

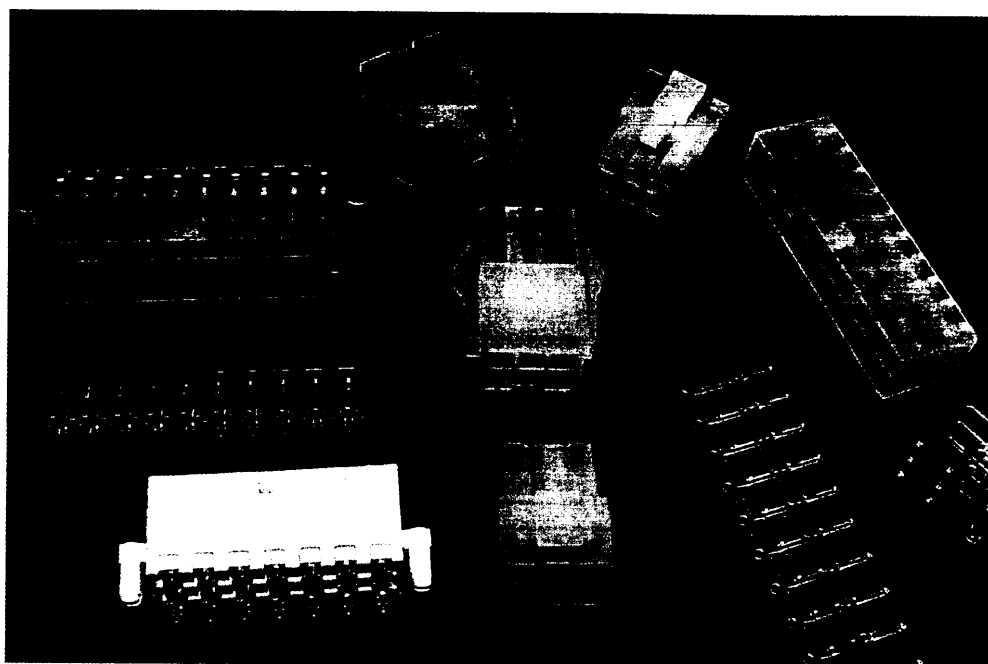


AMP-DUAC Connectors

Catalog 1307012
Revised 3-00

Product Facts

- Wire-to-Board and Wire to Wire Connector System
- Free Hanging or Panel Mount Plug Housings
- Vertical header with or without mounting pegs and with or without drain holes
- Selective loading available on vertical headers
- 4.2mm x 4.2mm centerline
- Male and female contacts designed for 26-22 AWG and 22-18 AWG wire
- AMP receptacle housings accept AMP female contacts with less orientation than competitive product
- Right Angle Headers
- Designed for power applications
- Positive latch feature helps prevent disconnection
- Dual action (DUAC) receptacle contacts
- Anti-stubbing contact design
- Polarized housings
- Intermateable with Molex MiniFit Jr.



The dual action (DUAC) design of the receptacle contact guarantees low insertion force while maintaining high current capacity performance.

Technical Documents

Product Specification

Headers — 108-1699
Receptacles — 108-19099

Application Specification

114-6067 for crimping contacts,
114-19048 — Use of Receptacles

Qualification Test Report

501-434
UL File E28476
CSA File LR7189

Performance Data

Voltage Rating — 600 vac

Current Rating — 9 amps maximum
in 2 position applications

Low Level Resistance —
10 megohms max

Dielectric Withstanding Voltage —
1500 vac/min.

Insulation Resistance —
1000 megohms minimum

Operating Temperature —
-55 to 105°C

Note: The dimensions in this catalog are for reference purposes only and are subject to change without notice. Dimensions are in millimeters over [inches] unless otherwise specified. For the most up-to-date customer drawings, contact the AMP Technical Support Center/AMP FAX Service at 1-800-522-6752 or 717-986-7777.

Need more information?

Call the AMP Technical Support Center:
1-800-522-6752.

