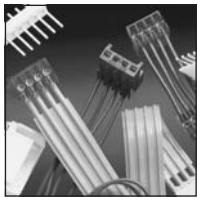
CONNECTORS/ APPLIANCES

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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Crimp
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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.

.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

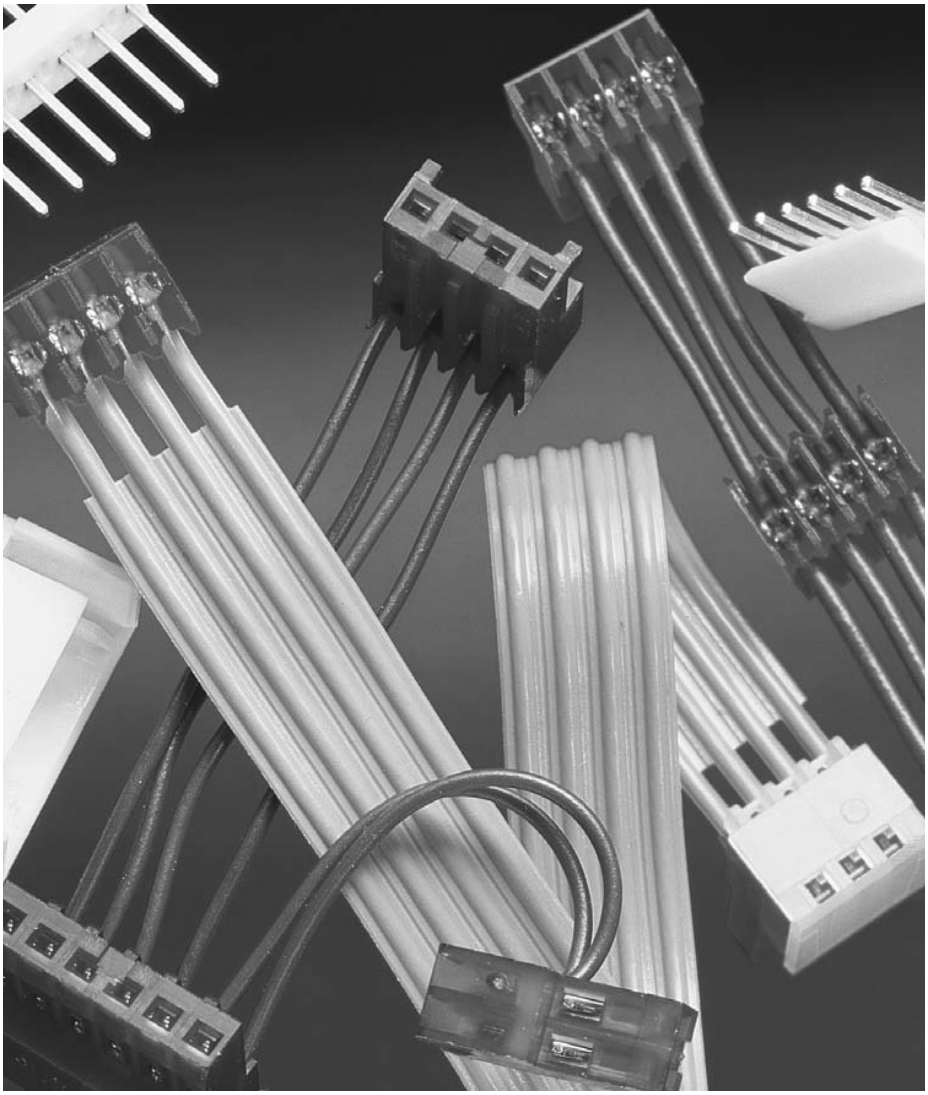
108-1050 MTA-100 Connectors

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-100 Connector/Header Mateability Guide

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-100 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 Tin Plated Part Numbers

Headers

Connectors	640452	640453	640454	640455	640456	640457	644456	644457	644486	644488	644694	644695	644803	644861	644874	644875	644876	644877	644892	644893	644894	647047	647048	647050	647051	647106	647166	647502	647531	647609	647623	647532	1744075
640440	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
643813	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
643814	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
643815	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
643816	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
643828	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644083	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644312	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644313	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644497	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644511	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644512	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644513	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644514	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644540	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644563	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644564	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644565	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644574	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	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	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644578	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644579	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644795	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
*1375820	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

*Select contact plating to match header plating.

MTA-100 Connector/Header Mateability Guide (continued)

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-100 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

Connectors	641211	641212	641213	641214	641215	641216	644487	644489	644884	644885	644886	644887	644896	644897	644898	647108	647109	647114	647116	647117	647168	647626	647624	647534	1744047	1744163
641237	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641238	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641239	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641240	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641241	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641242	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641243	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641244	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644020	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644042	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644043	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644044	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644702	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644726	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
*1375820	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

*Select contact plating to match header plating.

Matrix for .000015 [0.00038] Gold Plated Part Numbers

Headers

Connectors	641122	641123	641124	641125	641126	641127	644888	644889	644890	644891	647075	647076	647078	647079	647107	647167	647467	647625	647627	647533	1744074
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	Y	Y	Y	Y	Y	Y	Y
644040	Y	Y	Y	Y	Y	Y	Y	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	Y	Y	Y	Y	Y	Y	Y
647480	Y	Y	Y	Y	Y	Y	Y	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	Y	Y
1744020	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

*Select contact plating to match header plating.

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

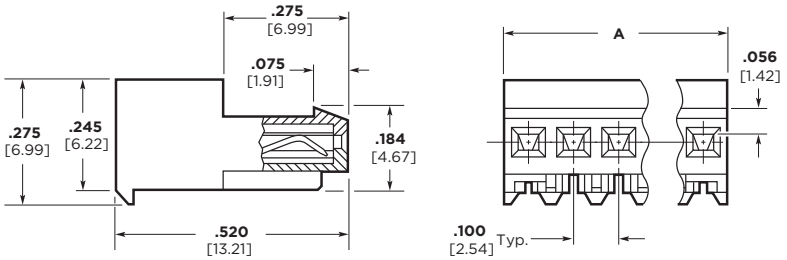
For mateability options, see matrix on pages 5 and 6.

For mating half visuals, see pages 13 thru 23.

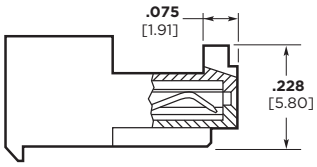
Notes:

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

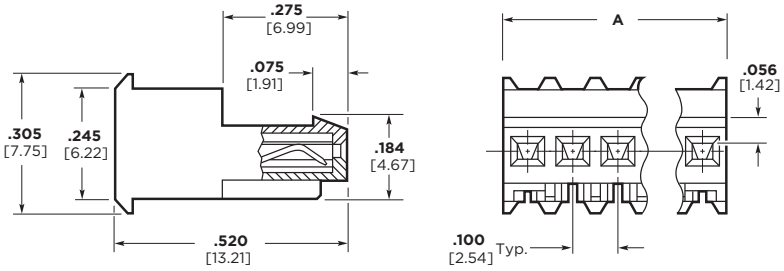


Without Polarizing Tabs

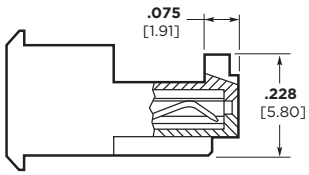


With Polarizing Tabs

Feed-Thru Connectors



Without Polarizing Tabs



With Polarizing Tabs

MTA-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.	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 0.8–0.9 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-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

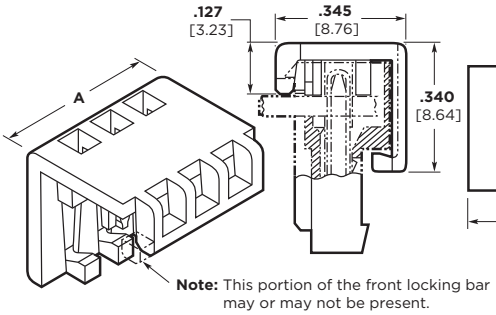
The "Base Part Numbers" Chart at right shows the base part number and number of circuits available for the described cover.

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:

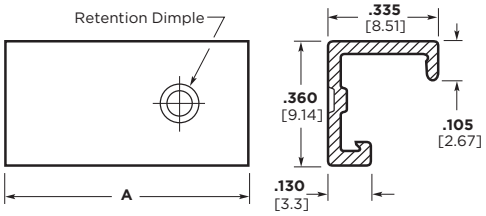
Base number **643075** plus prefix-and-suffix
1- — -0

The correct ordering number is
1-643075-0

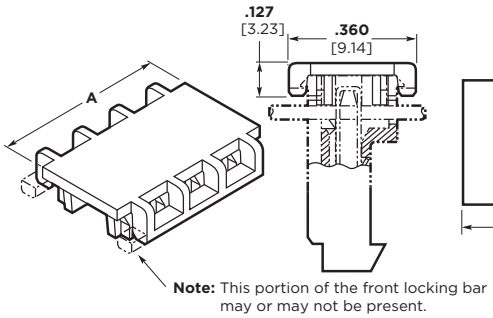
Closed End Strain Relief Covers



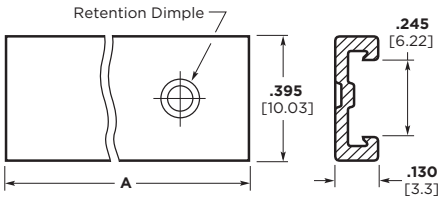
Closed End Dust Covers



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

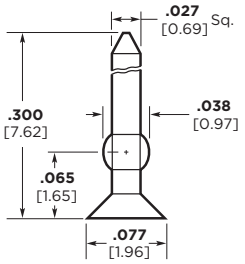
Cover Length

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
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
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
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

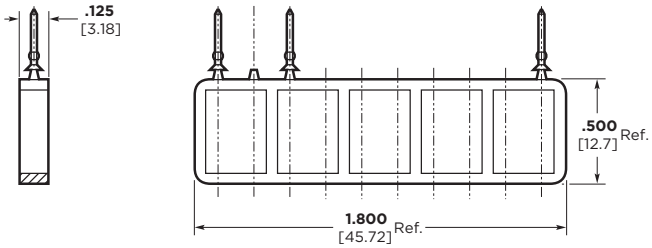
MTA-100 IDC Connector Accessories (continued)

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.

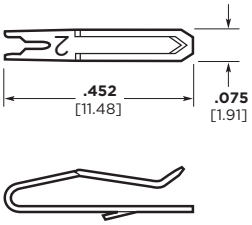


Replacement IDC Contacts

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

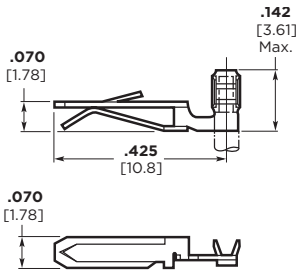
Note: TE does not recommend terminating an MTA contact more than one time. Use replacement contacts when required for field repairs or wire changes.

Wire Size		Part Numbers			
AWG	mm²	Standard Tin Plated	.000030 [0.00076] Gold Plated	.000015 [0.00038] Gold Plated	LED Tin Plated
22	0.3–0.4	640636-3	641186-4	641186-3	641643-2
24	0.2	640637-3	641187-4	641187-3	641644-2
26	0.12–0.15	640638-3	641188-4	641188-3	641645-2
28	0.08–0.09	640639-3	641189-4	641189-3	641646-2



Crimp Snap-In Contacts

Material and Finish
Phosphor bronze, tin plated.



Wire Size		Part Nos.	
AWG	mm²	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-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

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

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

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

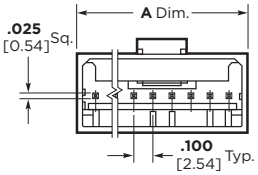
MTA-100 IDC Posted Connectors (Wire-to-Wire)—Closed End, Feed-Thru

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.



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.

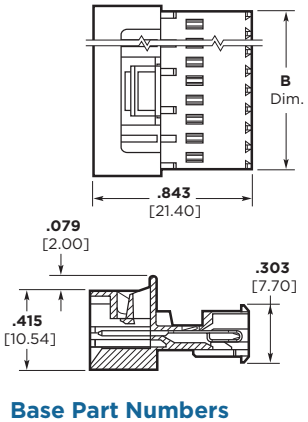
Color Coding by Wire Size for UL94V-2 Connectors

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

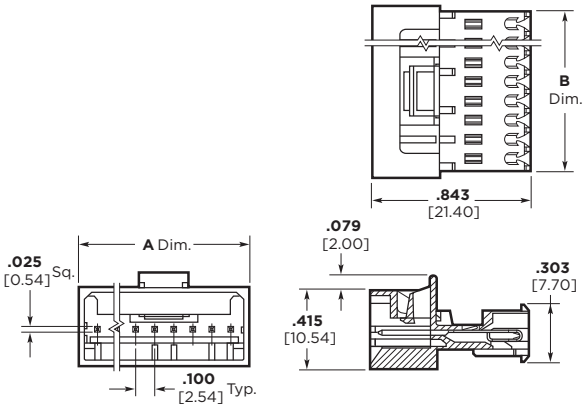
Performance Data

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

Closed End



Feed-Thru



Base Part Numbers

Connector Type & Wire Size	Closed End Connector Part Nos.	Closed End Connector RoHS Equiv.	Feed-Thru Connector Part Nos.	Feed-Thru Connector No. of Circuits
Standard UL 94V-2, Tin Plated				
22 AWG 0.3–0.4 mm²	647000	**32–49**[1]	647004	—[2]
24 AWG 0.2 mm²	647001	**32–49**[1]	647005	—[2]
26 AWG 0.12–0.15 mm²	647002	**32–49**[1]	647006	—[2]
28 AWG 0.08–0.09 mm²	647003	**32–49**[1]	647007	—[2]
Standard UL 94V-2, .000030 [0.00076] Gold Plated				
22 AWG 0.3–0.4 mm²	647008	**32–49**[1]	647012	—[2]
24 AWG 0.2 mm²	647009	**32–49**[1]	647013	—[2]
26 AWG 0.12–0.15 mm²	647010	**32–49**[1]	647014	—[2]
28 AWG 0.08–0.09 mm²	647011	**32–49**[1]	647015	—[2]
Standard UL 94V-2, .000015 [0.00038] Gold Plated				
22 AWG 0.3–0.4 mm²	647016	**32–49**[1]	647020	—[2]
24 AWG 0.2 mm²	647017	**32–49**[1]	647021	—[2]
26 AWG 0.12–0.15 mm²	647018	**32–49**[1]	647022	—[2]
28 AWG 0.08–0.09 mm²	647019	**32–49**[1]	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
2	**.300** [7.62]	**.227** [5.77]
3	**.400** [10.16]	**.327** [8.31]
4	**.500** [12.70]	**.427** [10.85]
5	**.600** [15.24]	**.527** [13.39]
6	**.700** [17.78]	**.627** [15.93]
7	**.800** [20.32]	**.727** [18.47]
8	**.900** [22.86]	**.827** [21.01]
9	**1.000** [25.40]	**.927** [23.55]
10	**1.100** [27.94]	**1.027** [26.09]
11	**1.200** [30.48]	**1.127** [28.63]
12	**1.300** [33.02]	**1.227** [31.17]
13	**1.400** [35.56]	**1.327** [33.71]
14	**1.500** [38.10]	**1.427** [36.25]
15	**1.600** [40.64]	**1.527** [38.79]
16	**1.700** [43.18]	**1.627** [41.33]
17	**1.800** [45.72]	**1.727** [43.87]
18	**1.900** [48.26]	**1.827** [46.41]
19	**2.000** [50.80]	**1.927** [48.95]

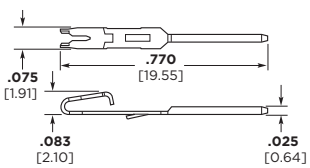
Technical Documents

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



Wire Size AWG	Wire Size mm²	Part Numbers Tin Plated	Part Numbers .000030 [.00076] 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-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

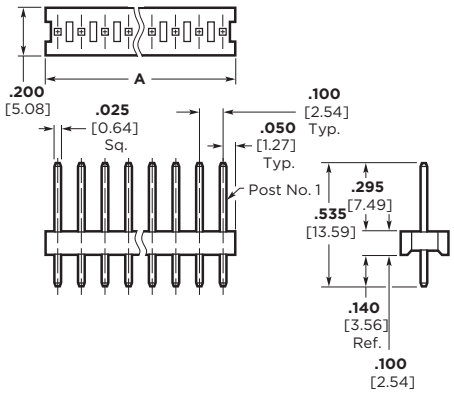
Note:

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].

