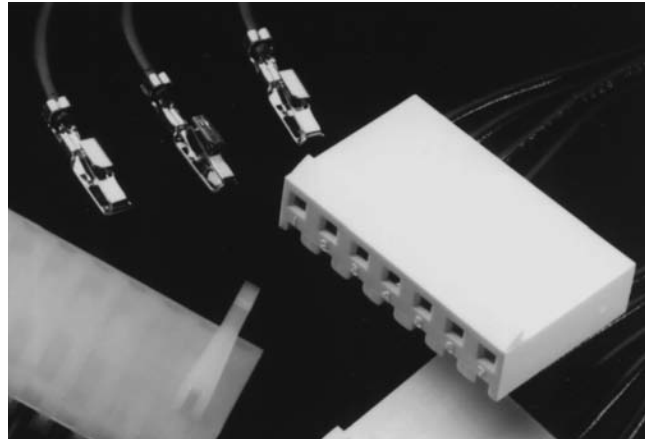


.156 [3.96] Centerline SL-156 Crimp Contacts and Housings

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 mm²] and LID Connectors accept wire range of 18–24 AWG [0.9–0.2 mm²] and a limited 16 AWG [1.29–1.42 mm²] (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



Technical Documents

- Product Specification
108-1049, 108-1049-1, 108-1049-2
- Application Specification
114-1021

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

		Headers																											
Housings	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	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	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	Y
770849	647402	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	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

		Headers																							
Housings	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	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	Y		
770849	647402	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N		

Matrix for .000015 [0.00038] Gold Plated Part Numbers

		Headers																							
Housings	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								

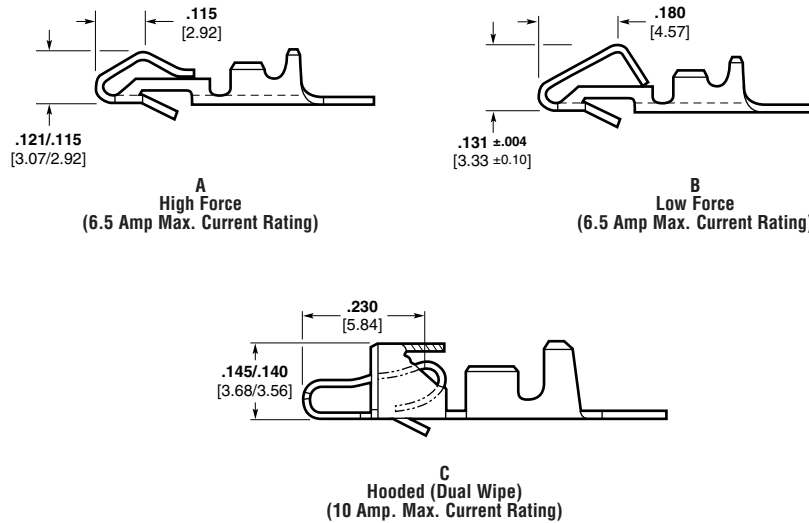
SL-156 Crimp Contacts and Keying Plugs

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]



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.

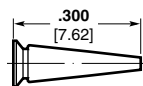
Part No. 770476 is recommended for use in any size housing. Its mating force is similar to Part No. 350980 while unmating force is similar to 640252.

For housings, see pages 60 and 61.

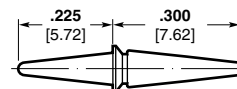
Keying Plugs

Material (RoHS Compliant)

UL94V-2 rated, nylon, natural color



Keying Plug
Part No. 640254-1



Keying Pin
Part No. 640255-1

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

Application Tooling

Extraction Tool
Part No. 90471-1

Loose Piece Contacts —

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

Strip Contacts —

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

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

SL-156 Housings—Wire-to-Board

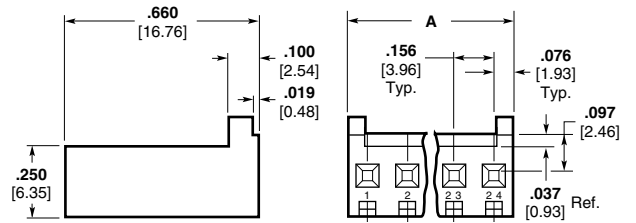
Housings

Material (RoHS Compliant)

