Performance Characteristics

Electrical Characteristics

Voltage Rating: UL (600 VAC and VDC), CSA (600 VAC and VDC), VDE (380 VAC, 450 VDC), IEC (440 V)
Dielectric Strength: 2000 Volts, RMS (at sea level)
Current Rating: See contact current carrying capability data below.
Insulation Resistance: 5000 Megohms (Min.)
Termination Resistance: Dependent upon individual contact type. Refer to applicable Product Specification. (Technical Documents, page 58).

Environmental Characteristics

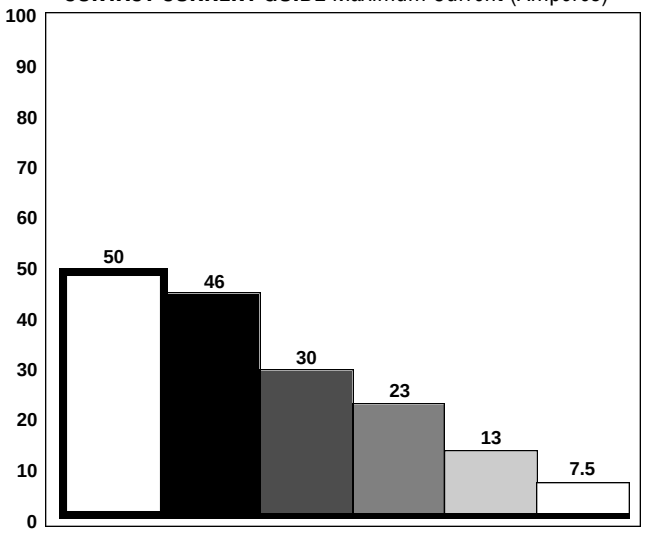
Temperature Range: –55°C to +130°C [–67°F to +266°F]

Mechanical Characteristics

Air Gap: Exceeds 3.2 [.125]
Creep Distance: Exceeds 4 [.157]
Mounting Distance (Live Contact-to-Panel): Exceeds 6 [.237]
Acceptable Panel Thicknesses: 0.8-2.3 [.030-.090]

Contact Current Carrying Capability

CONTACT CURRENT GUIDE Maximum Current (Amperes)*



	Pin Diameter
Size 8	**3.58** [.141]
.125 POWERBAND Contact	**3.06** [.125]
High Current Upgrade Size 8 in a fully-loaded 8-Pos. Drawer Connector (Single contact — 55 Amperes)	**3.40** [.130]
High Current Upgrade Louvertac, Type III+	**1.52** [.062]
Type III+	**1.52** [.062]
Type III+ in a fully-loaded header	**0.98** [.040]

*Based on single contact free air conditions.
1. .125 POWERBAND – Precision formed pins & sockets.
2. High Current Louvertac – Screw machined pin & socket contacts. Both versions feature the AMP Louvertac springs for superior current carrying, heat transfer and durability performance. See catalog 65141.

The total current capacity of each contact in a connector is dependent upon the heat rise resulting from the combination of electrical loads on all the contacts in the connector arrangement and the maximum ambient temperature in which the connector will be operating. Caution must be taken to assure that these combinations of conditions do not cause the internal temperature of the connector to exceed the maximum operating temperature of the housing material. There are several variables which must be considered when determining this maximum current carrying capability for your application.

These variables are:

a. Wire Size—Larger wire will carry more current since it has less resistance to current flow; therefore, it generates less heat. The wire also conducts heat away from the connector.

b. Connector Size—In general, the more circuits in a connector, the less current per contact can be carried.

c. Ambient Temperature—The higher the ambient temperature, the less current can be carried.

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Performance Characteristics (Continued)

Current Rating Verification

Can a contact rated at 10 amperes carry 10 amperes?

Maybe yes, but probably not. The reason lies in the test conditions used to rate the contact. If these conditions do not adequately reflect the application conditions, the actual allowable current levels may be lower than specified levels. For example, many manufacturers, including Tyco Electronics, test a single contact in air. This gives an accurate measure of the basic current-carrying capacity of the contact. Use the contact alone in air and it can certainly carry 10 amperes. Use it in a multi-position connector surrounded by other current-carrying contacts or in high ambient temperatures, and the contact should carry less current.

Similarly, as the contact ages and stress relaxation, environmental cycling, and other degradation factors take their toll, the contact's current-carrying capacity decreases. A prudent design must set current levels for such end-of-design-life (EODL) conditions.

Practical current-carrying capacity is not an absolute, but an application-dependent condition.

New Method Simplifies Ratings

To help the designer set the appropriate current level, Tyco Electronics has developed a method of specifying current-carrying capacity. This method takes into account the various application factors that influence current rating.

The method can be summarized as follows:

- The contact is aged to EODL conditions by durability cycling, thermal cycling, and environmental exposure.
- The contact's resistance stability is verified.
- The current necessary to produce the specified temperature rise is measured. This T-rise is usually 30°C.
- A rating factor is determined to allow derating of multiple contacts in the same housing and for different conductor sizes.

Temperature

One other factor influencing current levels is the maximum operating temperature, for example, 105°C. If the application has a high ambient temperature (over 75°C) the contact's T-rise is limited by the maximum operating temperature. For example, an application temperature of 90°C limits the contact T-rise to 15°C. Since current produces heat (the I^2R law), the current must be lowered to limit the T-rise.

A contact's T-rise depends not only on its I^2R Joule heating, but also on its ability to dissipate the heat. Consider a contact in a multi-contact housing. Joule heating in multiple contacts will raise the local ambient temperature. Since the contact will not be able to dissipate its own heat as well by convection, the maximum T-rise will be realized at a lower current level. Consequently, the allowable current level must be lower to maintain an acceptable T-rise.

For a given connector, the current level will be set by the loading density. A connector containing 50% current-carrying contacts will permit higher currents (per contact) than a connector will at 75% loading. The loading percentage assumes an even distribution of contacts within the housing. If all 10 contacts are grouped together in one section of a 20-position connector, the loading density may approach 100%.

The Importance of EODL

As stated, T-rise in a contact depends on both resistance and current. As it ages, a contact's resistance will increase. The contact designer will specify a maximum resistance for the contact, this level is the end-of-design-life resistance. Before the contact is tested for current, Tyco Electronics subjects it to a sequence of tests that exercise many major failure mechanisms and thereby simulates EODL conditions. Conditioning includes mating cycling, industrial mixed-flowing gases, humidity and temperature cycling, and vibration to sequentially introduce wear, corrosion, stress relaxation, and mechanical disturbance.

Presentation

The presentation of current-carrying capacity in Tyco Electronics product specifications includes two parts:

- First, a base curve showing current levels versus T-rise for a single circuit and the largest wire size. This represents the maximum current capacity of

Performance Characteristics (Continued)

the contact. The curve is usually flat up to 75°C ambient and then drops off. Up to 75°C, the 30°C T-rise limits the amount of current, and above 75°C the current must be reduced to keep the combination of ambient temperature and T-rise from exceeding the maximum operating temperature of 105°C.

- Next are rating factors, a table of multipliers to account for connector loading and for smaller wire sizes. The designer first determines the base current for the ambient conditions of the application, then multiplies this base current by the rating factors to find the current level for the application's loading factor and wire size.

Practical Values

The current-rating method gives designers practical values applicable to their applications. While the specified current levels for a contact may be lower than for other testing methods, they are more realistic and simplify the system design process.

"Spec-manship" is replaced by a realistic assessment of the current-carrying capacity of a contact under varying conditions of temperature, connector loading, and wire size.

An Example:

To demonstrate the method of specifying current, consider the following application conditions, an ambient temperature of 65°C, a 50% loading of contacts in the housing, and 20 AWG [0.6 mm^2] wire.

- From Figure 1, the base current rating is 14 ampere with 18 AWG [0.8 mm^2] wire.
- Figure 2, the rating factor for 50% loading and 20 AWG [0.6 mm^2] wire is 0.68.
- The specific rating for this application is the product of the base rating and the rating factor:
  14 x 0.68 = 9.5 ampere
- Each of the contacts can carry 9.5 ampere.
- However, if the ambient temperature is 80°C the allowable T-rise becomes 25°C. The base current must be lowered to 12.8 ampere so that the 105°C maximum operating temperature is not exceeded. The current rating then becomes:
  12.8 x 0.68 = 8.7 ampere.

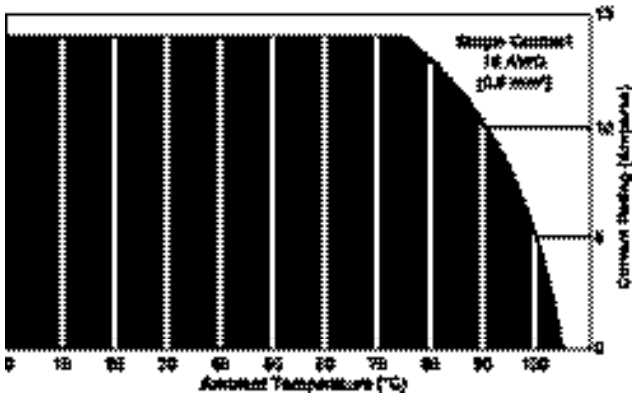

Figure 1

Graph shows the relationship between base current, ambient temperature, and contact T-rise.

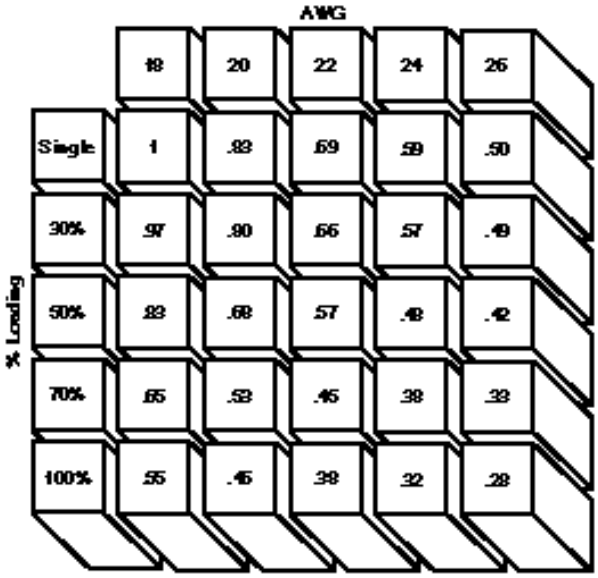

Figure 2

Rating factors allow the base current to be adjusted for various connector loading and wire sizes.

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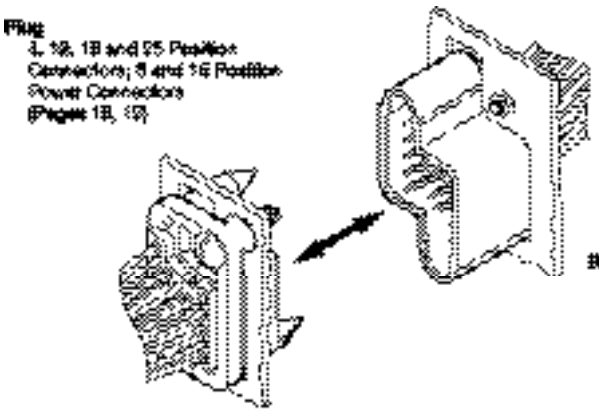
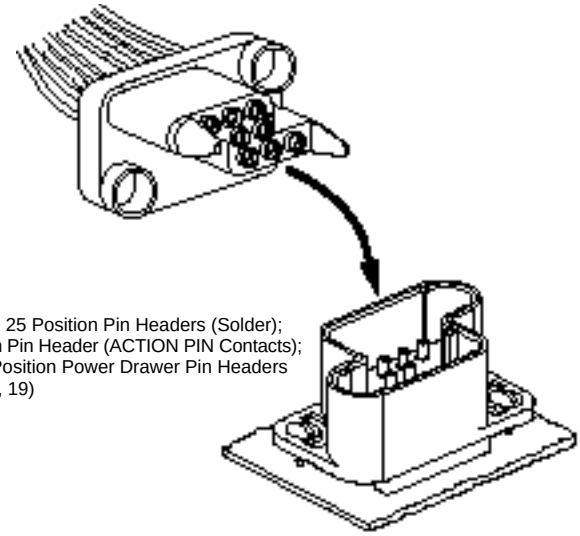
Metrimate Connector Applications

Drawer Connectors

Standard Drawer Connectors, Rack and Panel Applications



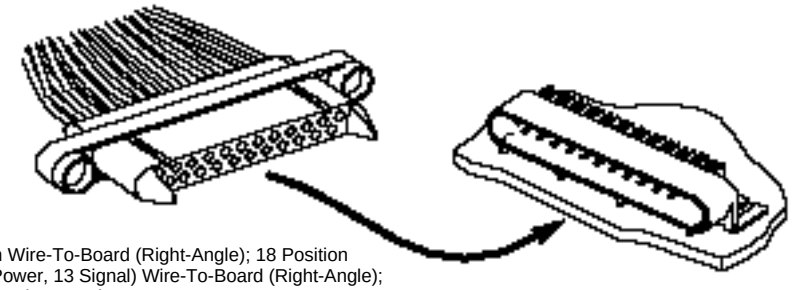
Standard Drawer Connectors, Wire-To-Board



Plug
12, 19 and 25 Position Pin Headers (Solder); 25 Position Pin Header (ACTION PIN Contacts); 8 and 15 Position Power Drawer Pin Headers (Pages 18, 19)

Receptacle
25 Position Socket Headers (Solder); 8 and 15 Position Power Drawer Socket Headers (Pages 18, 19)

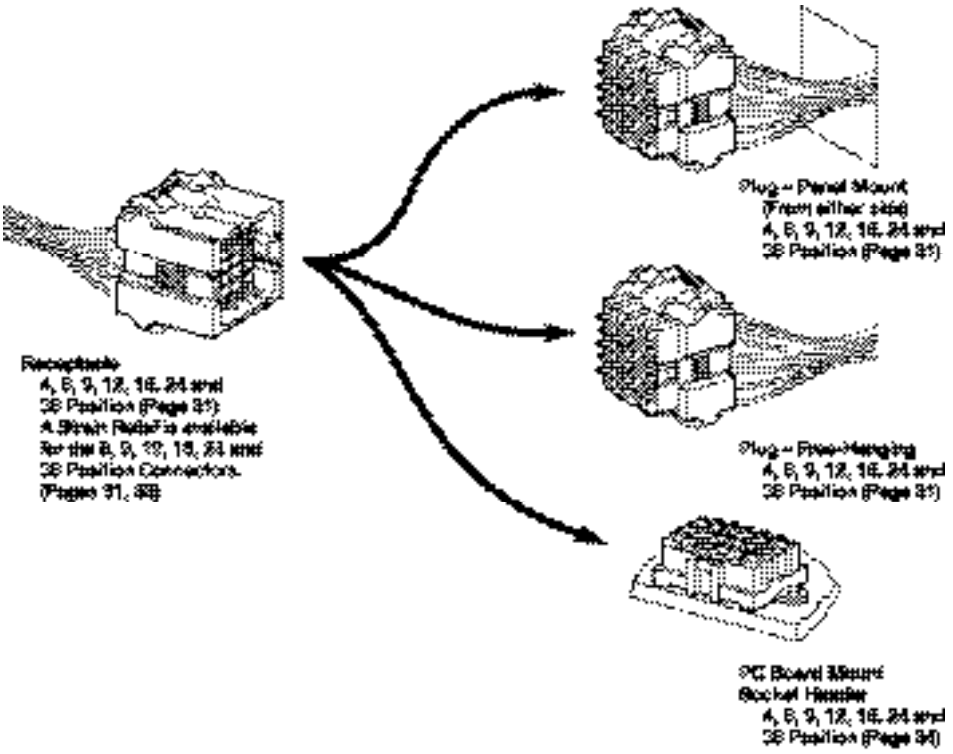
Low Profile Drawer Connectors, Wire-To-Board, and Wire-To-Wire

