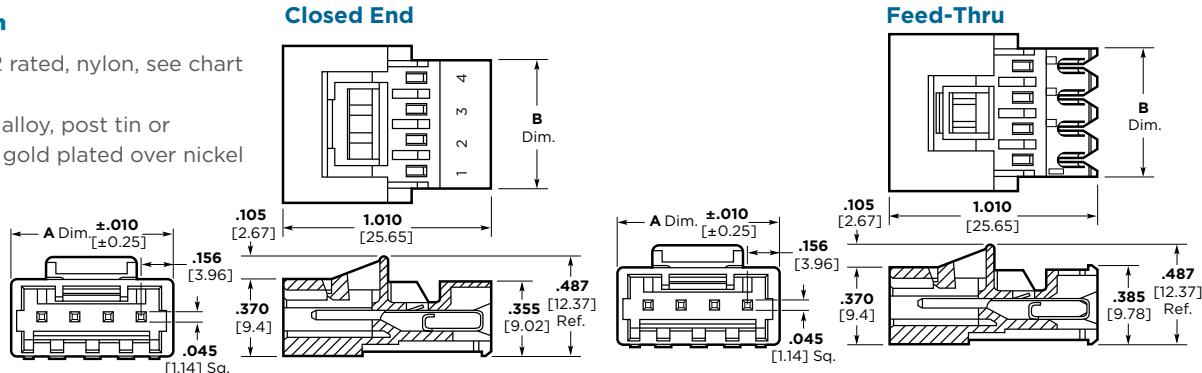
MTA, CST-100 II and SL-156 Connectors

MTA-156 IDC Posted Connectors (Wire-to-Wire)—Closed End, Feed-Thru

Material and Finish

Housing—UL94V-2 rated, nylon, see chart for color

Contacts—Copper alloy, post tin or .000030 [.00076] gold plated over nickel



- Note: 1. Mating half visuals — pages 29 & 32.
2. Strain relief & dust covers — pages 33 & 34.
3. Approved wire listing — page 52.

Connector Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of circuits available for the described connectors.

Prefixes and suffixes are determined by the number of circuit positions in the connector. For example, the complete part number for a 12-position closed end connector for 18 AWG wire would be:

Base number **641435** plus prefix-and-suffix
4- - 2

The correct ordering number is
4-641435-2

See page 8 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Color Coding by Wire Size for UL94V-2 Connectors

18 AWG—Orange

20 AWG—Yellow

22 AWG—Red

24 AWG—White

26 AWG—Blue

Performance Data

Voltage Rating—600 vac

Current Rating—7 amp max.

Low-Level Resistance—7 mΩ max. initial

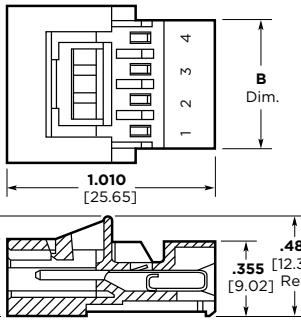
Dielectric Withstanding Voltage—

1500 vac/1 min.

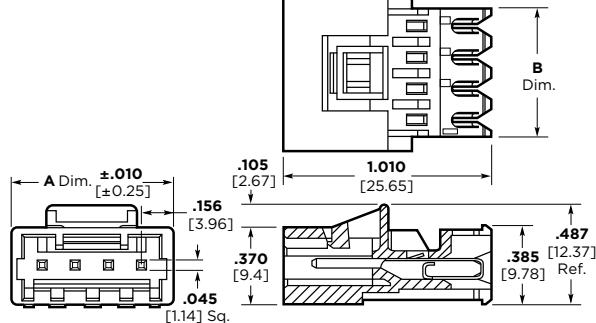
Insulation Resistance—5000 MΩ min. initial

Operating Temperature—−55° C to +105° C

Closed End



Feed-Thru



Base Part Numbers

Connector Type & Wire Size	Closed End Connector		Feed-Thru Connector	
	Part Nos.	RoHS Equiv.	Part Nos.	RoHS Equiv.
Standard UL 94V-2, Tin Plated				
18 AWG 0.8-0.9 mm ²	641435	32,33,34,36,39,42,45,54	641522	32,33,34,36,39,42,45,54
20 AWG 0.5-0.6 mm ²	641436	32,33,34,36,39,42,45,54	641523	32,33,34,36,39,42,45,54
22 AWG 0.3-0.4 mm ²	641437	32,33,34,36,39,42,45,54	641524	32,33,34,36,39,42,45,54
24 AWG 0.2 mm ²	641438	32,33,34,36,39,42,45,54	641525	32,33,34,36,39,42,45,54
26 AWG 0.12-0.15 mm ²	641439	32,33,34,36,39,42,45,54	641526	32,33,34,36,39,42,45,54
Standard UL 94V-2, .000030 [.00076] Gold Plated				
18 AWG 0.8-0.9 mm ²	644807	32,33,34,36,39,42,45,54	644812	32,33,34,36,39,42,45,54
20 AWG 0.5-0.6 mm ²	— ²	—	— ²	—
22 AWG 0.3-0.4 mm ²	644809	32,33,34,36,39,42,45,54	644814	32,33,34,36,39,42,45,54
24 AWG 0.2 mm ²	— ²	—	— ²	—
26 AWG 0.12-0.15 mm ²	— ²	—	— ²	—
Standard UL 94V-2, .000015 [0.00038] Gold Plated				
18 AWG 0.8-0.9 mm ²	647476	32,33,34,36,39,42,45,54	647481	32,33,34,36,39,42,45,54
22 AWG 0.3-0.4 mm ²	643995	32,33,34,36,39,42,45,54	647497	32,33,34,36,39,42,45,54

¹ MTA-156 Posted Connectors (Closed End and Feed-Thru) will Only mate with MTA-156 connectors with locking ramp and without polarizing tabs. They will NOT mate with MTA-156 Quad Connectors.

² Parts can be made available upon request. Minimums may apply.

No. of Circuits	Dim.		No. of Circuits	Dim.		Prefix/Suffix
	A	B		A	B	
2	.468 11.89	.316 8.03	-2	9	1.560 39.62	1.408 35.76
3	.624 15.85	.472 11.99	-3	12	2.028 51.51	1.876 47.65
4	.780 19.81	.628 15.95	-4	15	2.496 63.40	2.344 59.54
6	1.092 27.74	.940 23.88	-6	24	3.900 99.06	3.748 95.20

Technical Documents

Product Specification

108-1065 MTA-156 Posted Connector

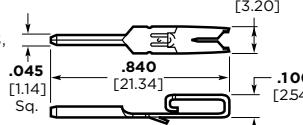
Application Specification

114-1020 MTA-156 Connectors, Posted Connectors and Card Edge Connectors

Replacement IDC Contacts

Material and Finish

Contacts—Copper alloy, post tin plated over nickel



Wire Size	Part Number
AWG	mm ²
18	0.8-0.9
20	0.5-0.6
22	0.3-0.4
24	0.2
26	0.12-0.15

MTA, CST-100 II and SL-156 Connectors

MTA-156 Flat Headers—Straight

Material and Finish

Housing—UL94V-0 rated, polyester, white

Posts—Copper alloy, tin plated .000030

[.000076] or .000015 [0.00038] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- .125 [3.18] solder tail lengths are for .062 [1.57] thick printed circuit boards and .175 [4.45] solder tail lengths are for .093-.125 [2.36- 3.18] thick printed circuit boards.
- To determine header overall length (Dim. A), multiply .156 x the number of posts. Example: .156 x 10 posts equals 1.560 inches [39.62 mm].

For mateability options, see matrix on pages 27, 28, and 47.

For mating half visuals, see pages 29 thru 32, 49 and 51.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with square posts and a .125 [3.18] solder tail length would be:

Base number **640383** plus prefix-and-suffix
4- -0

The correct ordering number is
4-640383-0

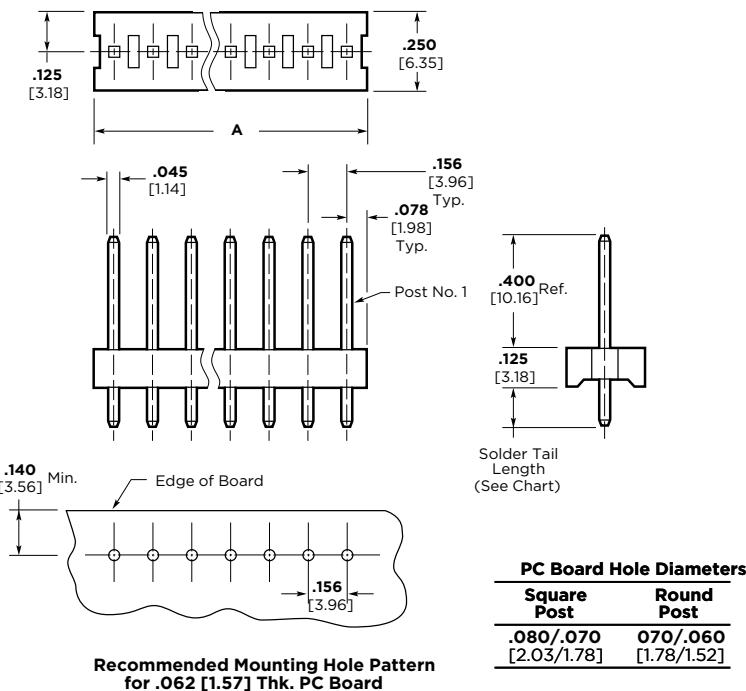
The part numbers in **bold face** are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-640383-2
24	thru 5-640383-4

See page 8 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Note:
Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.



PC Board Hole Diameters	
Square Post	Round Post
.080/.070 [2.03/1.78]	.070/.060 [1.78/1.52]

Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Square Posts				Round Posts			
.125 [3.18] Solder tail	.175 [4.45] Solder tail	.125 [3.18] Solder tail	.175 [4.45] Solder tail	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated							
640383	2-24	644749	2-24	640384	2-24	644750	2-24
Standard UL94V-0, .000030 [.000076] Gold Plated							
641202	32-54	644756	32-54	641203	32-54	—	—
Standard UL94V-0, .000015 [.000038] Gold Plated							
641113	32-54	644763	32-54	—	—	—	—

MTA, CST-100 II and SL-156 Connectors

MTA-156 Flat Headers—Right-Angle

Material and Finish

Housing—UL94V-0 rated, polyester, white
Posts—Copper alloy, tin plated .000030 [0.00076] or .000015 [0.00038] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- .125 [3.18] solder tail lengths are for .062 [1.57] thick printed circuit boards and .175 [4.45] solder tail lengths are for .093-.125 [2.36- 3.18] thick printed circuit boards.
- To determine header overall length (Dim. A), multiply .156 x the number of posts. Example: .156 x 10 posts equals .560 inches [39.62 mm].

For mateability options, see matrix on pages 27, 28, and 47.