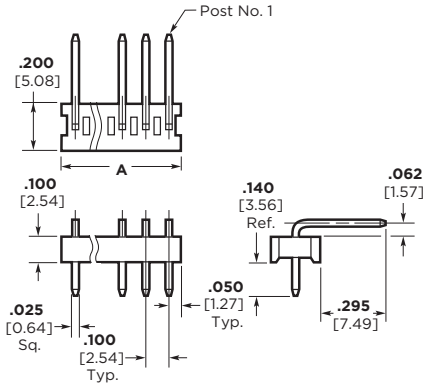
For mateability options, see matrix on pages 5 and 6.

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

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

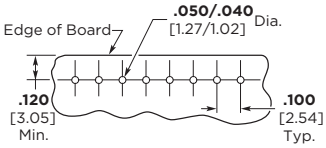
All part numbers are the RoHS equivalent version. Example:

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.

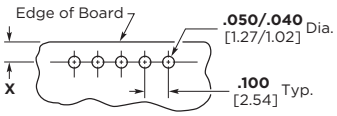
Note: Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.



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-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

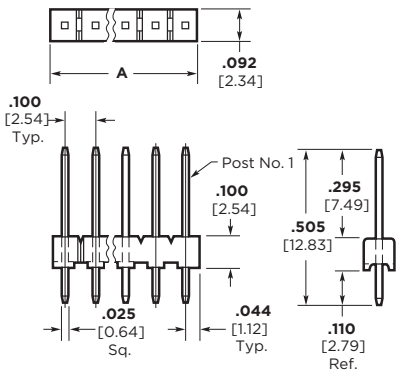
Notes:

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. Headers without retentive legs are suitable for breakaway application.
3. 2 or 3 retentive leg(s) per header, depending upon number of positions.
4. Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
5. 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].

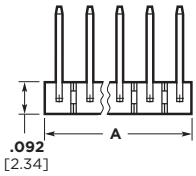
For mateability options, see matrix on pages 5 and 6.

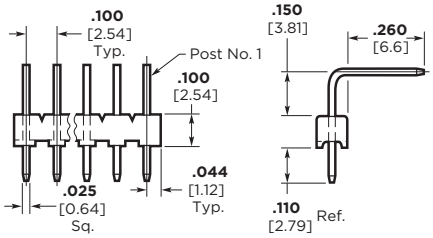
For mating half visuals, see pages 7, 8 and 24.

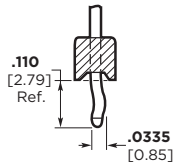
Straight Post (.025 [0.64] Square)



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

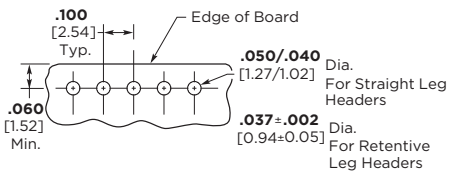
All part numbers are the RoHS equivalent version. Example:

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

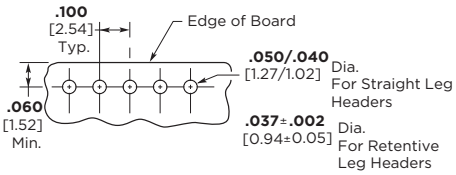
See page 8 for an explanation of RoHS lead free equivalents.

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 load 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.
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-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:

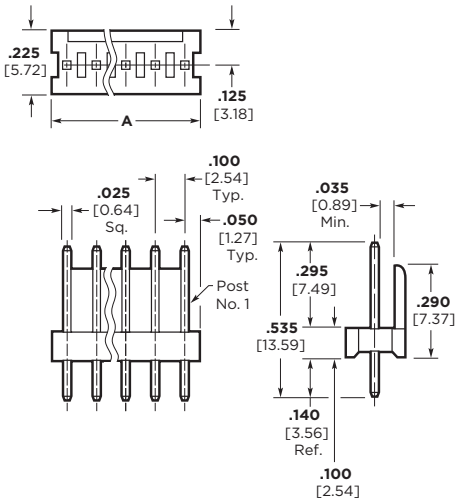
No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-641213–2
	thru
28	5-641213-8

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

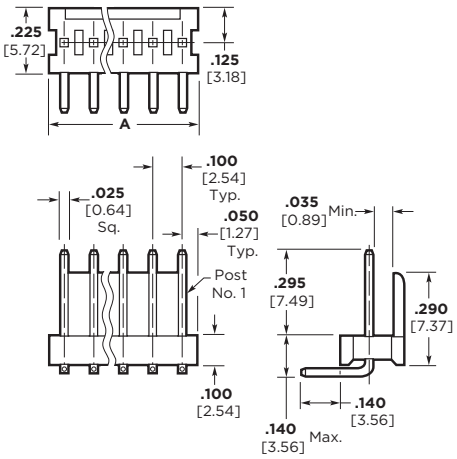
Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

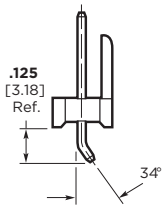
Note: Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

Straight Post (.025 [0.64] Square)

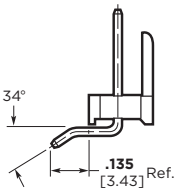


Right-Angle Post (.025 [0.64] Square)

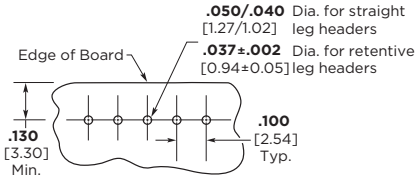




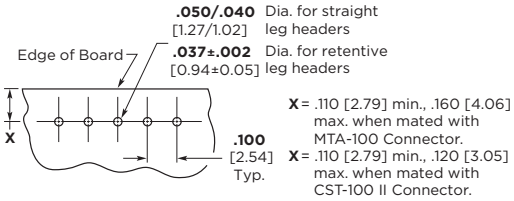
Retentive Leg



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								
	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-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:

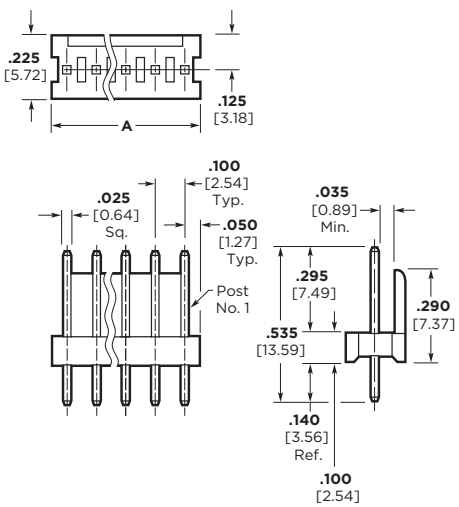
No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	641215–2	3-641215–2
	thru	
28	2-641215-8	5-641215-8

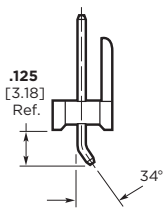
See page 8 for an explanation of RoHS lead free equivalents.

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

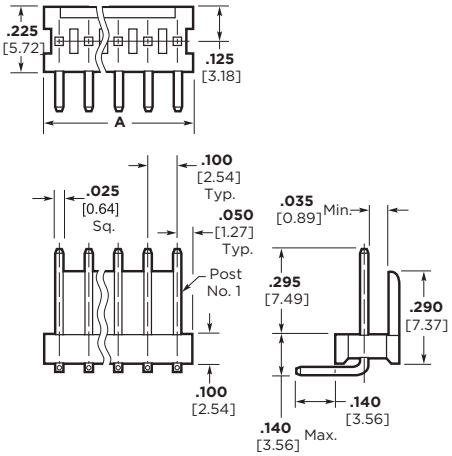
Straight Post (.025 [0.64] Square)

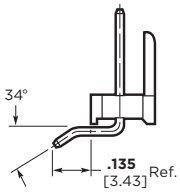




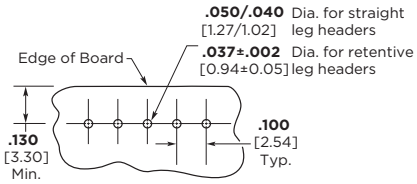
Retentive Leg

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

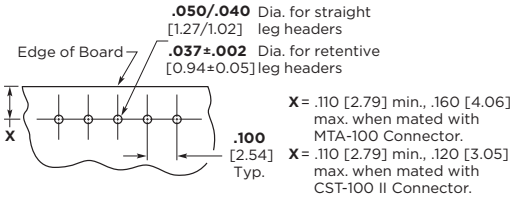




Retentive Leg



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-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

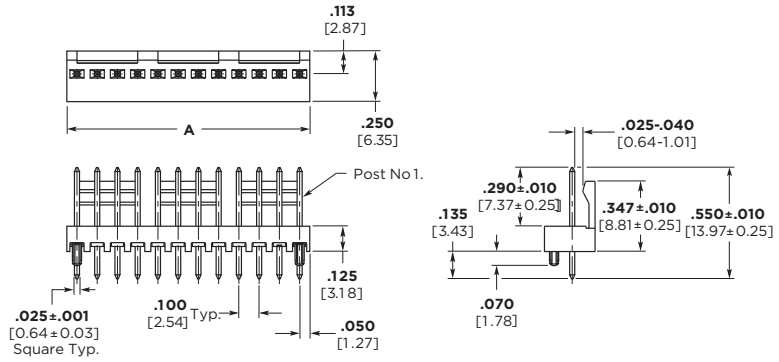
The correct ordering number is
4-647609-0

All part numbers are the RoHS equivalent version. Example:

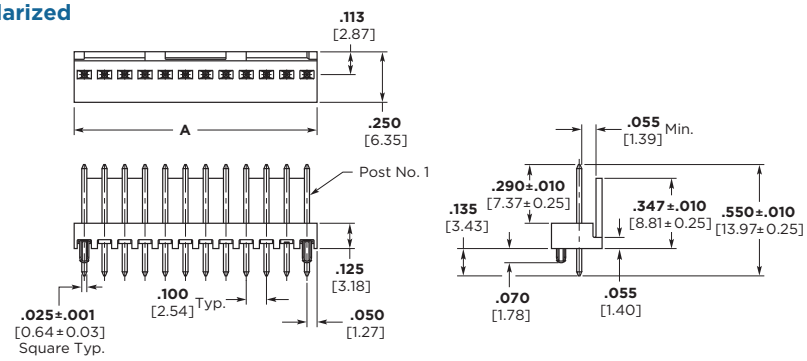
No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647609-2	3-647609-2
3	647609-3	3-647609-3
4	647609-4	3-647609-4
5	647609-5	3-647609-5
6	647609-6	3-647609-6
7	647609-7	3-647609-7
8	647609-8	3-647609-8
9	647609-9	3-647609-9
10	1-647609-0	4-647609-0
11	1-647609-1	4-647609-1
12	1-647609-2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

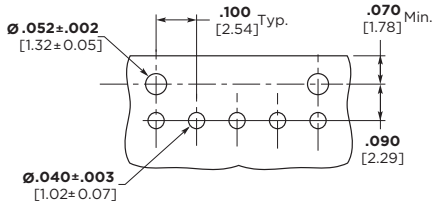
Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Friction Lock



Polarized





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

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-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

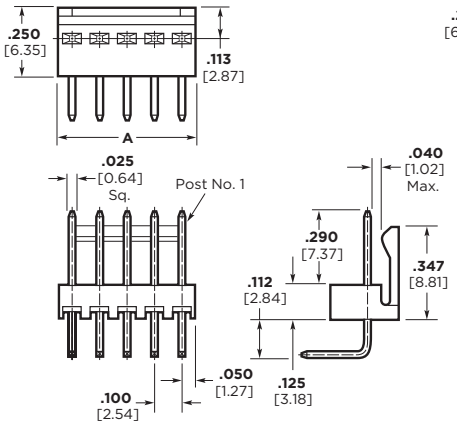
The correct ordering number is
4-647630-0

All part numbers are the RoHS equivalent version. Example:

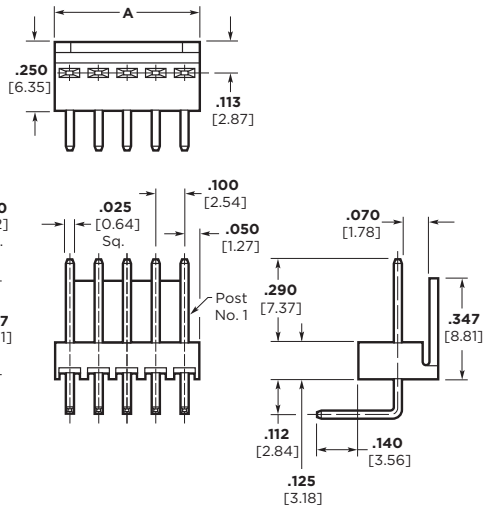
No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-647630-2
3	3-647630-3
4	3-647630-4
5	3-647630-5
6	3-647630-6
7	3-647630-7
8	3-647630-8
9	3-647630-9
10	4-647630-0
11	4-647630-1
12	4-647630-2

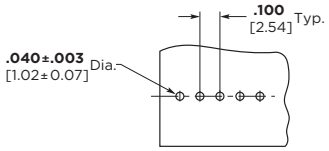
Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

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 Right-Angle Posts		Polarized Right-Angle Posts	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated			
647630	**32-42**	647651	**32-42**
Standard UL94V-0, .000030 [0.00076] Gold Plated			
647629	**32-42**	647653	**32-42**
Standard UL94V-0, .000015 [0.00038] Gold Plated			
647628	**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-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:

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 **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

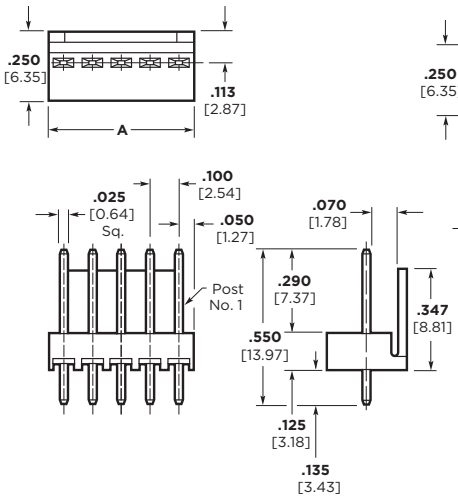
See page 8 for an explanation of RoHS lead free equivalents.

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.