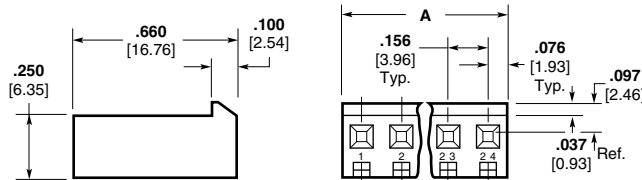
UL94V-0 rated, nylon, white

Notes:

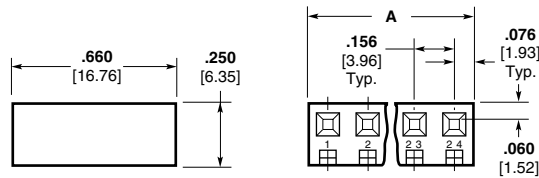
1. Accepts either .045 [1.14] square or round posts. Housings mate with flat and friction lock headers, or staked posts on .156 [3.96] centers.
2. Housings without ramp, with polarizing tab, available upon request. Minimums may apply.
3. Recommend contact: Part No. 640252 for 1 thru 12 positions; Part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



(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

For contacts, see page 59.

For mateability options, see matrix on page 58.

For mating half visuals, for connectors with locking ramp, see pages 46, 47, 48, 50 and 52, (49 and 51 Front Bend Headers only.)

For mating half visuals, for connectors without locking ramp, see pages 46 thru 52.

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-xxxxx-2 and 12 Position = 1-xxxxx-2.

Note: Housings not for use with LID Contacts. Shown on page 62.

SL-156
.156 [3.96]