For mating half visuals, see pages 29 thru 32, 49 and 51.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with square posts and a .125 [3.18] solder tail length would be:

Base number **641204** plus prefix-and-suffix
4- -0

The correct ordering number is
4-641204-0

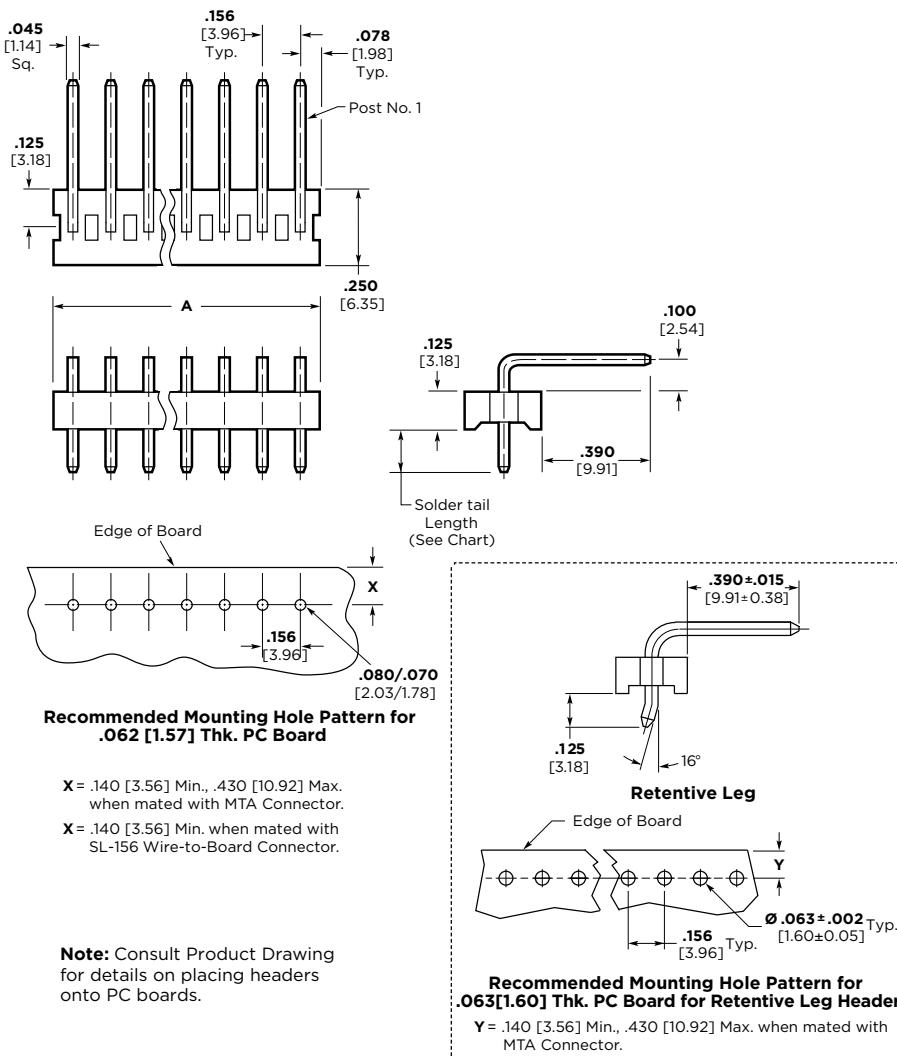
The part numbers in **bold face** are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-641204-2
24	5-641204-4

See page 8 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Note:
Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.



Base Part Numbers

Square Posts					
Retentive Leg		.125 [3.18] Solder tail		.175 [4.45] Solder tail	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated					
647646	2-12	640385	2-24	644751	2-24
Standard UL94V-0, .000030 [0.00076] Gold Plated					
—	—	641204	32-54	—	—
Standard UL94V-0, .000015 [0.00038] Gold Plated					
—	—	—	—	—	—

MTA, CST-100 II and SL-156 Connectors

MTA-156 Friction Lock Headers—Straight

Material and Finish

Housing—UL94V-0 rated, polyester, white
Posts—Copper alloy, tin plated .000030 [0.00076] or .000015 [0.00038] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- .125 [3.18] solder tail lengths are for .062 [1.57] thick printed circuit boards and .175 [4.45] solder tail lengths are for .093-.125 [2.36- 3.18] thick printed circuit boards.
- To determine header overall length (Dim. A), multiply .156 x the number of posts. Example: .156 x 10 posts equals 1.560 inches [39.62 mm].

For mateability options, see matrix on pages 27, 28, and 47.

For mating half visuals, use connectors with a locking ramp for polarization/retention purposes, see pages 29 thru 32, 48, 53 and 55.

For polarizing purposes only use connectors without a locking ramp. See pages 29 thru 32, 49 and 51.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with square posts and a .125 [3.18] solder tail length would be:

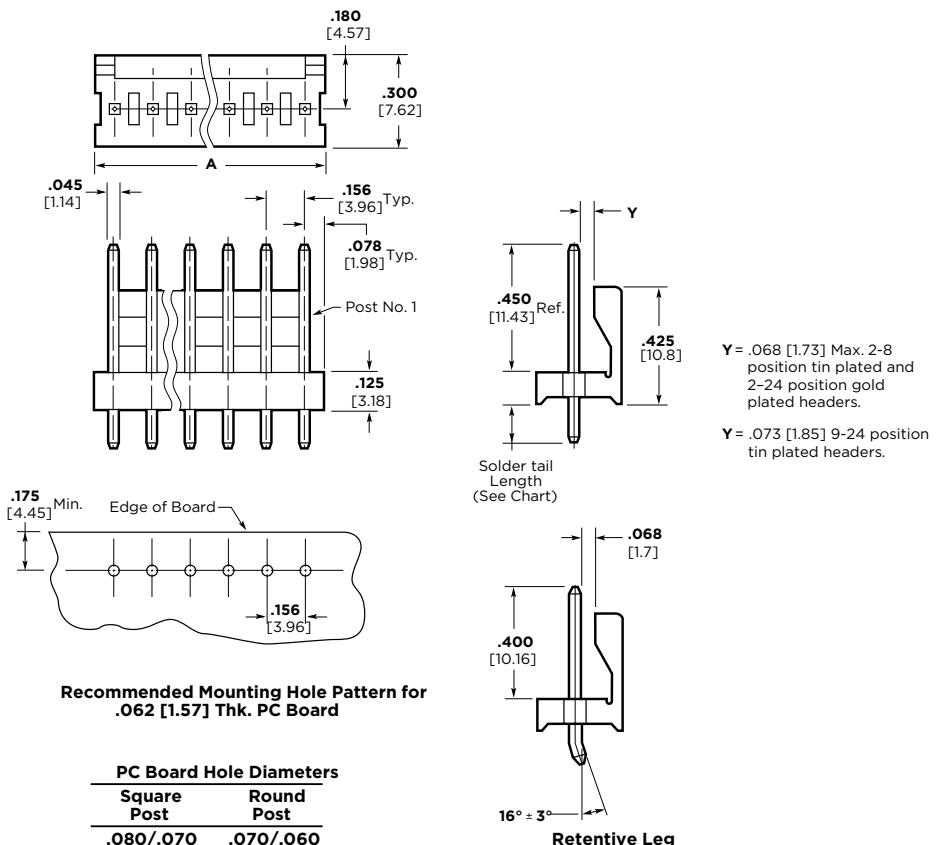
Base number **641208** plus prefix-and-suffix
 4- -- -0

The correct ordering number is
4-641208-0

All part numbers in **bold face** are the RoHS equivalent version. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	641208-2	3-641208-2
24	2-641208-4	5-641208-4

See page 8 for an explanation of RoHS lead free equivalents.



Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Square Posts				Round Posts					
Retentive Leg	.125 [3.18] Solder tail	.175 [4.45] Solder tail	.125 [3.18] Solder tail	.175 [4.45] Solder tail	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	
Standard UL94V-0, Tin Plated									
1744017	2	640445	2-24	644752	2-24	640388	2-24	644753	2-24
Standard UL94V-0, .000030 [0.00076] Gold Plated									
—	—	641208	32-54	644759	32-54	641209	32-54	644760	32-54
Standard UL94V-0, .000015 [0.00038] Gold Plated									
—	—	641119	32-54	644766	32-54	641120	32-54	644767	32-54

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Note:

Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA, CST-100 II and SL-156 Connectors

MTA-156 Friction Lock Headers—Right-Angle

Material and Finish

Housing—UL94V-0 rated, polyester, white
Posts—Copper alloy, tin plated .000030 [0.00076] or .000015 [0.00038] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- .125 [3.18] solder tail lengths are for .062 [1.57] thick printed circuit boards and .175 [4.45] solder tail lengths are for .093-.125 [2.36- 3.18] thick printed circuit boards.
- To determine header overall length (Dim. A), multiply .156 x the number of posts. Example: .156 x 10 posts equals 1.560 inches [39.62 mm].

For mateability options, see matrix on pages 27, 28, and 47.

When using Front Bend Headers—for mating half visuals use connectors with a locking ramp for polarization/ retention purposes. When using Rear Bend Headers—for mating half visuals use connectors without a locking ramp. For polarization purposes only see pages 29 thru 32, 49 and 51.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with square posts, front bend, and a .125 [3.18] solder tail length would be:

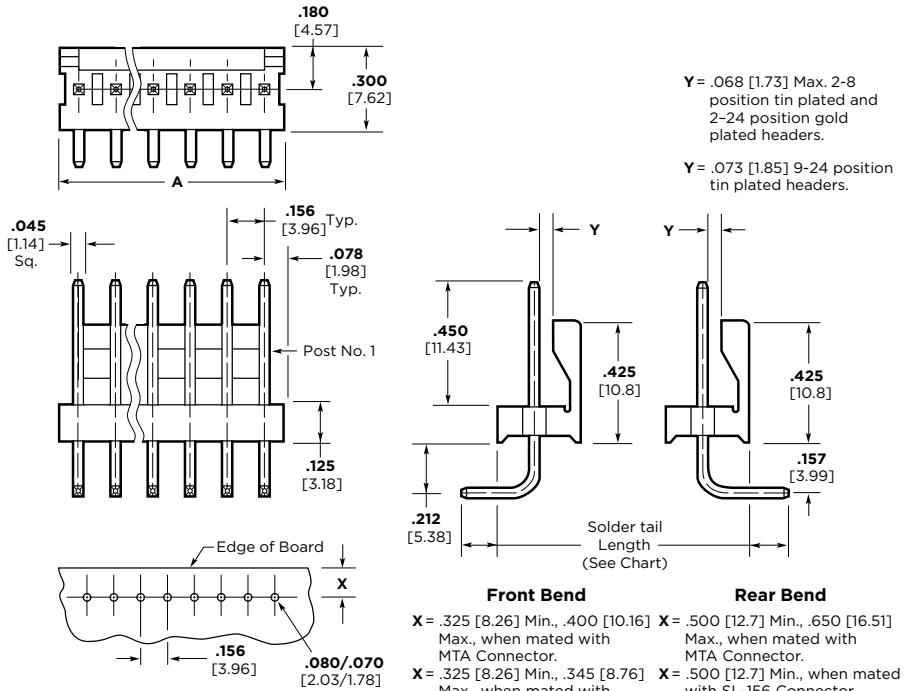
Base number **641210** plus prefix-and-suffix
4- - -0

The correct ordering number is
4-641210-0

All part numbers in **bold face** are the RoHS equivalent version. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	641210-2	3-641210-2
	thru	
24	2-641210-4	5-641210-4

See page 8 for an explanation of RoHS lead free equivalents.