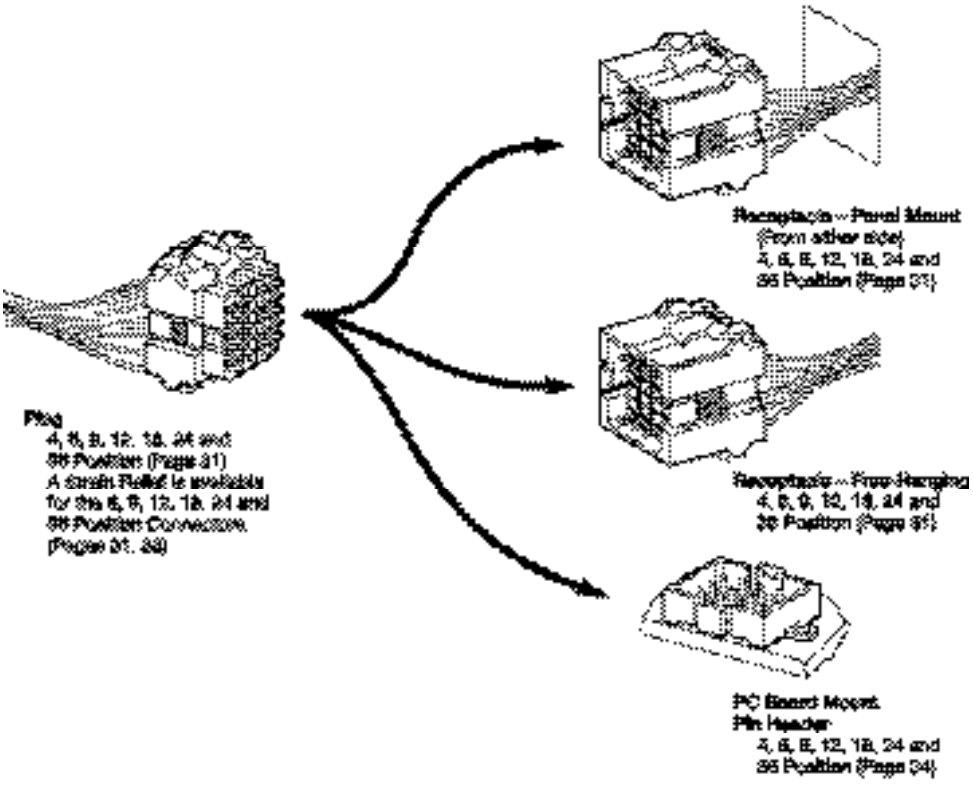


23 Position Wire-To-Board (Right-Angle); 18 Position Hybrid (5 Power, 13 Signal) Wire-To-Board (Right-Angle); 30 Position Wire-To-Wire
(Page 27)

Metrimate Connector Applications (Continued)

Square Grid Connectors





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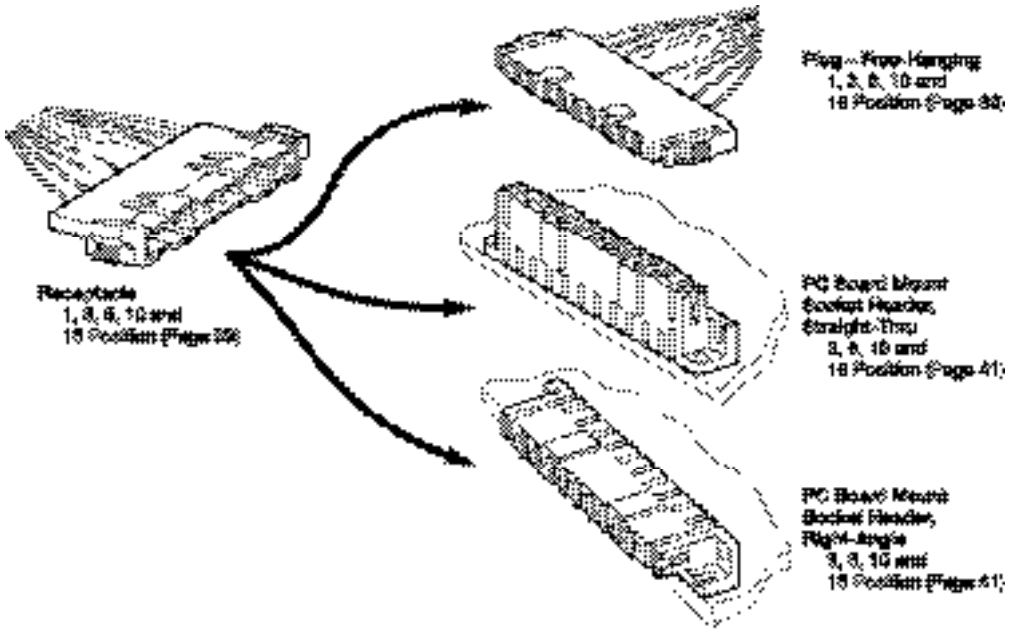
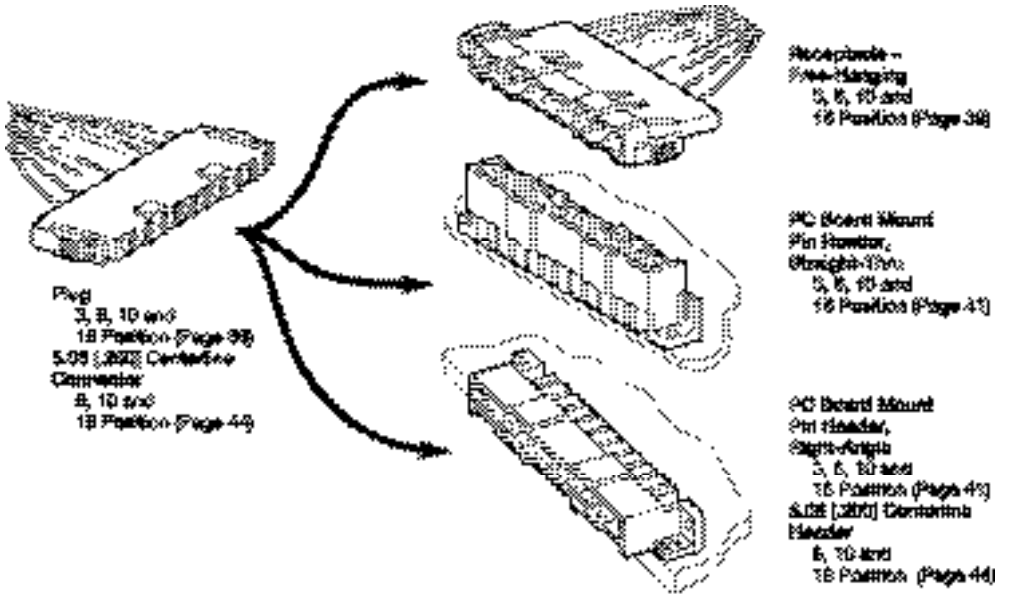
Metrimate Connector Applications (Continued)

In-Line Connectors





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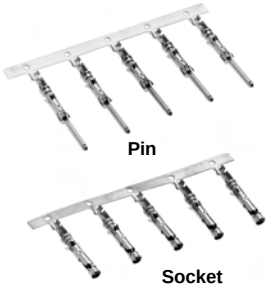
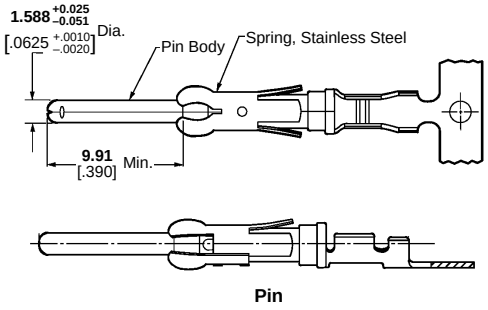
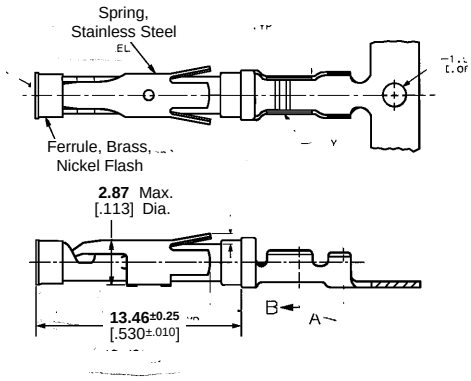
Signal Contacts

Type III+, Crimp, Snap-In







Material

Contact Body—Brass or phosphor bronze
Retention Spring—Stainless steel

Finish

See chart.

Related Product Data

Application Tooling—Pages 56, 57

Technical Documents
114-10004 Application Specification
108-10042 Product Specification

Contact Size 16—Pin Diameter 1.57 [.062] (Test Current, 13 Amperes)‡

Wire Size Range AWG	Wire Size Range mm²	Ins. Dia. Range	Contact Finish	Strip Form Contact No. Pin	Strip Form Contact No. Socket	Loose Piece Contact No. Pin	Loose Piece Contact No. Socket	Tooling Part No. Loose Piece Hand Tool	Tooling Part No. Strip Form Applicators
30-28	0.05-0.09	**0.38-0.76** .015-.030	Gold/Nickel[2]	788085-3	788088-2	—	—	90716-1	567867-1*** or 567947-1*** or 680602-☐***
			Sel. Gold/Nickel[3]	788085-1	788088-1	788085-4	788088-3		
30-26	0.05-0.15	**1.02-1.52**[1] .040-.060	Bright Tin-Lead	66425-6	66424-6	—	—	91515-1[6]	466598-☐***
			Gold/Nickel[2]	66425-7	66424-7	66429-3	66428-3		
			Sel. Gold/Nickel[3]	66425-8	66424-8	66429-4	66428-4		
		0.36-0.76[1] .014-.030	Gold/Nickel[2]	66393-7	66394-7	—	—	90225-2[6]	466585-3***
			Sel. Gold/Nickel[3]	66393-8	66394-8	66406-4	66405-4		
26-24	0.12-0.2	**0.89-1.40**[1] .035-.055	Bright Tin-Lead	66106-6	66108-6	66107-2	66109-2	91515-1[6] or 58495-1*	466321-☐*** or 466908-2***
			Gold/Nickel[2]	66106-7	66108-7	66107-3	66109-3		
			Sel. Gold/Nickel[3]	66106-8	66108-8	66107-4	66109-4		
			Sel. Gold/Nickel[4]	—	66108-1	—	66109-1		
24-20	0.2-0.6	**1.02-2.03**[1] .040-.080	Bright Tin-Lead	66102-7	66104-7 2-66104-5	66103-2	66105-2 —	91515-1[6] or 58495-1*	466323-☐*** or 466907-2***
			Gold/Nickel[2]	66102-8	66104-8	66103-3	66105-3		
			Sel. Gold/Nickel[3]	66102-9 2-66102-2	66104-9 2-66104-3	66103-4 1-66103-2	66105-4 1-66105-3		
			Sel. Gold/Nickel[4]	—	66104-1	—	66105-1		
		1.52-3.05[5] .060-.120	Bright Tin-Lead	66564-6	66563-6	66566-2	66565-2	91542-1[6]	466383-4*** or 466979-1*** or 567363-☐***
			Sel. Gold/Nickel[3]	66564-8	66563-8	66566-4	66565-4		
			Sel. Gold/Nickel[4]	66564-1	—	66566-1	—		
		2.03-2.54[1] .080-.100	Bright Tin-Lead	66332-5	66331-5	66400-1	66399-1	91523-1[6] or 90225-2[6]	466324-☐*** or 466942-1***
			Gold/Nickel[2]	66332-7	66331-7	66400-3	66399-3		
			Sel. Gold/Nickel[3]	66332-8	66331-8	66400-4	66399-4		
			Sel. Gold/Nickel[4]	—	66331-2	—	66399-2		
18-16	0.8-1.4	**2.03-2.54**[1] .080-.100	Bright Tin-Lead	66098-2[S] 66098-7	66100-7	66099-2	66101-2	91505-1[6] or 91523-1[6] or 58495-1*	466325-☐*** or 466906-1***
			Gold/Nickel[2]	66098-8	66100-8	66099-3	66101-3		
			Sel. Gold/Nickel[3]	66098-9	66100-9	66099-4	66101-4		
			Sel. Gold/Nickel[4]	66098-6	—	66099-1	—		
18-14	0.8-2.0	**2.03-2.54**[1] .080-.100	Bright Tin-Lead	66359-6 1-66359-1	66358-6 1-66358-2 1-66358-4	66361-2 66361-7	66360-2 66360-7	91519-1[6]	466326-☐*** or 466923-2***
			Gold/Nickel[2]	66359-9	66358-9	66361-3	66360-3		
			Sel. Gold/Nickel[3]	1-66359-0 1-66359-2	1-66358-0 1-66358-3	66361-4 66361-8	66360-4 66360-8		
			Sel. Gold/Nickel[4]	—	66358-1	—	66360-1		
		2.79-3.81[5] .110-.150	Bright Tin-Lead	66597-1	66598-1 66598-7	66602-1	66601-1	91521-1[6]	466958-1*** or 567364-☐***
			Sel. Gold/Nickel[3]	66597-2	66598-2	66602-2	66601-2		

[1]Overall insulation crimp diameter, including crimp barrel, must not exceed 3.18 [.125].
[2]0.00038 [.000015] gold in the mating area over 0.00127 [.000050] min. nickel.
[3]0.00076 [.000030] gold in the mating area, with gold flash on remainder, over 0.00127 [.000050] min. nickel.
[4]0.00076 [.000030] gold in the mating area, with gold gradient on remainder, over 0.00127 [.000050] min. nickel.
[5]Contacts can only be used in Metrimate and CPC Series 1 (Arr. 23-24), Series 4 (Arr. 23-13M, 23-16M, 23-22M), and VDE connectors.

[6]To use with the 626 Pneumatic Tool System: remove the crimping head from the Straight Action Hand Tool (SAHT) Assembly, order SAHT Adapter **Part No. (Call Technical Support)**, Adapter Holder **Part No. 356304-1** (with ratchet) or **189928-1** (without), and Power Unit **PartNo. 189721-1** (hand actuated) or **189722-1** (foot actuated).
[S]Standard reeling of strip form contacts.
*Commercial PRO-CRIMPER II hand tool for field repair only. **Note:** Die Set can be adapted for use with the 626 Pneumatic Tool System.

‡Single contact, free-air test current is not to be construed as contact rating current. Use only for testing. Refer to contact current carrying capability information on page 3.
Insertion Tool Part No. 91002-1 (for insulation diameters 1.78 [.070] or less), **No. 200893-2** (for insulation diameters 2.29 [.090] max.).
Extraction Tool Part No. 305183.
(Instruction Sheet 408-1216)
***Call Technical Support for Automatic Machine Applicator Part Numbers.

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UK: 44-141-810-8967

Signal Contacts (Continued)

Type III+, Crimp, Snap-In

Contact Size—16
Pin Diameter—1.57 [.062]

Material and Finish

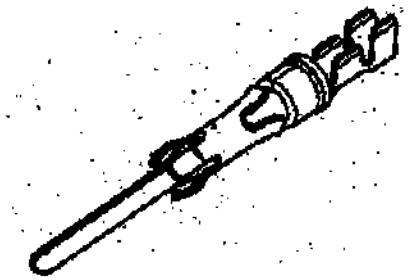
Contact Body—Copper alloy, plated tin or gold
Spring—Stainless steel

Grounding Pin

(make first - break last)

Related Product Data

Application Tooling—Pages 56, 57
Technical Documents—Page 58



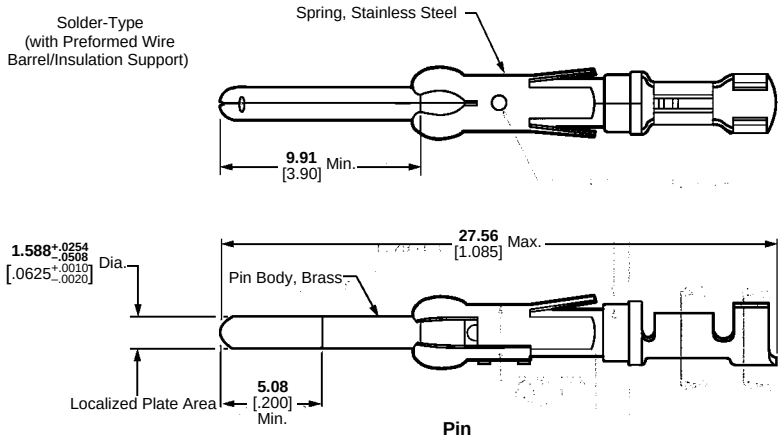
Wire Size Range [mm²]	Wire Size Range AWG	Ins. Dia. Range[1]	Contact Finish	Grounding Pin Part No. Strip Form	Grounding Pin Part No. Loose Piece	Strip Form Applicator Part No.	Loose Piece Hand Tool Part No.
0.12-0.2	26-24	**0.89-1.4** .035-.055	Tin-Lead	164159-3	164162-1	—	91515-1[3] or 58495-1*
			Sel. Gold/Nickel[2]	164159-4	164162-2		
0.2-0.6	24-20	**1.14-1.78** .045-.070	Bright Tin-Lead	164160-3	164163-1	466323-□*** or 466907-2***	91515-1[3] or 91505-1[3] or 58495-1*
			Sel. Gold/Nickel[2]	164160-4	164163-2		
0.8-1.4	18-16	**1.98-2.49** .078-.098	Tin-Lead	164161-3	164164-1	466741-□*** or 680114-3***	91523-1[3] or 91505-1[3] or 58495-1*
			Sel. Gold/Nickel[2]	164161-4	164164-2		

[1]Overall insulation crimp diameter, including crimp barrel, must not exceed 3.18 [.125].
[2]Gold flash over 0.00076 [.000030] min. nickel on entire contact, with 0.00076 [.000030] gold in contact area.
[3]To use with the 626 Pneumatic Tool System: remove the crimping head from the Straight Action Hand Tool (SAHT) Assembly, order SAHT Adapter **Part No. (Call Technical Support)**, Adapter Holder **Part No. 356304-1** (with ratchet) or **189928-1** (without), and Power Unit **PartNo. 189721-1** (hand actuated) or **189722-1** (foot actuated).
*Commercial PRO-CRIMPER II hand tool for field repair only. **Note:** Die Set can be adapted for use with the 626 Pneumatic Tool System.
***Call Technical Support for Automatic Machine Applicator Part Numbers.
Extraction Tool Part No. 725840-1

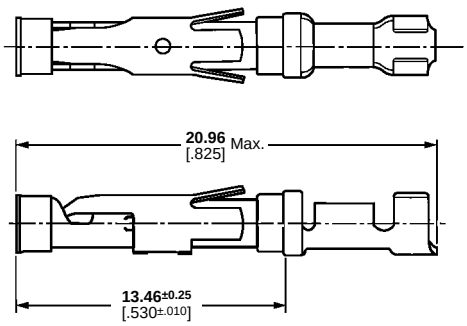
Type III+, Solder Versions

Pin

Socket



Pin



Socket

Material

Contact Body and Tab—Brass
Retention Spring—Stainless steel

Finish

See chart on Page 11.