The AMP Technical Support Center is staffed with specialists well versed in all AMP products. The Center can provide you with:

- Engineering Support
- Catalogs
- Product Samples
- Technical Documents
- AMP Authorized Distributor Locations
- AMP FAX Service...
24 Hours a Day

AMP Internet Home Page:
www.amp.com



AMP-DUAC Connectors (Continued)

Receptacle Housings

2-24 Positions

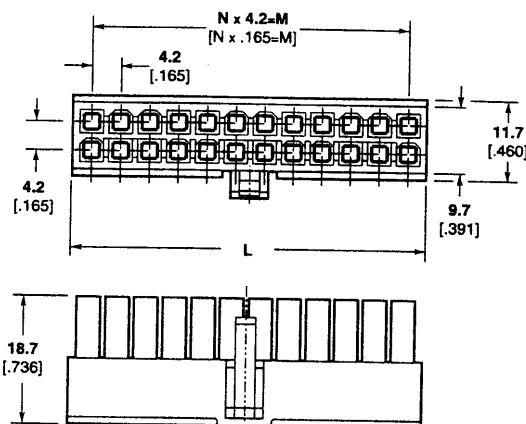
Material

Housings—Nylon, UL94V-2,
Natural color,
Nylon, UL94V-0, White color

Technical Documents—page 1

Mates with vertical headers, right angle
headers and plug housings.

Accepts female contacts.



Number of Positions	Dimensions			94V-2	94V-0
	L	M	N		
2	5.5 .216	—	1	106527-2	794657-2
4	9.7 .381	4.2 .165	1	106527-4	794657-4
6	13.9 .547	8.4 .330	2	106527-6	794657-6
8	18.1 .712	12.6 .496	3	106527-8	794657-8
10	22.3 .877	16.8 .661	4	1-106527-0	1-794657-0
12	26.5 1.043	21.0 .826	5	1-106527-2	1-794657-2
14	30.7 1.208	25.2 .992	6	1-106527-4	1-794657-4
16	34.9 1.374	29.4 1.157	7	1-106527-6	1-794657-6
18	39.1 1.539	33.6 1.322	8	1-106527-8	1-794657-8
20	43.3 1.704	37.8 1.488	9	2-106527-0	2-794657-0
22	47.5 1.870	42.0 1.653	10	2-106527-2	2-794657-2
24	51.7 2.035	46.2 1.818	11	2-106527-4	2-794657-4

Contacts, Female

Technical Documents

Product Specification

108-1699 AMP-DUAC Header

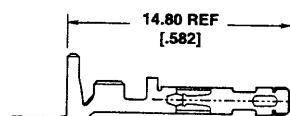
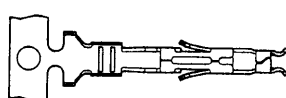
108-19099 AMP-DUAC Receptacle

Application Specification

114-19048 AMP-DUAC Receptacle
contact

114-6067 for crimping contacts

Used in receptacle housings.



Female Contact

Wire Size Range AWG [mm ²]	Ins. Dia. Range	Plating	Part Number	
			Strip	L/P
22-18 [.3-.8]	1.5-2.4 .059-.094	Tin	106529-2	1-106529-2
26-22 [.12-.3]	1.3-1.75 .047-.069	Tin	106528-2	1-106528-2
2@18 [.8]	3.3 Total Max. .130	Tin	794418-1	—
22-18 [.3-.8]	1.5-2.4 .059-.094	Gold	794138-3	794141-3
26-22 [.12-.3]	1.3-1.75 .047-.069	Gold	794139-3	794142-3
2@18 [.8]	3.3 Total Max. .130	Gold	794140-3	—



AMP-DUAC Connectors (Continued)

Plug Housings

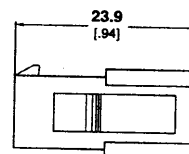
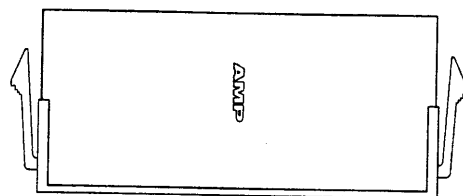
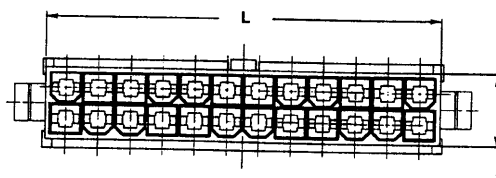
2-24 Positions

Material

Housing — Nylon UL94V-2,
Natural color
Nylon, UL94V-0, White color

Mates with receptacle housings.
Accepts pin contacts.