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Square Posts							
Front Bend				Rear Bend			
.125 [3.18] Solder tail		.175 [4.45] Solder tail		.125 [3.18] Solder tail		.175 [4.45] Solder tail	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated							
640389	2-24	644754	2-24	640387	2-24	644755	2-24
Standard UL94V-0, .000030 [0.00076] Gold Plated							
641210	32-54	644761	32-54	641207	32-54	—	—
Standard UL94V-0, .000015 [0.00038] Gold Plated							
641121	32-54	644768	32-54	—	—	644769	32-54

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Note:

Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA, CST-100 II and SL-156 Connectors

MTA-156 Polarized Lock Headers—Straight

Material and Finish

Housing—UL94V-0 rated, polyester, white
Posts—Copper alloy, tin plated .000030 [0.00076] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Peg holes are not required in PC Boards when headers without pegs are used.
- One peg only on a 2 position header, other position sizes have two pegs.
- Headers with .00015 [0.00038] gold plated post are available upon request. Minimums may apply.
- To determine header overall length (Dim. A), multiply .156 x the number of posts. Example: .156 x 10 posts equals 1.560 inches [39.62 mm].

For mateability options, see matrix on pages 27, 28, and 47.

For mating half visuals, use connectors with a locking ramp for polarization/retention purposes, see pages 29 thru 32, 53 and 55.

For polarizing purposes only use connectors without a locking ramp. See pages 29 thru 32, 49 and 51.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with square posts with pegs would be::

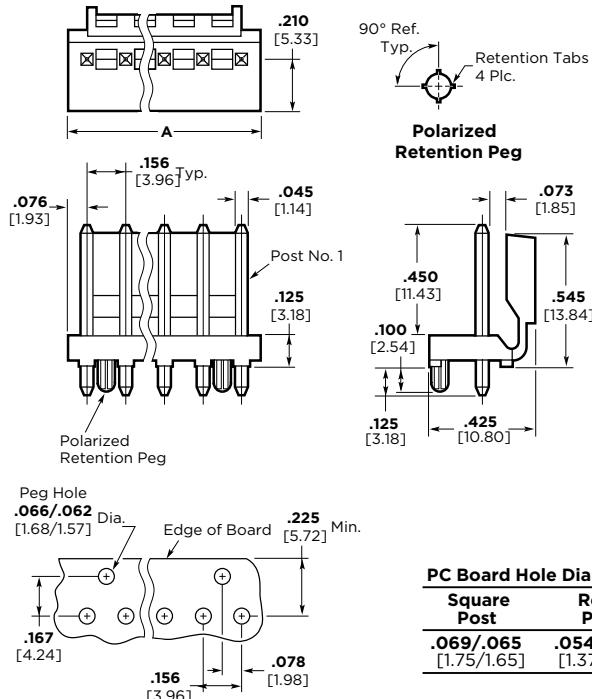
Base number **644615** plus prefix-and-suffix
4- -- -0

The correct ordering number is
4-644615-0

All part numbers in **bold face** are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-644615-2
18	4-644615-8

See page 8 for an explanation of RoHS lead free equivalents.



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

PC Board Hole Diameters	
Square Post	Round Post
.069/.065 [1.75/1.65]	.054/.050 [1.37/1.27]

Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Square Posts				Round Posts			
Without Pegs	With Pegs	Without Pegs	With Pegs	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated							
644611	32-35	644615	32-48	—	—	—	—
Standard UL94V-0, .000030 [0.00076] Gold Plated							
644627	32-48	644631	32-35	—	—	—	—

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Note: Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA, CST-100 II and SL-156 Connectors

MTA-156 Polarized Lock Headers—Right-Angle

Material and Finish

Housing—UL94V-0 rated, polyester, white
Posts—Copper alloy, tin plated .000030 [0.00076] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Post holes are not required in PC Boards when headers without pegs are used.
- One peg only on a 2 position header, other position sizes have two pegs.
- Headers with .00015 [0.00038] gold plated post are available upon request. Minimums may apply.
- To determine header overall length (Dim. A), multiply .156 x the number of posts. Example: .156 x 10 posts equals 1.560 inches [39.62 mm].

For mateability options, see matrix on pages 27, 28, and 47.

For mating half visuals, use connectors with a locking ramp for polarization/retention purposes, see pages 29 thru 32, 53 and 55.

For polarizing purposes only use connectors without a locking ramp. See pages 29 thru 32, 49 and 51.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with front bend and with pegs would be:

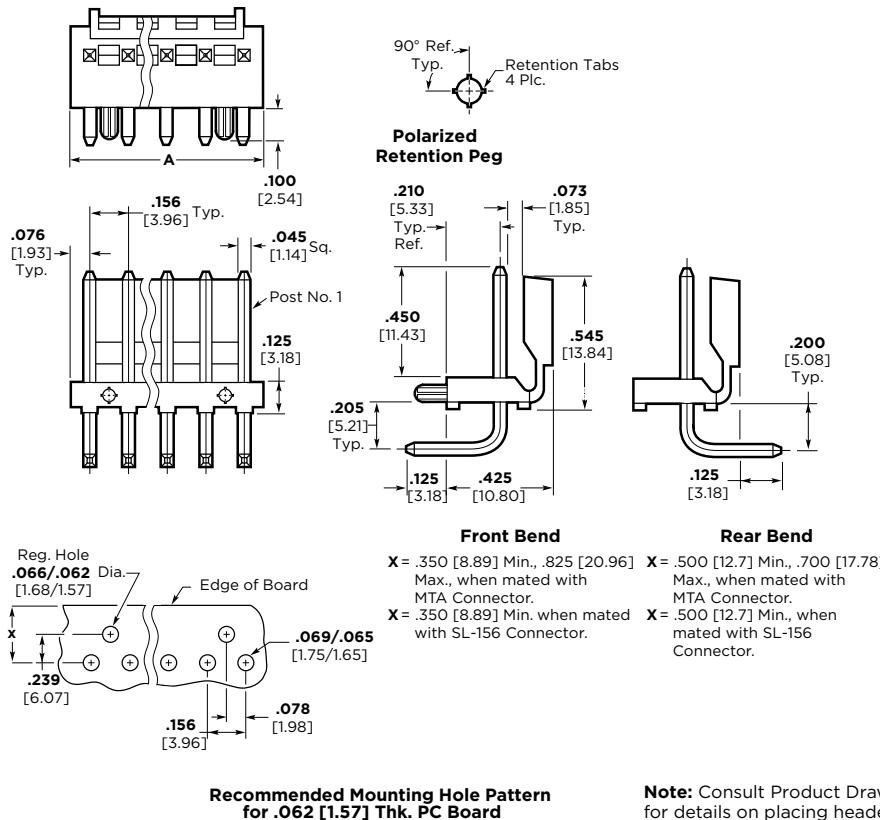
Base number **644617** plus prefix-and-suffix
4- -- -0

The correct ordering number is
4-644617-0

All part numbers in **bold face** are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-644617-2
18	4-644617-8

See page 8 for an explanation of RoHS lead free equivalents.



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Square Posts					
Front Bend				Rear Bend	
Without Pegs		With Pegs		Without Pegs	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated	644613	32-48	644617	32-48	—
Standard UL94V-0, .000030 [0.00076] Gold Plated	—	—	644633	32-48	—

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Note: Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA, CST-100 II and SL-156 Connectors

MTA-156 Friction Lock High Temperature Headers—Straight

Material and Finish

Housing—UL94V-0 rated, nylon, black

Posts—Copper alloy, tin plated .000015 [0.00038] gold over nickel

Temperature—Maximum Temperature Rating: 280°C

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin-lead on the solder tail.
- Headers with straight and right-angle square posts are available upon request. Minimums may apply.
- To determine header overall length (Dim. A), multiply .156 x the number of posts. Example: .156 x 10 posts equals 1.560 inches [39.62 mm].

For mateability options, see matrix on pages 27, 28, and 47.

For mating half visuals, use only connectors with a locking ramp for polarization/retention purposes, see pages 29 thru 32, 53 and 55.

For polarizing purposes only use connectors without a locking ramp. See pages 29 thru 32, 49 and 51.

Header Ordering Information

The “Base Part Numbers” Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with round tin plated posts:

Base number **647648** plus prefix-and-suffix
4- - -0

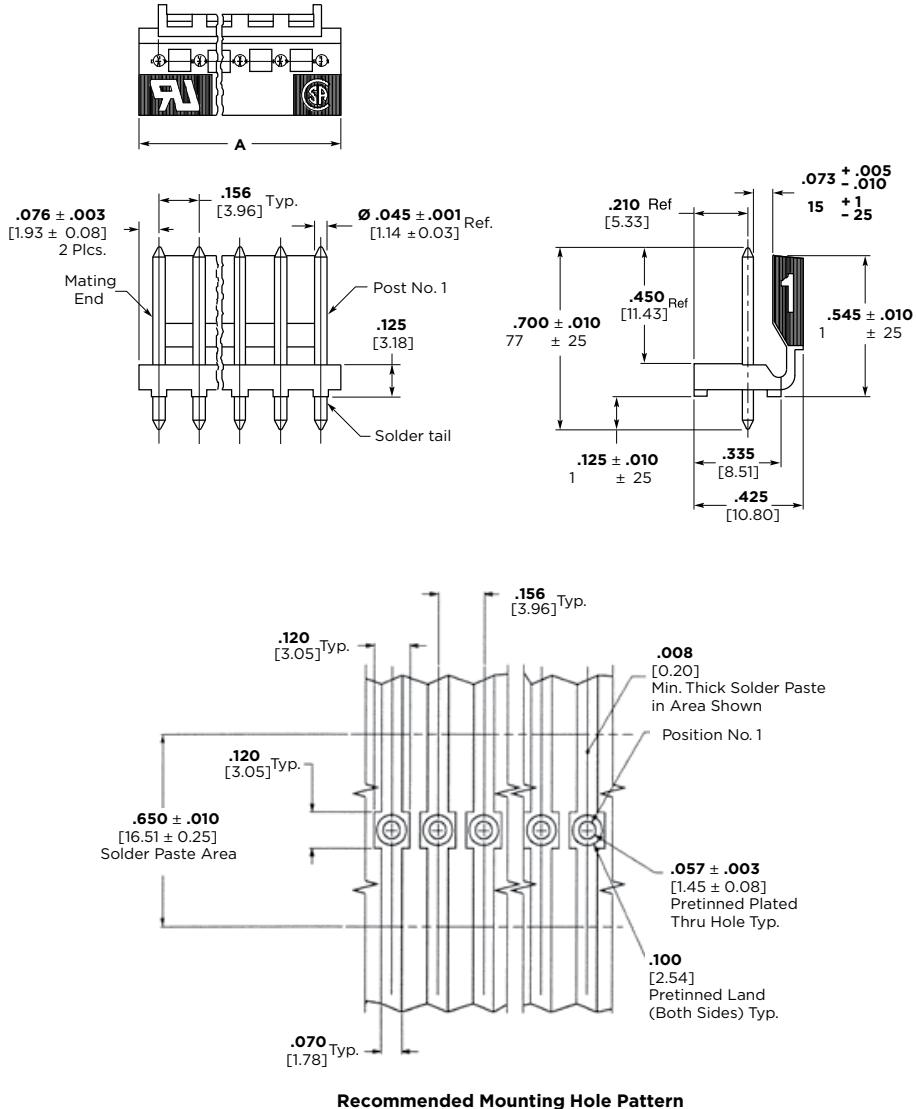
The correct ordering number is
4-647648-0

All part numbers in **bold face** are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-647648-2
18	4-647648-2

See page 8 for an explanation of RoHS lead free equivalents.