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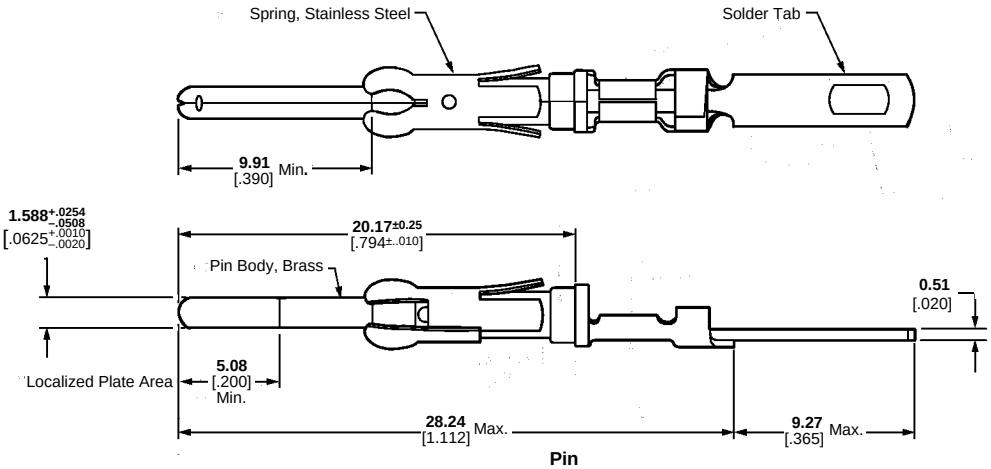
Signal Contacts (Continued)

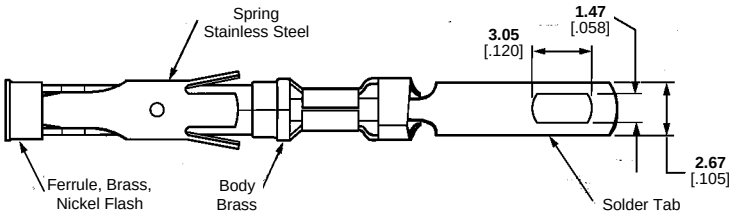
Type III+, Solder Versions
(Continued)

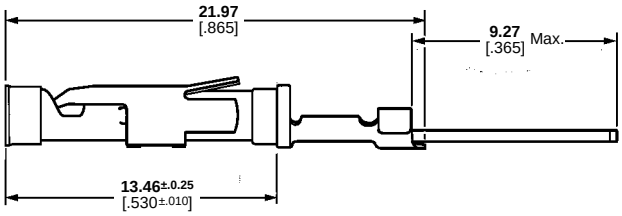
Pin

Socket



Pin





Socket

Material

Contact Body and Tab—Brass
Retention Spring—Stainless steel

Finish

See chart.

Contact Size 16—Pin Diameter 1.57 [.062] (Test Current, 13 Amperes)‡

Wire Size Range		Contact Finish	Loose Piece Contact No.	
AWG	[mm²]		Pin	Socket
26-20	0.12-0.6	Gold/Nickel[1]	66182-1	66183-1
18-16	0.8-1.4	Gold/Nickel[1]	66180-1	66181-1
Solder Tab		Duplex[2]	202236-1	202237-1
		Bright Tin-Lead[3]	202236-2	202237-2

[1]0.00076 [.000030] gold in mating area over 0.00127 [.000050] nickel.
[2]Duplex plated 0.00076 [.000030] gold in mating area over 0.00127 [.000050] nickel on contact body; bright tin-lead on solder tab.
[3]Bright tin-lead on entire contact.

Note: These contacts can be used in Multimate contact cavities of all connector housings.

‡Single contact, free-air test current is not to be construed as contact rating current. Use only for testing. Refer to contact current carrying capability information on page 3.

Extraction Tool **Part No. 305183** (Instruction Sheet 408-1216)

Catalog 82045
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Power Contacts—High Current Upgrade

Type II and Type III+, Size 16

The features of the High Current Size 16 contact have been designed to fit into the existing AMP Multimate Connectors such as CPC (Circular Plastic Connector), CMC (Circular Metal Connector), G Series, M Series, Econoseal, Metrimate Square Grid and Drawer Connector housings. An initial T-Rise test in free air has shown a 23 amp capability with a 30°C T-Rise. The contact may be crimped onto 14 AWG wire with a Tyco Electronics hand tool P/N 601967-1. Use turret TH502 (1-601967-6) for the pin and turret TH501 (1-601967-5) for the socket.

Wire Size AWG	High Current Size 16 Socket Part No.	
	Loose Piece	Tape
14	193846-1	193846-2
18-16	796966-1	796966-2

Wire Size AWG	High Current Size 16 Pin Part No.	
	Loose Piece	Tape
14	193844-1	193844-2
18-16	796964-1	796964-2

Material

Pin Body — Leaded Brass; Copper Alloy (Board Mount)
Socket Body — Copper Alloy
Louvertac Band — Beryllium Copper
Retention Spring — Stainless Steel

Finish

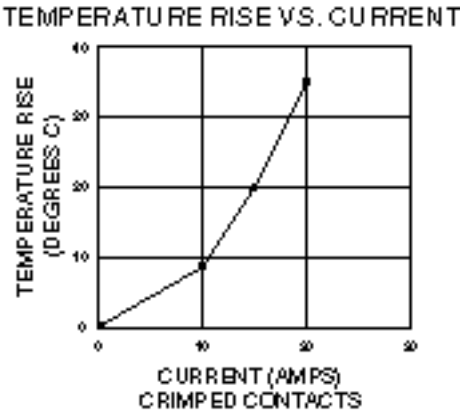
Body — Silver
Louvertac Band — Gold

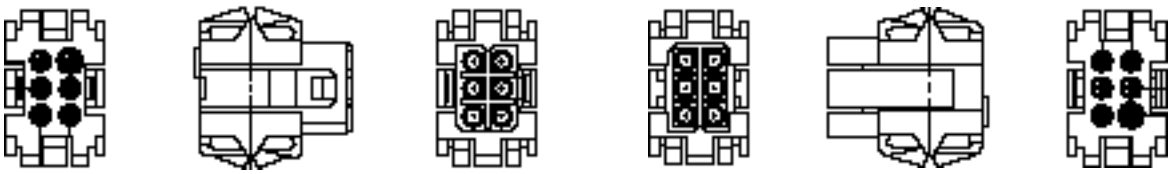
Extraction Tool Part No. 305183

Current-Carrying Capacity. The graph shows current-carrying capacity versus temperature rise for a fully energized 6 position Metrimate Square Grid plug P/N 207152-1 and receptacle P/N 207153-1. These initial representative amperage ratings were conducted with 14 AWG wires that were 2 feet long.

Current Rating for 30°C Temperature Rise 100% Energized

6 Circuit Metrimate Connector (Wire-to-Wire)





Plug (for Sockets) **Receptacle** (for Pins)

Notes:
1. **High Current contacts with Louvertac bands are NOT intermateable with any other contact.**
2. Additional information on CPC and CMC connectors is available in Catalog 82021.
3. Additional information on G Series connectors is available in Catalog 82046.
4. Additional information on M Series connectors is available in Catalog 82003.
5. Additional information on Metrimate connectors is available in Catalog 82045.
6. Additional information on Econoseal connectors is available in Catalog 82057.
7. Additional information on LGH connectors is available in Catalog 82024.

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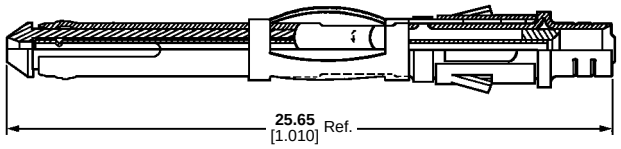
Coaxial Contacts

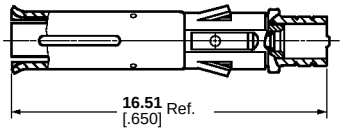
Subminiature, Crimp, Snap-In, Size 16

Pin

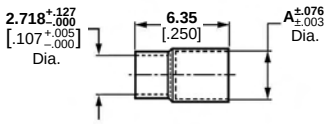
Socket



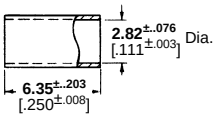
Pin



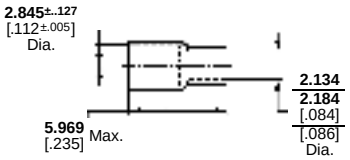
Socket



Ferrule
Part No. 225088-1— A 3.05 [.120] Dia.
225088-3— A 3.12 [.123] Dia.



Ferrule
Part No. 1-332056-0



Ferrule
Part No. 1-332057-0

Material

Outer Shell—Brass per MIL-C-50
Center Conductor—Beryllium copper per QQ-C-533 (Pin); Brass per QQ-B-626 (Socket)
Inner Dielectric—Polypropylene
Retention Spring—Stainless steel per QQ-S-766
Ferrule—Copper per QQ-C-576 or ASTM-B-152 (1-332056-0)

Finish

Outer Shell, Center Conductor—See chart
Ferrule—Tin-lead per MIL-T-10727

Note: Subminiature Coaxial Contacts are used in Metrimate In-Line Plug and Receptacle Housings (page 39); NOT recommended for use in Metrimate Standard or Drawer Connectors.

Selection Chart for Coaxial Cable

Cable Size (RG/U)	Contact Finish	Loose Piece Contact No.		Ferrule Part No.	Tooling Part No.	
		Pin	Socket		Die Inserts for Hand Tool 69710-1 or Pneumatic Tool*	Hand Tool
178, 196	Gold/Nickel Gold/Copper[1]	226537-2	51565-2	1-332057-0	69690-2	69656-2
	Gold/Nickel Gold/Copper[2]	—	51565-5			
196 (Double Braid)	Gold/Nickel Gold/Copper[1]	226537-2	51565-2	225088-1	—	69656-9
	Gold/Nickel Gold/Copper[2]	—	51565-5			
174, 188, 316	Gold/Nickel Gold/Copper[1]	226537-1	51565-1	1-332056-0	69690	91911-3**
	Gold/Nickel Gold/Copper[2]	226537-4	51565-4			
174 (Double Braid)	Gold/Nickel Gold/Copper[1]	226537-1	51565-1	225088-3	—	69656-7
	Gold/Nickel Gold/Copper[2]	226537-4	51565-4			
179, 187	Gold/Nickel Gold/Copper[1]	226537-1	51565-1	1-332056-0	69690-1	91911-4**
	Gold/Nickel Gold/Copper[2]	226537-4	51565-4			
187 (Double Braid)	Gold/Nickel Gold/Copper[1]	226537-1	51565-1	225088-1	—	69656-8
	Gold/Nickel Gold/Copper[2]	226537-4	51565-4			
161	Gold/Nickel Gold/Copper[1]	226537-1	51565-1	1-332056-0	—	69656-5
	Gold/Nickel Gold/Copper[2]	226537-4	51565-4			

*Use hand actuated Power Unit **Part No. 189721-2** or foot actuated Power Unit **Part No. 189722-2**. Both units require "C" Head Die Set Adapter **Part No. 318161-1** and an Adapter Holder **Part No. 356304-1** (with ratchet) or **Part No. 189928-1** (without ratchet). Request Catalog 124208 for information on the 626 Pneumatic Tool System.
**Die Set used with PRO-CRIMPER II hand tool frame Part No. 354940-1.
Extraction Tool **Part No. 305183**

Catalog 82045
Revised 11-03

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Coaxial Contacts (Continued)

Subminiature, Crimp, Snap-In, Size 16
(Continued)

Pin

Socket

Selection Chart for Twisted Pair and Shielded Wire

Wire Size AWG	Wire Size [mm²]	Contact Finish	Loose Piece Contact No. Pin	Loose Piece Contact No. Socket	Ferrule Part No.	Tooling Part No. Die Inserts for Hand Tool 69710-1 or Pneumatic Tool*	Tooling Part No. Hand Tool
30	0.05 (Twisted Pair, Solid)	Gold/Nickel Gold/Copper[1]	226537-3	51565-3	1-332057-0	69690-2	69656-2
28	0.08-0.09 (Twisted Pair, Solid)	Gold/Nickel Gold/Copper[1]	226537-3	51565-3	1-332057-0	69690	91911-3**
28	0.08-0.09 (Twisted Pair, Stranded 7 Str., .0050 [0.13] Dia.)	Gold/Nickel Gold/Copper[1]	226537-3	51565-3	1-332057-0	69690-1 or 69690-2	91911-4** or 69656-2
26	0.12-0.15 (Twisted Pair, Solid or Stranded 7 Str. .0063 [0.16] Dia.)	Gold/Nickel[1] Gold/Copper	226537-3	51565-3	1-332057-0	69690	91911-3**
26	0.12-0.15 (Shielded, .075 [1.91] Max. O.D.)	Gold/Nickel Gold/Copper[1]	226537-1	51565-1	1-332057-0	69690-3	69656-3
		Gold/Nickel Gold/Copper[2]	226537-4	51565-4			

[1]0.00076 [.000030] gold over 0.00127 [.000050] nickel—outer shell and socket center conductor; 0.00076 [.000030] gold over 0.00254 [.000100] copper—pin center conductor.
[2]0.00127 [.000050] gold over 0.00127 [.000050] nickel—outer shell and socket center conductor; 0.00127 [.000050] gold over 0.00254 [.000100] copper—pin center conductor.
*Use hand actuated Power Unit **Part No. 189721-2** or foot actuated Power Unit **Part No. 189722-2**. Both units require "C" Head Die Set Adapter **Part No. 318161-1** and an Adapter Holder **Part No. 356304-1** (with ratchet) or **Part No. 189928-1** (without ratchet). Request Catalog 124208 for information on the 626 Pneumatic Tool System.
**Die Set used with PRO-CRIMPER II hand tool frame Part No. 354940-1.
Note: A ferrule is required for each pin and socket.
Extraction Tool Part No. 305183

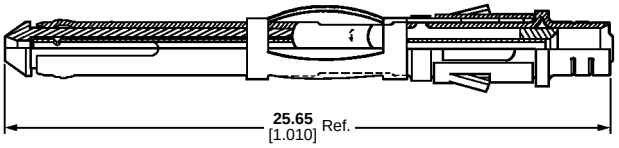
Material

Outer Shell—Brass per MIL-C-50
Center Conductor—Beryllium copper per QQ-C-533 (Pin); Brass per QQ-B-626 (Socket)
Inner Dielectric—Polypropylene
Retention Spring—Stainless steel per QQ-S-766
Ferrule—Copper per QQ-C-576 or ASTM-B-152 (1-332056-0)

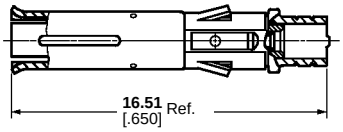
Finish

Outer Shell, Center Conductor—See chart
Ferrule—Tin-lead per MIL-T-10727

Note: Subminiature Coaxial Contacts are used in Metrimate In-Line Plug and Receptacle Housings (page 39); NOT recommended for use in Metrimate Standard or Drawer Connectors.