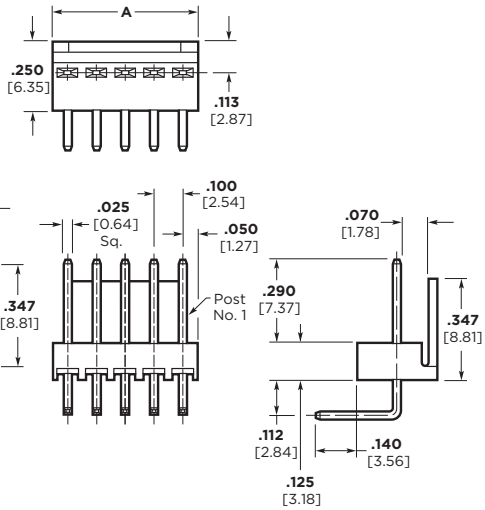
For use with Infrared Reflow Process

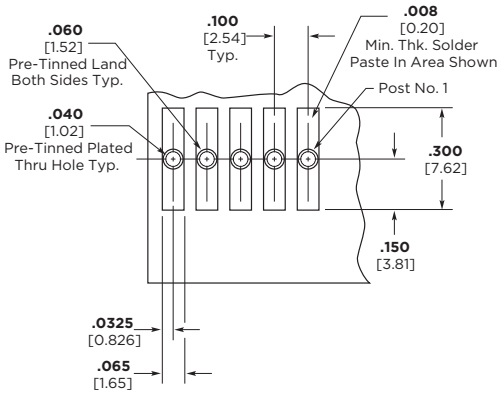
Maximum Temperature Rating: 2–12 Position: 280°C
13–18 Position: 235°C

Straight Post (.025 [0.64] Square)



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





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

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

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-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

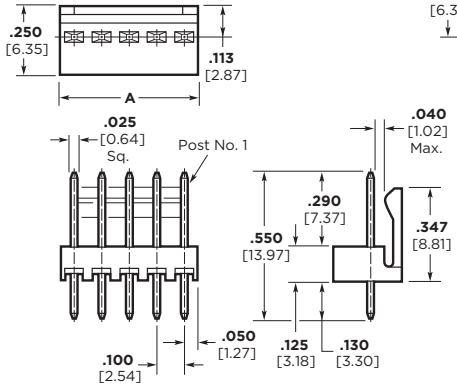
See page 8 for an explanation of RoHS lead free equivalents.

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.

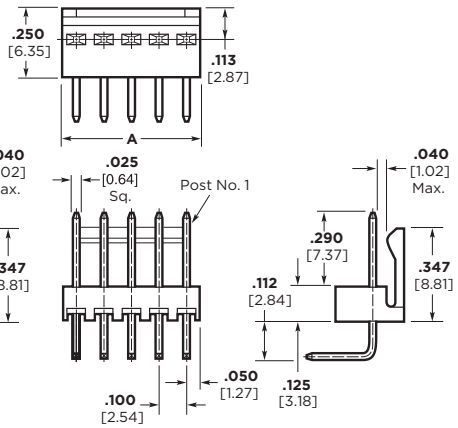
For use with Infrared Reflow Process

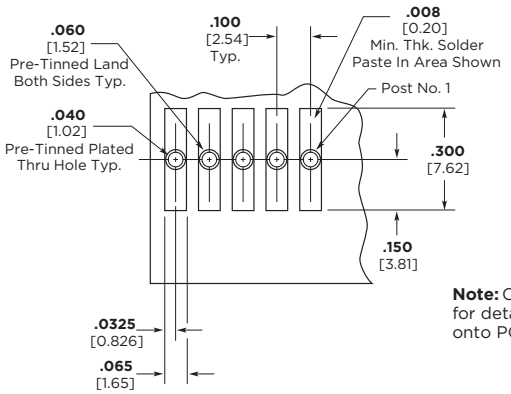
Maximum Temperature Rating: 2–12 Position: 280°C
13–18 Position: 235°C

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-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

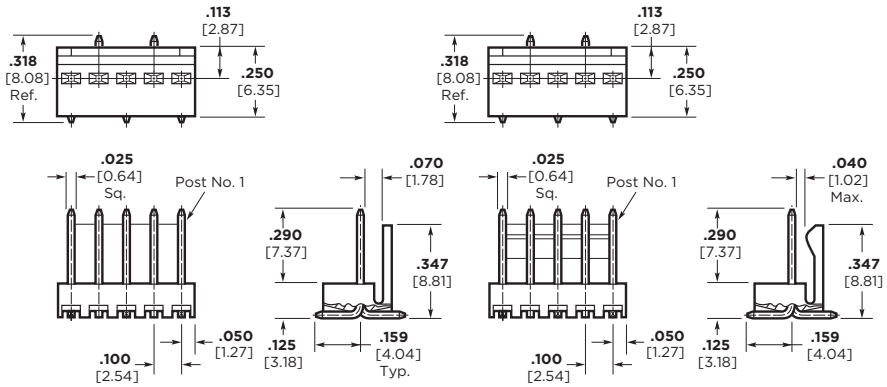
See page 8 for an explanation of RoHS lead free equivalents.

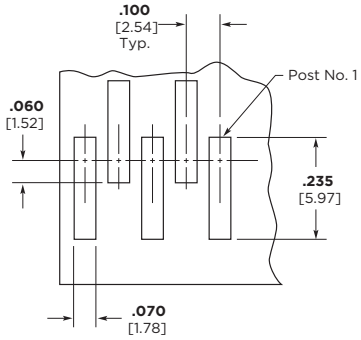
Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

For use with Infrared Reflow Process

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

Polarized Header **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-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:

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. Headers with .000015 [0.00038] gold plated post are available upon request. Minimums may apply.
3. 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

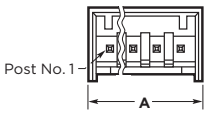
See page 15 for an explanation of RoHS lead free equivalents.

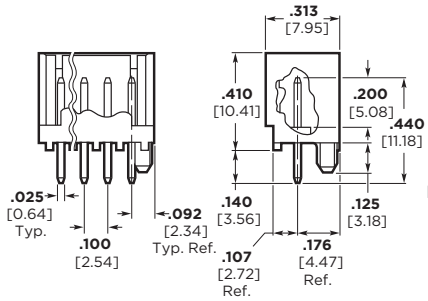
Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Notes:

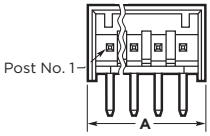
1. Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.
2. MTA-100 shrouded headers do not mate with CST-100 II housings.

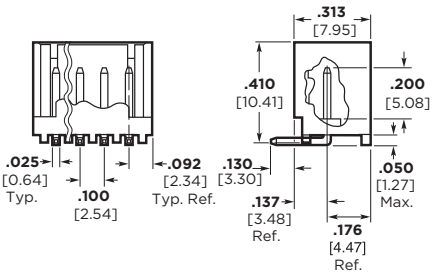
Straight Post (.025 [0.64] Square)





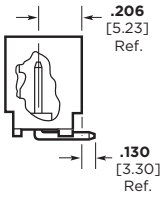
Right-Angle (.025 [0.64] Square)



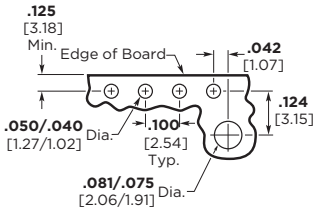


Front Bend

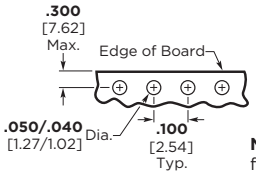
Polarized Retention Peg



Rear Bend



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)

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

Base Part Numbers

Straight Posts				Right-Angle Posts			
With Pegs		Without Pegs		Without Pegs Only			
				Front Bend		Rear 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
6	**.684** 17.37	3- -6
7	**.784** 19.91	3- -7
8	**.884** 22.45	3- -8
9	**.984** 24.99	3- -9
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
14	**1.484** 37.69	4- -4

.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

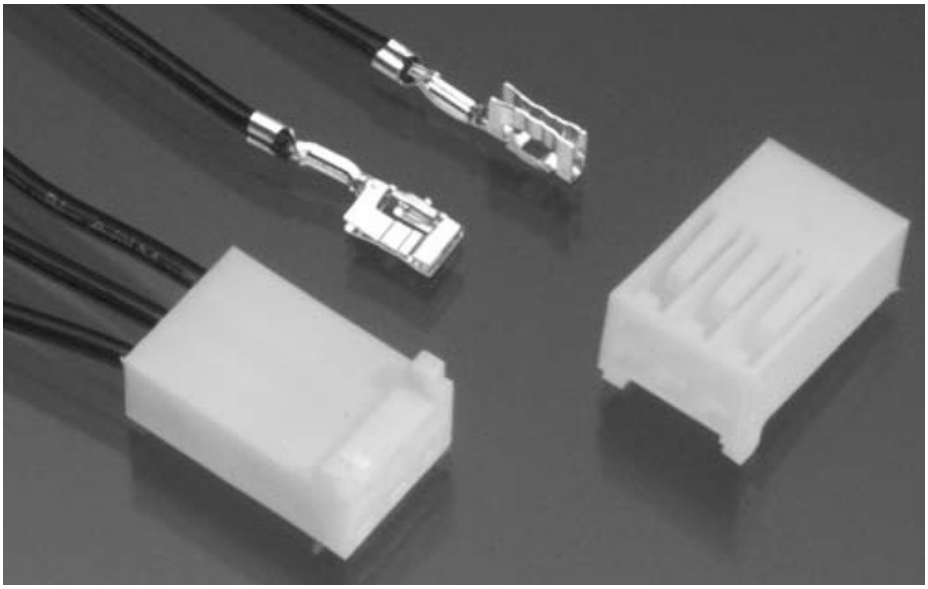
Loose Piece Contacts—Hand Tool No. 58517-3 (408-4064)

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)

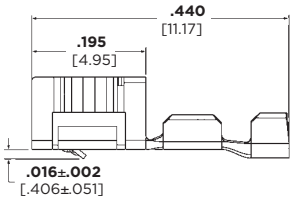
AMPOMATOR CLS IIIG Lead Making Machine* (Request Catalog 82659)

*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 [.00038] 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]

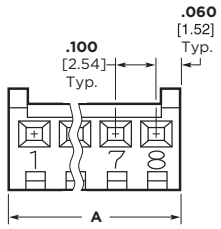
Housing*

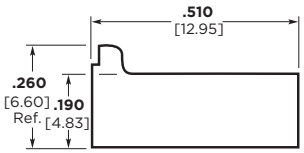
Material (RoHS Compliant)

UL94V-0 rated, nylon, white

No. of Pos.	Dim. A	Part Numbers
2	**.220** 5.59	1375820-2
3	**.320** 8.13	1375820-3
4	**.420** 10.67	1375820-4
5	**.520** 13.21	1375820-5
6	**.620** 15.75	1375820-6
7	**.720** 18.29	1375820-7
8	**.820** 20.83	1375820-8
9	**.920** 23.37	1375820-9
10	**1.020** 25.91	1-1375820-0
11	**1.120** 28.45	1-1375820-1
12	**1.220** 30.99	1-1375820-2
13	**1.320** 33.53	1-1375820-3
14	**1.420** 36.07	1-1375820-4
15	**1.520** 38.61	1-1375820-5

No. of Pos.	Dim. A	Part Numbers
16	**1.620** 41.15	1-1375820-6
17	**1.720** 43.69	1-1375820-7
18	**1.820** 46.23	1-1375820-8
19	**1.920** 48.77	1-1375820-9
20	**2.020** 51.31	2-1375820-0
21	**2.120** 53.85	2-1375820-1
22	**2.220** 56.39	2-1375820-2
23	**2.320** 58.93	2-1375820-3
24	**2.420** 61.47	2-1375820-4
25	**2.520** 64.01	2-1375820-5
26	**2.620** 66.55	2-1375820-6
27	**2.720** 69.09	2-1375820-7
28	**2.820** 71.63	2-1375820-8





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

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: 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. Headers with .000015 [0.00038] gold plated post are available upon request. Minimums may apply.
3. 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:

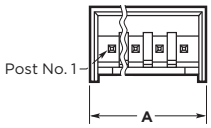
No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-644893-2
	thru
14	4-644893-4

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

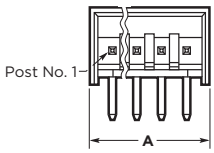
Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

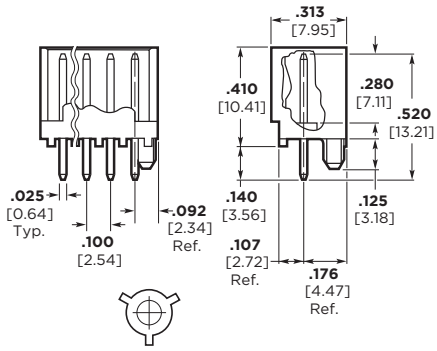
Note:
CST-100 II shrouded headers only mate with CST-100 II housings. All the MTA-100 headers except the MTA-100 shrouded headers mate with CST-100 II housings.

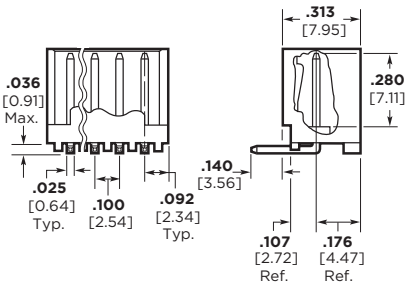
Straight Post (.025 [0.64] Square)



Right-Angle (.025 [0.64] Square)

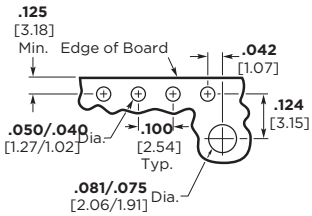




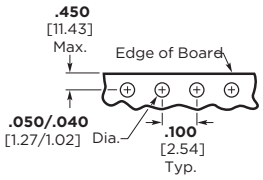


Polarized Retention Peg

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				Right-Angle Posts Without Pegs Only	
	With Pegs		Without Pegs			
	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	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**

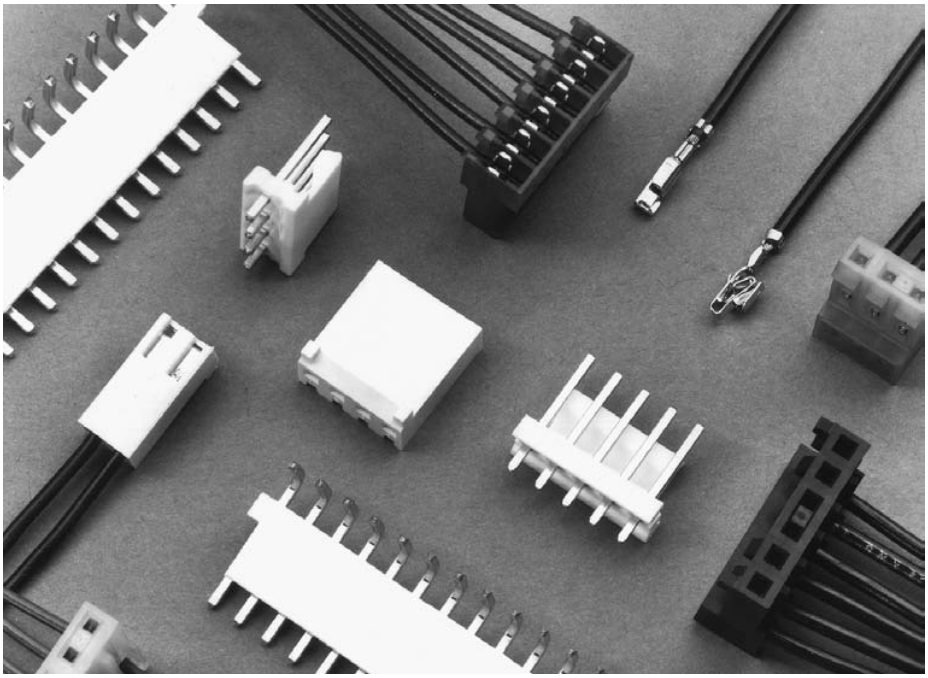
Header Length

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

.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-156 Connector/Header Mateability Guide

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 Tin Plated Part Numbers

Headers

Connectors	640383	640384	640385	640387	640388	640389	640445	644611	644613	644615	644617	644749	644750	644751	644752	644753	644754	644755	647123	647125	647127	647646	1744017
640426	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
640427	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
640428	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
640429	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
640430	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
640431	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
640432	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
640433	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
640434	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
640435	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
640472	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
640473	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
640474	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
640477	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
640480	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
640595	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
640599	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
640600	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
640601	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
640602	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
640604	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
640605	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
640606	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
640607	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
640608	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
641302	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
643817	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
643818	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
643819	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
643820	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
643821	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
644082	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644461	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644462	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644463	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644464	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644465	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
644466	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
644467	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
644468	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
644469	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644470	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644471	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644501	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644502	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644566	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644570	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644783	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
644791	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
644860	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
644878	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y

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

Connectors	641202	641203	641204	641207	641208	641209	641210	644631	644633	644756	644759	644760	644761
641217	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
641218	Y	Y	Y	N	Y	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

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

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

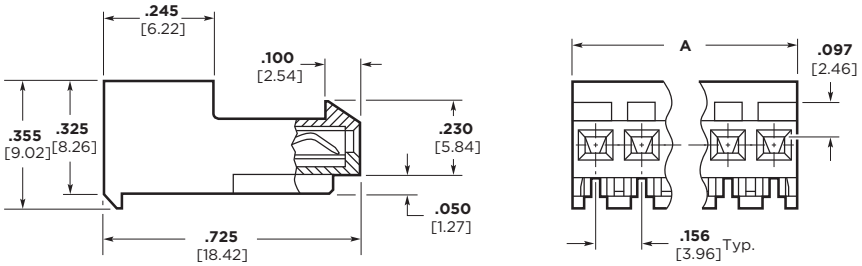
26 AWG—Blue
24 AWG—White
22 AWG—Red
20 AWG—Yellow
18 AWG—Orange

All wire sizes in UL94V-0—Black

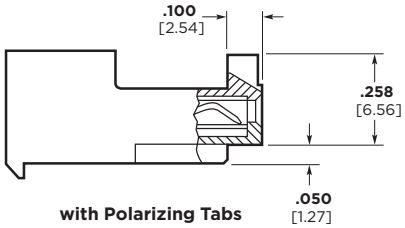
Notes:

1. Only connectors with locking ramp and without polarizing tabs mate with posted connectors on page 38.
2. Refer to pages 52-56 for approved wire listing.
3. For strain reliefs and dust covers, see page 9.
4. For keying plugs and panel mount end caps, see page 35.
5. Other circuit sizes are available upon request. Minimums may apply.
6. Connector circuits can be molded closed for keying purposes. Minimums may apply.
7. Where no part numbers appear in the chart, parts can be made available upon request. Minimums may apply.
8. 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].