Technical Documents — page 1

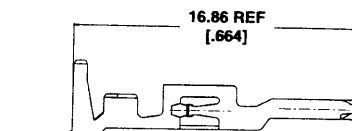
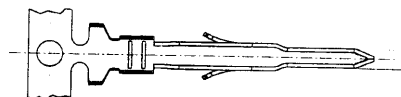


Number of Positions	Dimensions			94V-2		94V-0	
	L	M	N	Free Hanging	Panel Mount	Free Hanging	Panel Mount
2	5.4 .213	—	1	794542-2	794550-2	794594-2	794598-2
4	9.6 .378	4.2 .165	1	*794542-4	*794550-4	*794594-4	*794598-4
6	13.8 .543	8.4 .330	2	794542-6	794550-6	794594-6	794598-6
8	18 .709	12.6 .496	3	*794542-8	*794550-8	*794594-8	*794598-8
10	22.2 .874	16.8 .661	4	*1-794542-0	*1-794550-0	*1-794594-0	*1-794598-0
12	26.4 1.039	21.0 .826	5	*1-794542-2	*1-794550-2	*1-794594-2	*1-794598-2
14	30.6 .205	25.2 .992	6	*1-794542-4	*1-794550-4	*1-794594-4	*1-794598-4
16	34.8 1.370	29.4 1.157	7	*1-794542-6	*1-794550-6	*1-794594-6	*1-794598-6
18	39 1.535	33.6 1.322	8	*1-794542-8	*1-794550-8	*1-794594-8	*1-794598-8
20	43.2 1.701	37.8 1.488	9	*2-794542-0	*2-794550-0	*2-794594-0	*2-794598-0
22	47.4 1.866	42.0 1.653	10	*2-794542-2	*2-794550-2	*2-794594-2	*2-794598-2
24	51.6 2.032	46.2 1.818	24	*2-794542-4	*2-794550-4	*2-794594-4	*2-794598-4

* Call for availability

Contacts — Male

Used in Plug Housings
Contacts to be used with AMP housings
only.



Male Contact

Wire Size Range AWG [mm ²]	Ins. Dia. Range	Plating	Part Number	
			Strip	L/P
22-18 [.3-.8]	1.5-2.4 .059-.094	Tin	794576-1	794577-1
26-22 [.12-.3]	1.3-1.75 .047-.069	Tin	794578-1	794579-1



AMP-DUAC Connectors (Continued)

Vertical Header Assemblies

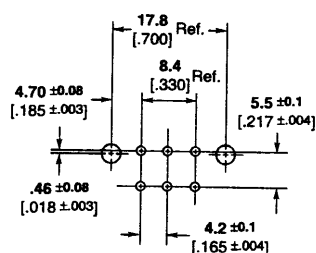
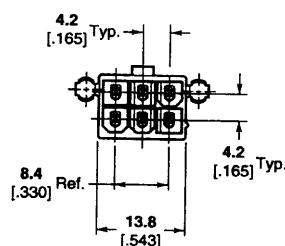
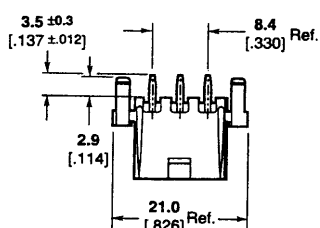
2, 4 & 6 Position, with and without Pegs and with and without Drain Holes