Pin



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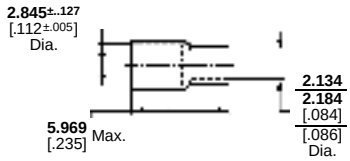

Ferrule
Part No. 1-332057-0

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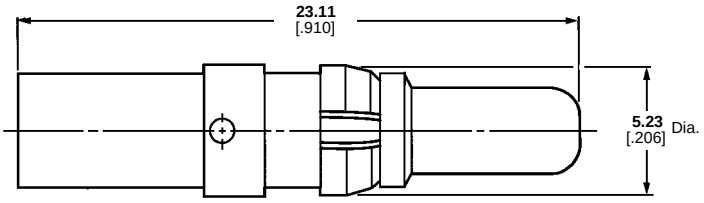
Power Contacts

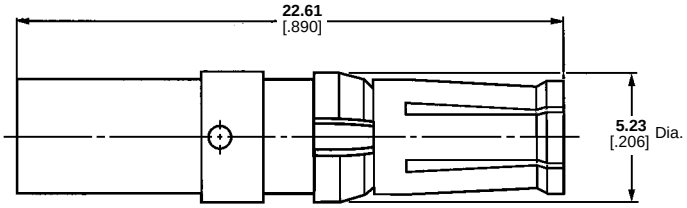
Standard, Size 8, 4/8 Indent Crimp

Pin

Socket



Pin



Socket

Note: Standard Size 8, High Current Upgrade Size 8 and .125 POWERBAND contacts are **not** intermateable.

Material

Contact Body—Copper alloy
Retention Clip—Phosphor bronze

Finish

Contact Body—0.00127 [.000050] gold over 0.00127 [.000050] nickel
Retention Spring—Nickel plated

Related Product Data

Technical Documents

108-10045 Product Specification
114-10014 Application Specification

Power Contacts, Standard, Size 8 (Test Current 50 Amperes)‡

Wire Range		Contacts		Crimping Tools	
AWG	[mm²]	Pin	Socket	Tool No.	Positioner
18-16	0.8-1.4	213567-1	212014-1	608668-1	(P) SP867 (S) 608668-2
14-12	2-3	213662-1	212008-1	608651-1	(P)SP867 (S) 608651-2
10	5	213740-1	213737-1	608651-1	(P) 608651-3 (S) 608651-2
8	8	213552-2	213750-1	608651-1	(P) 608651-3 (S) 608651-2

‡Single contact, free-air test current; not to be construed as contact rating current. Use only for testing. Refer to contact current carrying capability information, page 3.

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Power Contacts—High Current Upgrade (Continued)

Metrimate Drawer Connector, Size 8

The Louvertac bands have the versatility of being designed into contact dimensions used in existing Tyco Electronics connectors.

Metrimate High Current contacts have been designed to fit into the existing Drawer Connector housings. A fully energized 8 position connector with 8 gage wires can handle 30 amps per line with a 30°C T-rise on either the cable-to-cable or cable-to-board.

Cable-to-Cable

Material

Contact Body — Copper Alloys
Louvertac Band — Beryllium Copper
Retention Spring — Stainless Steel
Finish — Gold

Product Specification

108-1449 Metrimate Pin and Socket with Louvertac High Current Contact

Connector Voltage Rating — 600 VAC

- **Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476**
- **Certified by Canadian Standards Association, File No. LR7189A**

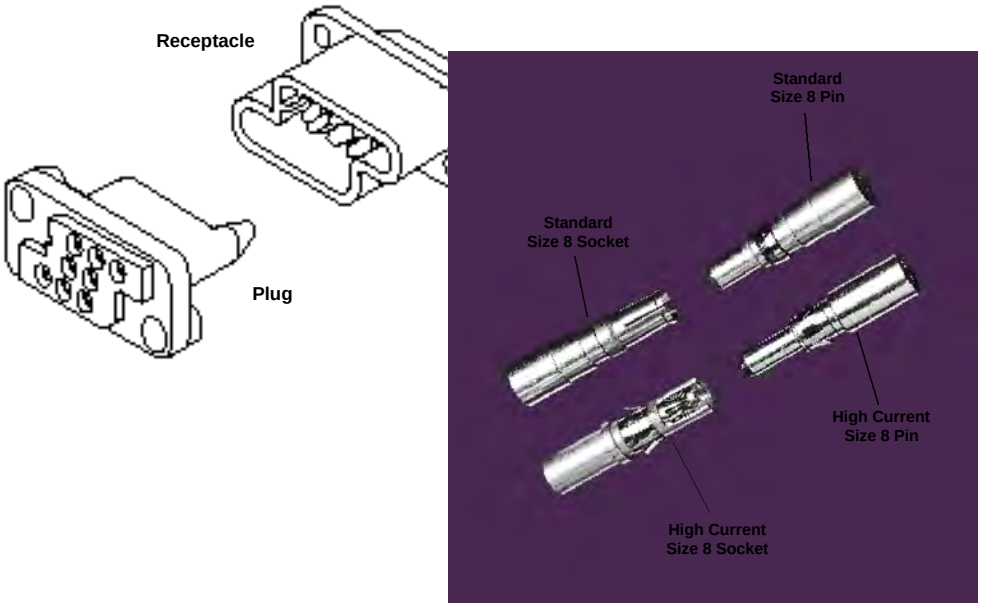
Cable-to-Board

Material

Contact Body — Copper Alloys
Louvertac Band — Beryllium Copper
Retention Spring — Stainless Steel
Finish — Gold

A typical application would have solder tail pins mounted into the receptacle and crimp sockets mounted into the plug.

- **Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476**
- **Certified by Canadian Standards Association, File No. LR7189A**

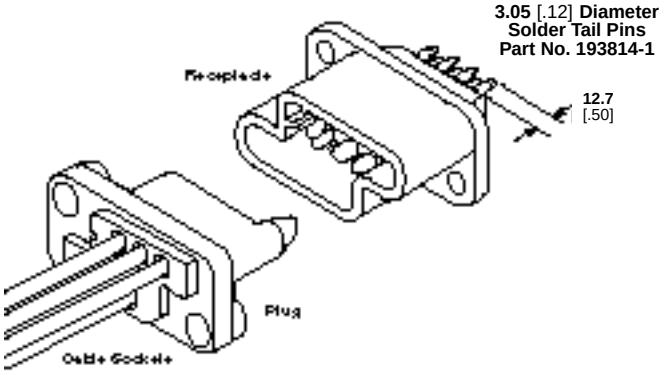


High Current Contacts

Wire Size		Contact Part Numbers		Crimp Tools
AWG	mm²	Pin	Socket	
8	8	193457-1	193458-1	Daniels† Hand Tool #M310 or AMP P/N 356114-1 Positioner #TP944 or AMP P/N 356336-1
10	5	193642-1	193643-1	
12-14	3-2	193534-1	193535-1	

Extraction Tool Part No. 318813-1 or 305183-6

†Daniels Manufacturing Corp., Orlando, FL



Drawer Connector Housings

Size Configuration	Housing Part Numbers	
	Plug	Receptacle
8 Positions (8 Size 8 Cavities)	213499-1	213500-1
15 Positions (3 Size 8 Cavities & 12 Size 16 Cavities)	213426-1	213427-1

Extraction Tool Part No. 318813-1

Note: High Current contacts with Louvertac bands are NOT intermateable with any other contact.

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Power Contacts (Continued)

.125 POWERBAND Contacts

Pin Diameter—.125 [3.175]
Test Current—**50 Amperes‡**

Material and Finish

Contact — Copper
Spring — Beryllium copper

Plating Code

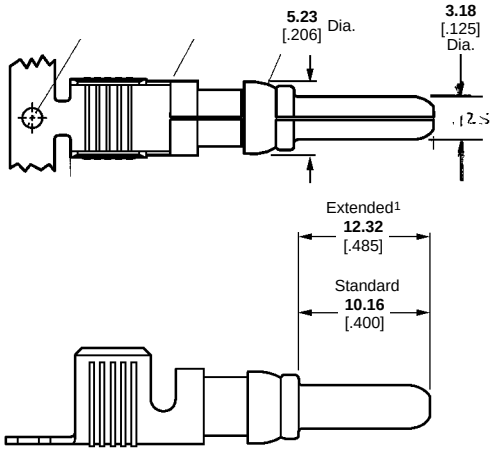
A. 0.00508 [.000200] min. silver on contact area, 0.00127 [.000050] min. on remainder, all over 0.00127 [.000050] min. nickel underplate

B. 0.00076 [.000030] min. gold on contact area, gold flash on remainder, all over 0.00127 [.000050] min. nickel underplate

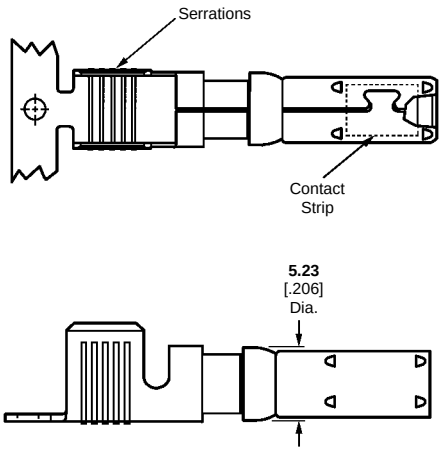
Related Product Data

Application Tooling—Pages 56, 57
Technical Document—Page 58

Extraction Tool
Part No. 318813-1
(Instruction Sheet 408-4374)



.125 POWERBAND Pin Contact



.125 POWERBAND Socket Contact

Wire Size AWG/mm²	Contact Finish	Pin Length	Contact Part No.				Tooling Part No.	
			Strip		Loose Piece		Heavy Duty Miniature (HDM) Applicators (for AMP-O-LECTRIC Model G Machine, Base Part No. 354500)	Die Sets for Hand Tool 69710-1 or 626 Pneumatic Tool System*
			Pin	Socket	Pin	Socket		
14-12 2-3	A	Standard	213845-1	213847-1	213845-3	213847-3	680195-3	356612-1
	B	Standard	213845-2	213847-2	213845-4	213847-4		
	A	Extended1	213845-5	—	213845-7	—		
	B	Extended1	213845-6	—	213845-8	—		
10-8 5-8	A	Standard	213841-1	213843-1	213841-3	213843-3	680197-3	356611-1 (8 AWG) 356611-2 (10 AWG)
	B	Standard	213841-2	213843-2	213841-4	213843-4		
	A	Extended1	213841-5	—	213841-7	—		
	B	Extended1	213841-6	—	213841-8	—		

1For use in Metrimate Drawer Connectors listed in chart below and Two-Piece Sealed Circular Plastic Connectors (CPC), Series 5 and 6.

‡Single contact, free-air test current; not to be construed as contact rating current. Use only for testing. Refer to contact current carrying capability information, page 3.

Note: Standard Size 8, High Current Upgrade Size 8, and .125 POWERBAND contacts are **no**t intermateable.

*A typical 626 Pneumatic Tool System requires: a power unit (**Part No. 189721-2**, hand actuated or **189722-2**, foot actuated), an adapter holder (**Part No. 356304-1**, with ratchet), and "C" Head adapter **Part No. 318161-1**.

.125 POWERBAND Metrimate Drawer Connectors

No. of Pos.	Housing Part No.	
	Plug	Receptacle
8	213886-1**	213500-3**

Color: blue
**For use with .125 POWERBAND contacts (Extended Pin Length), listed above.

Catalog 82045
Revised 11-03

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

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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

Drawer Connectors

Standard Drawer Connector Panel Mount

Product Facts

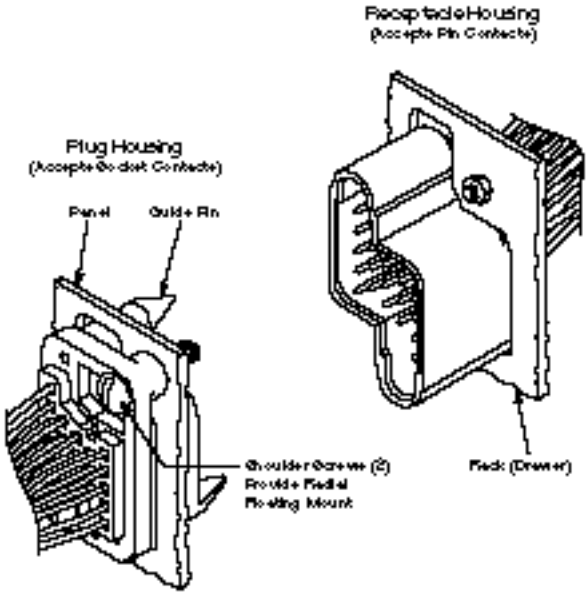
- **4-, 12-, 19- and 25-position connectors for Size 16 contacts**
- **8-position connector for Size 8 power contacts, and a 15-position connector for 3 Size 8 power contacts and 12 Size 16 contacts**
- **Provides "blind" mating with up to 2.3 [.090] mis-alignment in any direction**
- **Guide pins molded into plug half**
- **Plug and receptacle can be front- or rear-panel mounted**

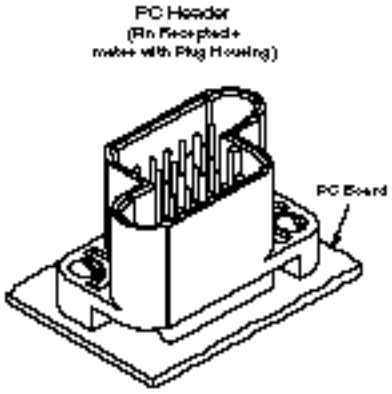
Material

Black glass-filled thermoplastic, 94V-0 rated

Related Product Data

Contacts—Pages 9–17
Mounting Screw—Page 20
Keying Plug—Page 44
Dimensional Specifications and Recommended Panel Cutouts—Pages 21–26
Performance Characteristics—Page 3
Technical Documents—Page 58
Product Specifications—
108-10033
108-10045
Application Specifications—
114-10039
114-10014





Standard Drawer Connectors

No. of Pos.	Connector Housing Part Nos.*			PC Header Part Nos.			Grounding Pins should not be used in these receptacle cavities
				Pin Headers		Socket Headers	
	Plug	Receptacle	Receptacle With 8/32 Inserts	Solder Tails	ACTION PIN	Solder Tails	
4	212608-1	212609-1	213749-1	—	—	—	1 and 4
12	211758-1	211759-1	213748-1	213824-1[A]	—	—	1 and 12
19	208210-2	208209-2	—	213738-2[A]	—	—	1 and 19
25	211150-1	211149-1	—	213672-1[A]	213558-1[B] 213558-2[C]	213881-1[A] 213784-1[B]	1 and 25

*Housings only, order contacts separately. See pages 9-12 for contact specifications.

PC Header Plating Code:
[A]Contact brass plated 0.00076 [.000030] min. gold on mating end, gold flash remainder, both over 0.00127 [.000050] min. nickel underplating. Post end brass plated 0.00254 [.000100] min. tin-lead over 0.00254 [.000100] min. copper. Spring—Stainless steel.
[B]Contact phosphor bronze plated 0.00254 [.000100] min. tin-lead over 0.00127 [.000050] min. nickel.
[C]Contact phosphor bronze plated 0.00076 [.000030] min. gold on the mating area, 0.00038 [.000150] min. tin-lead on the ACTION PINcontact end, all over 0.00127 [.000050] min. nickel.

Note: Select loaded configurations including grounding pins can be made available; consult Tyco Electronics.