Closed End with Locking Ramp



without Polarizing Tabs

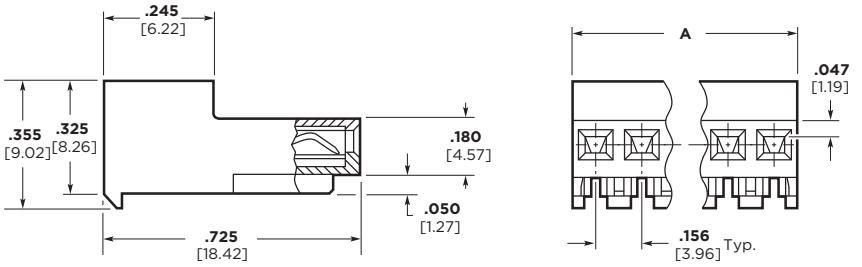


with Polarizing Tabs

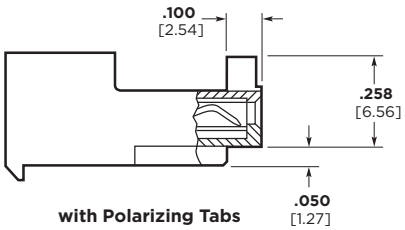
For mateability options, see matrix on pages 27 and 28.

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-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.
Standard UL94V-2, Tin Plated								
18 AWG 0.8–0.9 mm²	640426	**32–54**	643817	**32–54**	640431	**32–54**	644461[1]	**32–44**
20 AWG 0.5–0.6 mm²	640427	**32–54**	643818	**32–54**	640432	**32–54**	644462[1]	**32–44**
22 AWG 0.3–0.4 mm²	640428	**32–54**	643819	**32–54**	640433	**32–54**	644463[1]	**32–44**
24 AWG 0.2 mm²	640429	**32–54**	643820	**32–54**	640434	**32–54**	644464[1]	**32–44**
26 AWG 0.12–0.15 mm²	640430	**32–54**	643821	**32–54**	640435	**32–54**	—	—
Tape Mounted on Reel UL94V-2, Tin Plated								
18 AWG 0.8–0.9 mm²	640472	**32–54**	644878	**32–54**	640477	**32–54**	—	—
20 AWG 0.5–0.6 mm²	640473	**32–54**	—	—	—	—	—	—
22 AWG 0.3–0.4 mm²	640474	**32–54**	644783	**32–54**			644791[1]	**32–44**
24 AWG 0.2 mm²	—	—	—	—	640480	**32–54**	—	—
26 AWG 0.12–0.15 mm²	—	—	—	—	—	—	—	—
Standard UL94V-2, .000030 [0.00076] Gold Plated								
18 AWG 0.8–0.9 mm²	641217	**32–54**	644460[1]	**32–42**	641222	**32–54**	—	—
20 AWG 0.5–0.6 mm²	641218	**32–54**	644663[1]	**32–42**	641223	**32–54**	—	—
22 AWG 0.3–0.4 mm²	641219	**32–54**	644662[1]	**32–42**	641224	**32–54**	644687[1]	**32–44**
24 AWG 0.2 mm²	641220	**32–54**	—	—	641225	**32–54**	—	—
26 AWG 0.12–0.15 mm²	641221	**32–54**	—	—	641226	**32–54**	—	—
Standard UL94V-2, .000015 [0.00038] Gold Plated								
18 AWG 0.8–0.9 mm²	641148	**32–54**	644284[1]	**32–42**	641153	**32–54**	—	—
20 AWG 0.5–0.6 mm²	641149	**32–54**	—	—	641154	**32–54**	—	—
22 AWG 0.3–0.4 mm²	641150	**32–54**	647478[1]	**32–42**	641155	**32–54**	—	—
24 AWG 0.2 mm²	641151	**32–54**	—	—	641156	**32–54**	—	—
26 AWG 0.12–0.15 mm²	641152	**32–54**	—	—	641157	**32–54**	—	—
Standard UL94V-0, Tin Plated (Black in color)								
18 AWG 0.8–0.9 mm²	644860	**32–42**	—	—	644502	**32–42**	644082[1]	**32–42**
22 AWG 0.3–0.4 mm²	—	—	—	—	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 fordetails. Minimums may apply.

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

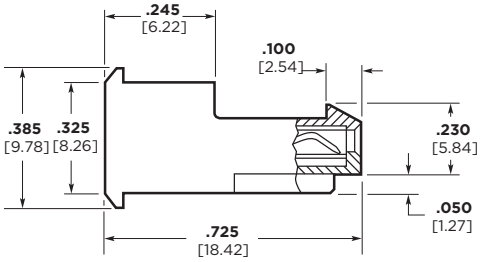
26 AWG—Blue
24 AWG—White
22 AWG—Red
20 AWG—Yellow
18 AWG—Orange

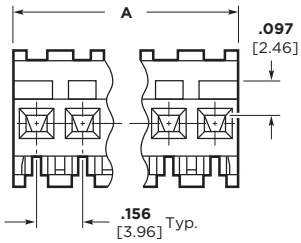
All wire sizes in UL94V-0—Black

Notes:

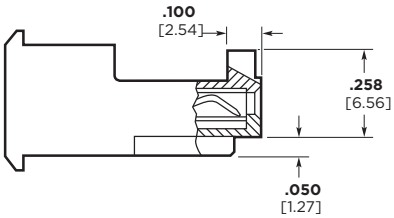
1. Only connectors with locking ramp and without polarizing tabs mate with posted connectors on page 38.
2. Refer to pages 52-56 for approved wire listing.
3. For strain reliefs and dust covers, see page 33 and 34.
4. For keying plugs and panel mount end caps, see page 35.
5. Other circuit sizes are available upon request. Minimums may apply.
6. Connector circuits can be molded closed for keying purposes. Minimums may apply.
7. Where no part numbers appear in the chart, parts can be made available upon request. Minimums may apply.
8. 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

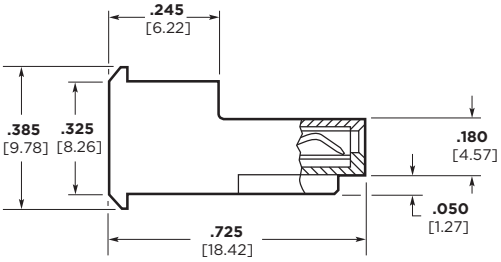


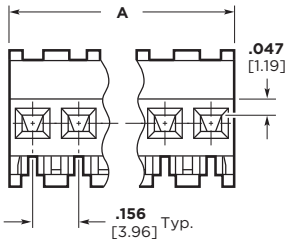
with Polarizing Tabs

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

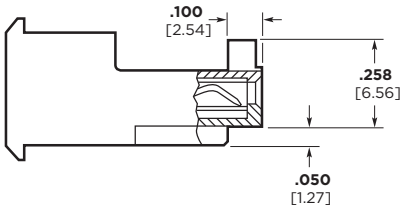
Mating half visuals for Closed End Connectors with Locking Ramp, see pages 38 thru 41, 43, 45, and 46, (42 and 44 Front Bend Headers only).

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-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.
Standard UL94V-2, Tin Plated								
18 AWG 0.8–0.9 mm²	640599	**32–54**	644465[1]	**32–44**	640604	**32–54**	644469[1]	**32–44**
20 AWG 0.5–0.6 mm²	640600	**32–54**	644466[1]	**32–44**	640605	**32–54**	644470[1]	**32–44**
22 AWG 0.3–0.4 mm²	640601	**32–54**	644467[1]	**32–44**	640606	**32–54**	644471[1]	**32–44**
24 AWG 0.2 mm²	640602	**32–54**	644468[1]	**32–44**	640607	**32–54**	—	—
26 AWG 0.12–0.15 mm²	640595	**32–54**	—	—	640608	**32–54**	—	—
Tape Mounted on Reel UL94V-2, Tin Plated								
18 AWG 0.8–0.9 mm²	641302	**32–54**	—	—	—	—	—	—
20 AWG 0.5–0.6 mm²	—	—	—	—	—	—	—	—
22 AWG 0.3–0.4 mm²	—	—	—	—	—	—	—	—
24 AWG 0.2 mm²	—	—	—	—	—	—	—	—
26 AWG 0.12–0.15 mm²	—	—	—	—	—	—	—	—
Standard UL94V-2, .00003 [.00076] Gold Plated								
18 AWG 0.8–0.9 mm²	—	—	644718[1]	**32–44**	641232	**32–54**	—	—
20 AWG 0.5–0.6 mm²	—	—	—	—	641233	**32–54**	—	—
22 AWG 0.3–0.4 mm²	—	—	644720[1]	**32–44**	641234	**32–54**	—	—
24 AWG 0.2 mm²	—	—	—	—	641235	**32–54**	—	—
26 AWG 0.12–0.15 mm²	641231	**32–54**	—	—	641236	**32–54**	—	—
Standard UL94V-2, .000015 [.00038] Gold Plated								
18 AWG 0.8–0.9 mm²	641168	**32–54**	647479[1]	**32–42**	—	—	—	—
20 AWG 0.5–0.6 mm²	—	—	—	—			—	—
22 AWG 0.3–0.4 mm²	641170	**32–54**	647496[1]	**32–42**	641175	**32–54**	—	—
24 AWG 0.2 mm²	—	—	—	—	—	—	—	—
26 AWG 0.12–0.15 mm²	—	—	—	—	—	—	—	—
Standard UL94V-0, Tin Plated								
18 AWG 0.8–0.9 mm²	—	—	—	—	—	—	644570[1]	**32–42**
22 AWG 0.3–0.4 mm²	—	—	—	—	—	—	—	—

[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-156 Connector Accessories

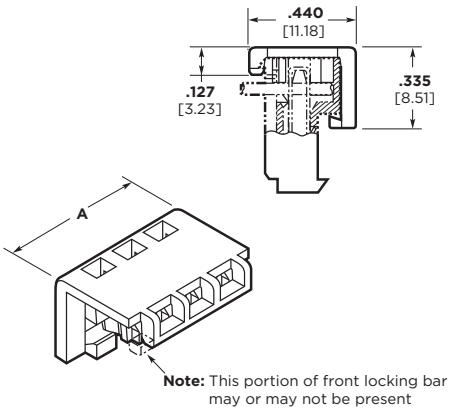
Covers

Material (RoHS Compliant)

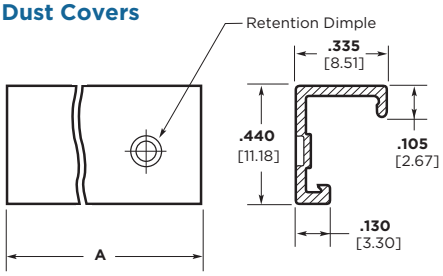
Strain Relief Covers—UL94V-2 rated, nylon, white

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

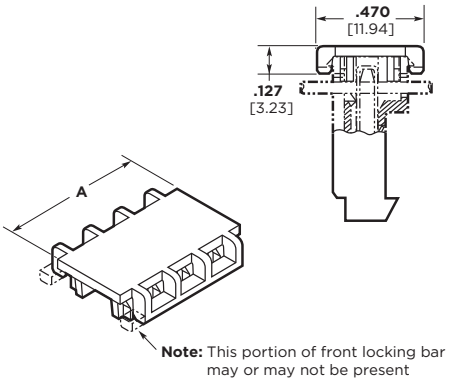
Feed-Thru Covers

Material (RoHS Compliant)

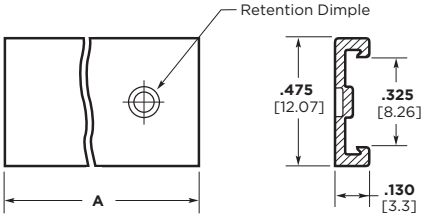
Strain Relief Cover—UL94V-2 rated, nylon, white

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
2	**.312** 7.92	-2
3	**.468** 11.89	-3
4	**.624** 15.85	-4
5	**.780** 19.81	-5
6	**.936** 23.77	-6
7	**1.092** 27.74	-7
8	**1.248** 31.7	-8
9	**1.404** 35.66	-9

No. of Circuits	Dim. A	Prefix/ Suffix
10	**1.560** 39.62	1- -0
11	**1.716** 43.59	1- -1
12	**1.872** 47.55	1- -2
13	**2.028** 51.51	1- -3
14	**2.184** 55.47	1- -4
15	**2.340** 59.44	1- -5
16	**2.496** 63.4	1- -6
17	**2.652** 67.36	1- -7

No. of Circuits	Dim. A	Prefix/ Suffix
18	**2.808** 71.32	1- -8
19	**2.964** 75.29	1- -9
20	**3.120** 79.25	2- -0
21	**3.276** 83.21	2- -1
22	**3.432** 87.17	2- -2
23	**3.588** 91.14	2- -3
24	**3.744** 95.1	2- -4

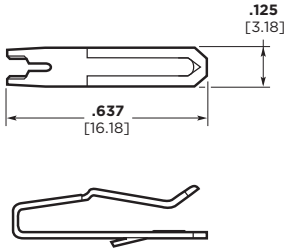
MTA-156 Connector Accessories (continued)

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.

