tyco Electronics

AMP Economy Power (EP) Wire-to-Board Connector System

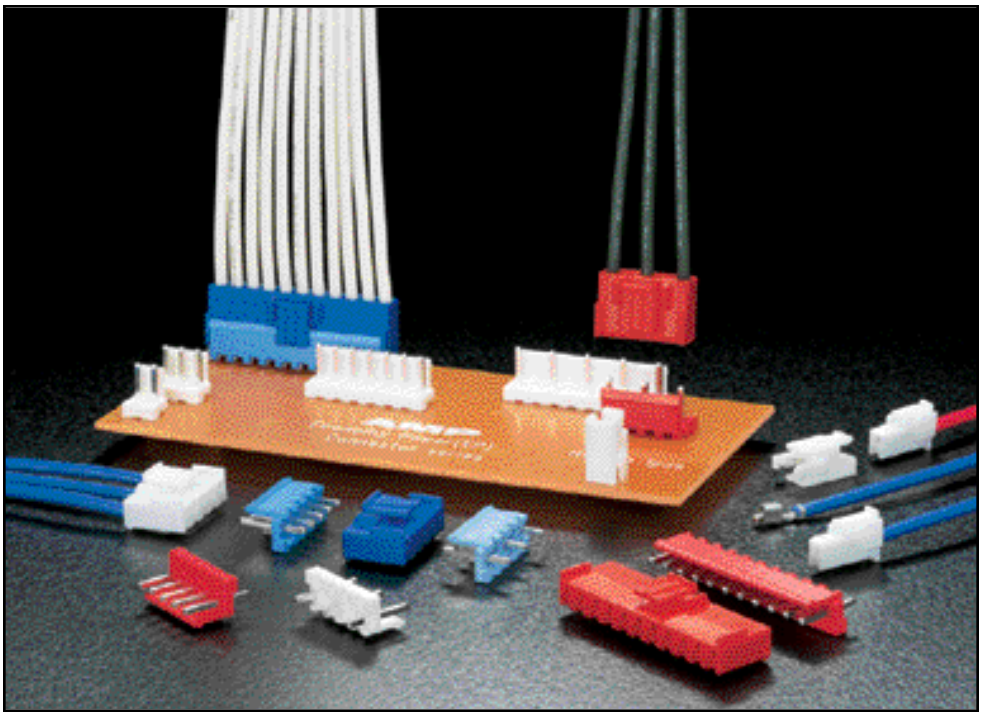
AMP

Product Facts

- .156 [3.96] and .312 [7.92] centerline
- Wire-to-board connectors comprised of plug housings, receptacle contacts for discrete wire, and mating post headers
- Hooded contact designed to accept wire with insulation diameters up to .118 [3.00]
- Positive locking feature built into header back wall
- Locking mechanism on connector housing maximizes retention
- Number of positions: 1 to 11 for .156 [3.96] centerline; 2 to 5 for .312 [7.92] centerline
- Vertical, through-hole headers
- Positive latch design for easier mating and unmating
- Polarization tabs help prevent post misalignment and mismating
- Low-profile mating height of .641 [16.3] for 2 to 11 positions
- Vertical headers are end-to-end stackable to conserve PCB space
- Header packaging: bulk pack and tube loaded
- Plug housings and post headers intermateable with JST VH connectors
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by the Canadian Standards Association, File No. LR7189

Applications

- Household appliances, garage door openers, power supplies, power connections, or other areas requiring additional connector retention



AMP Economy Power (EP) Connectors are designed for secondary power circuit applications. They consist of wire-to-pc board plug housings (for receptacle contacts) and mating post headers. Two contact centerline spacings are available: .156 [3.96] and .312 [7.92].

During mating, the positive locking lever on the outside of the plug housing engages the mating header housing to provide for greater retention. This helps maintain reliable connections, when other non-locking type connectors could vibrate apart. This same locking lever must be depressed to unmate the connectors.

The locking mechanism is also located high enough to help avoid interference with pc board clear plastic coating (potting), which is a common treatment for many home appliances.

Headers with .156 [3.96] centerline are offered in 2 through 11 positions; .312 [7.92] centerline are available in 2 through 5 positions. Both versions are provided in bulk pack or in tubes for automatic machines.

The slim, vertical, post headers are stackable end-to-end for greater flexibility when designing pc board configurations.

The mating height of a low-profile plug and vertical header is .642 [16.3]; even the 1-position high-profile style measures only .732 [18.6] above the pc board. Compact dimensions like these are well suited for most applications in confined spaces.

Performance Characteristics

Voltage Rating – 250 VAC

Current Rating – 7.5 amp max. (2 to 11 pos.), 8 amp max. (1 pos.)

Low Level Overall Resistance–
Initial — 10 mΩ max.
Final — 20 mΩ max.