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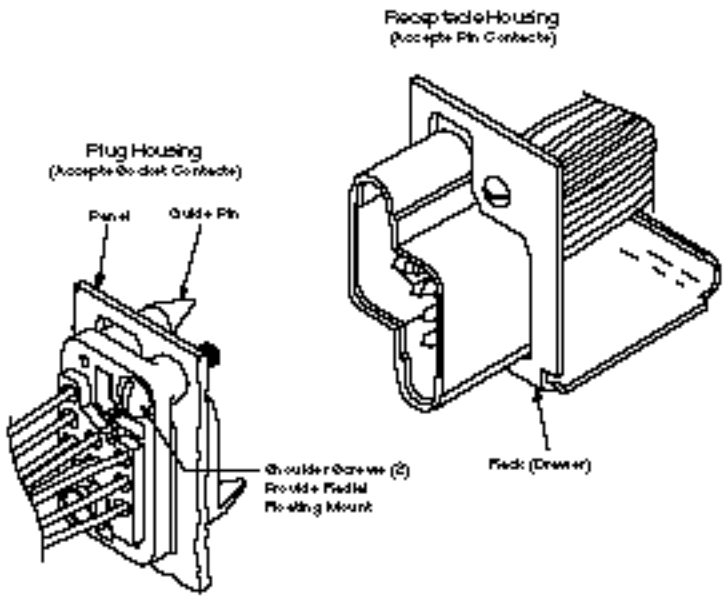
Drawer Connectors (Continued)

Power Drawer Connector, Size 8*

*For use with Size 8 contacts found on page 15



Blindmate Power Connectors

No. of Pos.	Housing Part No.*		With 8/32 Insert	PCB Headers	
	Plug	Receptacle		Pin	Socket
8 (8 size 8)	213499-1	213500-1	213752-1	213882-1	213883-1
15 (3 size 8, 12 size 16)	213426-1	213427-1	—	213713-1[1]	213908-2[1]

[1]Loaded with Size 16 contacts only.
*Housing only, order contacts separately. See pages 15 and 16 for contact specifications.

Power Drawer Connector, .125 POWERBAND*

*For use with .125 POWERBAND contacts found on page 17

.125 POWERBAND Connectors

No. of Pos.	Housing Part No.	
	Plug	Receptacle
8	213886-1*	213500-3*

*Color: blue

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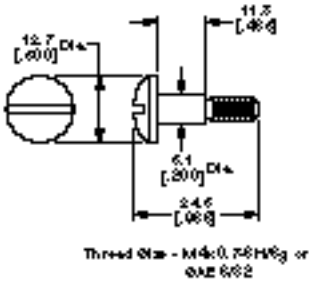
Drawer Hardware

Mounting Screw

Material
Stainless steel

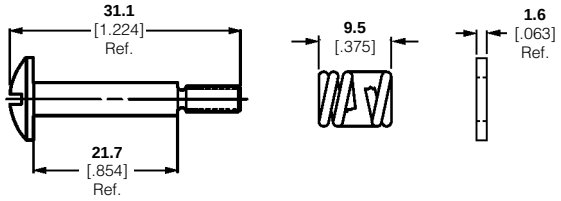
Thread Size	Part No.
M4×0.7-6H/6g	208211-1
SAE 6/32	208211-4

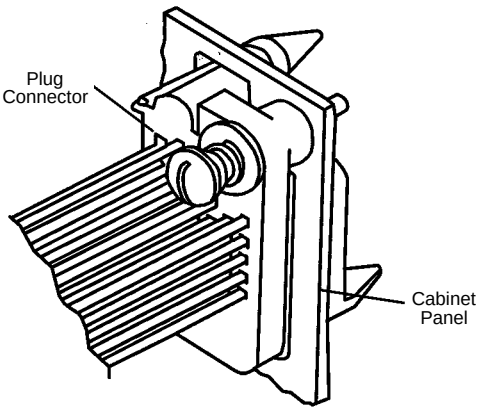
Note: These shoulder screws are used for mounting the plug housing and they provide float for positioning of misaligned connectors. Two are required for each plug. Mounting screws are to be ordered separately. Nuts are to be supplied by the customer.



Screw Kits
Part No. 213283-2
Kit Includes: 2—M4 screws, 2—Springs, 2—Washers

Screw Kits are recommended in order to compensate for misaligned connector halves and to provide float in X, Y, and Z directions.





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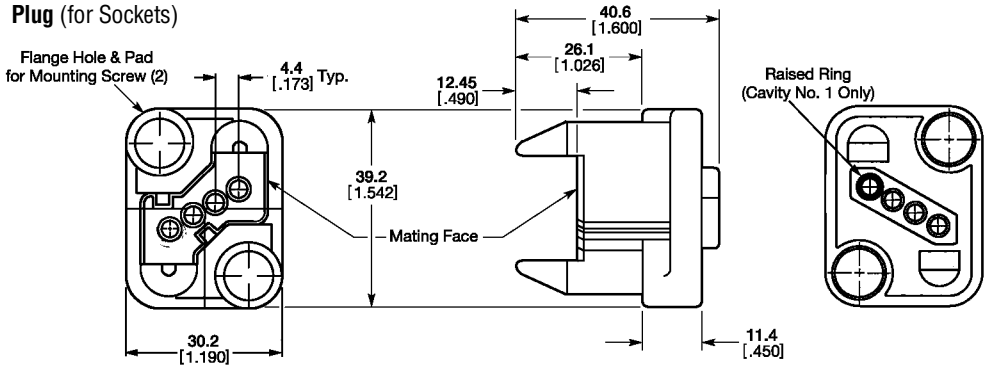
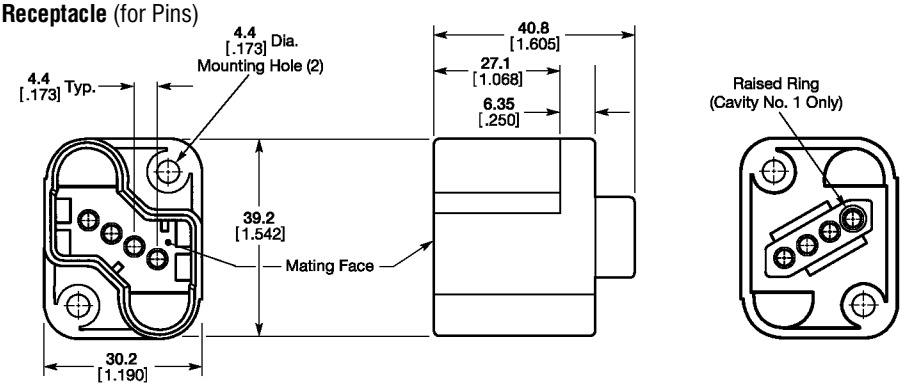
Drawer Connector Specifications

4 Position Housings

Plug (for Sockets)

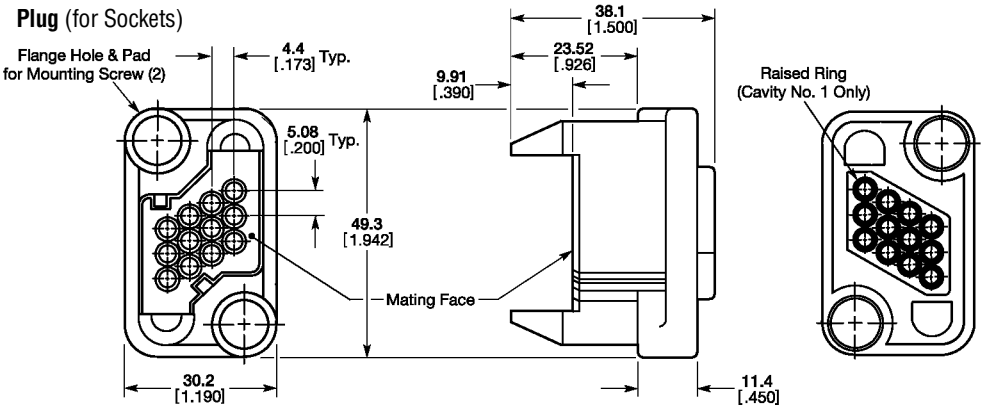


Receptacle (for Pins)

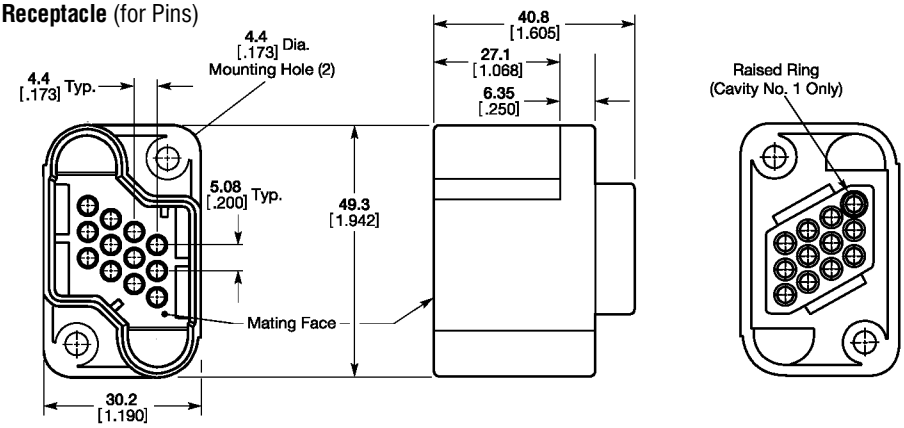


12 Position Housings

Plug (for Sockets)



Receptacle (for Pins)



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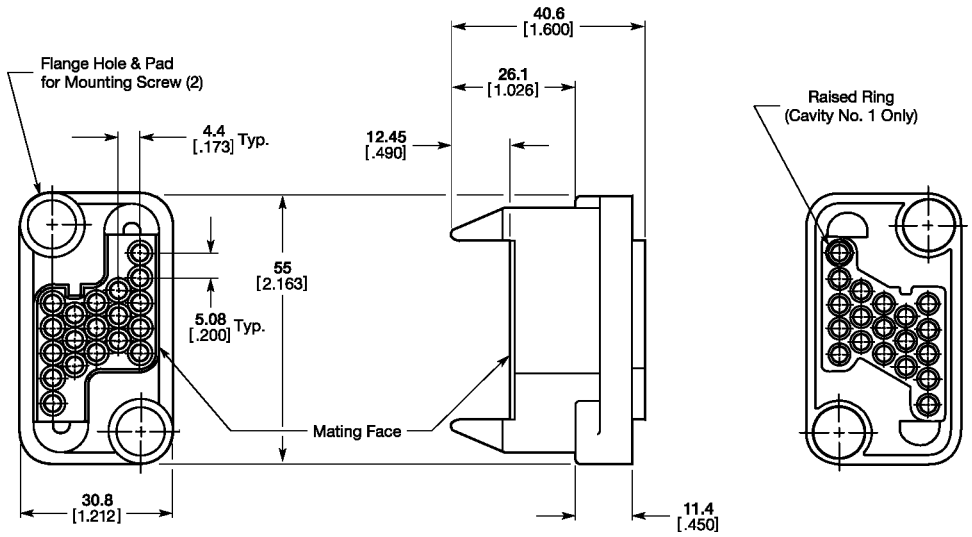
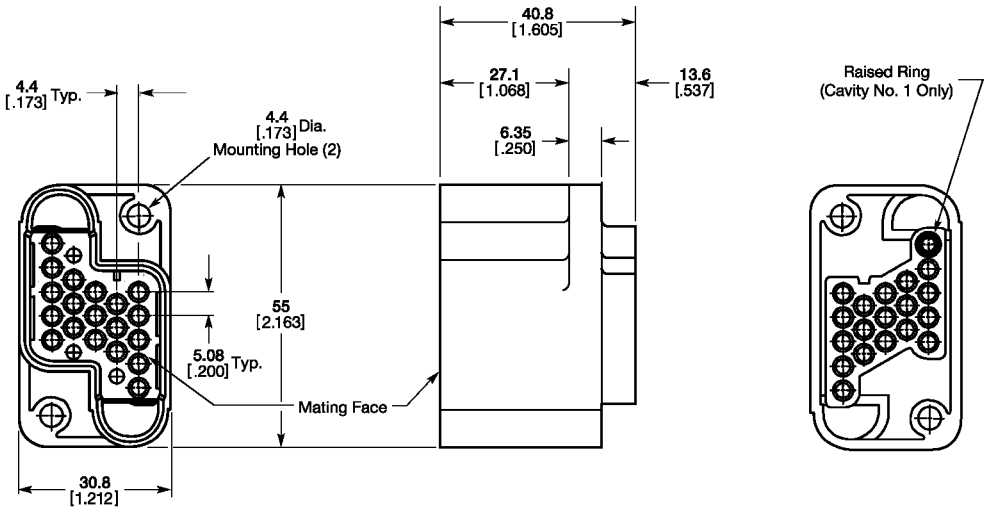
Drawer Connector Specifications (Continued)

19 Position Housings

Plug (for Sockets)



Receptacle (for Pins)



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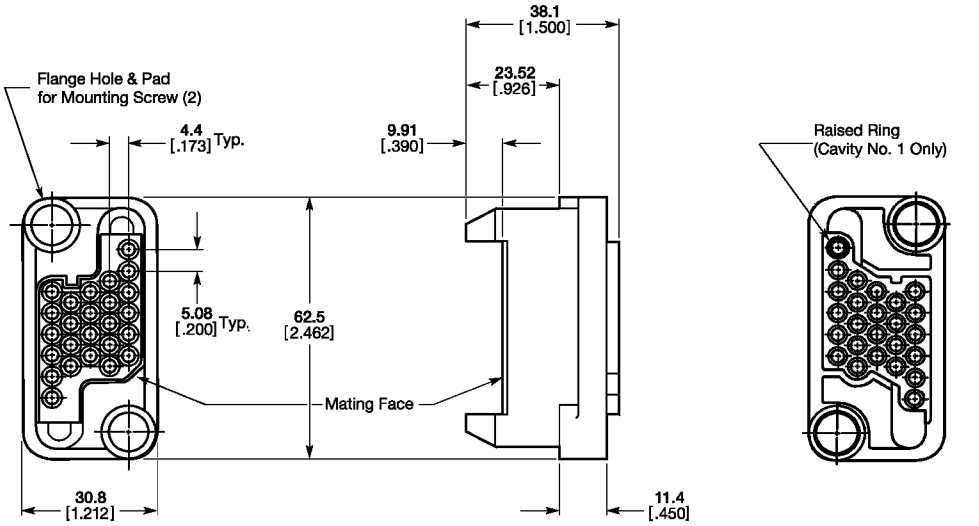
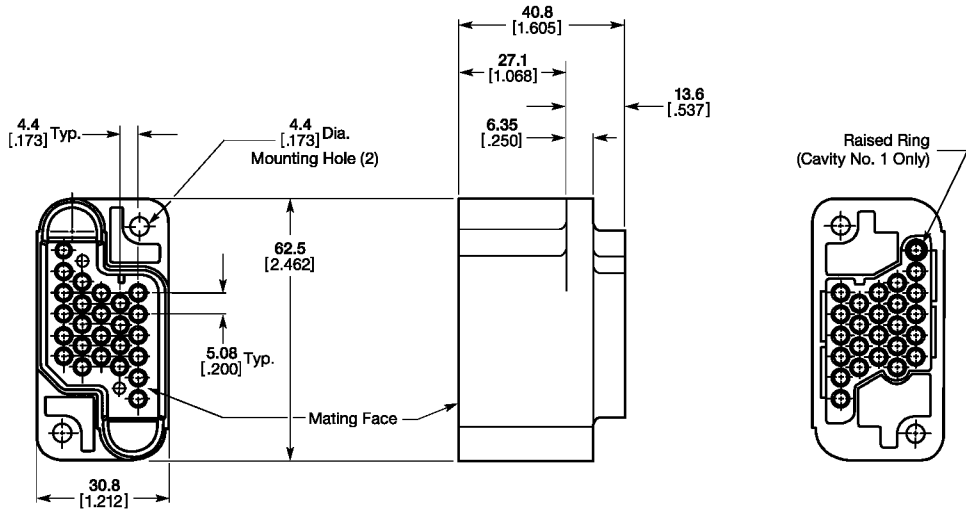
Drawer Connector Specifications (Continued)

25 Position Housings

Plug (for Sockets)



Receptacle (for Pins)