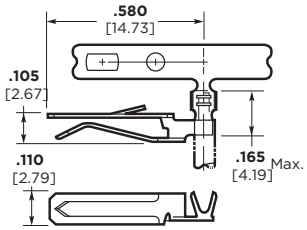


Wire Size		Part Numbers		
AWG	mm²	Tin Plated	.000030 [0.00076] Gold Plated	.000015 [0.00038] Gold Plated
18	0.8–0.9	640631-3	641143-4	641143-3
20	0.5–0.6	640632-3	641144-4	641144-3
22	0.3–0.4	640633-3	641145-4	641145-3
24	0.2	640634-3	641146-4	641146-3
26	0.12–0.15	640635-3	641147-4	641147-3

Crimp Snap-in Contacts

Material and Finish

Contacts—Phosphor bronze, tin plated



Wire Size		Part Nos.	
AWG	mm²	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-156 Connector Accessories (continued)

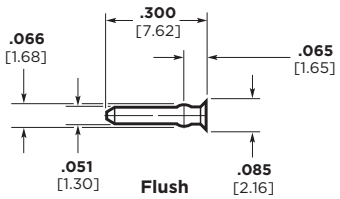
Keying Plugs

Material (RoHS Compliant)
UL94V-2 rated, nylon, natural color

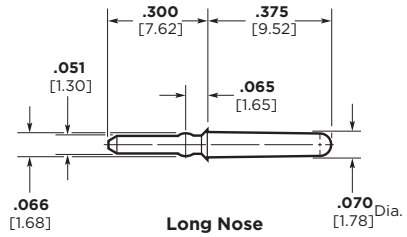
Note: Removal of contact is not necessary when using keying plug.

Loose Piece

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

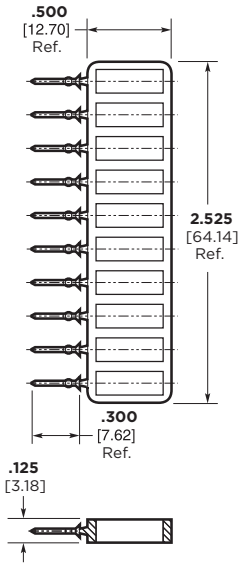


Part No. 640630-1 (Long Nose)
Used with staked post



On Carrier Strip

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



Panel Mount End Caps

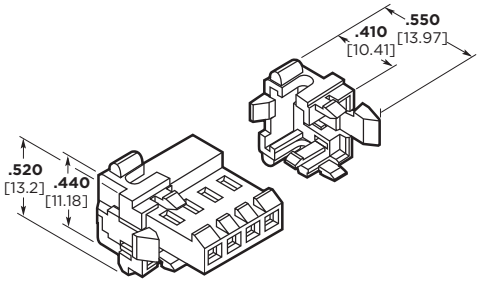
Part No. 641440-1
Part No. 641533-1
(2-position only)

Material (RoHS Compliant)
UL94V-2 rated, nylon, black

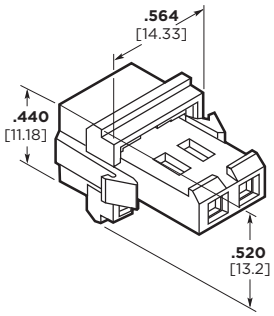
Notes:

1. 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.
2. 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.

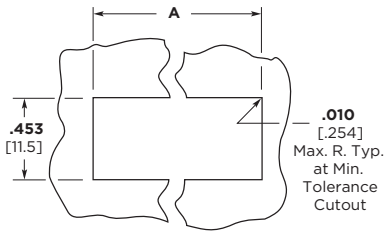
No. of Pos.	Dim. A
3	**.736** 18.69
4	**.892** 22.66
6	**1.204** 30.58
9	**1.672** 42.47
12	**2.140** 54.36
15	**2.608** 66.24
24	**4.012** 101.9

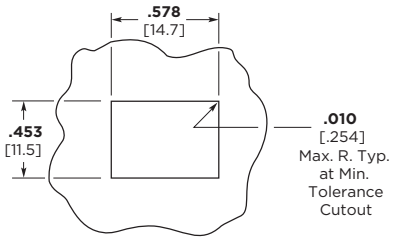


3- thru 24-Position
641440-1
See Note 1



Two-Position Only
641533-1





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

MTA-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

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

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

Connectors	644807	644809	644812	644814
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

Connectors	643995	647476	647481
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

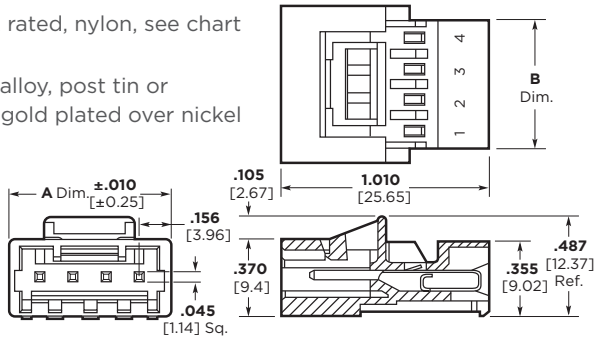
MTA-156 IDC Posted Connectors (Wire-to-Wire)—Closed End, Feed-Thru

Material and Finish

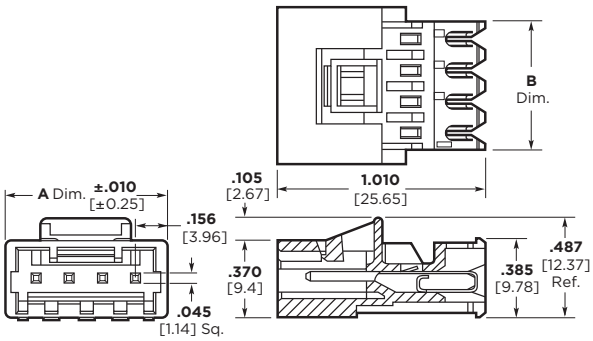
Housing—UL94V-2 rated, nylon, see chart for color

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

Closed End



Feed-Thru



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.

Base Part Numbers

Connector Type & Wire Size	Closed End Connector Part Nos.	Closed End Connector RoHS Equiv.	Feed-Thru Connector Part Nos.	Feed-Thru Connector RoHS Equiv.
Standard UL 94V-2, Tin Plated				
18 AWG 0.8-0.9 mm²	641435	**32,33,34,36,39,42,45,54**	641522	**32,33,34,36,39,42,45,54**
20 AWG 0.5-0.6 mm²	641436	**32,33,34,36,39,42,45,54**	641523	**32,33,34,36,39,42,45,54**
22 AWG 0.3-0.4 mm²	641437	**32,33,34,36,39,42,45,54**	641524	**32,33,34,36,39,42,45,54**
24 AWG 0.2 mm²	641438	**32,33,34,36,39,42,45,54**	641525	**32,33,34,36,39,42,45,54**
26 AWG 0.12-0.15 mm²	641439	**32,33,34,36,39,42,45,54**	641526	**32,33,34,36,39,42,45,54**
Standard UL 94V-2, .000030 [0.00076] Gold Plated				
18 AWG 0.8-0.9 mm²	644807	**32,33,34,36,39,42,45,54**	644812	**32,33,34,36,39,42,45,54**
20 AWG 0.5-0.6 mm²	—[2]	—	—[2]	—
22 AWG 0.3-0.4 mm²	644809	**32,33,34,36,39,42,45,54**	644814	**32,33,34,36,39,42,45,54**
24 AWG 0.2 mm²	—[2]	—	—[2]	—
26 AWG 0.12-0.15 mm²	—[2]	—	—[2]	—
Standard UL 94V-2, .000015 [0.00038] Gold Plated				
18 AWG 0.8-0.9 mm²	647476	**32,33,34,36,39,42,45,54**	647481	**32,33,34,36,39,42,45,54**
22 AWG 0.3-0.4 mm²	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. A	Dim. B	Suffix
2	**.468** 11.89	**.316** 8.03	-2
3	**.624** 15.85	**.472** 11.99	-3
4	**.780** 19.81	**.628** 15.95	-4
6	**1.092** 27.74	**.940** 23.88	-6

No. of Circuits	Dim. A	Dim. B	Prefix/ Suffix
9	**1.560** 39.62	**1.408** 35.76	-9
12	**2.028** 51.51	**1.876** 47.65	1- -2
15	**2.496** 63.40	**2.344** 59.54	1- -5
24	**3.900** 99.06	**3.748** 95.20	2- -4

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

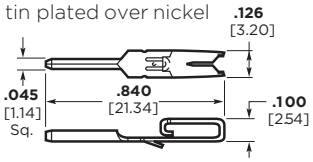
Technical Documents

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 AWG	Wire Size mm²	Part Numbers
18	0.8-0.9	3-641425-1
20	0.5-0.6	3-641426-1
22	0.3-0.4	3-641427-1
24	0.2	3-641428-1
26	0.12-0.15	3-641429-1

MTA-156 Flat 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:

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. .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.
4. 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

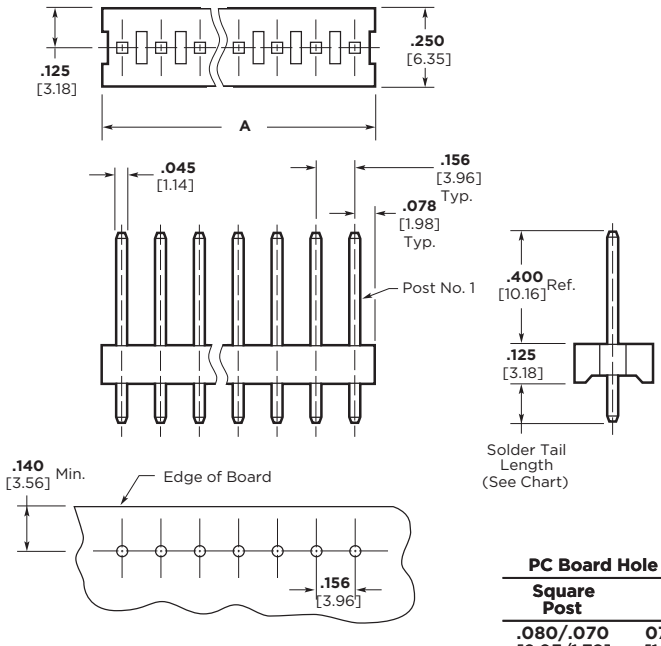
The part numbers in **bold face** are the RoHS equivalent version. Example:

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



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

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.	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 [0.00076] Gold Plated							
641202	**32–54**	644756	**32–54**	641203	**32–54**	—	—
Standard UL94V-0, .000015 [0.00038] Gold Plated							
641113	**32–54**	644763	**32–54**	—	—	—	—

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:

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. .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.
4. 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 **641204** plus prefix-and-suffix
4- — -0

The correct ordering number is
4-641204-0

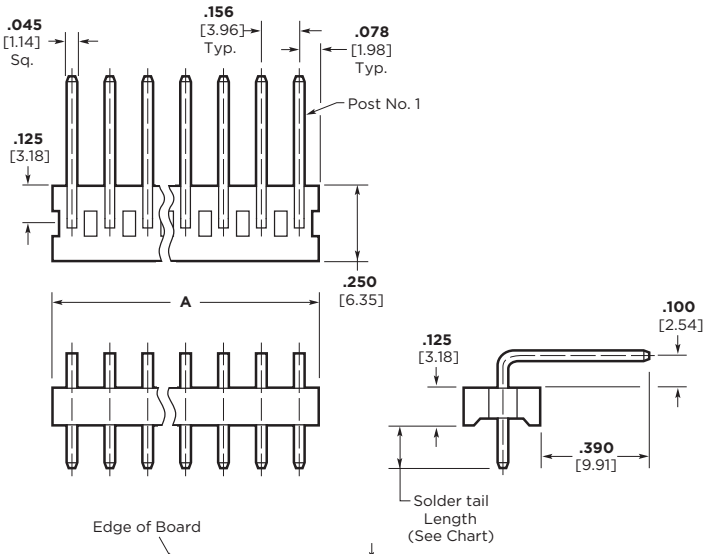
The part numbers in **bold face** are the RoHS equivalent version. Example:

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-641204-2
	thru
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.

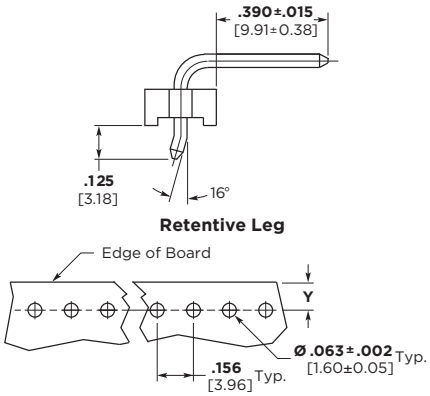


Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

X = .140 [3.56] Min., .430 [10.92] Max. when mated with MTA Connector.

X = .140 [3.56] Min. when mated with SL-156 Wire-to-Board Connector.

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



Retentive Leg

Recommended Mounting Hole Pattern for .063[1.60] Thk. PC Board for Retentive Leg Header

Y = .140 [3.56] Min., .430 [10.92] Max. when mated with MTA Connector.

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-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:

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. .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.
4. 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.

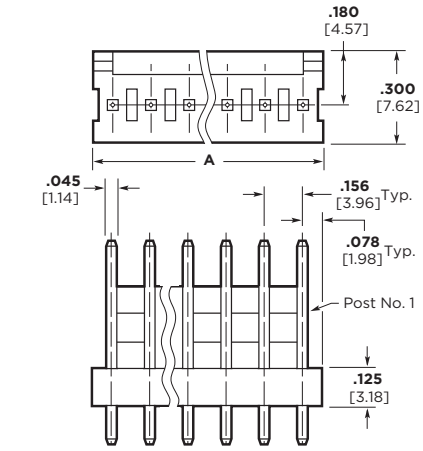
Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with square posts and a .125 [3.18] solder tail length would be:

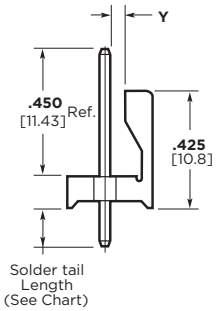
Base number **641208** plus prefix-and-suffix
4- — -0
The correct ordering number is
4-641208-0

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
	thru	
24	2-641208-4	5-641208-4

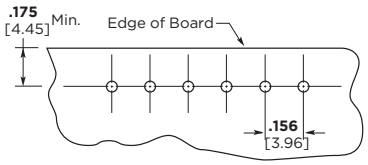
See page 8 for an explanation of RoHS lead free equivalents.





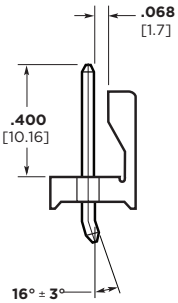
Y = .068 [1.73] Max. 2-8 position tin plated and 2–24 position gold plated headers.

Y = .073 [1.85] 9-24 position tin plated headers.



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

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



Retentive Leg

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.	Header Part Nos.	RoHS Equiv.	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-156 Friction Lock Headers—Right-Angle

Material and Finish

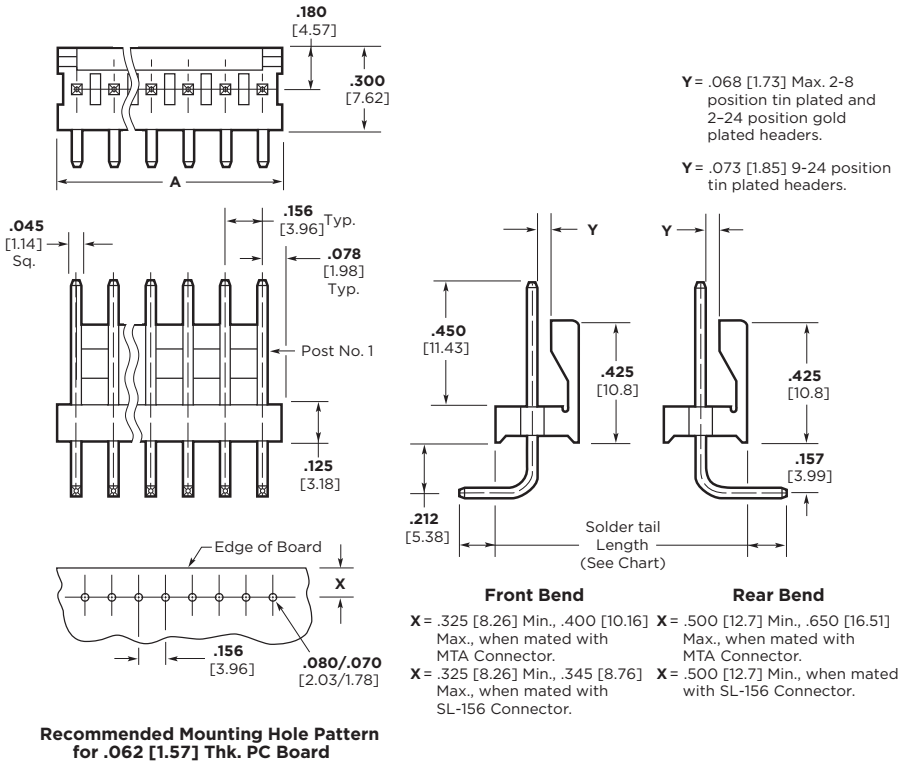
Housing—UL94V-0 rated, polyester, white
Posts—Copper alloy, tin plated .000030 [0.00076] or .000015 [0.00038] gold over nickel

Notes:

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. .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.
4. 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.