Material and Finish

Housing—Nylon
UL94V-2, Natural color
UL94V-0, White color

Contacts—0.25 thick copper alloy

Technical Documents—page 1



Recommended PC Board Layout

Number of Circuits	Part Number UL94V-2	Part Number UL94V-0	PCB Pegs	Drain Holes	Plating
2	794664-2	794668-2	N	N	Tin/Lead
2	794665-2	794669-2	N	N	30 Gold
2	794662-2	794666-2	Y	N	Tin/Lead
2	794663-2	794667-2	Y	N	30 Gold
2	794349-1	794543-1	N	Y	Tin/Lead
2	794349-2	794543-2	N	Y	30 Gold
2	794302-1	794540-1	Y	Y	Tin/Lead
2	794302-2	794540-2	Y	Y	30 Gold
4	794662-4	794666-4	Y	N	Tin/Lead
4	794663-4	794667-4	Y	N	30 Gold
4	794664-4	794668-4	N	N	Tin/Lead
4	794665-4	794669-4	N	N	30 Gold
4	794303-1	794466-1	Y	Y	Tin/Lead
4	794303-2	794466-2	Y	Y	30 Gold
4	794350-1	794484-1	N	Y	Tin/Lead
4	794350-2	794484-2	N	Y	30 Gold
6	794304-1	794467-1	Y	Y	Tin/Lead
6	794304-2	794467-2	Y	Y	30 Gold
6	794351-1	794485-1	N	Y	Tin/Lead
6	794351-2	794485-2	N	Y	30 Gold
6	794304-1	794467-1	Y	N	Tin/Lead
6	794304-2	794467-2	Y	N	30 Gold
6	794351-1	794485-1	N	N	Tin/Lead
6	794351-2	794485-2	N	N	30 Gold



AMP-DUAC Connectors (Continued)

Vertical Header Assemblies

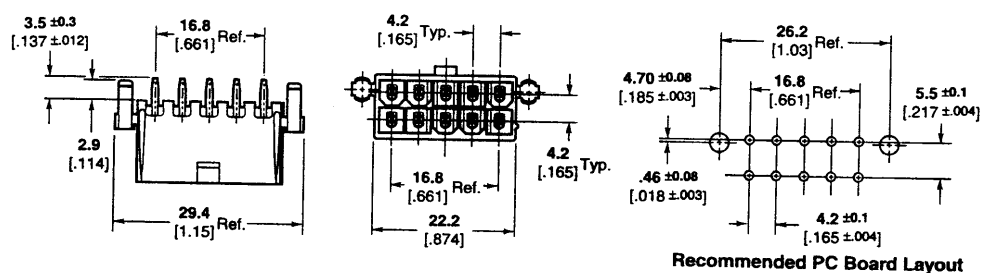
8 & 10 Position, with and without Pegs and with and without Drain Holes

Material and Finish

Housing — Nylon
UL94V-2, Natural color
UL94V-0, White color

Contacts — 0.25 thick copper alloy

Technical Documents — page 1



Number of Circuits	Part Number UL94V-2	Part Number UL94V-0	PCB Pegs	Drain Holes	Plating
8	794662-8	794666-8	Y	N	Tin/Lead
8	794663-8	794667-8	Y	N	30 Gold
8	794664-8	794668-8	N	N	Tin/Lead
8	794665-8	794669-8	N	N	30 Gold
8	794305-1	794468-1	Y	Y	Tin/Lead
8	794305-2	794468-2	Y	Y	30 Gold
8	794352-1	794486-1	N	Y	Tin/Lead
8	794352-2	794486-2	N	Y	30 Gold
10	1-794662-0	1-794666-0	Y	N	Tin/Lead
10	1-794663-0	1-794667-0	Y	N	30 Gold
10	1-794664-0	1-794668-0	N	N	Tin/Lead
10	1-794665-0	1-794669-0	N	N	30 Gold
10	794306-1	794469-1	Y	Y	Tin/Lead
10	794306-2	794469-2	Y	Y	30 Gold
10	794353-1	794487-1	N	Y	Tin/Lead
10	794353-2	794487-2	N	Y	30 Gold



AMP-DUAC Connectors (Continued)

Vertical Header Assemblies (Continued)

12 Position, with and without Pegs and with and without Drain Holes

Material and Finish

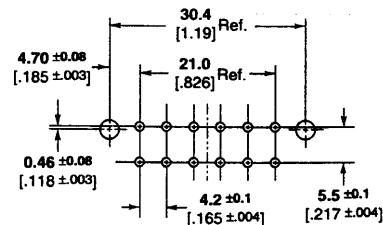
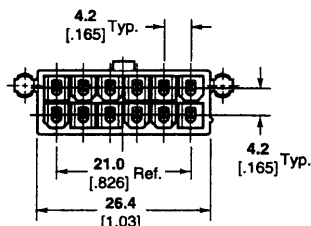
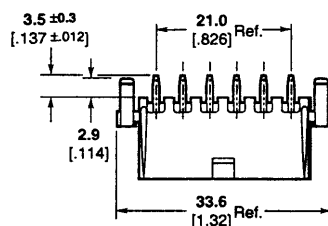
Housing — Nylon