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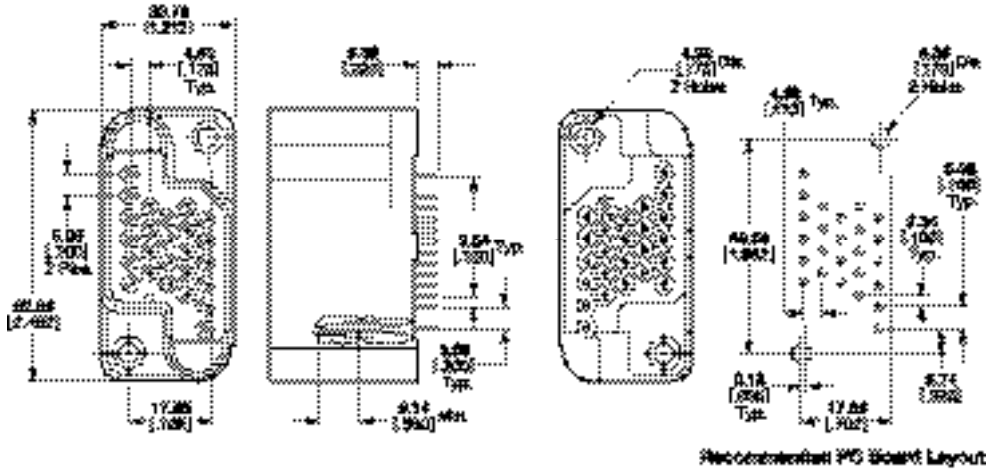
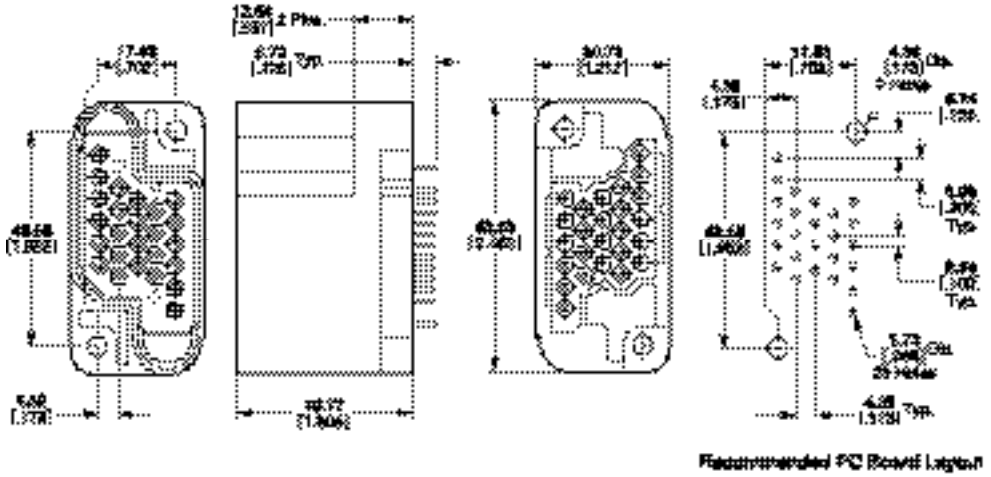
Drawer Connector Specifications (Continued)

25 Position Headers (mates with Plug Connector Part No. 211150-1)

Receptacle with ACTION PIN Contacts

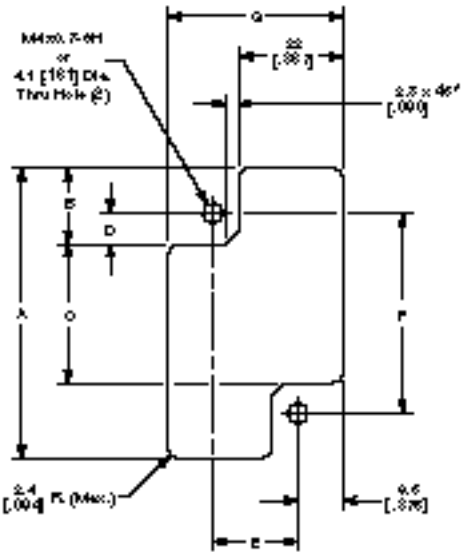


Receptacle (Posted)

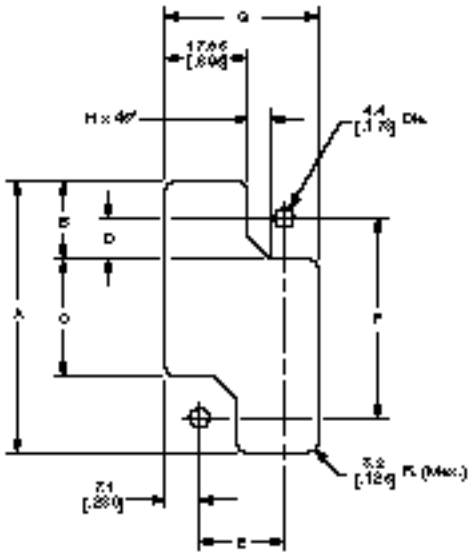


Drawer Connector Specifications (Continued)

Recommended Panel Cutouts



Recommended Panel Cutout for Plugs (Socket Housings)



Recommended Panel Cutout for Receptacles (Pin Housings)

No. of Positions		Dimensions							
		A	B	C	D	E	F	G	H
4	Plug	**45.3** 1.783	**14** .552	**17.3** .680	**4.5** .176	**17.3** .680	**26.2** 1.032	**36.3** 1.430	—
	Receptacle	**40.5** 1.595	**13.9** .547	**12.8** .502	**6.7** .265	**17.3** .680	**26.2** 1.032	**31.5** 1.240	**3.6** .140
12	Plug	**55.45** 2.183	**14** .552	**27.4** 1.080	**4.5** .176	**17.3** .680	**36.4** 1.432	**36.3** 1.430	—
	Receptacle	**50.7** 1.995	**13.9** .547	**22.9** .902	**6.7** .265	**17.3** .680	**36.4** 1.432	**31.5** 1.240	**3.6** .140
19, Power Connectors-8 & 15	Plug	**61** 2.403	**15.9** .626	**29.2** 1.150	**6.4** .251	**17.8** .702	**42** 1.652	**36.9** 1.452	—
	Receptacle	**56.3** 2.215	**15.93** .627	**24.4** .960	**8.8** .346	**17.8** .702	**42** 1.652	**32** 1.262	**4.6** .180
25	Plug	**68.7** 2.703	**15.9** .626	**36.8** 1.450	**6.4** .251	**17.8** .702	**49.6** 1.952	**36.9** 1.452	—
	Receptacle	**63.9** 2.515	**15.93** .627	**32** 1.260	**8.8** .346	**17.8** .702	**49.6** 1.952	**32** 1.262	**4.6** .180

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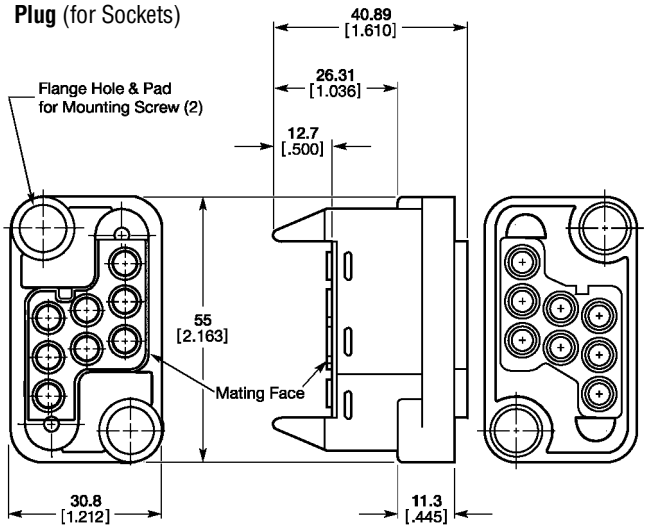
Power Drawer Connector Specifications

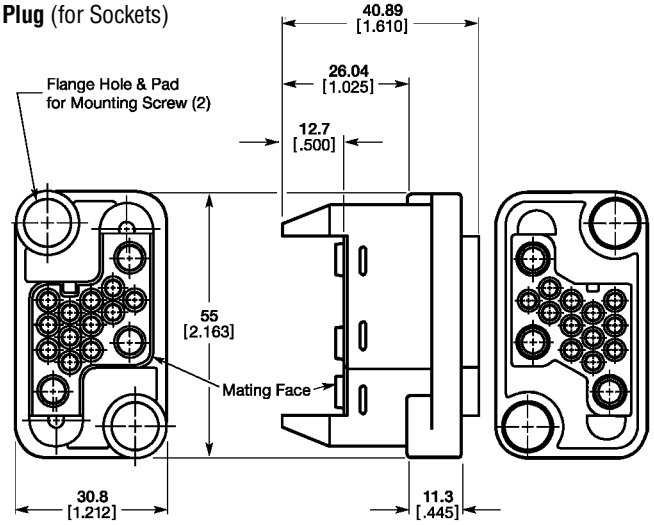
8 Position Housings
(Size 8)

Plug (for Sockets)

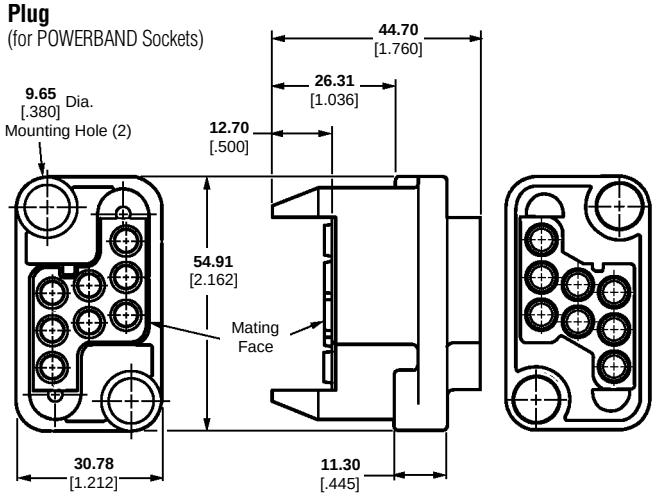


15 Position Housings
(Accept 3 Size 8 Contacts and 12 Size 16 Contacts)

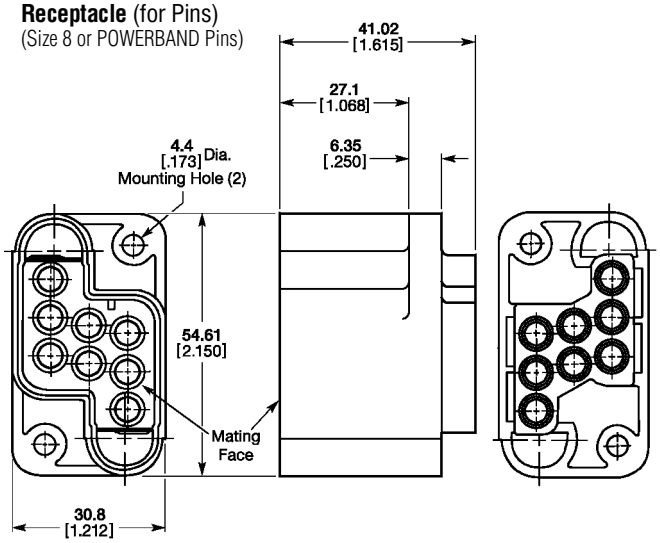
Plug (for Sockets)



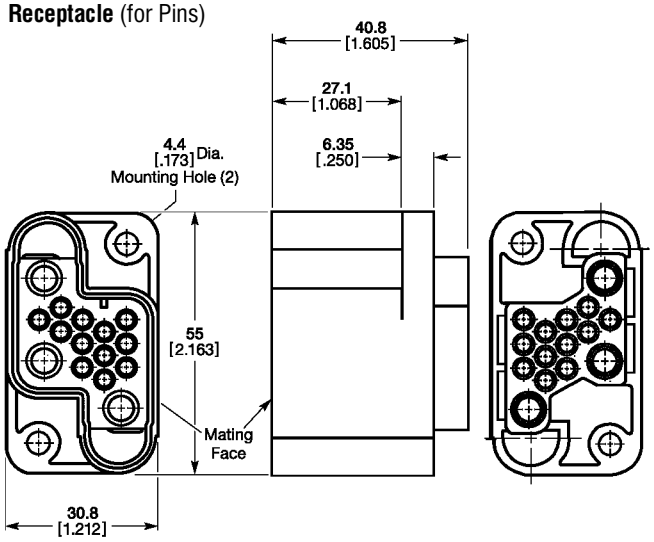
Plug
(for POWERBAND Sockets)



Receptacle (for Pins)
(Size 8 or POWERBAND Pins)



Receptacle (for Pins)



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Low Profile Drawer Connectors

18 Position Hybrid Drawer Connector Right-Angle Header Part No. 213942-1

No. of Positions	Plug (for sockets)	Receptacle		Page No.
		Header	Housing	
23	213766-1	213768-1	—	29
30	213973-1	—	213974-1	30
18*	213940-1	213942-1	—	27, 28

*5 power, 13 signal

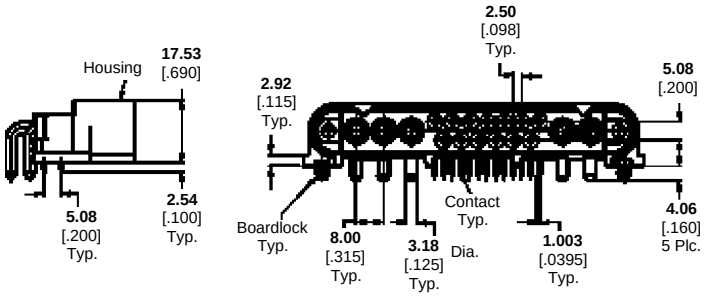
Product Facts

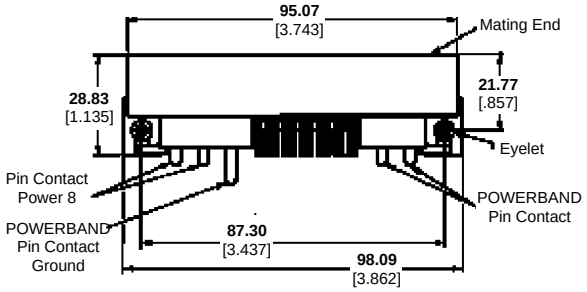
- 13 signal (Type III+)
- Two Size 8 Power—HOT PLUGGABLE! (10 amps AC)
- Three .125 POWERBAND Contacts

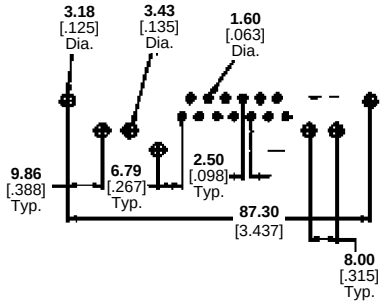
Material and Finish

Housing—Black glass-filled thermoplastic, 94V-0 rated

Contacts—Copper alloy duplex plated 0.00076 [.000030] min. gold on mating end, tin-lead on termination end, with entire contact nickel underplated







Recommended PC Board Layout

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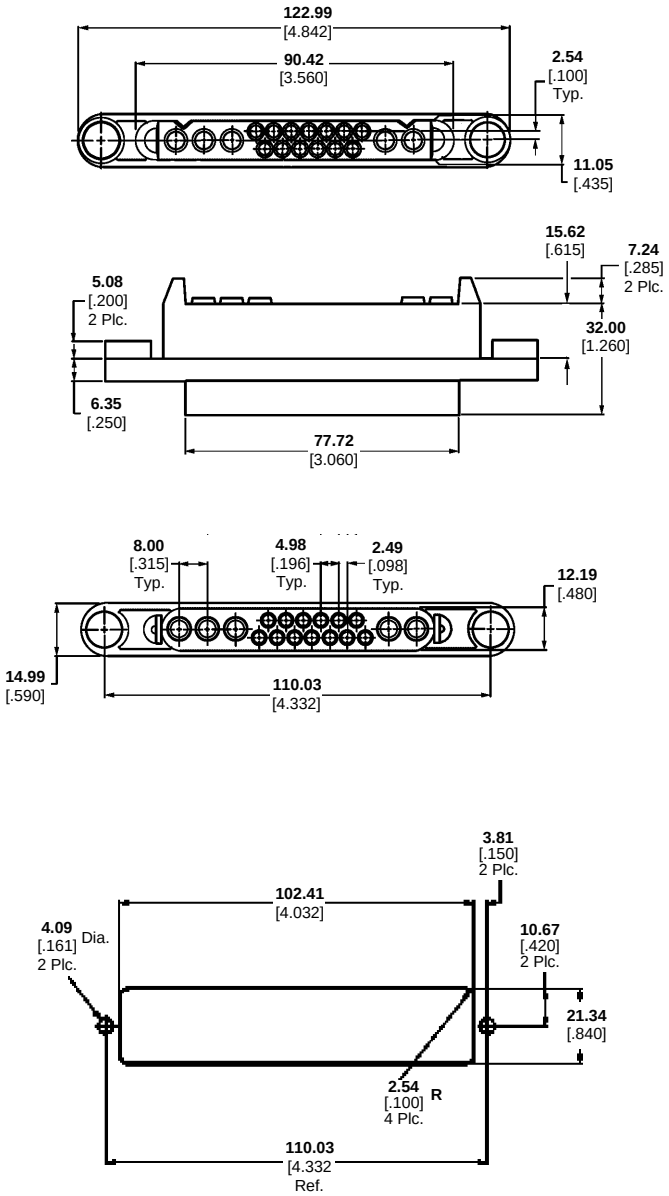
Low Profile Drawer Connectors (Continued)