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

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

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.

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-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:

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. Peg holes are not required in PC Boards when headers without pegs are used.
3. One peg only on a 2 position header, other position sizes have two pegs.
4. Headers with .00015 [0.00038] gold plated post are available upon request. Minimums may apply.
5. 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 por 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::

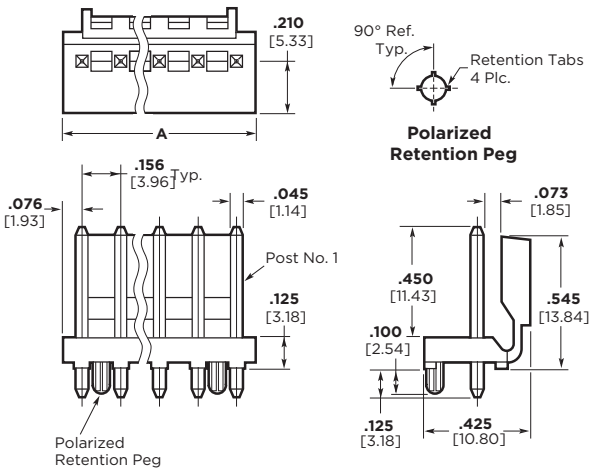
Base number **644615** plus prefix-and-suffix
4- — -0

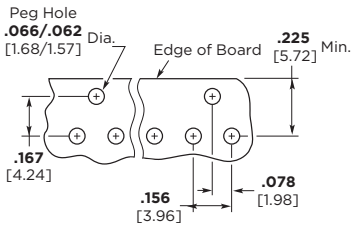
The correct ordering number is
4-644615-0

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

No. of Pos.	Lead Free RoHS Prefix/Suffix
2	3-644615-2
	thru
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.	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-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

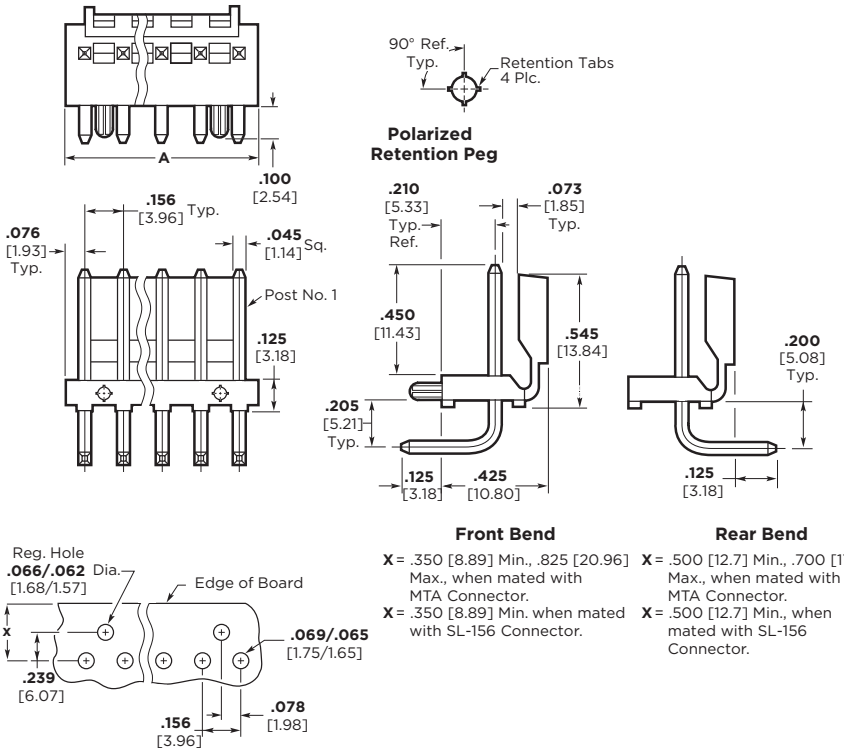
Notes:

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. Peg holes are not required in PC Boards when headers without pegs are used.
3. One peg only on a 2 position header, other position sizes have two pegs.
4. Headers with .00015 [0.00038] gold plated post are available upon request. Minimums may apply.
5. 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.



Front Bend

X = .350 [8.89] Min., .825 [20.96] Max., when mated with MTA Connector.
X = .350 [8.89] Min. when mated with SL-156 Connector.

Rear Bend

X = .500 [12.7] Min., .700 [17.78] Max., when mated with MTA Connector.
X = .500 [12.7] Min., when mated with SL-156 Connector.

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

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

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
	thru
18	4-644617-8

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

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-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:

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-lead on the solder tail.
3. Headers with straight and right-angle square posts are available upon request. Minimums may apply.
4. 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

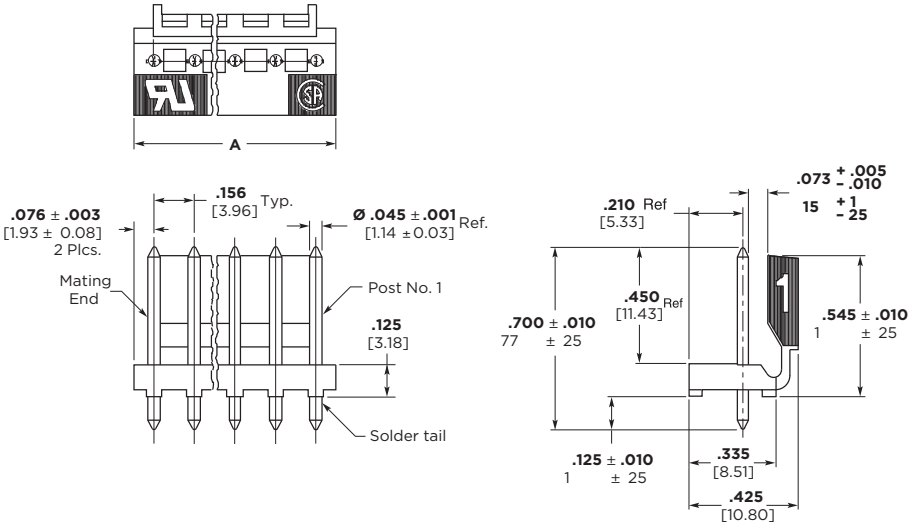
The correct ordering number is
4-647648-0

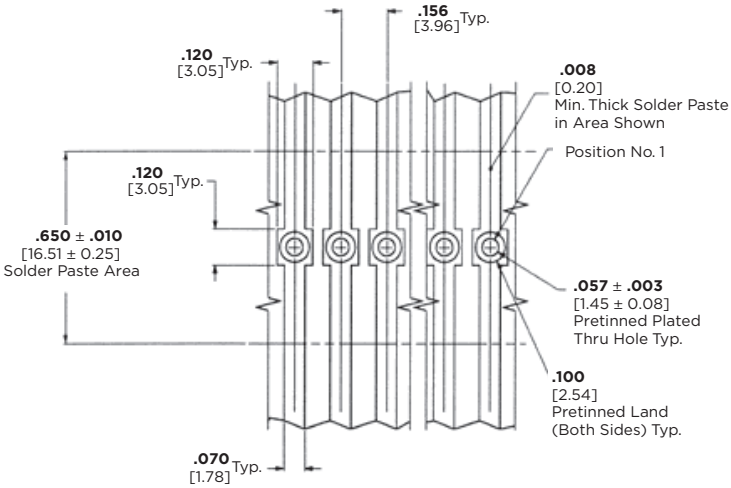
All part numbers in **bold face** are the RoHS equivalent version. Example:

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

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

For use with Infrared Reflow Process





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

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

Base Part Numbers

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

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-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:

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-lead on the solder tail.
3. Peg holes are not required in PC boards when headers without pegs are used.
4. One peg only on a 2 position header, other position sizes have two pegs.
5. 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:

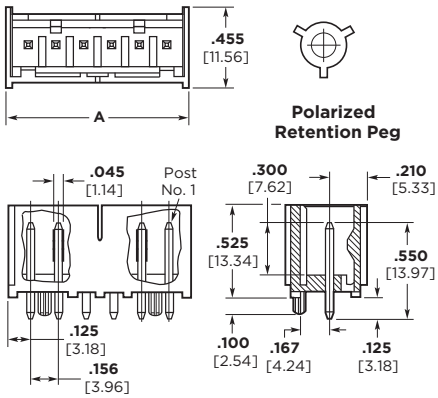
Base number **647127** plus prefix-and-suffix
4- — -0

The correct ordering number is
4-647127-0

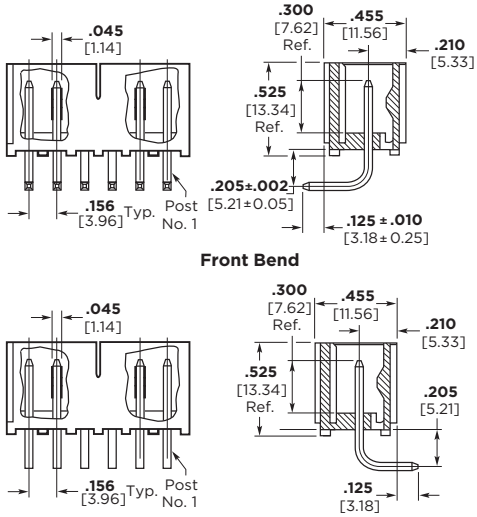
No. of Pos.	Dim. A	RoHS Prefix/Suffix
2	**.406** 10.31	2--2
3	**.562** 14.27	2--3
4	**.718** 18.24	2--4
5	**.874** 22.20	2--5
6	**1.030** 26.16	2--6
7	**1.186** 30.12	2--7
8	**1.342** 34.09	2--8
9	**1.498** 38.05	2--9
10	**1.654** 42.01	3--0
11	**1.810** 45.97	3--1
12	**1.966** 49.94	3--2

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)



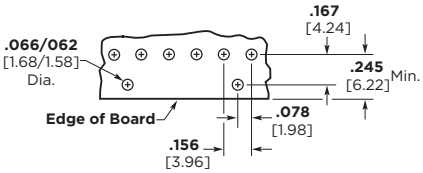
Right-Angle (.045 [1.14] Square)



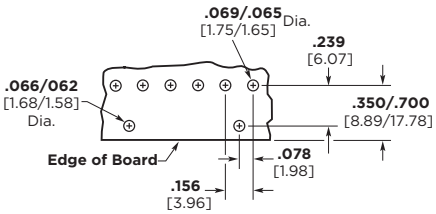
PC Board Hole Diameters

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							
—	—	—	—	—	—	—	—

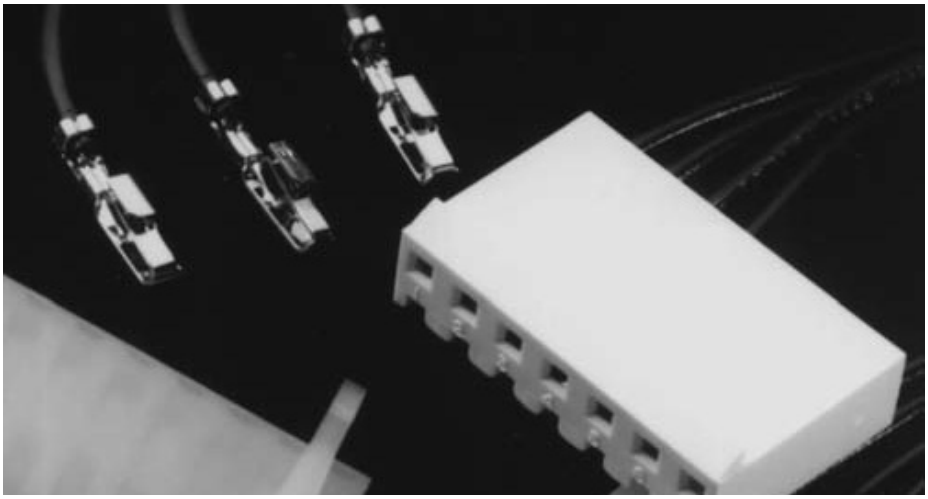
Square Posts			
Right-Angle Posts, Front Bend Without Pegs		Right-Angle Posts, Rear Bend Without Pegs	
Header Part Nos.	RoHS Equiv.	Header Part Nos.	RoHS Equiv.
Standard UL94V-0, Tin Plated			
647125	**22–32**	—	—
Standard UL94V-0, .000030 [0.00076] Gold Plated			
—	—	—	—
Standard UL94V-0, .000015 [0.00038]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

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

.156 [3.96] Centerline SL-156 Crimp Contacts and Housings

PRODUCT FACTS

- Rugged wire-to-board interconnection to mate with .045 square or round post headers or staked posts on .156 centers
- Standard Connectors accept wire range of 18–24 AWG [0.9–0.2 mm] and LID Connectors accept wire range of 18–24 AWG [0.9–0.2 mm] and a limited 16 AWG [1.29–1.42 mm] (2550–2800 CMA)
- Two-piece interconnection system (connector/header)
- Housing made of flame retardant nylon
- Available in 1- through 24-position connector configurations
- Connectors are end-to-end stackable
- Wire-to-board system offers polarization with friction lock for positive mating
- Meets the material requirements of Table 23.1 of UL1410 Standard for High-Voltage Television Receivers and Video Productions
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR7189



The AMP SL-156 connectors shown on the following pages are designed to mate with .045 [1.14] square or round post headers or staked posts on .156 [3.96] centers.

The wire-to-board connector is a two-piece connector system with the wire crimped to the contact, then inserted into the housing. This product mates with the MTA-156 flat, polarized and friction lock header, or staked posts (**not** MTA-156 shrouded headers).

Performance Data*

Voltage Rating—250 vac

Current Rating—10 amp max. at 250 vac

Low-Level Resistance—3.0 mΩ max. initial

Dielectric Withstanding Voltage—2000 vac/1 min.

Insulation Resistance—1000 MΩ min. initial

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

The Large Insulation Diameter (LID) Contacts and Housings are for use in applications where wire insulation is up to .112 [2.84] in diameter.

These matrixes represent only the housing and header combinations. You also need to consider the plating on the contacts and headers. Gold contacts with gold headers and tin contacts with tin headers.