Dielectric Withstanding Voltage – 1.5 kV AC, 1 min.

Insulation Resistance –
Initial — 1000 MΩ min.
Final — 500 MΩ min.

Durability – 50 mating and unmating cycles

Operating Temperature – -13˚F to +221˚F [-25°C to +105°C]

Wire Size Range – 18-22 AWG [0.89-0.30 mm²]

Insulation Diameter – .118 [3.00] max.

Technical Documents

Product Specification
108-5609

Application Specification
114-5253

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Catalog 1654727
Issued 8-03

www.tycoelectronics.com

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
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C. America: 52-55-5-729-0425

South America: 55-11-3611-1514
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-141-810-8967

Contacts and Plug Housings, Low-Profile

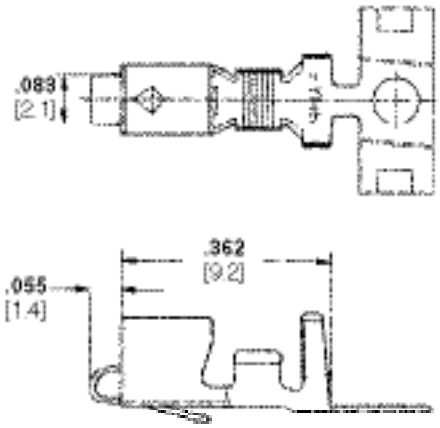
Crimp, Snap-in Receptacle Contacts

Material and Finish

See chart.

Related Product Data

Plug Housings—Pages 2 and 4
:



Wire Size Range		Wire Insulation Diameter	Material and Finish	Part Number (Strip Form)	Applicator Part Number		
					AMPOMATORCLS IV+ Lead Maker	AMP-O-LECTRIC Terminator	
						Model K	Model G
AWG	mm²				Base Part No. 356500	Part No. 1-471273-3	Part No. 354500-1
18-22	0.89-0.30	.067-.118 1.70-3.00	Phos. Brz., Pre-Tin	1123721-1	1385286-1	1385286-2	1385286-3
			Brass, Pre-Tin	1123721-2			

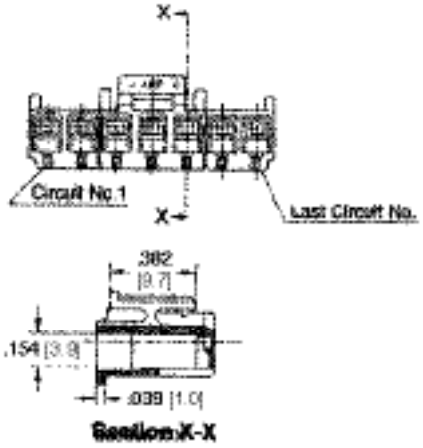
Plug Housings

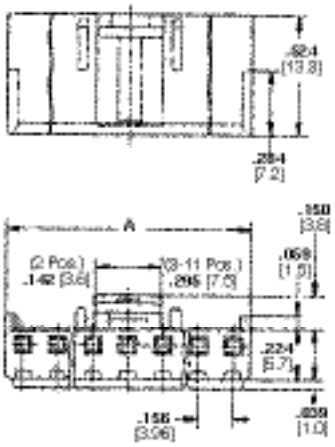
Material and Finish

Housing—UL 94V-0 rated nylon, natural color
Note: Alternate colors available upon request. Minimums may apply. Please contact product engineer or product manager for details.

Related Product Data

Contacts—see above
Mating Post Headers—Page 3





Number of Positions	Dimension A	Part Number
2	**.310** [7.86]	1-1123722-2
3	**.465** [11.82]	1-1123722-3
4	**.621** [15.78]	1-1123722-4
5	**.777** [19.74]	1-1123722-5
6	**.933** [23.70]	1-1123722-6
7	**1.089** [27.66]	1-1123722-7
8	**1.245** [31.62]	1-1123722-8
9	**1.401** [35.58]	1-1123722-9
10	**1.557** [39.54]	1-1123722-0
11	**1.713** [43.50]	1-1123722-1

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Vertical Post Headers, Low-Profile

.156 [3.96] Centerline

Material and Finish

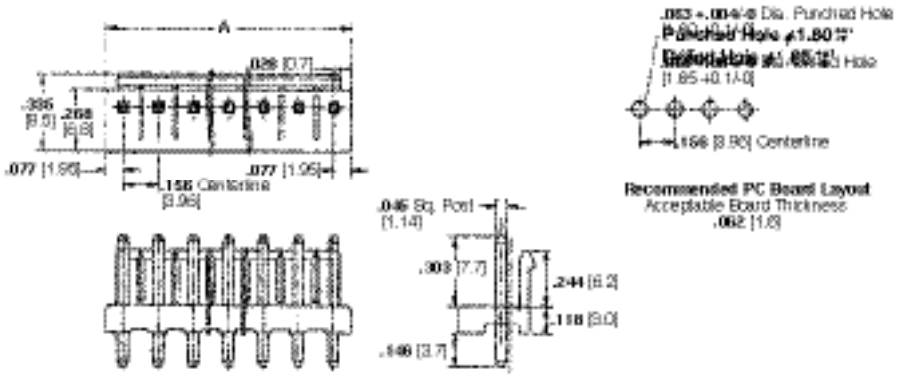
Housing—UL 94V-0 rated nylon, natural color

Note: Alternate colors available upon request. Minimums may apply. Please contact product engineer or product manager for details.