UL94V-2, Natural color

UL94V-0, White color

Contacts — 0.25 thick copper alloy

Technical Documents — page 1



Recommended PC Board Layout

Number of Circuits	Part Number UL94V-2	Part Number UL94V-0	PCB Pegs	Drain Holes	Plating
12	1-794662-2	1-794666-2	Y	N	Tin/Lead
12	1-794663-2	1-794667-2	Y	N	30 Gold
12	1-794664-2	1-794668-2	N	N	Tin/Lead
12	1-794665-2	1-794669-2	N	N	30 Gold
12	794307-1	794470-1	Y	Y	Tin/Lead
12	794307-2	794470-2	Y	Y	30 Gold
12	794354-1	794488-1	N	Y	Tin/Lead
12	794354-2	794488-2	N	Y	30 Gold

14 Position, with and without Pegs and with and without Drain Holes

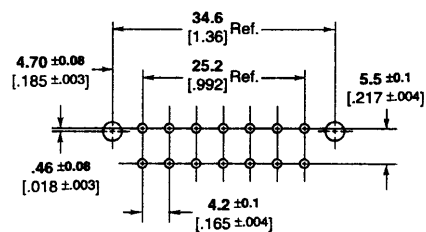
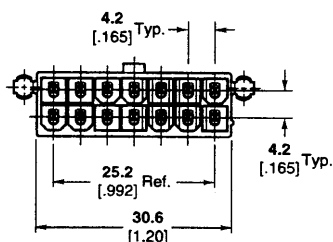
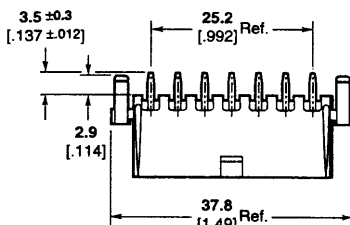
Material and Finish

Housing — Nylon

UL94V-2, Natural color

UL94V-0, White color

Contacts — 0.25 thick copper alloy



Recommended PC Board Layout

Number of Circuits	Part Number UL94V-2	Part Number UL94V-0	PCB Pegs	Drain Holes	Plating
14	1-794662-4	1-794666-4	Y	N	Tin/Lead
14	1-794663-4	1-794667-4	Y	N	30 Gold
14	1-794664-4	1-794668-4	N	N	Tin/Lead
14	1-794665-4	1-794669-4	N	N	30 Gold
14	794308-1	794453-1	Y	Y	Tin/Lead
14	794308-2	794453-2	Y	Y	30 Gold
14	794355-1	794489-1	N	Y	Tin/Lead
14	794355-2	794489-2	N	Y	30 Gold



AMP-DUAC Connectors (Continued)

Vertical Header Assemblies (Continued)

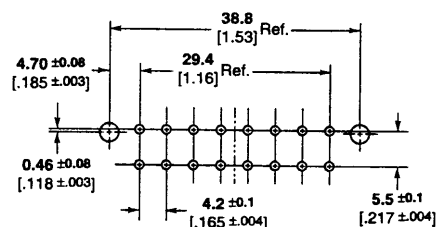
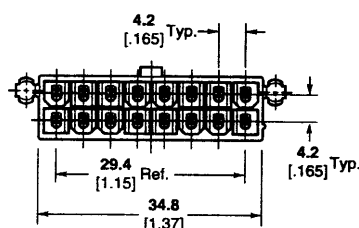
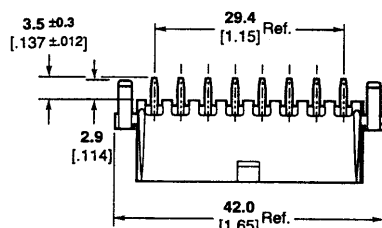
16 Position, with and without Pegs and with and without Drain Holes