For use with Infrared Reflow Process



Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Header Part Nos.	Round Post	
	RoHS Equiv.	
Standard UL94V-0, Tin Plated	32-42	
647648		
Standard UL94V-0, .000015 [0.00038] Gold Plated	32-42	
647649		

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Note: Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA, CST-100 II and SL-156 Connectors

MTA-156 Shrouded Headers—Straight and Right-Angle

Material and Finish

Housing—UL94V-0 rated, polyester, black

Posts—Copper alloy, tin plated; or .000030 [0.00076] or .000015 [0.00038] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin-lead on the solder tail.
- Peg holes are not required in PC boards when headers without pegs are used.
- One peg only on a 2 position header, other position sizes have two pegs.
- Right-angle front and rear bend headers with retention pegs can be made available upon request. Minimums may apply.

For mateability options, see matrix on pages 27, 28, and 47.

For mating half visuals, see pages 29 thru 32.

Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight, square posts and with pegs would be:

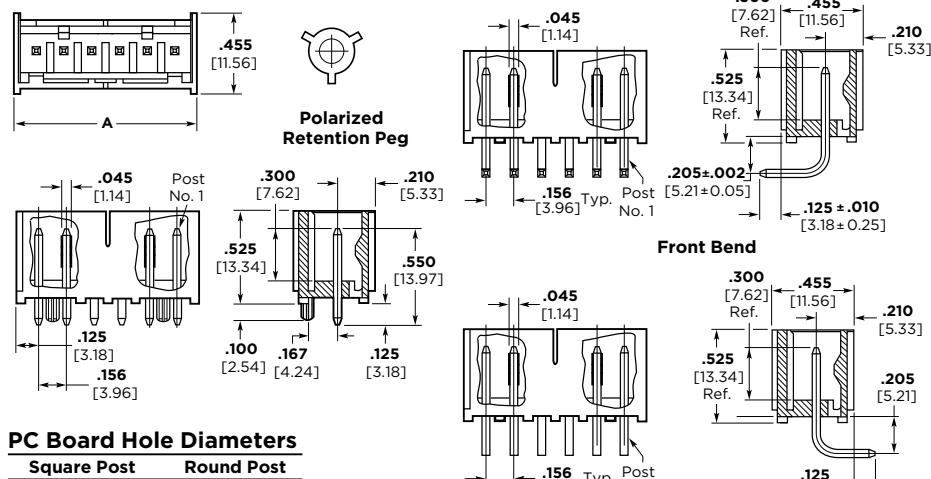
Base number **647127** plus prefix-and-suffix
4--0

The correct ordering number is
4-647127-0

No. of Pos.	Dim. A	RoHS Prefix/Suffix
2	.406 10.31	2--2
3	.562 14.27	2--3
4	.718 18.24	2--4
5	.874 22.20	2--5
6	1.030 26.16	2--6
7	1.186 30.12	2--7
8	1.342 34.09	2--8
9	1.498 38.05	2--9
10	1.654 42.01	3--0
11	1.810 45.97	3--1
12	1.966 49.94	3--2

All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

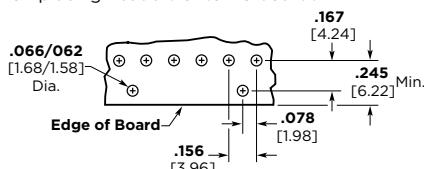
Straight Post (.045 [1.14] Square or Round) Right-Angle (.045 [1.14] Square)



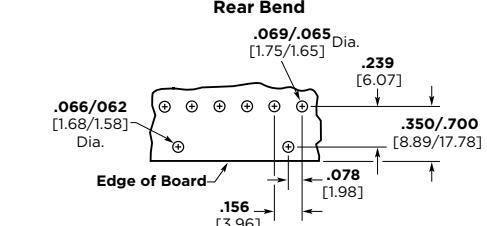
PC Board Hole Diameters

Square Post	Round Post
.069/.065 [1.75/1.65]	.054/.050 [1.37/1.27]

Note: Consult Product Drawing for details on placing headers onto PC boards.



Recommended Mounting Hole Pattern for .062 [1.57] Thick PC Board Using a Straight Post Header



Recommended Mounting Hole Pattern for .062 [1.57] Thick PC Board Using a Right-Angle Header

Base Part Numbers

Straight Square Posts				Straight Round Posts			
Without Pegs		With Pegs		Without Pegs		With Pegs	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated							
647123	22-32	647127	22-32	—	—	—	—
Standard UL94V-0, .000030 [0.00076] Gold Plated							
—	—	—	—	—	—	—	—
Standard UL94V-0, .000015 [0.00038] Gold Plated							
—	—	—	—	—	—	—	—
Square Posts							
Right-Angle Posts, Front Bend Without Pegs				Right-Angle Posts, Rear Bend Without Pegs			
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated							
647125	22-32	—	—	—	—	—	—
Standard UL94V-0, .000030 [0.00076] Gold Plated							
—	—	—	—	—	—	—	—
Standard UL94V-0, .000015 [0.00038] Gold Plated							
—	—	—	—	—	—	—	—

Note: Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

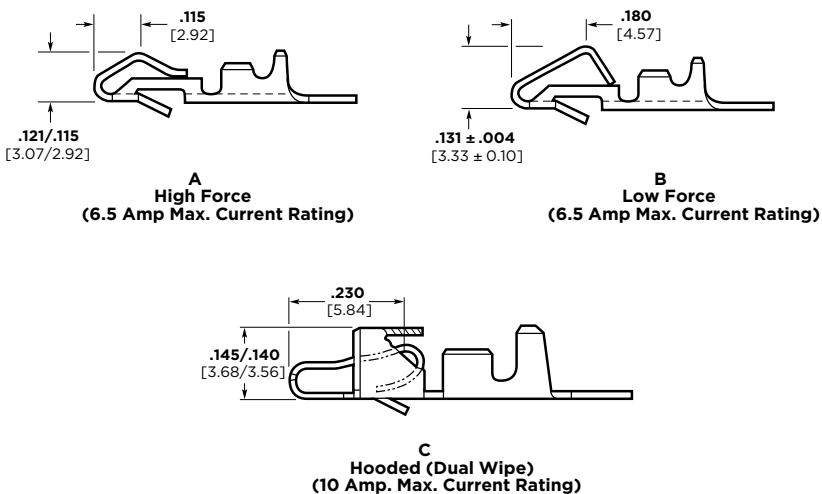
SL-156 Crimp Contacts and Keying Plugs

Contacts

Material and Finish

.012 [0.3] bright tin plated brass or phosphor bronze; .012 [0.3] pre-tin brass; or .012 [0.3] brass or phosphor bronze with .000030 [0.00076] gold over nickel (see chart)

- All tin-plated contacts are post lubricated to resist fretting corrosion
- Maximum insulation diameter is .105 [2.67]
- Wire range is 18-30 AWG [0.9-0.06 mm²]



Application Note

Part No. 640252 has a higher mating and unmating force than Part No. 350980 and is recommended to be used only in housings with 1 through 12 positions.

Part No. 350980 can be used in any size housing but is recommended to be used in housings with 13 through 24 positions. Part No. 770476 is recommended for use in any size housing. Its mating force is similar to Part No. 350980 while unmating force is similar to 640252.

For housings, see pages 49 and 50.

Wire Size AWG mm ²	Contact	Material and Finish	Part Numbers	
			Strip	Loose Piece
24-30 0.2-0.06	A	brass, pre-tin plated	641550-1	—
		brass, bright tin plated	640252-1	640706-1
		brass, pre-tin plated	640252-2	640706-2
		brass, RoHS Compliant	3-640252-1	3-640706-1
	B	brass, bright tin plated	350980-1	640707-1
		brass, pre-tin plated	350980-2	—
18-24 0.9-0.2	B	brass, gold plated	350980-3	770258-1
		brass, RoHS Compliant	3-350980-1	3-640707-1
	C	phosphor bronze, bright tin plated	770476-1	770522-1
		phosphor bronze, gold plated	770476-2	770522-2
		phosphor bronze, RoHS Compliant	3-770476-1	3-770522-1

Application Tooling

Extraction Tool
Part No. 90471-1

Loose Piece Contacts

PRO-CRIMPER II Hand Tool
Part No. 58614-1(408-4228)
[For field service use only]
For CERTI-CRIMP hand tool,
contact Technical Support.

Strip Contacts —

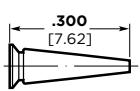
AMP-O-LECTRIC Model "G"
Termination Machine*
Applicator 680211-3
(Request Catalog 65828)
AMP-O-LECTRIC Model "K"
Termination Machine* Applicator
466468-2
AMP-O-MATIC Stripper-Crimper
Machine* SCA 466947-1 or 567828-1
(with CQM) (Request Catalog 65004)
AMPOMATOR CLS IV+ Lead Making
Machine* Applicator 466468-1
(Request Catalog 82659)

*Requires applicators. For part numbers, call Technical Support.

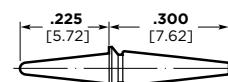
Keying Plugs

Material (RoHS Compliant)

UL94V-2 rated, nylon, natural color



Keying Plug
Part No. 640254-1



Keying Pin
Part No. 640255-1

SL-156 Housings—Wire-to-Board

Housings

Material (RoHS Compliant)

UL94V-0 rated, nylon, white

Notes:

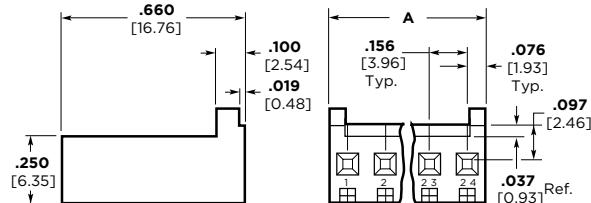
- Accepts either .045 [1.14] square or round posts. Housings mate with flat and friction lock headers, or staked posts on .156 [3.96] centers.
- Housings without ramp, with polarizing tab, available upon request. Minimums may apply.
- Recommend contact: Part No. 640252 for 1 thru 12 positions; Part No. 350980 for 13 thru 24 positions; Part No. 770476 for 1 thru 24 positions.

For contacts, see page 48.

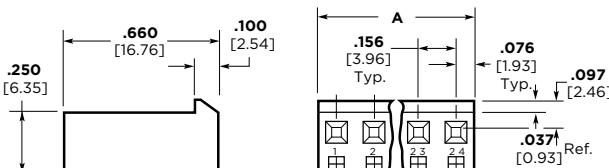
For mateability options, see matrix on page 47.

For mating half visuals, for connectors with locking ramp, see pages 39, 36, 41, 43 and 45, (41 and 44 Front Bend Headers only.)