Post—Tin-plated brass

Related Product Data

Mating Plug Housings—Page 2



Number of Positions	Dimension A	Part Number	
		Bulk Pack	Tube Loaded (Pcs. per Tube)
2	**.310** [7.86]	1-1123723-2	1-1318300-2 (61)
3	**.465** [11.82]	1-1123723-3	1-1318300-3 (40)
4	**.621** [15.78]	1-1123723-4	1-1318300-4 (30)
5	**.777** [19.74]	1-1123723-5	1-1318300-5 (24)
6	**.933** [23.70]	1-1123723-6	1-1318300-6 (20)
7	**1.089** [27.66]	1-1123723-7	1-1318300-7 (17)
8	**1.245** [31.62]	1-1123723-8	1-1318300-8 (15)
9	**1.401** [35.58]	1-1123723-9	1-1318300-9 (13)
10	**1.557** [39.54]	1-1123723-0	1-1318300-0 (12)
11	**1.713** [43.50]	1-1123723-1	1-1318300-1 (11)

.312 [7.92] Centerline

Material and Finish

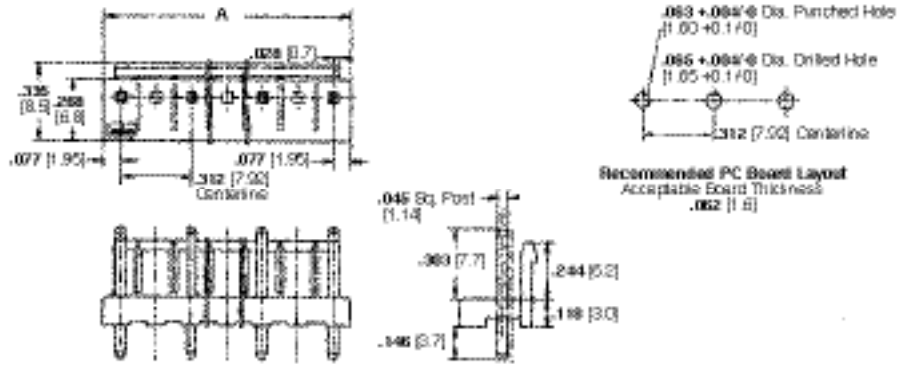
Housing—UL 94V-0 rated nylon, natural color

Note: Alternate colors available upon request. Minimums may apply. Please contact product engineer or product manager for details.

Post—Tin-plated brass

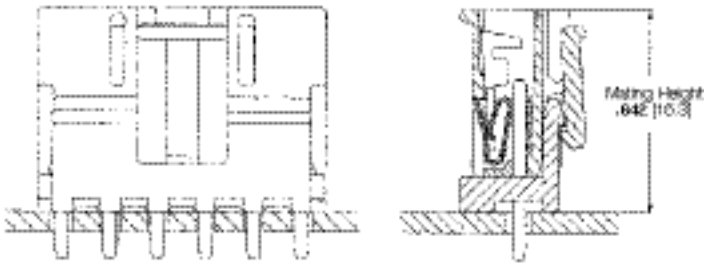
Related Product Data

Mating Plug Housings—Page 2



Number of Positions	Dimension A	Part Number	
		Bulk Pack	Tube Loaded (Pcs. per Tube)
2	**.465** [11.82]	1-1123724-2	1-1318301-2 (40)
3	**.777** [19.74]	1-1123724-3	1-1318301-3 (24)
4	**1.089** [27.66]	1-1123724-4	1-1318301-4 (17)
5	**1.401** [35.58]	1-1123724-5	1-1318301-5 (13)

Mating Height (Low Profile)