18 Position Plug Housing (for Sockets) Part No. 213940-1

Material and Finish

Housing—Black glass-filled thermoplastic, 94V-0 rated



Recommended Panel Cutout

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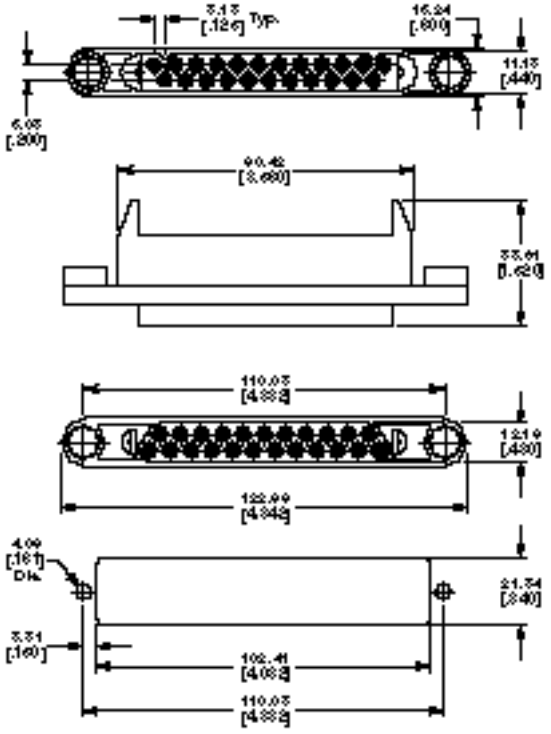
UK: 44-141-810-8967

Low Profile Drawer Connectors (Continued)

23 Position Plug Housing (for Sockets) Part No. 213766-1

Material and Finish

Housing—Black glass-filled thermoplastic, 94V-0 rated

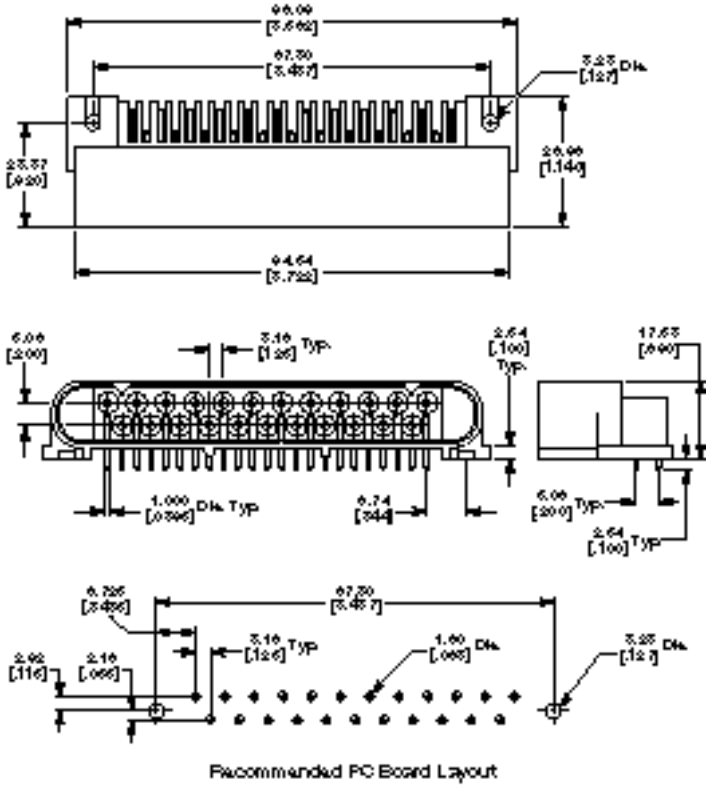


23 Position Receptacle Header Part No. 213768-1

Material and Finish

Housing—Black glass-filled thermoplastic, 94V-0 rated

Contacts—Copper alloy duplex plated 0.00076 [.000030] min. gold on mating end, tin-lead on termination end, with entire contact nickel underplated



Recommended PC Board Layout

Catalog 82045
Revised 11-03

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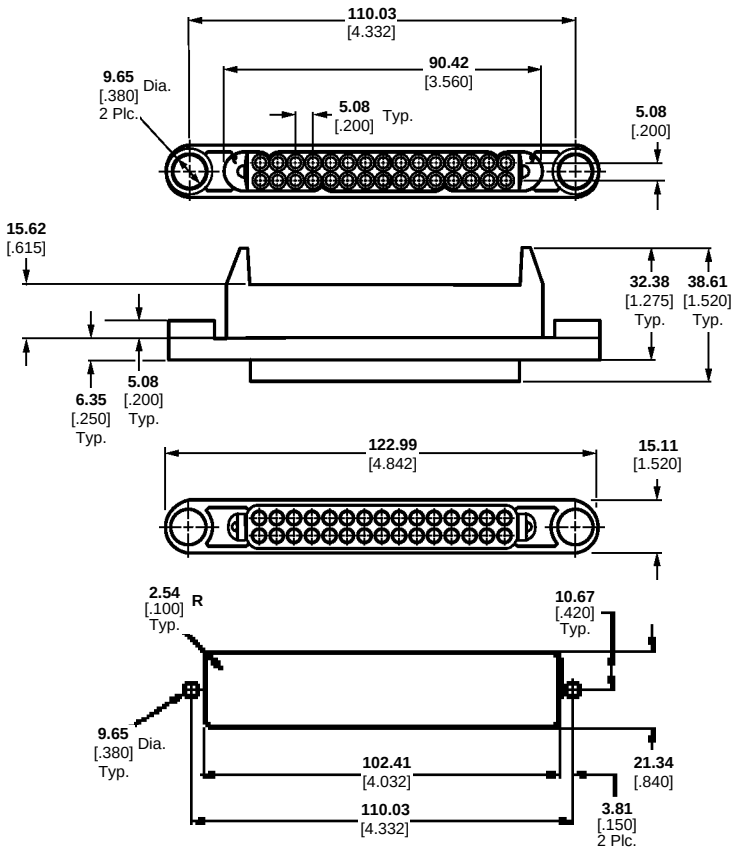
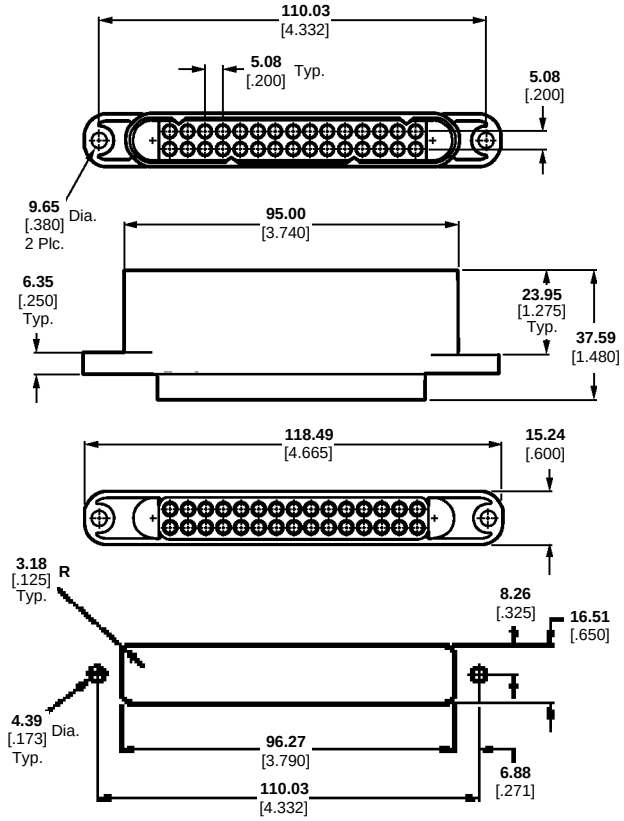
Low Profile Drawer Connectors (Continued)

30 Position Plug Housing (for Sockets) Part No. 213973-1



30 Position Receptacle Housing (for Pins) Part No. 213974-1



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Square Grid Connectors

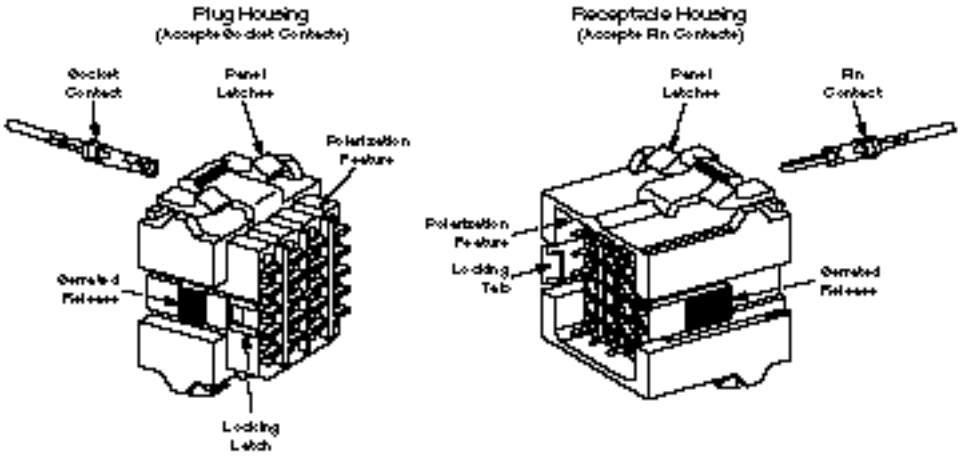
Free-Hanging and Panel Mount Connectors

Material

Red thermoplastic, 94V-0 rated

Related Product Data

Mateable PC Board Headers—page 34
Contacts—Pages 9–14
Keying Plug—Page 44
Strain Relief Kits—See below
Dimensional Specifications and Recommended Panel Cutout—Pages 32 and 33
Performance Characteristics—Page 3
Technical Documents—Page 58
Product Specification—108-10033
Application Specification—114-10040



No. of Positions	Housing Part No.*	
	Plug	Receptacle
4	207015-1	207016-1
6	207152-1	207153-1
9	207439-1	207440-1
12	207017-1	207018-1
18	207442-1	207443-1
24	207304-1	207305-1
36	207019-1	207020-1

*Housing only, order contacts separately.
See pages 9–14 for contact specifications.

Strain Relief Kits

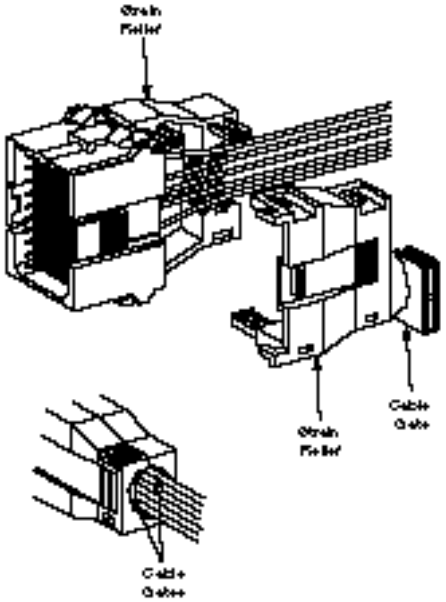
(For use with plugs and/or receptacles)

Material

Red thermoplastic, 94V-0 rated

Related Product Data

Dimensional Specifications—page 33



No. of Positions (Connector)	Cable O.D. (Max.)	Strain Relief Kit No.	
		Individual Packs	Bulk Packaging
6	**9.5** .375	207600-1	213792-1
9	**11.7** .460	207601-1	213793-1
12	**13.45** .530	207602-1	213794-1
18	**16.5** .650	207603-1	213795-1
24	**19.05** .750	207088-1	213796-1
36	**23.3** .918	207604-1	213797-1

Notes: 1. Cable gates are supplied with each strain relief kit to accommodate various cable diameters up to the maximum specified.
2. Components for all strain relief kits are packaged unassembled.

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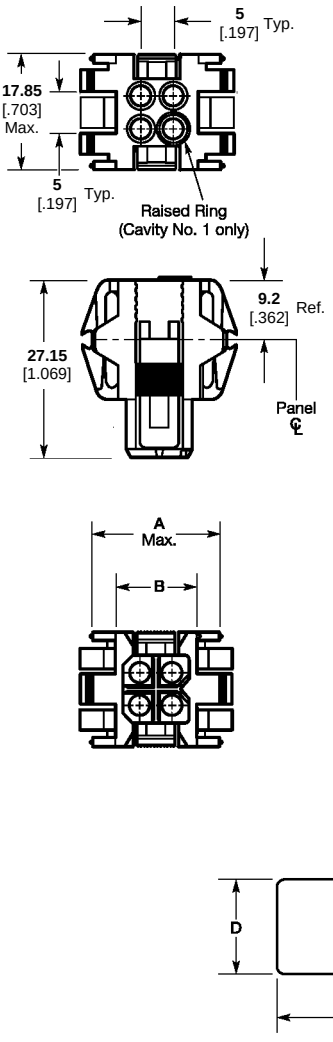
UK: 44-141-810-8967

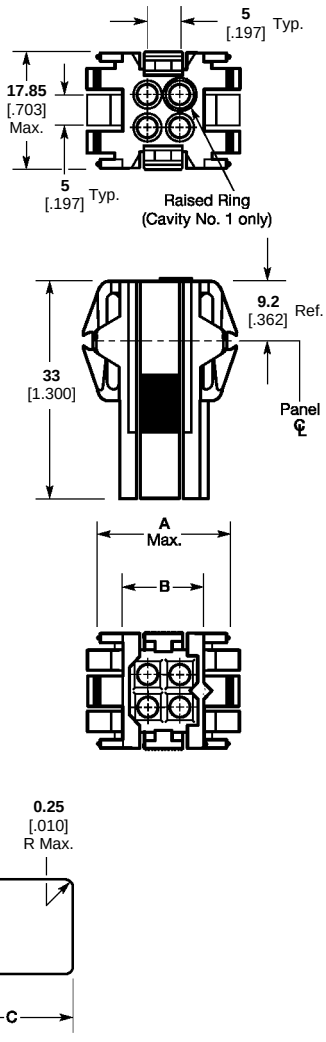
Square Grid Connector Specifications

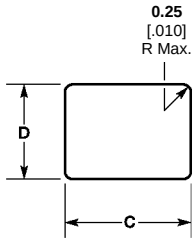
4 and 6 Position Housings

Plug (for Sockets)



Receptacle (for Pins)

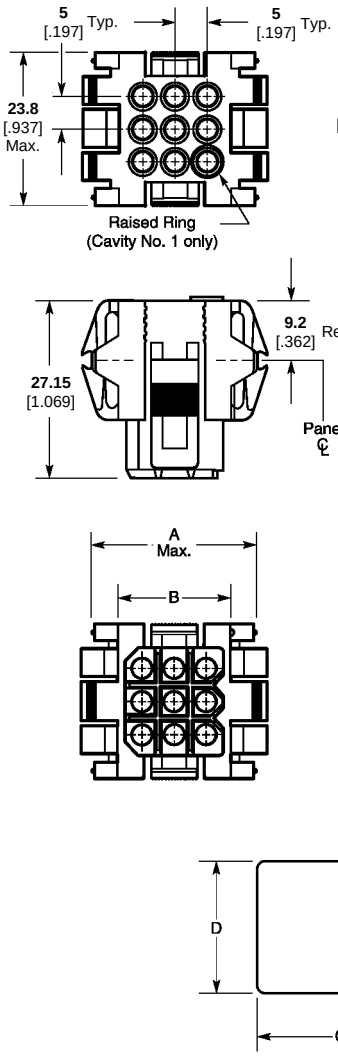




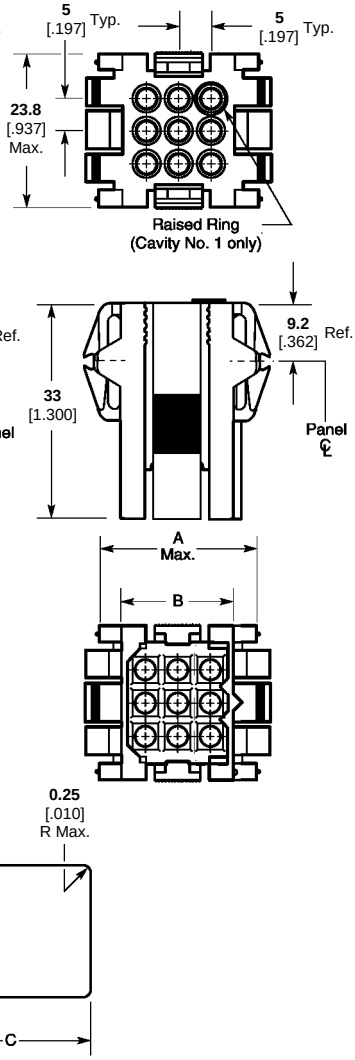
Recommended Panel Cutout
(for Plug or Receptacle)