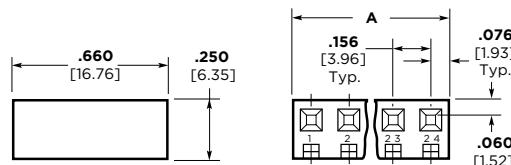
For mating half visuals, for connectors without locking ramp, see pages 35 thru 45.



(A) With Locking Ramp/With Polarizing Tabs



(B) With Locking Ramp/Without Polarizing Tabs



(C) Without Locking Ramp/Without Polarizing Tabs

Note: Dim. A = 0.156 × (No. of Positions - 1) + 0.152

No. of Positions*	Housing	Description	Part Numbers*
2-24	A	With Locking Ramp and Polarizing Tabs	770849
1-24	B	With Locking Ramp and without Polarizing Tabs	640250
	C	Without Locking Ramp or Polarizing Tabs	640251

*Base Part Number Prefixes and Suffixes indicate number of contact positions, e.g. 2 Position = 0-xxxxxx-2 and 12 Position = 1-xxxxxx-2.

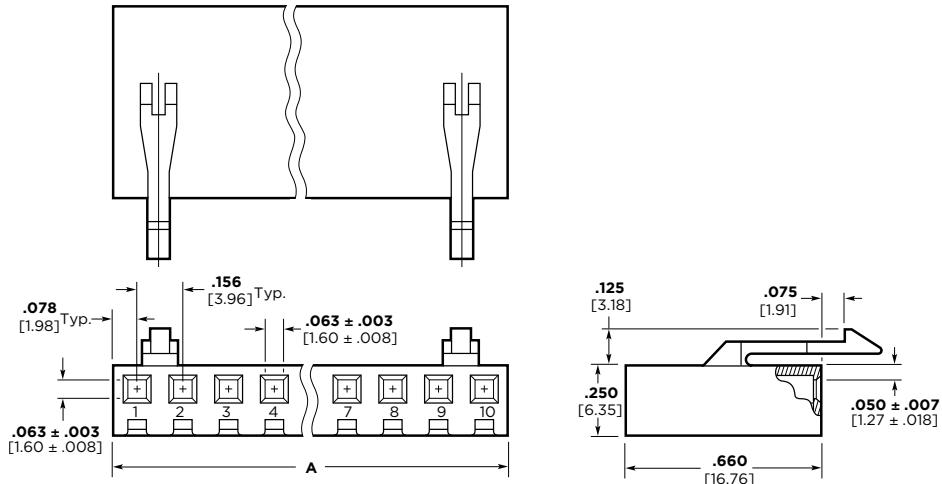
Note: Housings not for use with LID Contacts. Shown on page 51.

SL-156 Housings With Through Board Latch

Housings

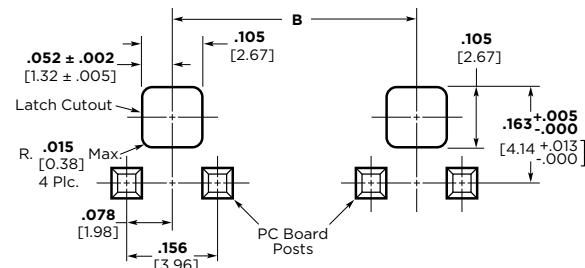
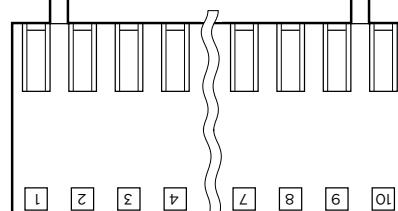
Material (RoHS Compliant)

UL94V-0 rated, nylon, white.



Mates with .045 square or round staked posts only.

For contacts, see page 48.



Recommended PC Board Cutout
for .062 [1.57] Thick PC Board

No. of Pos.	Dimensions		Latch Location Centered Between Pos.	Part Number
	A	B		
2	.312 7.92	—	1 and 2	770894-2
3	.468 11.89	—	1 and 2	770894-3
4	.624 15.85	—	2 and 3	770894-4
5	.780 19.81	—	2 and 3	770894-5
6	.936 23.77	—	3 and 4	770894-6
7	1.092 27.74	—	3 and 4	770894-7
8	1.248 31.70	—	4 and 5	770894-8
9	1.404 35.66	1.092 27.74	1 and 2 & 8 and 9	770894-9
10	1.560 39.62	1.248 31.70	1 and 2 & 9 and 10	1-770894-0

Note: Not for use with LID Contacts.

MTA, CST-100 II and SL-156 Connectors

SL-156 Housings and Contacts for Large Insulation Diameter (LID) Wire

Housings

Material (RoHS Compliant)

UL94V-0 rated, nylon, white

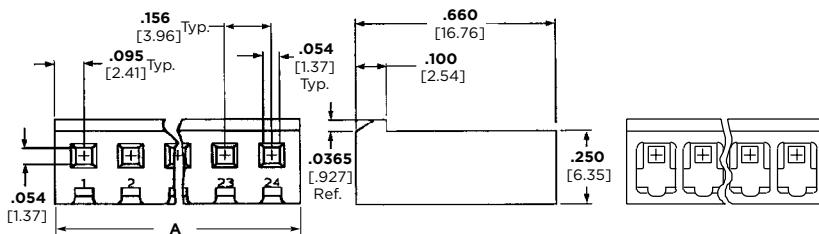
Notes:

- Accepts Standard and LID contacts.
- Larger opening in housings eases contact insertion when using wires that have large insulation diameters (.100-.112 [2.54-2.84]).
- Housings are not End-to-End stackable.

For mateability options, see matrix on page 47.

For mating half visuals, for connectors with locking ramp, see pages 39, 40, 41, 43 and 49, (42 and 44 Front Bend Headers only.)

For mating half visuals, for connectors without locking ramp, see pages 39 thru 45.



Note: Dim. A = 0.156 × (No. of Positions - 1) + 0.19

No. of Positions*	Description	Part Numbers*
		Housings with Larger Openings for Oversize Wire
1-24	Without Locking Ramp or Polarizing Tabs	647400
1-24	With Locking Ramp and without Polarizing Tabs	647401 (shown above)
2-24	With Locking Ramp and Polarizing Tabs	647402

*Base Part Number Prefixes and Suffixes indicate number of contact positions, e.g. 2 Position = 0-xxxxxx-2 and 12 Position = 1-xxxxxx-2.

Contacts

Material and Finish

.012 [0.3] bright tin plated phosphor bronze; .012 [0.3] phosphor bronze with .000030 [0.00076] gold over nickel (see chart)

- All tin-plated contacts are post lubricated to resist fretting corrosion
- Maximum insulation diameter is .112 [2.85]
- Wire range is 18-24 AWG [0.9-0.2 mm²] and a limited 16 AWG [1.29-1.42 mm²] (2550-2800 CMA)

Product Specifications

108-1049-1 and 108-1049-2

Application Specification

114-1021

Application Tooling

Extraction Tool Part No. 90471-1

Loose Piece Contacts —

PRO-CRIMPER II Hand Tool
Part No. 91368-1 [18-24 AWG]

Part No. 91369-1 [16 AWG]

(For field service use only.)

For CERTI-CRIMP hand tool, contact Technical Support.

Strip Contacts —

AMP-O-LECTRIC Model "G"
Termination Machine*

Applicator 1385048-3 [18-24 AWG]

Applicator 1385219-3 [16 AWG]

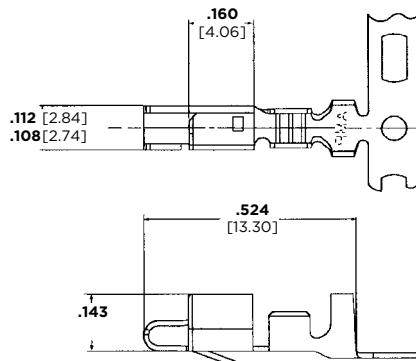
AMP-O-LECTRIC Model "K"

Termination Machine*

Applicator 1385048-2 [18-24 AWG]

Applicator 1385219-2 [16 AWG]

*For additional part numbers and information contact Technical Support.



**Hooded (Dual Wipe)
(10 Amp Max. Current Rating)**

Wire Size	Material	Plating	Part Numbers For LID* Wire	
			Strip	Loose Piece
18-24 AWG	Phosphor Bronze	Tin	647406-1	647409-1
		Gold	647406-2	647409-2
		RoHS Compliant	3-647406-1	3-647409-1
16 AWG (2550-2800 CMA only)	Phosphor Bronze	Tin	647466-1	647485-1
		Gold	647466-2	647485-2
		RoHS Compliant	3-647466-1	3-647485-1

*Large Insulation Diameter (.100-.112 [2.54-2.84])

Notes: 1. For information on application tooling, call Technical Support.

2. Can **not** be used with Standard SL-156 Housings, must be used with LID Housings only.

MTA, CST-100 II and SL-156 Connectors

MTA Wire Selection

Proper wire selection is critical to the success of a wire-to-board application. The chart identifies wires that have been evaluated and approved by the product engineering section. If you plan to use a wire not on the approved list, please submit a sample 12" length of wire to TE for evaluation.

AWG Metric Equivalents

18	— 0.8-0.9 mm ²
20	— 0.5-0.6 mm ²
22	— 0.3-0.4 mm ²
24	— 0.2 mm ²
26	— 0.12-0.15 mm ²
28	— 0.08-0.09 mm ²

Product Specifications

- 108-1050 — MTA-100 Connectors
- 108-1050-1 — MTA-100 Posted Connectors
- 108-1051 — MTA-156 Connectors
- 108-1219 — MTA-156 Quad Connector System
- 108-1065 — MTA-156 Posted Connectors
- 108-1058 — MTA-156 Card Edge Connectors

Application Specifications

- 114-1019 — MTA-100 Connectors
- 114-1020 — MTA-156 Connectors
- 114-1031 — MTA-100 Ribbon Cable Connector Assembly
- 114-1032 — MTA-156 Ribbon Cable Connector Assembly
- 114-1048 — MTA-156 Quad Connector

MTA Connectors Approved Wire Listing

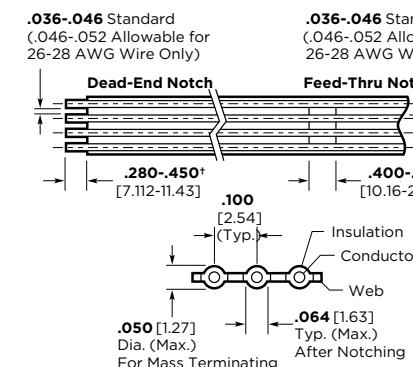
MTA-100 Connectors	Wall	Approved Wire AWG
UL 1007 PVC Insulation	.015" [0.381]	22, 24, 26, 28
UL 1061 Semi-Rigid PVC Insulation	.009" [0.229]	22, 24, 26, 28
UL 1095 Semi-Rigid PVC Insulation	.012" [0.305]	24
UL 1371 TEFILON Insulation — TFE	.006" [0.152]	22, 26
UL 1429 Irradiated PVC — X.L.PVC.	.010" [0.254]	22, 24, 26, 28
UL 2464 PVC	.013" [0.330]	24, 26
UL 3265 Irradiated Polyethylene — X.L.P.E.	.010" [0.254]	22, 24
UL 3266 Irradiated Polyethylene — X.L.P.E.	.015" [0.381]	22, 24
MIL-W-16878, Type B-PVC Insulation	.010" [0.254]	22
UL 1213 TEFILON Insulation—T.F.E.	.010" [0.254]	22