Matrix for Tin Plated Part Numbers

Housings		Headers																										
Standard	LID	640383	640384	640385	640387	640388	640389	640445	644611	644612	644613	644614	644615	644616	644617	644749	644750	644751	644752	644753	644754	644755	647227	647228	647229	647230	647260	647262
640250	647401	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	Y	Y
640251	647400	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
770849	647402	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	Y	Y

Matrix for .000030 [0.00076] Gold Plated Part Numbers

Housings		Headers																				
Standard	LID	641202	641203	641204	641207	641208	641209	641210	644627	644628	644629	644630	644631	644632	644633	644756	644757	644758	644759	644760	644761	644762
640250	647401	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
640251	647400	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
770849	647402	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

Matrix for .000015 [0.00038] Gold Plated Part Numbers

Housings		Headers															
Standard	LID	641113	641114	641115	641118	641119	641120	641121	644322	644763	644764	644765	644766	644767	644768	644769	647261
640250	647401	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
640251	647400	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
770849	647402	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y

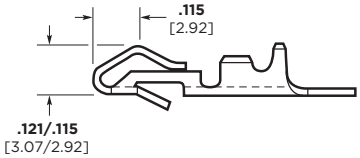
SL-156 Crimp Contacts and Keying Plugs

Contacts

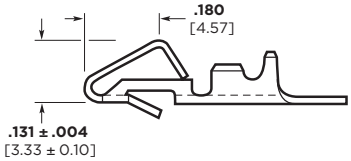
Material and Finish

.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)

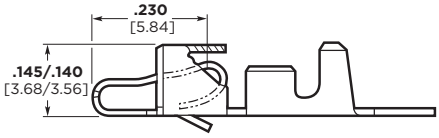
- All tin-plated contacts are post lubricated to resist fretting corrosion
- Maximum insulation diameter is .105 [2.67]
- Wire range is 18-30 AWG [0.9-0.06 mm²]



A
High Force
(6.5 Amp Max. Current Rating)



B
Low Force
(6.5 Amp Max. Current Rating)



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

Wire Size AWG mm²	Contact	Material and Finish	Part Numbers Strip	Part Numbers Loose Piece
24–30 0.2-0.06	A	brass, pre-tin plated	641550-1	—
18–24 0.9-0.2	A	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	—
		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 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.

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)

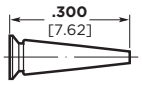
AMPOMATOR CLS IV+ Lead Making Machine* Applicator 466468-1 (Request Catalog 82659)

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

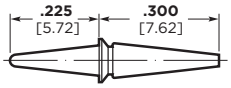
Keying Plugs

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:

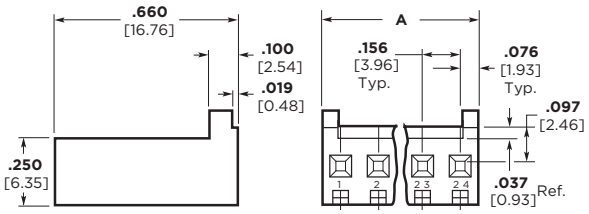
1. Accepts either .045 [1.14] square or round posts. Housings mate with flat and friction lock headers, or staked posts on .156 [3.96] centers.
2. Housings without ramp, with polarizing tab, available upon request. Minimums may apply.
3. Recommend contact: Part No. 640252 for 1 thru 12 positions; Part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

For contacts, see page 48.

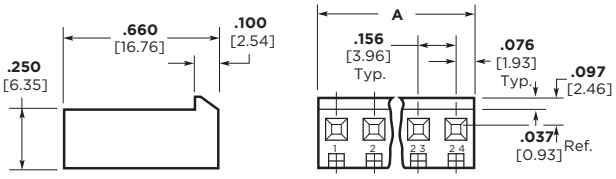
For mateability options, see matrix on page 47.

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

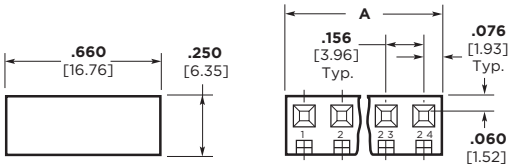
For mating half visuals, for connectors without locking ramp, see pages 35 thru 45.



(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

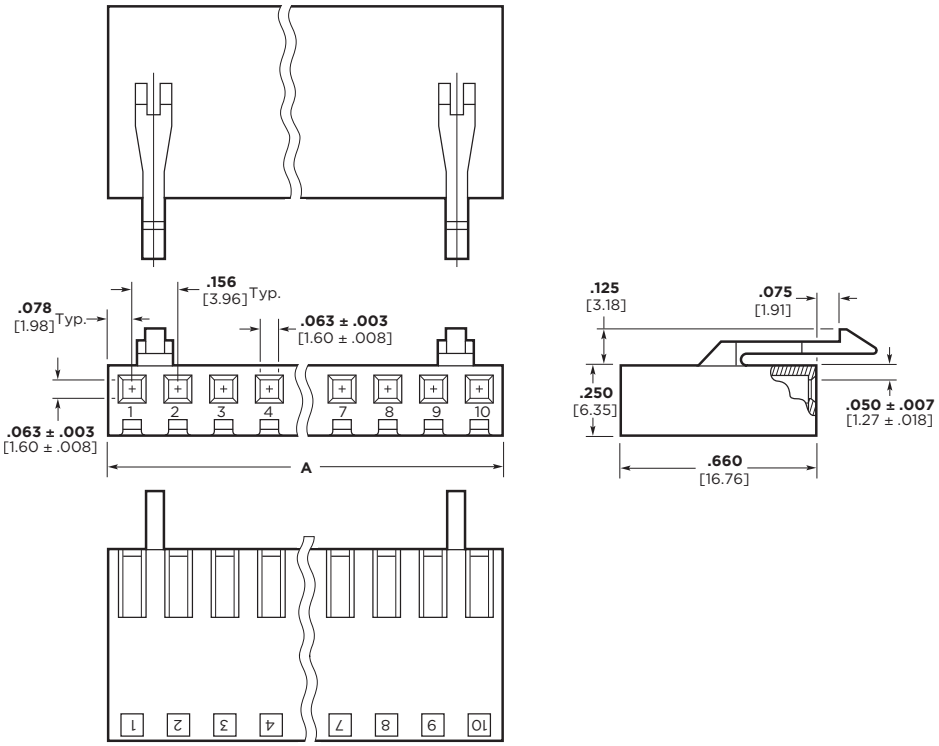
*Base Part Number Prefixes and Suffixes indicate number of contact positions, e.g. 2 Position = 0-xxxxxx-2 and 12 Position = 1-xxxxxx-2.

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

SL-156 Housings With Through Board Latch

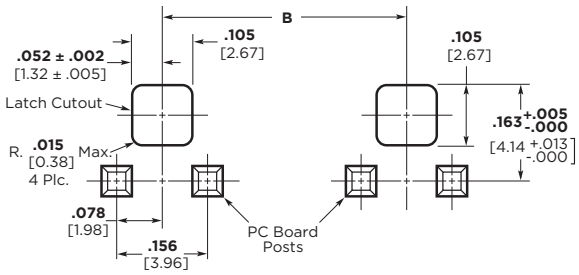
Housings

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 A	Dimensions B	Latch Location Centered Between Pos.	Part Number
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.

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

Housings

Material (RoHS Compliant)
UL94V-0 rated, nylon, white

Notes:
1. Accepts Standard and LID contacts.
2. Larger opening in housings eases contact insertion when using wires that have large insulation diameters (.100-.112 [2.54-2.84]).
3. 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.

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

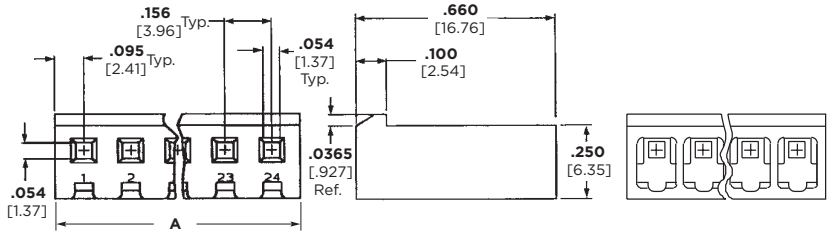
Application Specification
114-1021

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]

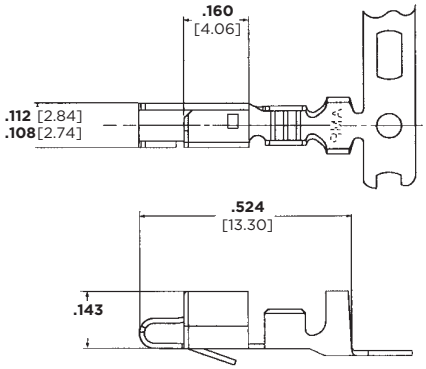
*For additional part numbers and information contact Technical Support.



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
	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.



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

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

*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 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

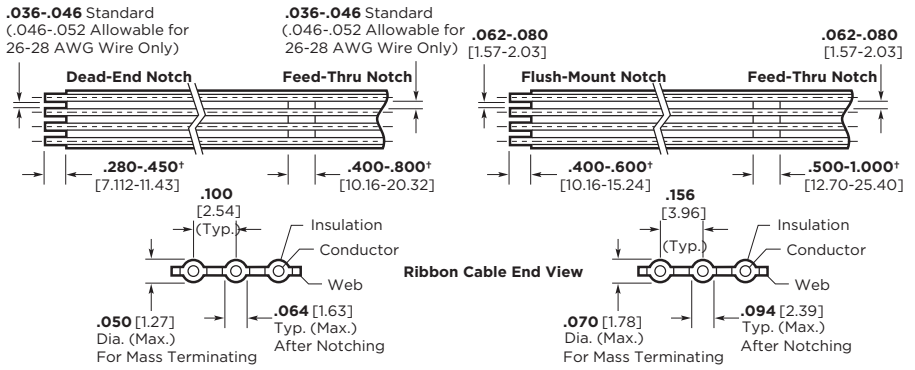
MTA-100 Connectors	Wall	Approved Wire AWG
UL 1007 PVC Insulation	.015" [0.381]	22, 24, 26, 28
UL 1061 Semi-Rigid PVC Insulation	.009" [0.229]	22, 24, 26, 28
UL 1095 Semi-Rigid PVC Insulation	.012" [0.305]	24
UL 1371 TEFLON Insulation — TFE	.006" [0.152]	22, 26
UL 1429 Irradiated PVC — X.L.P.V.C.	.010" [0.254]	22, 24, 26, 28
UL 2464 PVC	.013" [0.330]	24
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 TEFLON Insulation—T.F.E.	.010" [0.254]	22
MTA-156 Connectors		
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 TEFLON Insulation — T.F.E.	.015" [0.381]	22
UL 1213 TEFLON 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.P.V.C.	.010" [0.254]	18, 20, 22, 24
UL 1430 Irradiated PVC — X.L.P.V.C.	.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

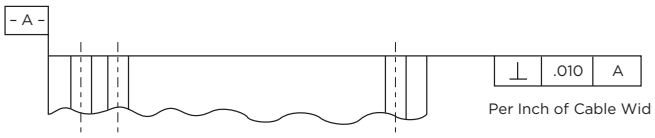


† The dimensions shown represent the recommended minimum and maximum for notches; the actual dimension will depend on your application requirements.

Notes:
1. 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.
2. 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:
1. For MTA Cable Assemblies Contact US Engineering Cable Assembly Group.
2. For IDC Cable, see pages 60 thru 63.

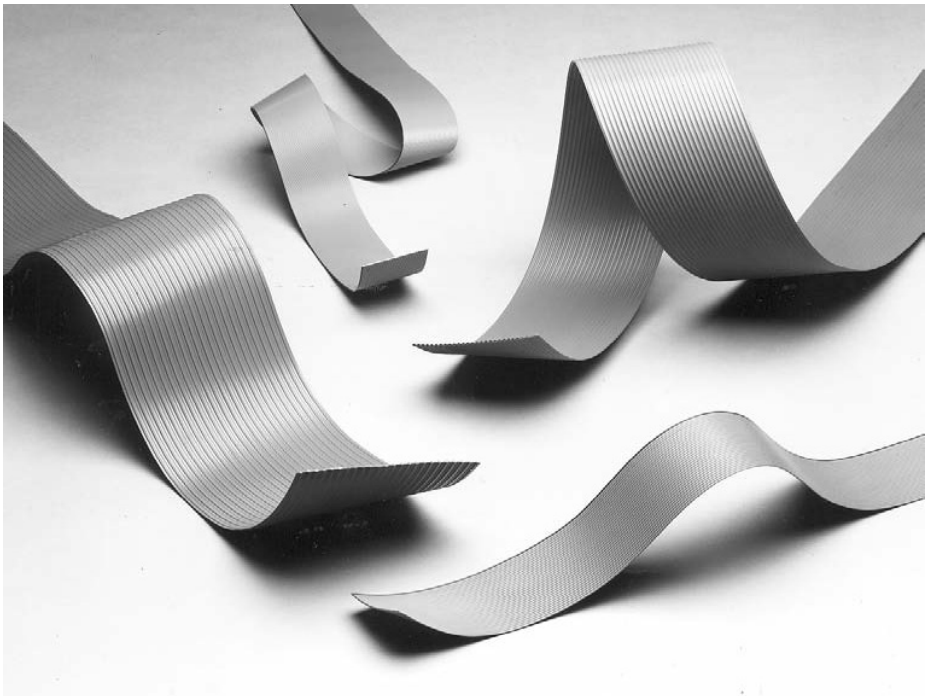


Cable Edge-to-End Alignment
(Ends of the cable shall be prepared as indicated in this figure)

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)

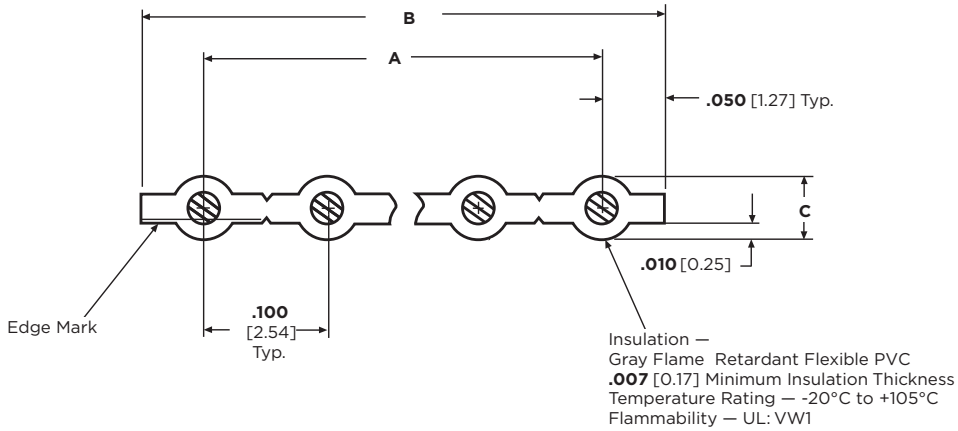
28 AWG, 7/36 Tinned copper, PVC insulation (9–64 conductors), 100 ft. reels (Base AMP Part Number 57040) and 500 ft. reels (Base AMP Part Number 971111)

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**

.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 A	B	C	Part Number
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]	0.03 [.99]	28WEY00007P

Other Conductor Counts Available on Request.