Material and Finish

Housing—Nylon
UL94V-2, Natural color
UL94V-0, White color

Contacts—0.25 thick copper alloy

Technical Documents—page 1



Recommended PC Board Layout

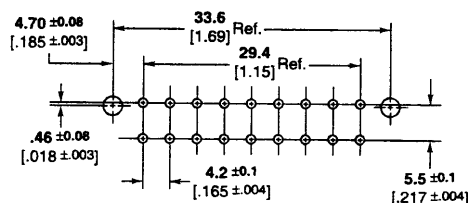
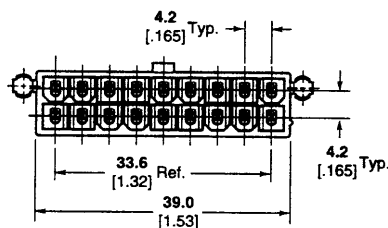
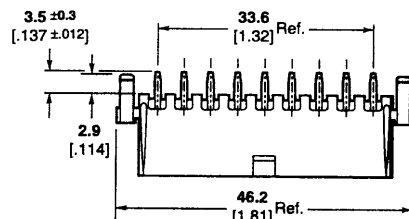
Number of Circuits	Part Number UL94V-2	Part Number UL94V-0	PCB Pegs	Drain Holes	Plating
16	1-794662-6	1-794666-6	Y	N	Tin/Lead
16	1-794663-6	1-794667-6	Y	N	30 Gold
16	1-794664-6	1-794668-6	N	N	Tin/Lead
16	1-794665-6	1-794669-6	N	N	30 Gold
16	794309-1	794429-1	Y	Y	Tin/Lead
16	794309-2	794429-2	Y	Y	30 Gold
16	794356-1	794490-1	N	Y	Tin/Lead
16	794356-2	794490-2	N	Y	30 Gold

18 Position, with and without Pegs and with and without Drain Holes

Material and Finish

Housing—Nylon
UL94V-2, Natural color
UL94V-0, White color

Contacts—0.25 thick copper alloy



Recommended PC Board Layout

Number of Circuits	Part Number UL94V-2	Part Number UL94V-0	PCB Pegs	Drain Holes	Plating
18	1-794662-8	1-794666-8	Y	N	Tin/Lead
18	1-794663-8	1-794667-8	Y	N	30 Gold
18	1-794664-8	1-794668-8	N	N	Tin/Lead
18	1-794665-8	1-794669-8	N	N	30 Gold
18	794310-1	794454-1	Y	Y	Tin/Lead
18	794310-2	794454-2	Y	Y	30 Gold
18	794357-1	794491-1	N	Y	Tin/Lead
18	794357-2	794491-2	N	Y	30 Gold



AMP-DUAC Connectors (Continued)

Vertical Header Assemblies (Continued)

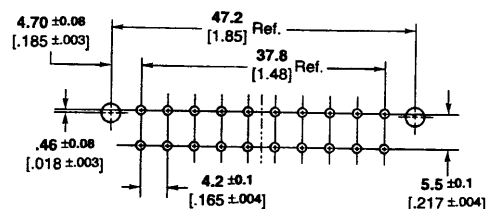
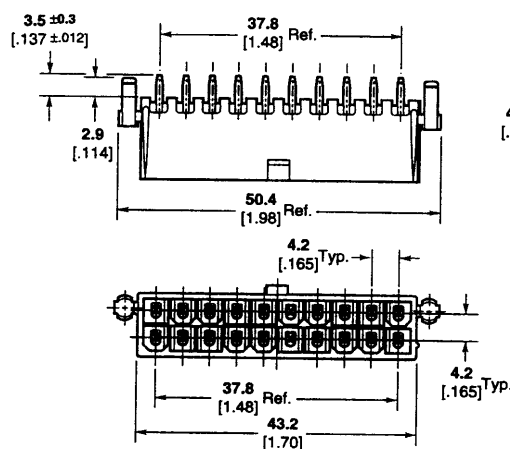
20 Position, with and without Pegs and with and without Drain Holes

Material and Finish

Housing—Nylon
UL94V-2, Natural color
UL94V-0, White color

Contacts—0.25 thick copper alloy

Technical Documents—page 1



Recommended PC Board Layout

Number of Circuits	Part Number UL94V-2	Part Number UL94V-0	PCB Pegs	Drain Holes	Plating
20	2-794662-0	2-794666-0	Y	N	Tin/Lead
20	2-794663-0	2-794667-0	Y	N	30 Gold
20	2-794664-0	2-794668-0	N	N	Tin/Lead
20	2-794665-0	2-794669-0	N	N	30 Gold
20	794311-1	794455-1	Y	Y	Tin/Lead
20	794311-2	794455-2	Y	Y	30 Gold
20	794358-1	794492-1	N	Y	Tin/Lead
20	794358-2	794492-2	N	Y	30 Gold

High Temperature Headers — IR Reflow compatible. Black color.