MTA-156 Connectors	Wall	Approved Wire AWG
UL 1007 PVC Insulation	.015" [0.381]	18, 20, 22, 24
UL 1061 Semi-Rigid PVC Insulation	.009" [0.229]	18, 20, 22, 24
UL 1180 TEFILON Insulation — T.F.E.	.015" [0.381]	22
UL 1213 TEFILON Insulation — T.F.E.	.010" [0.254]	18, 22, 24
UL 1316 PVC/Nylon Wall	.015" [0.381]	18, 22
UL 1429 Irradiated PVC — X.L.PVC.	.010" [0.254]	18, 20, 22, 24
UL 1430 Irradiated PVC — X.L.PVC.	.015" [0.381]	18, 20, 22, 24
UL 1569 PVC	.015" [0.381]	18
UL 3265 Irradiated Polyethylene — X.L.P.E.	.010" [0.254]	22
UL 3266 Irradiated Polyethylene — X.L.P.E.	.015" [0.381]	18, 20, 22, 24

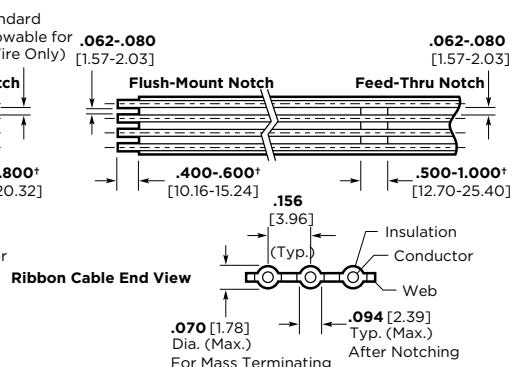
Note: When selecting approved wire styles noted on this list, the MTA Application Specifications guidelines must be followed. Also, due to wire variations in insulation wall thickness, hardness and wire stranding we would recommend evaluating the wire selected before final application approval.

TEFLON is a trademark of E.I. DuPont de Nemours and Company.

MTA-100 Ribbon Cable Preparation



MTA-156 Ribbon Cable Preparation

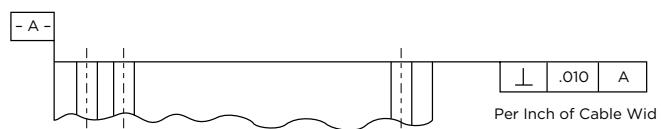


[†] The dimensions shown represent the recommended minimum and maximum for notches; the actual dimension will depend on your application requirements.

Notes:

- Cable shall be notched, as indicated in the individual ribbon cable connector assembly drawing, according to the requirements specified in these figures. Conductor shall not be exposed after notching, nor shall individual wire stands be cut or nicked.
- U.L. Style #2651 ribbon cable is approved for use with MTA-100 and MTA-156 connectors per Application Specification 114-1031 and 114-1032.

Ribbon Cable



Notes:

- For MTA Cable Assemblies Contact US Engineering Cable Assembly Group.
- For IDC Cable, see pages 60 thru 63.

Cable Edge-to-End Alignment

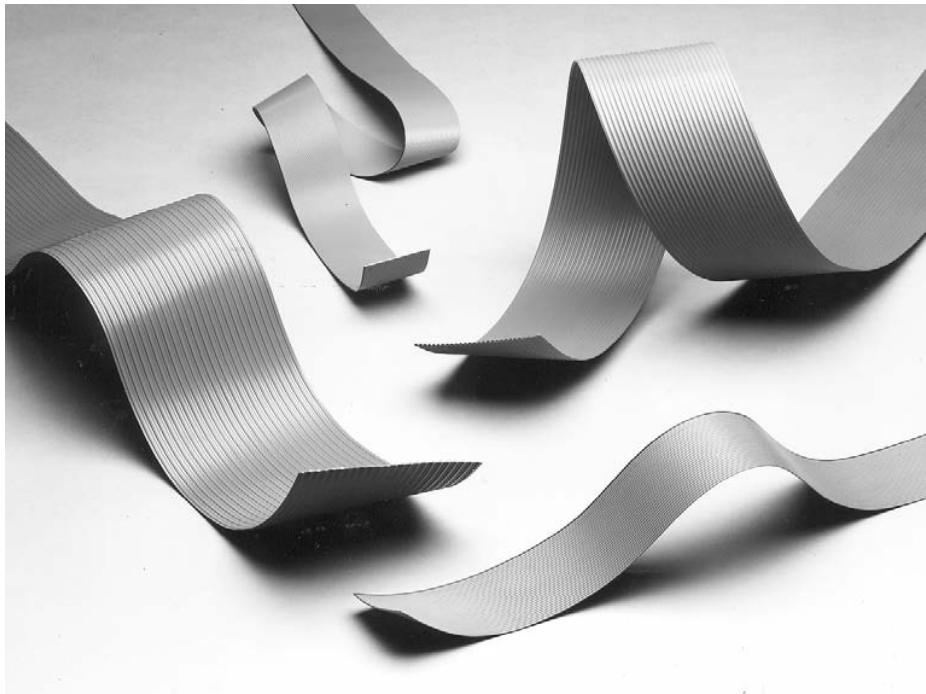
(Ends of the cable shall be prepared as indicated in this figure)

MTA, CST-100 II and SL-156 Connectors

IDC Ribbon Cable

PRODUCT FACTS

- Compatible with a variety of Insulation Displacement Connectors
- Available on .025 [0.63], .0394 [1.00], .050 [1.27], .100 [2.54] and .156 [3.96] centerline
- Color code edge mark on conductor #1
- Gray flame retardant flexible PVC insulation
- Insulation rated for temperature of -20°C to +105°C
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E53793



TE has an expanding array of MADISON CABLE planar PVC insulated product designed for compatibility with a variety of Insulation Displacement Connectors. AMP IDC terminations offer a quick, reliable, cost-effective cabling system which can be automated.

The .100 [2.54] centerline cable is available in 28 to 22 AWG, either as tinned or as overcoated tinned wire, in 2 to 28 conductors.

The .156 [3.96] centerline is available in 22 AWG and 18 AWG, either as tinned or overcoated tinned, in 2 to 24 conductors.

IDC Ribbon Cable is produced to tighter standards than usually required for high yield insulation displacement terminations. The extra precision offers uncomplicated operation in fully automatic stripping, notching and termination equipment.

.050 [1.27] Centerline, IDC Ribbon Cable

Product Specifications

Voltage Rating—30 vac

Component Recognized by UL to US and Canadian Standards—AWM Style 2651

Sizes

26 AWG, 7/34 Tinned copper, PVC insulation (9-64 conductors), 500 ft. reels (Base AMP Part Number 57034)

28 AWG, 7/36 Tinned copper, PVC insulation (9-64 conductors), 100 ft. reels (Base AMP Part Number 57040) and 500 ft. reels (Base AMP Part Number 971111)

30 AWG, Other conductor counts available on request. For ordering information, call Toll-Free: **1-877-623-4766** or visit: www.madisoncable.com/fsproducts.htm

MTA, CST-100 II and SL-156 Connectors

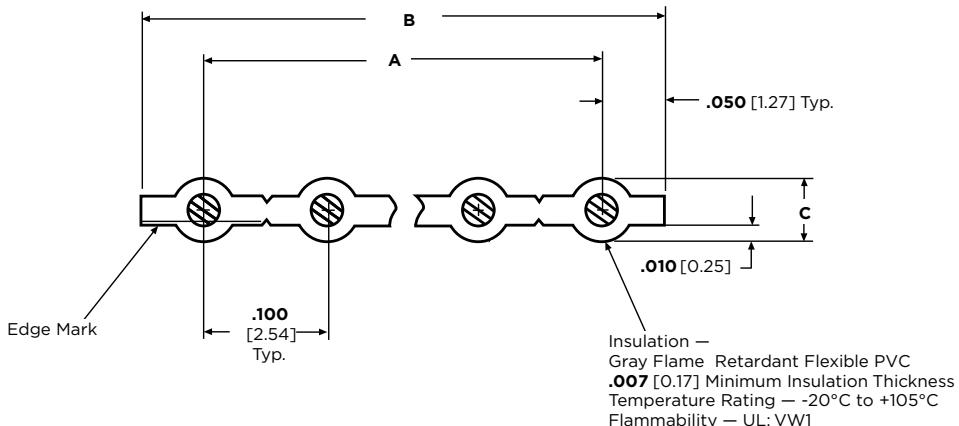
.100 [2.54] Centerline, IDC Ribbon Cable, PVC Insulation

Product Specifications

Housing — 300 Volts

UL Recognized — AWM Style 2651

CSA — Available on request



No. of Conductors	Dimensions			Part Number
	A	B	C	
28 AWG 7/32 Tinned Copper				
2	0.100 [2.54]	0.200 [5.08]	0.044 [1.12]	02WFY00006P
5	0.400 [10.16]	0.500 [12.70]	0.044 [1.12]	05WFY00006P
10	0.900 [22.86]	1.000 [25.40]	0.044 [1.12]	10WFY00006P
15	1.400 [35.56]	1.500 [38.10]	0.044 [1.12]	15WFY00006P
20	1.900 [48.26]	2.000 [50.80]	0.044 [1.12]	20WFY00006P
25	2.400 [60.96]	2.500 [63.50]	0.044 [1.12]	25WFY00006P
28	2.700 [68.58]	2.800 [71.12]	0.044 [1.12]	28WFY00006P
26 AWG 7/34 Tinned Copper				
2	0.100 [2.54]	0.200 [6.08]	0.039 [.99]	02WEY00008P
5	0.400 [10.16]	0.500 [12.70]	0.039 [.99]	05WEY00004P
10	0.900 [22.86]	1.000 [25.40]	0.039 [.99]	10WEY00012P
15	1.400 [35.56]	1.500 [38.10]	0.039 [.99]	15WEY00002P
20	1.900 [48.26]	2.000 [50.80]	0.039 [.99]	20WEY00008P
25	2.400 [60.96]	2.500 [63.50]	0.039 [.99]	25WEY00008P
28	2.700 [68.58]	2.800 [71.12]	0.039 [.99]	28WEY00008P
26 AWG 7/34 Overcoated Tinned Copper				
2	0.100 [2.54]	0.200 [5.08]	0.039 [.99]	02WEY00007P
5	0.400 [10.16]	0.500 [12.70]	0.039 [.99]	05WEY00007P
10	0.900 [22.86]	1.000 [25.40]	0.039 [.99]	10WEY00007P
15	1.400 [35.56]	1.500 [38.10]	0.039 [.99]	15WEY00007P
20	1.900 [48.26]	2.000 [50.80]	0.039 [.99]	20WEY00007P
25	2.400 [60.96]	2.500 [63.50]	0.039 [.99]	25WEY00007P
28	2.700 [68.58]	2.800 [71.12]	0.039 [.99]	28WEY00007P

Other Conductor Counts Available on Request.

Contact **MADISON CABLE (1-877-MADISON)**,
a division of TE Connectivity, for engineering
questions or for order placement of this cable.