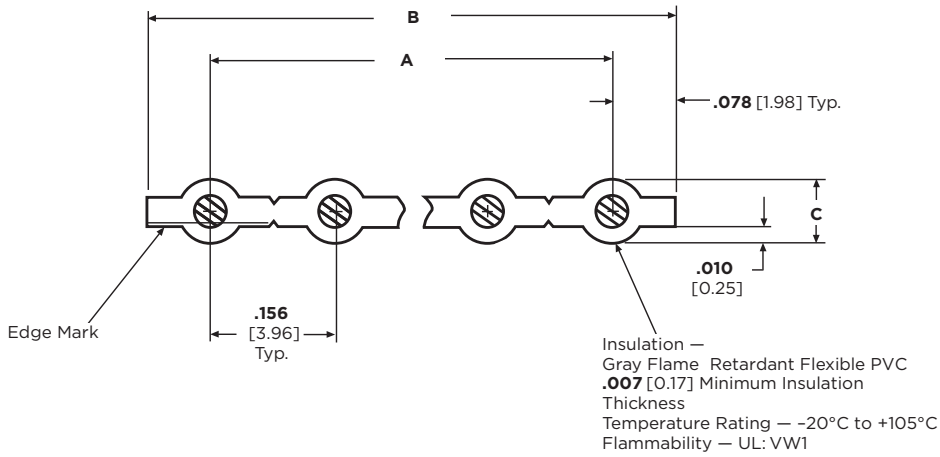
No. of Conductors	Dimensions A	B	C	Part Number
24 AWG 7/32 Overcoated Tinned Copper				
2	0.100 [2.54]	0.200 [5.08]	0.044 [1.12]	02WFY00007P
5	0.400 [10.16]	0.500 [12.70]	0.044 [1.12]	05WFY00007P
10	0.900 [22.86]	1.000 [25.40]	0.044 [1.12]	10WFY00007P
15	1.400 [35.56]	1.500 [38.10]	0.044 [1.12]	15WFY00007P
20	1.900 [48.26]	2.000 [50.80]	0.044 [1.12]	20WFY00007P
25	2.400 [60.96]	2.500 [63.50]	0.044 [1.12]	25WFY00007P
28	2.700 [68.58]	2.800 [71.12]	0.044 [1.12]	28WFY00007P
22 AWG 7/30 Tinned Copper				
2	0.100 [2.54]	0.200 [5.08]	0.051 [1.30]	02WGY00001P
5	0.400 [10.16]	0.500 [12.70]	0.051 [1.30]	05WGY00006P
10	0.900 [22.86]	1.000 [25.40]	0.051 [1.30]	10WGY00002P
15	1.400 [35.56]	1.500 [38.10]	0.051 [1.30]	15WGY00006P
20	1.900 [48.26]	2.000 [50.80]	0.051 [1.30]	20WGY00006P
25	2.400 [60.96]	2.500 [63.50]	0.051 [1.30]	25WGY00006P
28	2.700 [68.58]	2.800 [71.12]	0.051 [1.30]	28WGY00006P

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

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

Product Specifications

Housing — 300 Volts
UL Recognized — AWM Style 2651
CSA —Available on request

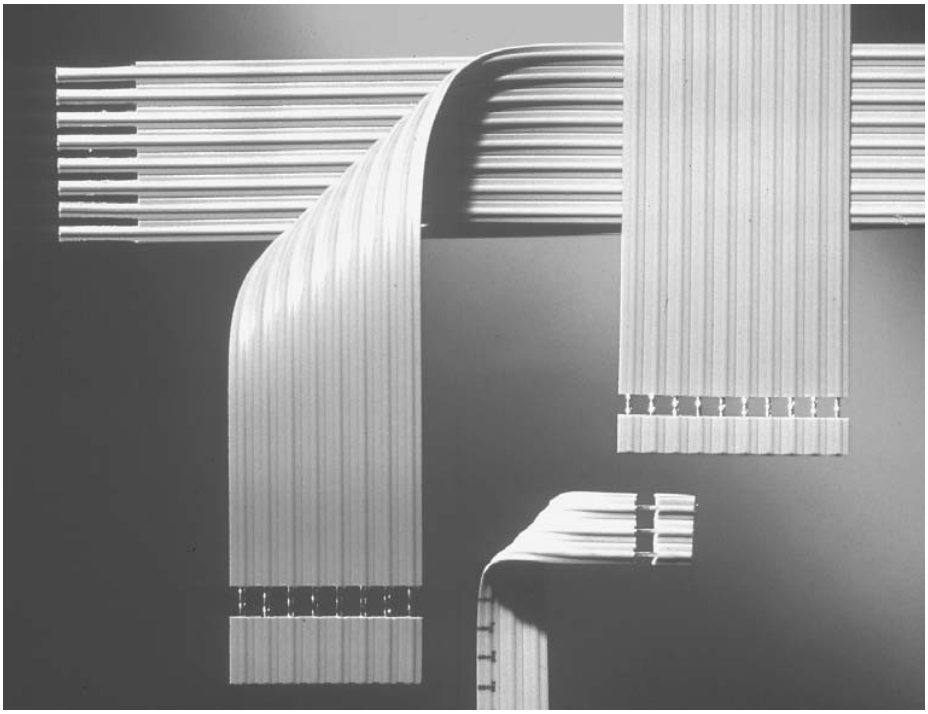


No. of Conductors	Dimensions A	Dimensions B	Dimensions C	Part Number
22 AWG 7/30 Tinned Copper				
2	0.156 [3.96]	0.312 [7.92]	0.051 [1.30]	02WGY00008P
5	0.624 [15.85]	0.780 [19.81]	0.051 [1.30]	05WGY00008P
10	1.404 [35.66]	1.560 [39.62]	0.051 [1.30]	10WGY00008P
15	2.184 [55.47]	2.340 [59.44]	0.051 [1.30]	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.

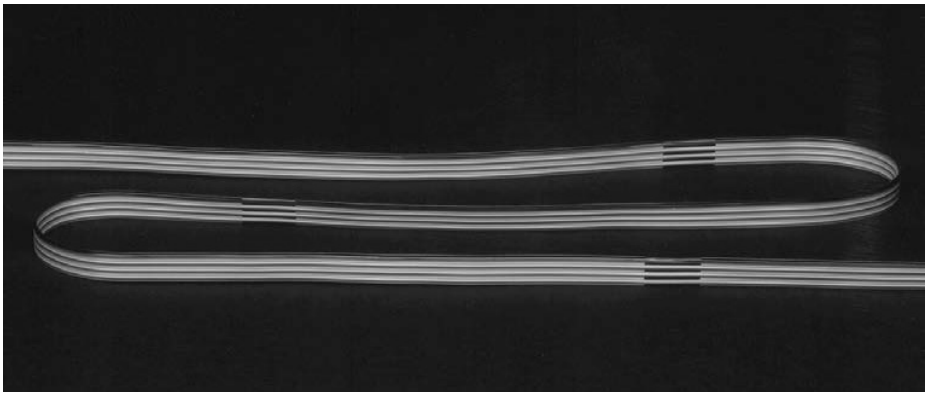
Prepared IDC Ribbon Cable



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 Wire Termination Flowchart

Choose the appropriate MTA Connector from the MTA Catalog 82056.

↓

Select the proper wire style and AWG for the chosen MTA Connector (Refer to pages 59-63).

↓

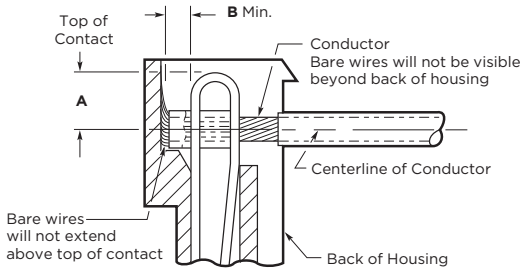
Choose the MTA Termination Tooling (Refer to pages 55-61).

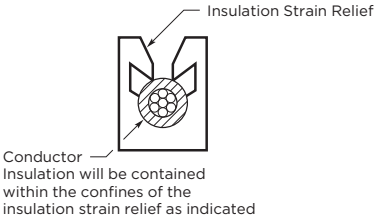
↓

Terminate the Wire-to-MTA Connector per Application Tooling Instruction Sheet.

↓

Inspect the MTA Wire Termination per Application Specification, especially the wire depth. See illustrations: 114-13072—MTA-50 Connectors, 114-1019—MTA-100 Connectors, 114-102 0 — MTA-156 Connectors, Posted Connector, Card Edge, 114-1048 — MTA-156 Quad Connectors, 114-1031 — MTA-100 Ribbon Cable Connector Assembly, and 114-1032—MTA-156 Ribbon Cable Connector Assembly.





Connector	A	B
MTA-100	**.069–.087** [1.75-2.21]	**.040** [1.02]
MTA-156	**.090–.113** [2.29-2.87]	**.060** [1.52]

↓

Adjust the Termination Tooling (if needed) per Tooling Instruction Sheet (repeat the step above).

MTA Application Tooling Options

One-At-A-Time Termination Tooling Part Numbers

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

MTA Connector Assembly		Interchangeable Head: Manual Hand Tool 58074-1, Air Hand Tool 58075-1, Air Bench Mount Tool 58338-1, Electric Bench Machine 931800-1	Interchangeable Head and Loose-Piece Feed Track: Air Bench Mount Tool 58338-1, Electric Bench Machine 931800-1	Interchangeable Head and Tape Feed Track: Air Bench Mount Tool 58338-1, Electric Bench Machine 931800-1	Special Applicator	T-Handle✓ Mainte-nance Tool
MTA-50	Closed End / Feed Thru	1583503-1	—	—	—	—
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

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 inter-changeable 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 rec-ommended 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-50 Mass Termination Tooling Part Numbers

Manual Arbor Frame (with slide)
Part Number 1583518-1*

Upper Tooling
Part Number 1583514-1*

Fixture, Discrete Wire, Closed End
Part Number 1583515-1 (28-26 AWG)
Part Number 1583515-2 (30-28 AWG)

Fixture, Discrete Wire, Feed-Thru
Part Number 1583516-1 (28-26 AWG)
Part Number 1583516-2 (30-28 AWG)

Fixture, Ribbon Cable, Closed End or Feed-Thru
Part Number 1583517-1

*Required, plus appropriate Fixture(s).

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

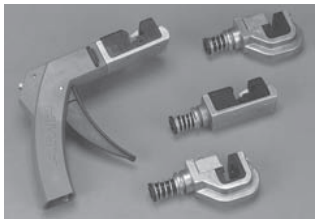
Note: Max. Insulation Outside Diameter Wire: .050 [1.27] for MTA-100 Connectors/.070 [1.78] for MTA-156 Connectors

MTA Connector Assembly		Interchangeable Head: Part Number	Interchangeable Head: Used With	Harness Board Holding Fixture: Part Number	Harness Board Holding Fixture Used With: Applicator Assembly	Harness Board Holding Fixture Used With: Tooling Assembly	Interchangeable Head and Tape Feed Track: Part Number	Interchangeable Head and Tape Feed Track: Used With
MTA-100 Connector	Closed End	—	—	58242-1 58242-3	— 58575-1	Manual Bench Tool 58024-1 and Tooling Assembly 58039-1	854175-1 & 854200-1 (Base)	312522-1
	Feed Thru	58644-1 (Discrete Wire)† 58644-2 (Notched Cable)†	58074-1 (Man Hd Tl)	58243-1 58243-3	— 58575-1		—	—
	Closed End (Posted)	—	—	58635-1	58575-1		—	—
	Feed Thru (Posted)	—	—	58636-1	58575-1		—	—
MTA-156 Connector	Closed End	—	—	58244-1 58244-3	— 58576-1	Manual Bench Tool 58024-1 and Tooling Assembly 58040-1	854176-1 & 854200-1 (Base)	312522-1
	Feed Thru	58646-1 (Discrete Wire)†† 58646-2 (Notched Cable)††	58074-1 (Man Hd Tl)	58245-1 58245-3	— 58576-1		—	—
	Card Edge	—	—	59848-1 59848-3	— 58576-1		—	—
	Closed End (Posted)	—	—	58009-1 58009-2	— 58576-1		—	—
	Feed Thru (Posted)	—	—	58010-2	58576-1		—	—
MTA-156 Quad	Closed End	—	—	58244-1 58244-3	— 58576-1	Manual Bench Tool 58024-1 and Tooling Assy 58040-1	—	—
	Feed Thru	—	—	58245-1 58245-3	— 58576-1	58024-1 and Tooling Assy 58040-1	—	—

†2- through 12-positions. ††2- through 8-positions.

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

AMP-O-LECTRIC Bench Machine with Special Applicator

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 terminatior

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 Application Tooling Options (Continued)

Mass Termination Tooling (Typical Tooling Combinations)

Manual Bench Tool with Applicator and Holding Fixture

Air Harness Tool with Applicator

Air Bench Machine

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]

Air Bench Machine — Pneumatic Unit Part No. 91112-2

- Operated by a foot switch
- Operates at air pressure between 80 and 90 psi [5.52 and 6.21 bar]
- Not recommended for notching cable with more than 14 conductors

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

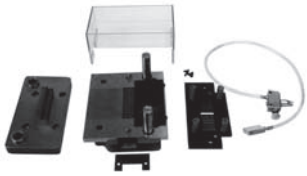
- Wires are laced into plastic combs for mass termination
- Trims excess wire for closed-end terminations
- Holding fixture may be mounted to a harness board

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 Application Tooling Options (Continued)

Technical Documents

The following is a list of technical documents covering the installation, operation, adjustment, maintenance and repair of MTA application tooling.

Instruction Sheets (IS) provide instructions for assembling or applying the product. They are intended for the Manufacturing Assembler or Operator.

Customer Manuals (CM) provide complete, detailed instructions on the installation, operation, adjustment, maintenance and repair of complex tools and application machines.

Applicator Instructions (AI) are similar to instruction sheets (which cover products and tools), and provide instructions for installation, adjustment and maintenance of applicators used in automatic and semiautomatic machines.

Hand Tools, Power Units & Accessories

Manual Arbor Frame (MTA-50)	1583518-1	IS408-8812
Upper Tooling (MTA-50)	1583514-1	IS408-8812
Manual Arbor Frame Assembly	58024-1	IS408-6923
Ribbon Cable Applicator, .100	58039-1	IS408-6685
Ribbon Cable Applicator, .156	58040-1	IS408-6701
Manual Hand Tool	58074-1	IS408-6790
Air Bench Mount Tool	58338-1	IS408-9393
Air Hand Tool (MTA-100)	58575-1	IS408-4260
Air Harness Tool (MTA-156)	58576-1	IS408-4260
T-Handle Maintenance Tool (MTA-100)	59803-1	IS408-7907
T-Handle Maintenance Tool (MTA-156)	59804-1	IS408-7907
Air Arbor Frame Assembly	91112-2	IS408-7763
2700lb Air Bench Machine	312522-1	CM409-5843
Terminator Assembly, "G" Term	354500-1	CM409-5842
AMP-O-LECTRIC Bench Machine	1-471273-3	CM409-5128
Conversion Kit	690675-2	IS408-8022
Base Assembly	853542-1	IS408-9636
Base	854200-1	IS408-9650
Adapter (AMP-O-LECTRIC)	854468-1	IS408-9687
Adapter (2700lb Machine)	854468-2	IS408-9687
Repair Kit	856600-1	IS408-9745
Repair Kit	856600-2	IS408-9745
Electric Bench Mount Tool	931800-1	CM409-5746

One-At-A-Time Termination Tooling

Interchangeable Heads

MTA-50		MTA-156	
1583503-1	IS408-8801	58247-1	IS408-6930
MTA-100		58247-2	IS408-9380
58246-1	IS408-6929	58247-3	IS408-4146
58246-2	IS408-9379	58443-1	IS408-9607
58246-3	IS408-4147	58061-1	IS408-6794
58442-1	IS408-9603	58082-1	IS408-6795
58638-1	IS408-4358	58392-1	IS408-9450

Interchangeable Head & Loose Piece Feed Track

MTA-100		MTA-156	
933567-1	IS 408-9435	933568-1	IS 408-9466

Interchangeable Heads & Tape Feed Track

MTA-100		MTA-156	
853546-1	IS 408-9636	853547-1	IS 408-9637

Special Applicators

MTA-100		MTA-156	
466728-1	AI 408-8054	466727-1	AI 408-8054
		567020-1	AI 408-8069

Mass Termination Tooling

MTA-50		MTA-100		MTA-156	
1583515-1	IS408-8812	58242-1	IS408-7994	58009-1	IS408-7995
1583515-2	IS408-8812	58242-3	IS408-7994	58009-2	IS408-7995
1583516-1	IS408-8812	58243-1	IS408-7994	58010-2	IS408-7995
1583516-2	IS408-8812	58635-1	IS408-7994	58244-1	IS408-7995
1583517-1	IS408-8812	58636-1	IS408-7994	58244-3	IS408-7995
		58644-1	IS408-4406	58245-1	IS408-7995
		58644-2	IS408-4440	58245-3	IS408-7995
		59844-1	IS408-7994	58646-1	IS408-4405
		59845-1	IS408-7994	58646-2	IS408-4439
		59845-3	IS408-7994	59848-1	IS408-7995
				59848-3	IS408-7995

Die Set Assembly

MTA-100		MTA-156	
854175-1	IS408-9667	854176-1	IS408-9650

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

Note: This index lists all cataloged parts by base no. only. Complete part nos. (with prefixes and/or suffixes) are shown on the page(s) indicated.

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