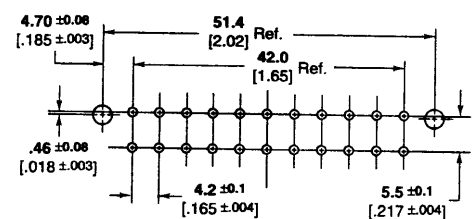
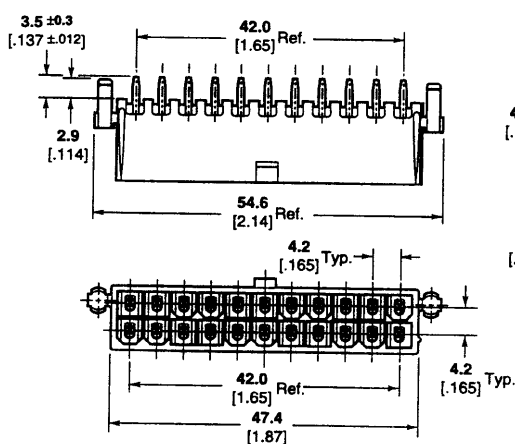
Number of Circuits	Part Number	Flammability Rating	PCB Pegs	Drain Holes	Plating
20	794415-1	UL94V-0	N	N	Tin/Lead
20	794415-2	UL94V-0	N	N	30 Gold

22 Position, with and without Pegs and with and without Drain Holes

Material and Finish

Housing—Nylon
UL94V-2, Natural color
UL94V-0, White color

Contacts—0.25 thick copper alloy



Recommended PC Board Layout

Number of Circuits	Part Number UL94V-2	Part Number UL94V-0	PCB Pegs	Drain Holes	Plating
22	2-794662-2	2-794666-2	Y	N	Tin/Lead
22	2-794663-2	2-794667-2	Y	N	30 Gold
22	2-794664-2	2-794668-2	N	N	Tin/Lead
22	2-794665-2	2-794669-2	N	N	30 Gold
22	794312-1	794471-1	Y	Y	Tin/Lead
22	794312-2	794471-2	Y	Y	30 Gold
22	794359-1	794493-1	N	Y	Tin/Lead
22	794359-2	794493-2	N	Y	30 Gold



AMP-DUAC Connectors (Continued)

Vertical Header Assemblies (Continued)

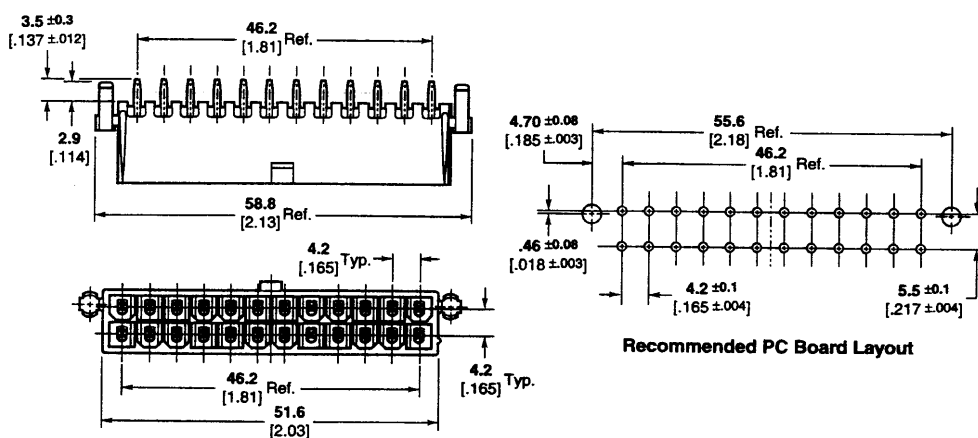
24 Position, with and without Pegs and with and without Drain Holes