SL-156 Housings With Through Board Latch

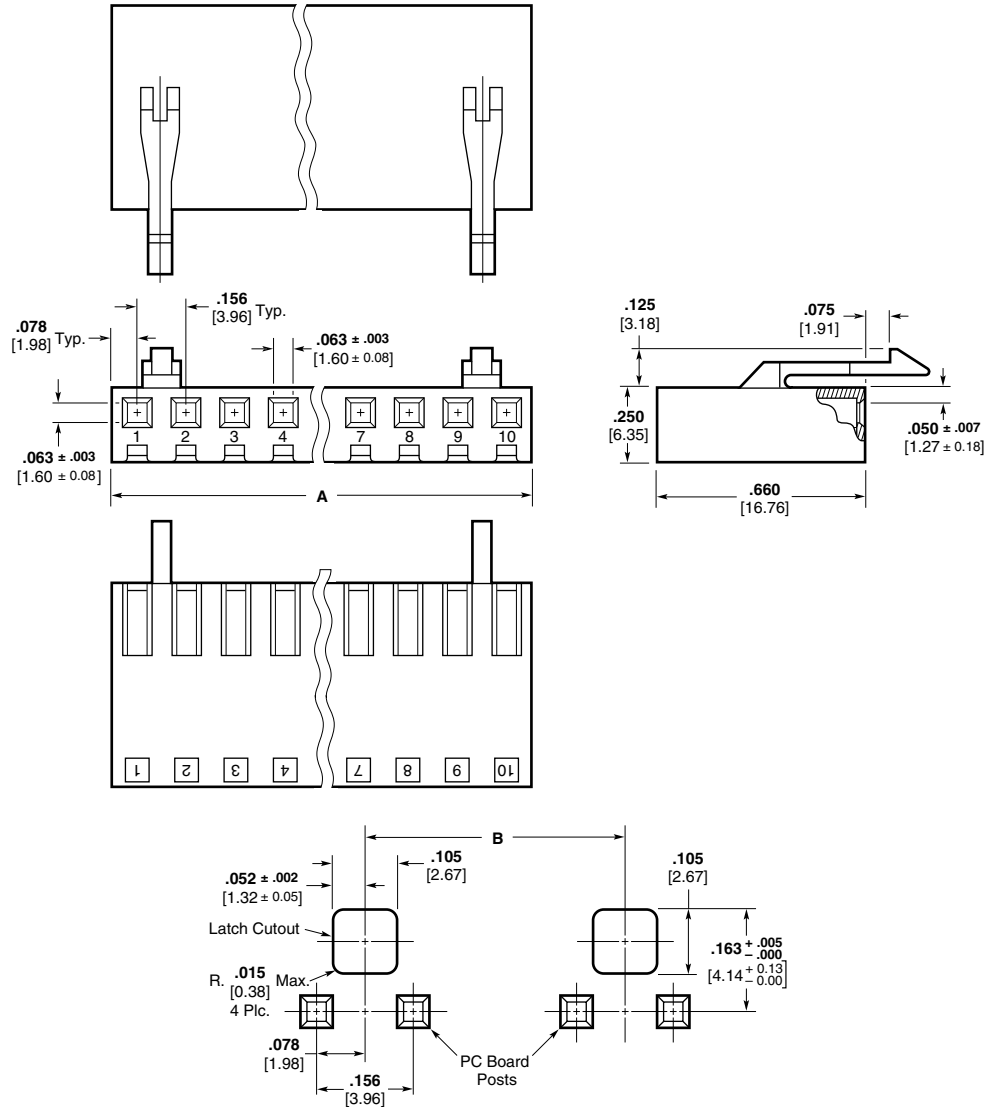
Housings

Material (RoHS Compliant)

UL94V-2 rated, nylon, white

Mates with .045 square or
round staked posts only.

For contacts, see page 59



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

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

Note: Not for use with LID Contacts. Shown on page 62.

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

Housings

Material (RoHS Compliant)

UL 94V-0 rated, nylon, white

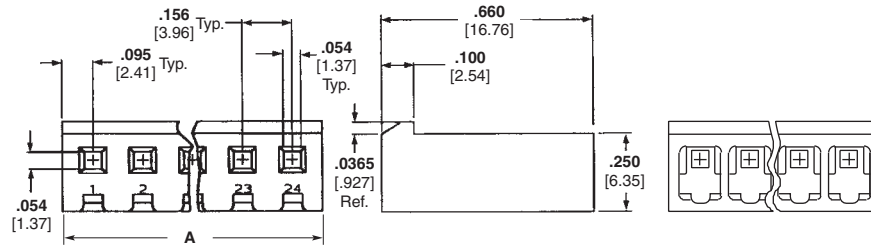
Notes:

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 58.

For mating half visuals, for connectors with locking ramp, see pages 46, 47, 48, 50 and 52, (49 and 51 Front Bend Headers only.)

For mating half visuals, for connectors without locking ramp, see pages 46 thru 52.



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

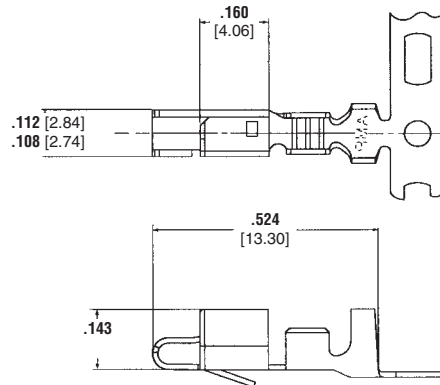
*Base Part Number Prefixes and Suffixes indicate number of contact positions, e.g. 2 Position = 0-xxxxx-2 and 12 Position = 1-xxxxx-2.

Contacts

Material and Finish

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

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



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

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]

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

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

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

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

*For additional part numbers and information contact Technical Support.

SL-156
.156 [3.96]