

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



#### **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-toend 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 endto-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 m max. Final – 20 m max. Dielectric Withstanding Voltage – 1.5 kV AC, 1 min.

# Insulation Resistance –

Initial — 1000 M min. Final — 500 M 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 mm<sup>2</sup>]

Insulation Diameter – .118 [3.00] max.

Technical Documents

Product Specification 108-5609

Application Specification 114-5253

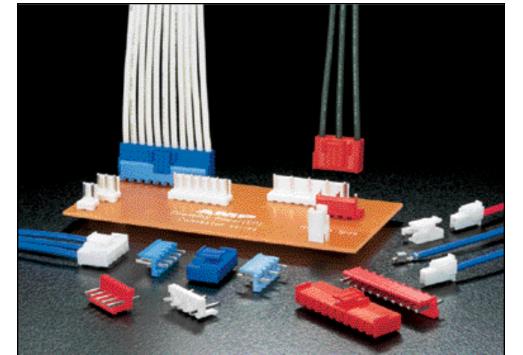
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Catalog 1654727 Issued 8-03

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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 Canada: 1-905-470-4425 Mexico: 01-800-733-8926 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 1







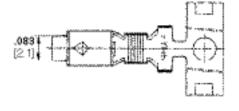
# **Contacts and Plug Housings, Low-Profile**

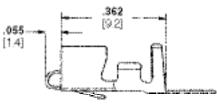


**Material and Finish** See chart.

#### **Related Product Data**

Plug Housings—Pages 2 and 4 1





					Applicator Part Number		
Wire Size Range		Wire Insulation	Material and	Part Number	AMPOMATORCLS IV+ Lead Maker	AMP-O-LECTRIC Terminator	
						Model K	Model G
AWG	mm <sup>2</sup>	Diameter	Finish	(Strip Form)	Base Part No. 356500	Part No. 1-471273-3	Part No. 354500-1
40.00	0.89-0.30	.067118 1.70-3.00	Phos. Brz., Pre-Tin	1123721-1	- 1385286-1	1385286-2	1385286-3
18-22			Brass, Pre-Tin	1123721-2			

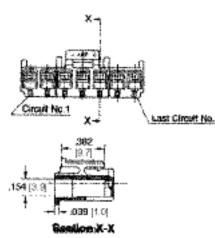
## **Plug Housings**

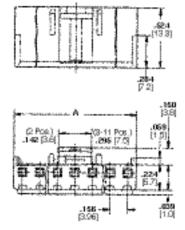
#### **Material and Finish**

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	<b>.310</b> [ 7.86]	1-1123722-2
3	<b>.465</b> [11.82]	1-1123722-3
4	.621 [15.78]	1-1123722-4
5	. <b>777</b> [19.74]	1-1123722-5
6	<b>.933</b> [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	<b>1.713</b> [43.50]	1-1123722-1

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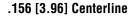
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South America: 55-11-3611-1514 Hong Kong: 852-2735-1628 Japan: 81-44-844-8013 UK: 44-141-810-8967





# Vertical Post Headers, Low-Profile



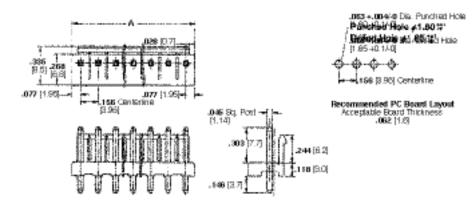
#### Material and Finish

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	Dimension	Part Number		
Positions	Α	Bulk Pack	Tube Loaded (Pcs. per Tube)	
2	<b>.310</b> [ 7.86]	1-1123723-2	1-1318300-2 (61)	
3	.465 [11.82]	1-1123723-3	1-1318300-3 (40)	
4	. <b>621</b> [15.78]	1-1123723-4	1-1318300-4 (30)	
5	. <b>777</b> [19.74]	1-1123723-5	1-1318300-5 (24)	
6	<b>.933</b> [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	<b>1.557</b> [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

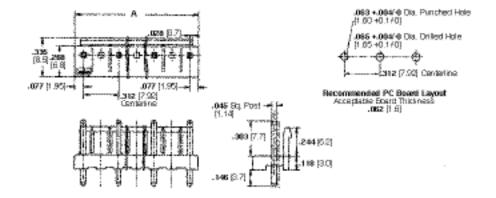
# **Material and Finish**

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

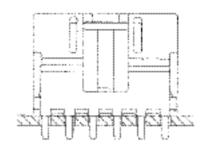
### **Related Product Data**

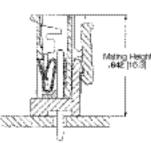
Mating Plug Housings—Page 2



Number of	Dimension	Part Number		
Positions	Α	Bulk Pack	Tube Loaded (Pcs. per Tube)	
2	<b>.465</b> [11.82]	1-1123724-2	1-1318301-2 (40)	
3	. <b>777</b> [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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# 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

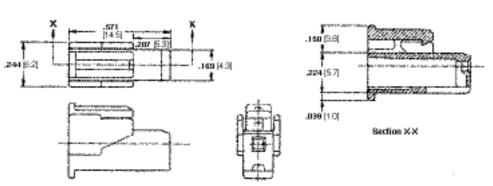
Housing—UL 94V-0 rated nylon, natural color Note: Alternate colors available upon request. Minimums may apply. Please contact product engineer or product manager for details. Post—Tin-plated brass

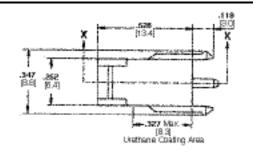
### **Related Product Data**

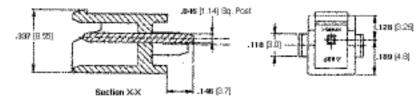
Mating Plug Housing—See above



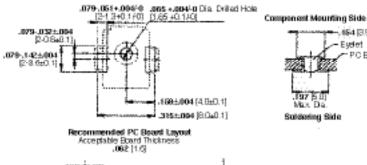
# Plug Housing and Post Header, High Profile

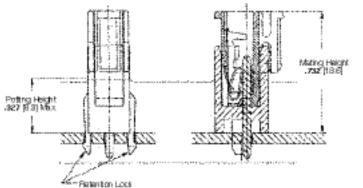






.063 +.004-0 Dia, Punched Hole [1.60 +0.140]





# Mating Height (High Profile)

4

654 (3.9) Max. Dia. Eyelet

PIC Board