Material and Finish

Housing — Nylon
UL94V-2, Natural color
UL94V-0, White color

Contacts — 0.25 thick copper alloy

Technical Documents — page 1



Number of Circuits	Part Number UL94V-2	Part Number UL94V-0	PCB Pegs	Drain Holes	Plating
24	2-794662-4	2-794666-4	Y	N	Tin/Lead
24	2-794663-4	2-794667-4	Y	N	30 Gold
24	2-794664-4	2-794668-4	N	N	Tin/Lead
24	2-794665-4	2-794669-4	N	N	30 Gold
24	794313-1	794472-1	Y	Y	Tin/Lead
24	794313-2	794472-2	Y	Y	30 Gold
24	794360-1	794494-1	N	Y	Tin/Lead
24	794360-2	794494-2	N	Y	30 Gold

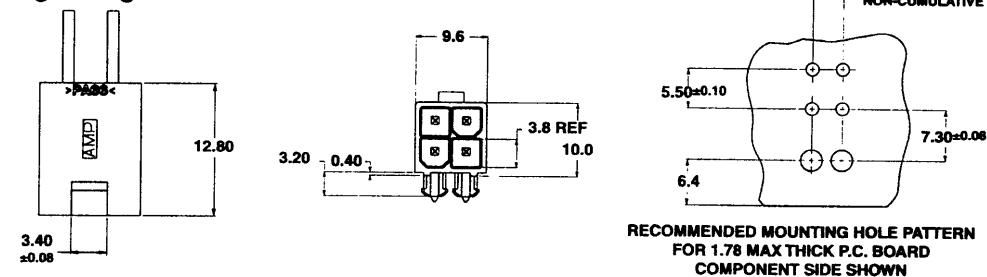
Right Angle Headers with Pegs

Material and Finish

Housing — Nylon
UL94V-2, Natural color
UL94V-0, White color

Mates with Receptacle Housings.

Right Angle Headers



94V-2 AMP Part No.	Pos. Size or AWG	Description	Plating	94V-0 AMP Part No.	Dimensions
—	2	Dual Row Header	Tin/Lead	—	—
794508-1	4	Dual Row Header	Tin/Lead	794527-1	
794448-1	6	Dual Row Header	Tin/Lead	794528-1	
794509-1	8	Dual Row Header	Tin/Lead	794529-1	
794510-1	10	Dual Row Header	Tin/Lead	794530-1	
794511-1	12	Dual Row Header	Tin/Lead	794531-1	
794512-1	14	Dual Row Header	Tin/Lead	794532-1	
794513-1	16	Dual Row Header	Tin/Lead	794533-1	
794514-1	18	Dual Row Header	Tin/Lead	794588-1	
794449-1	20	Dual Row Header	Tin/Lead	794534-1	
794515-1	22	Dual Row Header	Tin/Lead	794589-1	
794516-1	24	Dual Row Header	Tin/Lead	794590-1	



AMP-DUAC Connectors (Continued)

Tooling

Tooling

AMP Part No.	Pos. Size or AWG	Description	Comments
680350-X	2 @ 18	Applicator	-2 K-Press, -3 G-Press
680308-X	22-18	Applicator	-2 K-Press, -3 G-Press
680307-X	26-22	Applicator	-2 K-Press, -3 G-Press
567959-1	22-18	Stripper Crimper	
567960-1	26-22	Stripper Crimper	
90714-1	2 @ 18	Hand Tool	
734202-2	22-18	Hand Tool	
*188688-1	N/A	Extraction Tool	

*Note: Works with female contacts only.

Strain Reliefs

Used with plug or receptacle housings.

AMP Part No.	Pos. Size or AWG	Description	Comments
1375618-1	6	Strain Reliefs	Wire Bundle 4.19 - 5.59, color - white

© Copyright 1999 by AMP Incorporated.
All Rights Reserved.

Mini-Fit, Jr. is a trademark of Molex Incorporated.

AMP, AMP-DUAC, AMP FAX and TYCO are trademarks.

tyco Electronics