MTA, CST-100 II and SL-156 Connectors

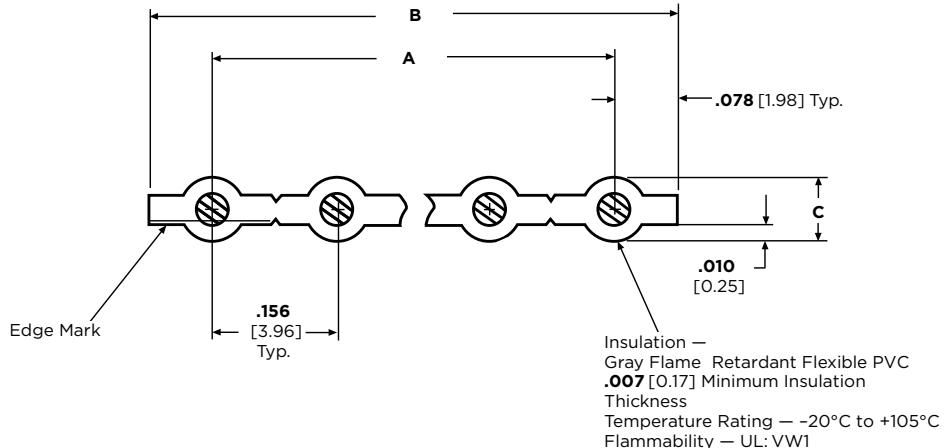
.156 [3.96] Centerline, Flat Ribbon Cable, PVC Insulation

Product Specifications

Housing — 300 Volts

UL Recognized — AWM Style 2651

CSA —Available on request

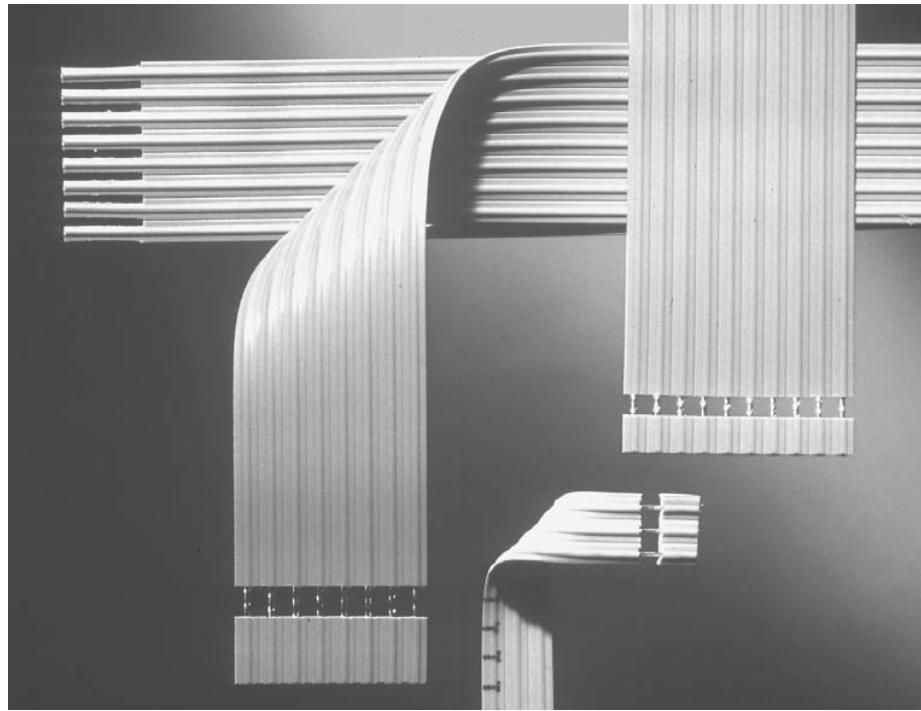


No. of Conductors	Dimensions			Part Number
	A	B	C	
22 AWG 7/30 Tinned Copper				
2	0.156 [3.96]	0.312 [7.92]	0.051 [1.30]	02WGY00008P
5	0.624 [15.85]	0.780 [19.81]	0.051 [1.30]	05WGY00008P
10	1.404 [35.66]	1.560 [39.62]	0.051 [1.30]	10WGY00008P
15	2.184 [55.47]	2.340 [59.44]	0.051 [1.30]	15WGY00008P
20	2.964 [75.29]	3.120 [79.25]	0.051 [1.30]	20WGY00008P
24	3.588 [91.14]	3.744 [95.10]	0.051 [1.30]	24WGY00008P
18 AWG 7/26 Tinned Copper				
2	0.156 [3.96]	0.312 [7.92]	0.068 [1.73]	02WJY000001P
5	0.624 [15.85]	0.780 [19.81]	0.068 [1.73]	05WJY000010P
10	1.404 [35.66]	1.560 [39.62]	0.068 [1.73]	10WJY000010P
15	2.184 [55.47]	2.340 [59.44]	0.068 [1.73]	15WJY000010P
20	2.964 [75.29]	3.120 [79.25]	0.068 [1.73]	20WJY000010P
24	3.588 [91.14]	3.744 [95.10]	0.068 [1.73]	24WJY000010P

Other Conductor Counts Available on Request.

Contact **MADISON CABLE (1-877-MADISON)**,
a division of TE Connectivity, for engineering
questions or for order placement of this cable.

Prepared IDC Ribbon Cable

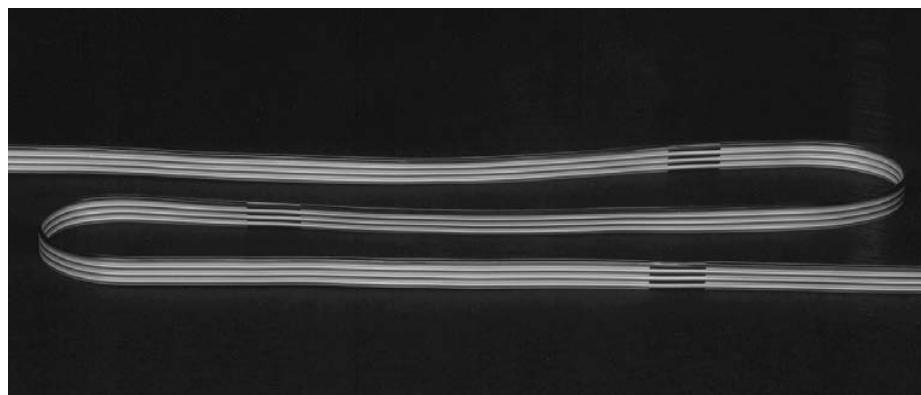


In addition to bulk cable, the US Engineering Cable Assembly Group offers Prepared Cable for the .100 [2.54] and .156 [3.96] centerline cables. This can be in the form of prenotched cable on reels or cut-to-length cable segments.

Prenotched 250 foot reels of cable can be produced with notches at varying increments or repeating all along the cable. The maximum width of these cables is 20 conductor for the .100 [2.54] centerline and 13 conductor for the .156 [3.96] centerline.

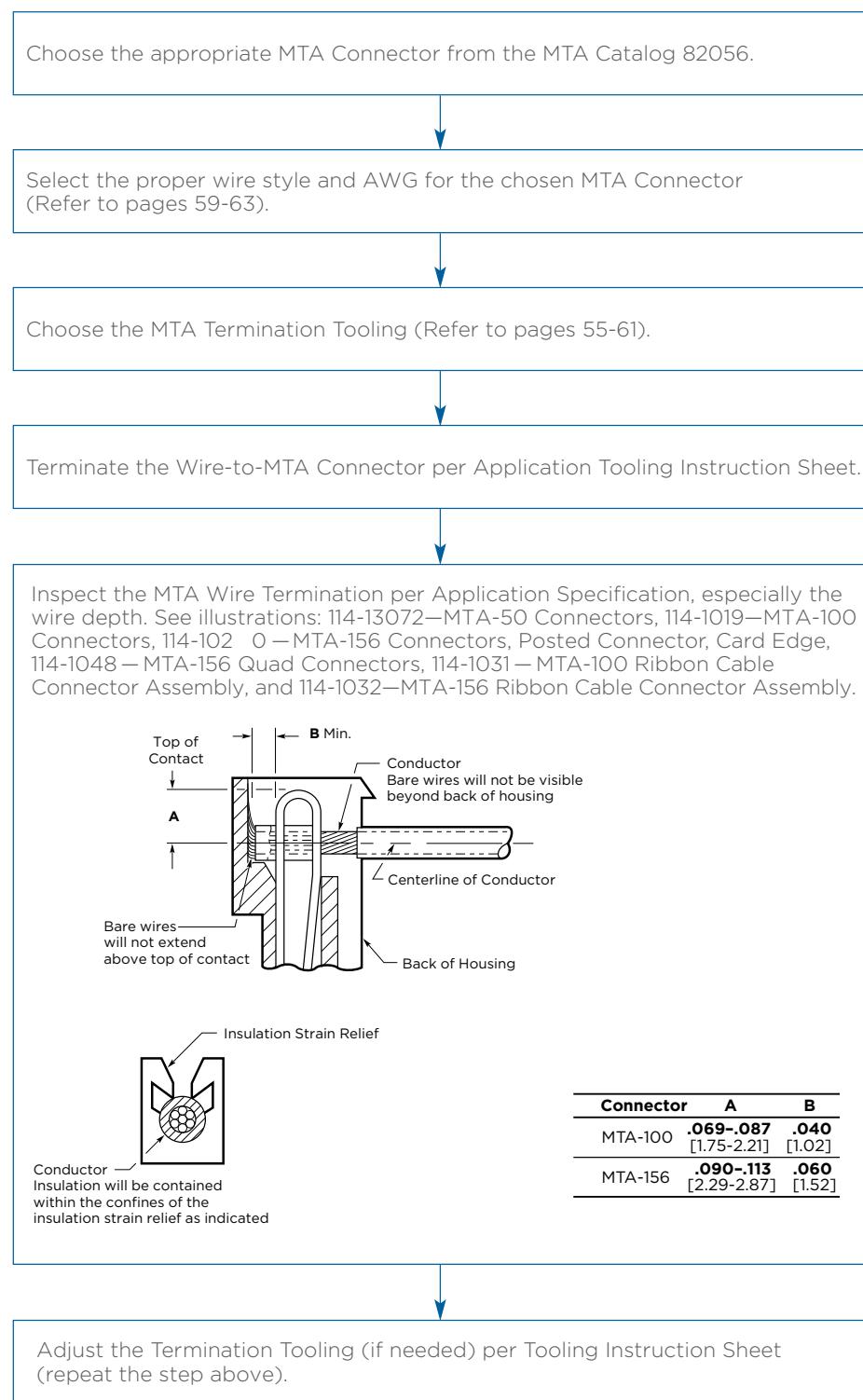
Prepared Cable is also available with a Strip and Retain feature allowing the

cable assembly to be soldered directly to the PC Board. This saves space and cost and reduces spare parts inventory. Strip and Retain on both ends is used in family board applications to maintain the electrical connection when the PC Board is separated into smaller boards after soldering. Widths are limited to 20 conductors for the .100 [2.54] centerline and 13 conductors for the .156 [3.96] centerline. However, multiple cables can be placed side-by-side in a single connector. For other styles and configurations contact the product engineer or product manager.