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UK: 44-141-810-8967

Plug Housing and Post Header, High Profile

1 Position Plug Housing Part Number 1-1123823-1

Material and Finish

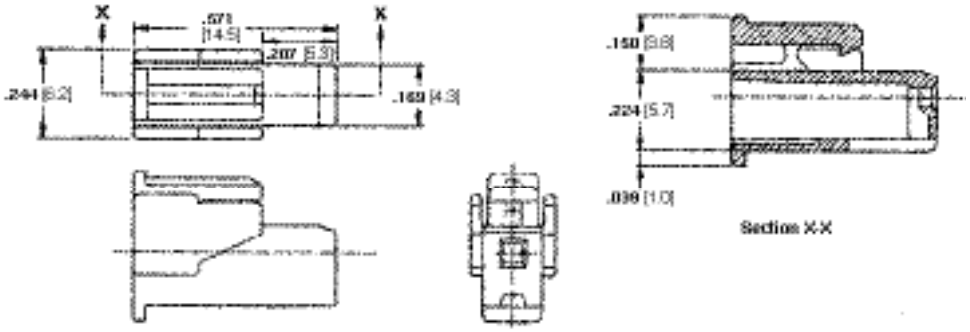
Housing—UL 94V-0 rated nylon, natural color

Note: Alternate colors available upon request. Minimums may apply. Please contact product engineer or product manager for details.

Related Product Data

Contacts—Page 2

Mating Post Header—See below



1 Position Post Header, Vertical Part Numbers 1-1123824-1 (Bulk Pack) 1-1318831-1 (Tube Loaded, 55 pcs. per Tube)

Material and Finish

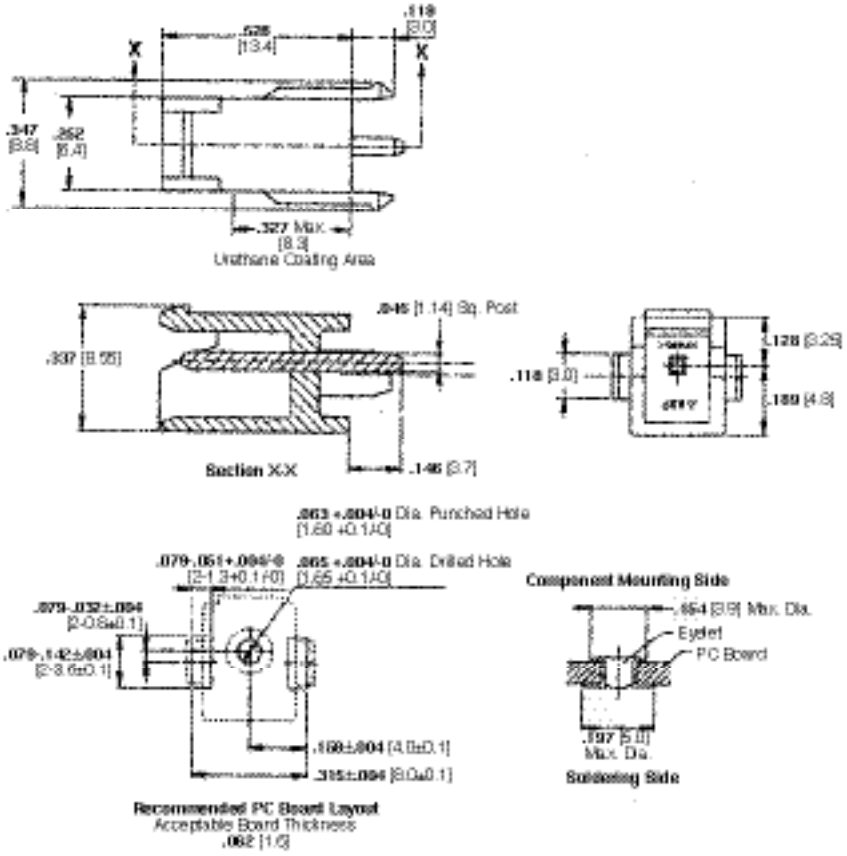
Housing—UL 94V-0 rated nylon, natural color

Note: Alternate colors available upon request. Minimums may apply. Please contact product engineer or product manager for details.

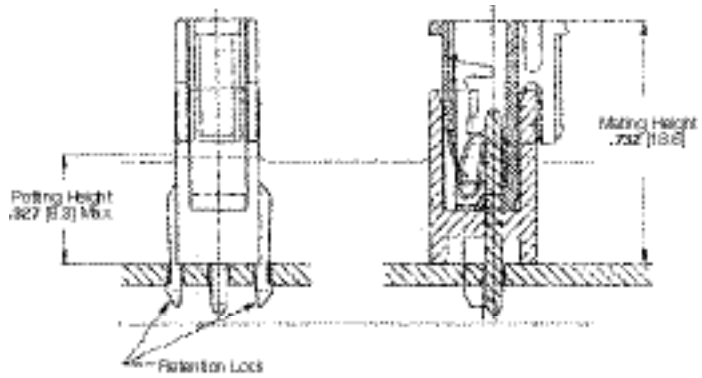
Post—Tin-plated brass

Related Product Data

Mating Plug Housing—See above



Mating Height (High Profile)



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