MTA, CST-100 II and SL-156 Connectors

MTA Wire Termination Flowchart



MTA, CST-100 II and SL-156 Connectors

MTA Application Tooling Options

One-At-A-Time Termination Tooling Part Numbers

MTA Connector Assembly	Interchangeable Head	Interchangeable Head and Loose-Piece Feed Track	Interchangeable Head and Tape Feed Track	Special Applicator	T-Handle Maintenance Tool
	Manual Hand Tool 58074-1 Air Hand Tool 58075-1 Air Bench Mount Tool 58338-1 Electric Bench Machine 931800-1	Air Bench Mount Tool 58338-1 Electric Bench Machine 931800-1	Air Bench Mount Tool 58338-1 Electric Bench Machine 931800-1		
MTA-50	Closed End Feed Thru	—	—	—	—
MTA-100 Connector	Closed End	58246-1 (Standard)* 58246-2 (Ext Wear) 58246-3 (Ribbon Cable)	933567-1	853546-1 & 853542-1 (Base)	466728-1 59803-1
	Feed Thru	58442-1	—	—	59803-1
	Posted (Closed-End)	58638-1	—	—	59803-1
MTA-156 Connector	Closed End	58247-1 (Standard)** 58247-2 (Ext Wear) 58247-3 (Ribbon Cable)	933568-1	853547-1 & 853542-1 (Base)	466727-1 59804-1
	Feed Thru	58443-1	—	—	59804-1
	Posted (Closed-End)	58082-1	—	—	59804-1
MTA-156 Card-Edge	Closed End	58061-1	—	567020-1	59839-1
MTA-156 Quad	Closed End	58392-1	—	—	59804-1

*Repair Kit 856600-1 **Repair Kit 856600-2

Note: Max. Insulation Outside Diameter Wire:
.060 [1.52] for MTA-100 Connectors/.095 [2.41] for MTA-156 Connectors

- Notes:**
1. A repair kit consists of a cam, a feed-slide sub-assembly and a locating pawl. Repair kits can be made available for other interchangeable heads. Consult TE.
 2. Standard modular heads 58246-1 and 58247-1 are recommended for low volume use.
 3. Extended wear modular heads 58246-2 and 58247-2 are recommended for high volume use.
 4. T-Handle Maintenance Tools are for maintenance (field) use only. They are not recommended for production.
 5. Some Manual Hand Tool Assemblies are available:
 - a. Order 58579-1, comprised of Head 58246-1 with Manual Hand Tool 58074-1.
 - b. Order 58580-1, comprised of Head 58247-1 with Manual Hand Tool 58074-1.
 - c. Order 58639-1, comprised of Head 58638-1 with Manual Hand Tool 58074-1.

MTA-100 and MTA-156 Mass Termination Tooling Part Numbers

Note: Max. Insulation Outside Diameter Wire:
.050 [1.27] for MTA-100 Connectors/.070 [1.78] for MTA-156 Connectors

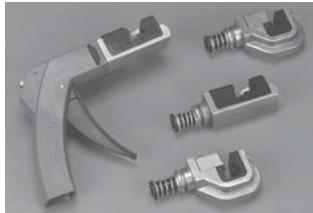
Part Number	Harness Board Holding Fixture Used With		Interchangeable Head and Tape Feed Track	
	Applicator Assembly	Tooling Assembly	Part Number	Used With
58242-1	—		854175-1 & 854200-1 (Base)	312522-1
58242-3	58575-1			
58243-1	—	Manual Bench Tool 58024-1	—	—
58243-3	58575-1	and Tooling Assembly	—	—
58635-1	58575-1	58039-1	—	—
58636-1	58575-1		—	—
58244-1	—		854176-1 & 854200-1 (Base)	312522-1
58244-3	58576-1			
58245-1	—		—	—
58245-3	58576-1	Manual Bench Tool 58024-1	—	—
58009-2	58576-1	and Tooling Assembly	—	—
58010-2	58576-1	58040-1	—	—
58244-1	—	Manual Bench Tool 58024-1	—	—
58244-3	58576-1	and Tooling Assy 58040-1	—	—
58245-1	—	58024-1 and Tooling Assy	—	—
58245-3	58576-1	58040-1	—	—

2- through 12-positions." 2- through 8-positions.

MTA, CST-100 II and SL-156 Connectors

MTA Application Tooling Options (Continued)

One-At-A-Time Termination Tooling (Typical Tooling Combinations)



Manual Hand Tool with
Interchangeable Head



Air Hand Tool with
Interchangeable Head



Air Bench Mount Tool with
Interchangeable Head and
Foot Switch



Electric Bench Machine with
Interchangeable Head

Power Units

Manual Hand Tool – Pistol Grip Handle Part No. 58074-1

- Easy to use
- Ratchet control will not release the trigger until it is fully bottomed
- Head may be rotated for user convenience

Air Hand Tool – Pistol Grip Pneumatic Handle Part No. 58075-1

- Light weight
- Operates at air pressure between 40 and 70 psi [2.76 and 4.83 bar]
- Head may be rotated for user convenience

Air Bench Mount Tool – Bench Mount Power Assembly Part No. 58338-1

- May be mounted with interchangeable head pointed up or down
- Operated by a foot switch
- Operates at air pressure between 40 and 70 psi [2.76 and 4.83 bar]

Electric Bench Machine – IDC Power Unit Part No. 931800-1

- All electric: 120 VAC, 60 Hz, 2 A
- Compact, portable and quiet
- Operated by a foot switch



Air Bench Mount Tool with
Interchangeable Head and Loose-Piece Feed Track



Electric Bench Machine with
Interchangeable Head and
Tape Feed Track

Interchangeable Heads and Applicators (Refer to page 58 for part numbers.)

Interchangeable Head

- Terminates one unstripped wire per cycle
- Aligns and holds the connector in place for each termination
- Automatically advances the connector after each termination



Interchangeable Head and Loose-Piece Feed Track

- No special setup required
- Connectors are easily loaded into feed track
- Connectors are fed using a simple spring-loaded pusher

Interchangeable Head and Tape Feed Track

- No special setup required
- Tape-mounted connectors are transferred from product reel to feed track by simply pulling on the free end of the carrier tape
- Connectors are fed using a simple spring-loaded pusher

Special Applicator

- Connectors are easily hand loaded into feed track
- Automatically advances the connector after each termination
- Cannot be cycled until the connector is properly positioned

T-Handle Maintenance Tool

MTA, CST-100 II and SL-156 Connectors

MTA Application Tooling Options (Continued)

Mass Termination Tooling (Typical Tooling Combinations)



Manual Bench Tool with Applicator and Holding Fixture



Air Harness Tool with Applicator



2700 lb Air Bench Machine with Ribbon Cable Notcher Assembly

Power Units

Manual Bench Tool – Arbor Frame Assembly Part No. 58024-1

- Applicator and holding fixture can be oriented for operator convenience for closed-end or feed-thru terminations
- Ram height (insertion depth) is easily adjusted
- May be bench mounted

Air Harness Tools – Hand-Held Power Unit with Applicator

Part No. 58575-1 (MTA-100)

Part No. 58576-1 (MTA-156)

- Applicator can be rotated 360° for orientation with holding fixture
- Insertion depth is easily adjusted
- Operates at air pressure between 75 and 95 psi [5.17 and 6.55 bar]

2700 lb Air Bench Machine – Part No. 312522-1

- Operated by a foot switch
- Capable of exerting 2,700 lb [12,000 N] of force at minimum 80 psi [5.52 bar] air pressure
- May be bench mounted

Applicators and Notcher Assemblies



Manual Bench Tool with Applicator and Tape Feed Track

Applicator and Holding Fixture

- Wires are laced into plastic combs for mass termination
- Trims excess wire for closed-end terminations
- Holding fixture may be mounted to a harness board

Applicator and Tape Feed Track

- Tape-mounted connectors are transferred from product reel to feed track by simply pulling on the free end of the carrier tape
- Connectors are fed using a simple spring-loaded pusher
- Feed stop easily adjusted for different connector sizes

Ribbon Cable Notcher Assembly

- Notch cable with up to 28 conductors for .100 centerline, and 24 conductors for .156 centerline
- Pressure plate holds cable in position during notching
- Scrap conveniently removed through a chute with a blast of air from a built-in air valve



Ribbon Cable Notcher Assembly

Part Number	Wire Size AWG	Centerline	Used With
854449-2	26-28	.100 2.54	Manual Bench Tool 58024-1
854449-4	22-28	.100 2.54	Air Bench Machine 91112-2
854449-3	18-24	.156 3.96	2700 lb Bench Machine 312522-1 AMP-O-LECTRIC Bench Machine 1-471273-3 (with Conversion Kit 690675-2)

Use Adapter 854468-1 when putting Notcher in the AMP-O-LECTRIC Machine. Use Adapter 854468-2 when putting Notcher in the 2700 lb Air Bench Machine.

MTA, CST-100 II and SL-156 Connectors

Typical Application Rates

Produce 6-in. [15 cm] Long Jumpers, One 4-Position MTA-100 Connector per End, Discrete Wire	
Method	Terminations Per Hour
Manual Hand Tool 58074-1 with Interchangeable Head 58246-1	—
Electric Bench Machine 931800-1 with Interchangeable Head 58246-1	900
Electric Bench Machine 931800-1 with Interchangeable Head and Loose-Piece Feed Track 933567-1	1,100
Electric Bench Machine 931800-1 with Interchangeable Head and Tape Feed Track 853546-1 and 853542-1 (Base)	1,250

Apply One 4-Position MTA-100 Feed-Thru Connector per Assembly, Discrete Wire

Method	Terminations Per Hour
Manual Bench Tool 58024-1 with Applicator and Holding Fixture	650

For further information about tooling call Technical Support.

Produce 6-in. [15 cm] Long Jumpers, One 4-Position MTA-100 Connector per End, Ribbon Cable*

Method	Terminations Per Hour
2700 lb Air Bench Machine 312522-1 with Applicator and Tape Feed Track 854175-1 and 854200-1 (Base)	7,500

* Procedure: Mass terminate 12-conductor ribbon cable with three connectors per end. After terminating, separate by tearing the 12-conductor assembly into three 4-conductor assemblies.

Cable Notching

Method	Cable Ends Per Hour
2700 lb Air Bench Machine 312522-1 with Ribbon Cable Notcher Assembly 854449-2 and 854468-2 (Adapter)	1,000

Part Number Index

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15WGY00008P	62	640472	30	641153	30
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20WFY00006P	61	640477	30	641156	30
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20WJY000010P	62	640556	34	641175	32
20WEY00008P	61	640557	34	641186	10
20WFY00006P	61	640558	34	641187	10
20WFY00007P	61	640559	34	641188	10
20WGY00008P	62	640595	32	641189	10
20WJY000010P	62	640599	32	641190	8
24WGY00008P	62	640600	32	641191	8
24WJY000010P	62	640601	32	641192	8
25WEY00007P	61	640602	32	641193	8
25WEY00008P	61	640604	32	641198	8
25WFY00006P	61	640605	32	641199	8
25WFY00007P	61	640606	32	641200	8
25WGY00006P	61	640607	32	641201	8
28WEY00007P	61	640608	32	641202	39
28WEY00008P	61	640620	8	641203	39
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