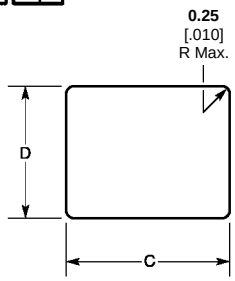
9, 12 and 18 Position Housings

Plug (for Sockets)



Receptacle (for Pins)





Recommended Panel Cutout
(for Plug or Receptacle)

No. of Positions	Connector Dimensions		Panel Cutout Dimensions	
	A	B	C	D
4	**20.1** .791	**12.6** .496	**20.57** .810	**18.1** .712
6	**25.04** .986	**17.5** .689	**25.35** .998	**18.1** .712
9	**24.8** .976	**17.5** .689	**25.35** .998	**24** .945
12	**29.8** 1.173	**22.5** .886	**30.23** 1.190	**24** .945
18	**40.45** 1.592	**32.85** 1.293	**40.77** 1.605	**24** .945

Note: Panel thickness 0.76-2.29 [.030-.090]

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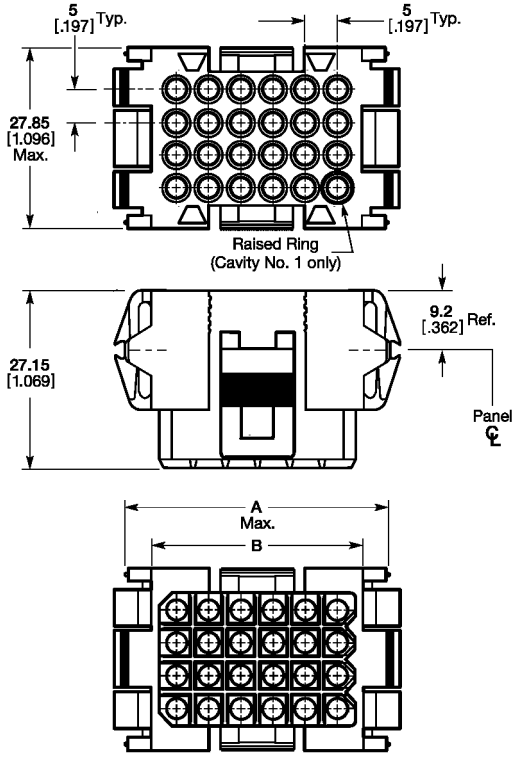
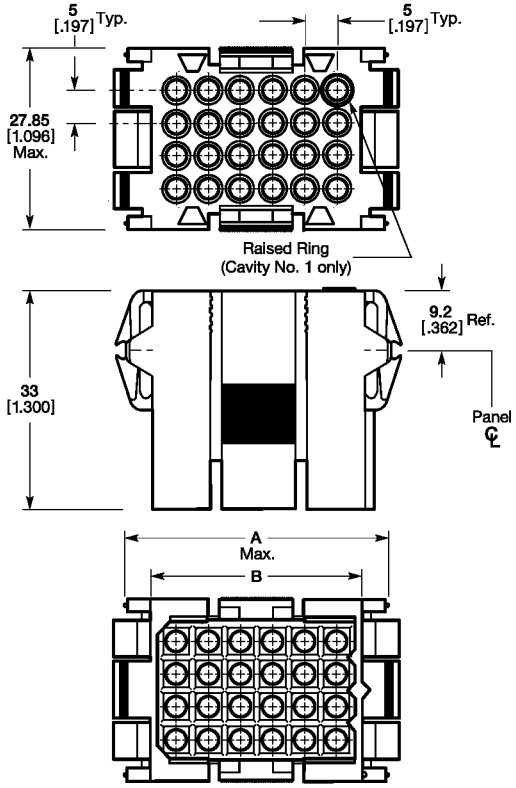
Square Grid Connector Specifications (Continued)

24 and 36 Position Housings

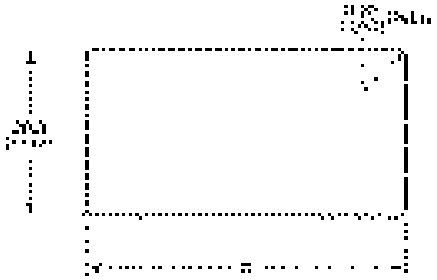
Plug (for Sockets)



Receptacle (for Pins)



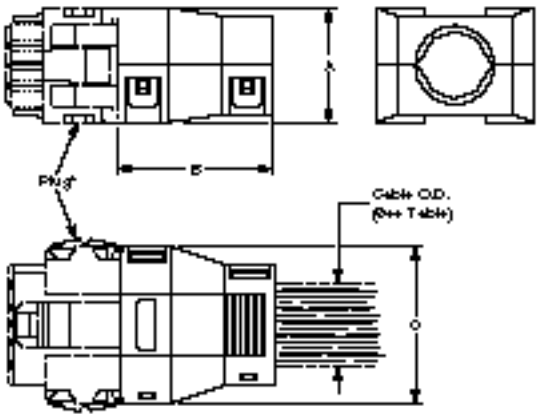
Recommended Panel Cutout (for Plug or Receptacle)



No. of Positions	Connector Dimensions A	Connector Dimensions B	Panel Cutout Dimensions C
24	**40.45** 1.592	**32.85** 1.293	**40.77** 1.605
36	**55.45** 2.183	**47.85** 1.885	**55.75** 2.195

Note: Panel thickness 0.76-2.29 [.030-.090]

Strain Relief Kits (for 6, 9, 12, 18, 24 and 36 Position Connectors)



No. of Positions	Dimensions A	Dimensions B	Dimensions C	Cable O.D. (Max.)
6	**17.75** .700	**25.53** 1.005	**22.75** .896	**9.5** .375
9	**23.9** .940	**32.4** 1.275	**22.75** .896	**11.7** .460
12	**23.9** .940	**32.4** 1.275	**27.58** 1.086	**13.45** .530
18	**23.9** .940	**38.1** 1.500	**38.1** 1.500	**16.5** .650
24	**27.94** 1.100	**38.1** 1.500	**38.1** 1.500	**19.05** .750
36	**27.94** 1.100	**38.1** 1.500	**53.1** 2.090	**23.3** .918

*Plug shown for illustration purposes only. Strain Relief Kits can be used on either plug or receptacle.

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UK: 44-141-810-8967

Square Grid Connectors

PC Board Mount Headers

Material and Finish

Housing—Red thermoplastic, 94V-0 rated

Pin Contacts—Copper alloy, plated tin or gold duplex

Socket Contacts—Phosphor bronze, plated tin or gold duplex

Related Product Data

Mateable Free-Hanging Connectors—Page 31
(Pin and Socket Headers do not mate.)

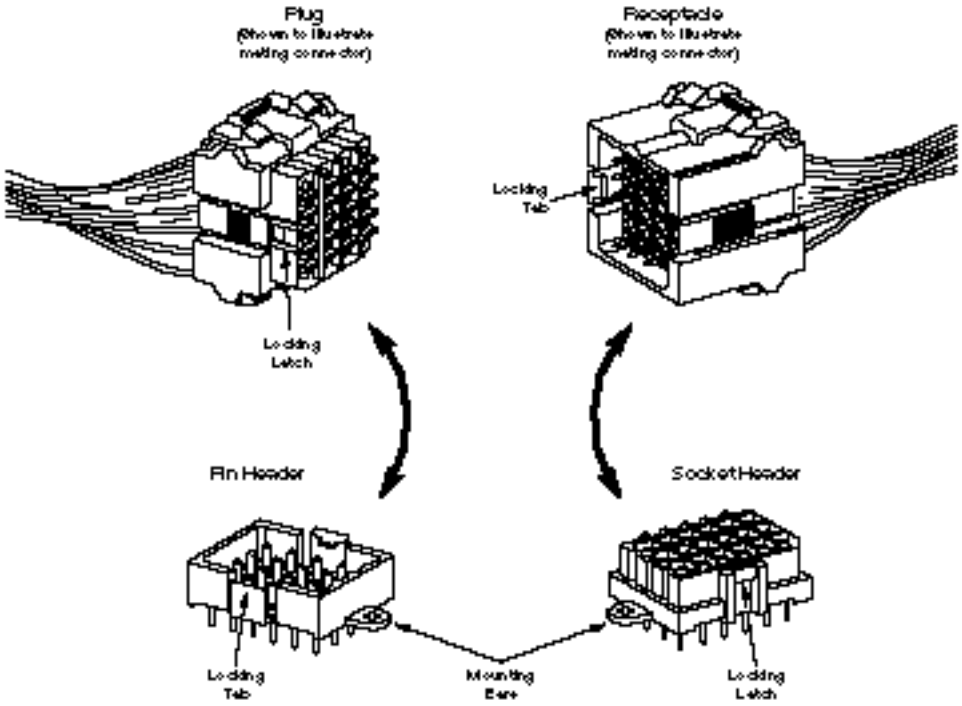
Dimensional Specifications and Recommended PC Board Layout—Pages 35–38

Performance Characteristics—Page 3

Technical Documents—Page 58

Product Specification—108-10033

Application Specification—114-10040



No. of Positions	Contact Plating	Pin Header Part No.		Mates with Plug Part No. (Page 31)	Socket Header Part No.		Mates with Receptacle Part No. (Page 31)
		With Mounting Ears	Without Mounting Ears		With Mounting Ears	Without Mounting Ears	
4	Tin	207119-1	207119-2	207015-1	207496-1	207496-2	207016-1
	Gold*	207119-3	207119-4		207496-3	207496-4	
6	Tin	207158-1	207158-2	207152-1	207524-1	207524-2	207153-1
	Gold*	207158-3	207158-4		207524-3	207524-4	
9	Tin	207441-1	207441-2	207439-1	207526-1	207526-2	207440-1
	Gold*	207441-3	207441-4		207526-3	207526-4	
12	Tin	207120-1	207120-2	207017-1	207528-1	207528-2	207018-1
	Gold*	207120-3	207120-4		207528-3	207528-4	
18	Tin	207444-1	207444-2	207442-1	207530-1	207530-2	207443-1
	Gold*	207444-3	207444-4		207530-3	207530-4	
24	Tin	206763-1	206763-2	207304-1	207532-1	207532-2	207305-1
	Gold*	206763-3	206763-4		207532-3	207532-4	
36	Tin	207121-1	—	207019-1	207534-1	207534-2	207020-1
	Gold*	207121-3	207121-4		207534-3	207534-4	

*Duplex plated 0.00076 [.000030] gold on mating end, tin-lead on termination end, with entire contact nickel underplated.
Note: Pin and Socket Headers do not mate.

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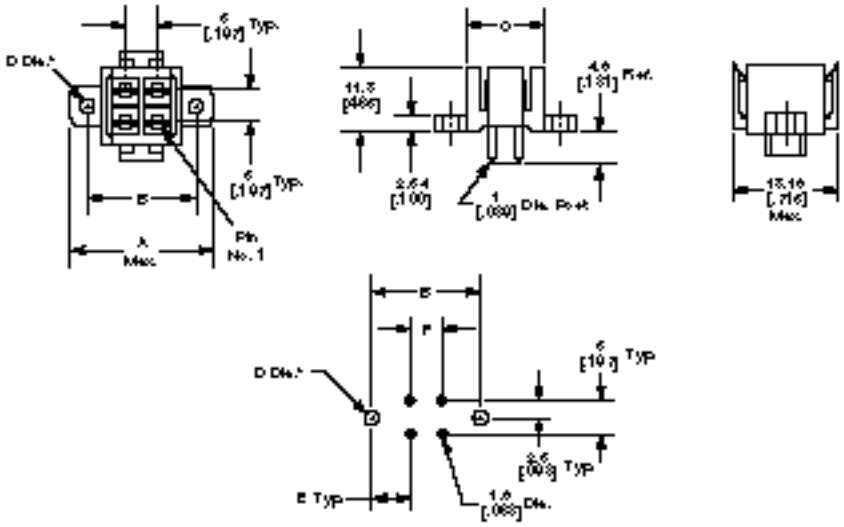
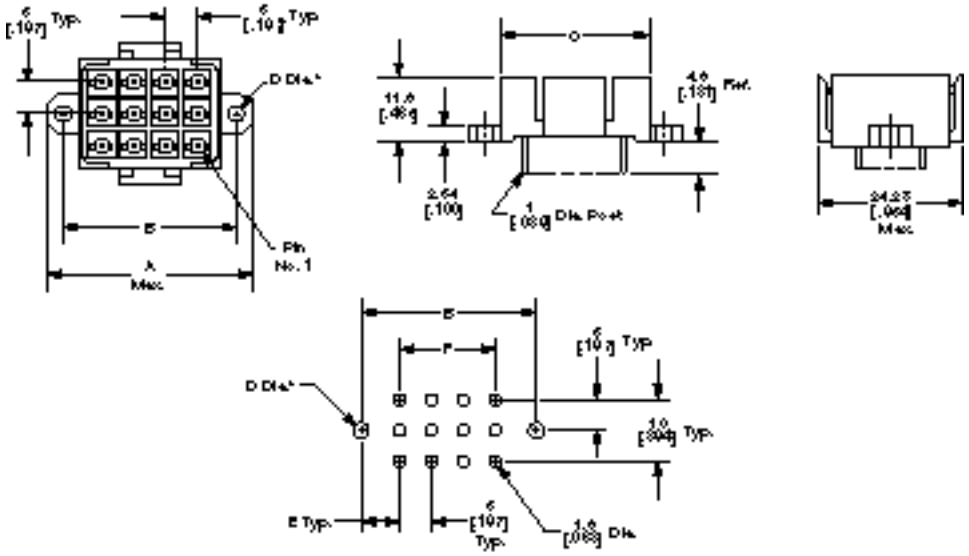
Square Grid Pin Header Specifications

4 and 6 Position Headers



Recommended PC Board Layout

9, 12 and 18 Position Headers



Recommended PC Board Layout

No. of Positions	Header Dimensions				PC Board Layout Dimensions			
	A	B	C	D*	B	D*	E	F
4	**22.61** .890	**17.4** .685	**12.7** .500	**2.65** .104	**17.4** .685	**2.65** .104	**6.2** .244	**5** .197
6	**27.69** 1.090	**22.4** .882	**17.6** .693	**2.65** .104	**22.4** .882	**2.65** .104	**6.2** .244	**10** .394
9	**27.69** 1.090	**22.4** .882	**17.78** .700	**2.65** .104	**22.4** .882	**2.65** .104	**6.2** .244	**10** .394
12	**32.5** 1.280	**27.3** 1.075	**22.61** .890	**2.65** .104	**27.3** 1.075	**2.65** .104	**6.2** .244	**15** .591
18	**47.32** 1.863	**40.6** 1.598	**32.85** 1.293	**3.3** .130	**40.6** 1.598	**3.3** .130	**7.8** .307	**25** .984

*__D__ Dia.—2.65 [.104] for No. 2 screw; 3.3 [.130] for No. 4 screw.

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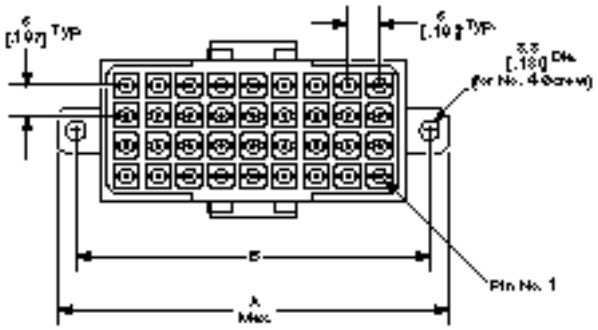
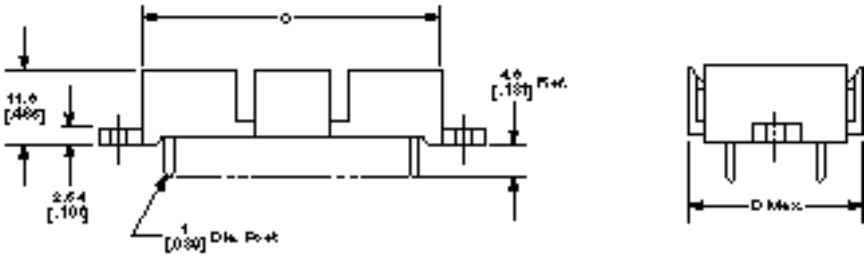
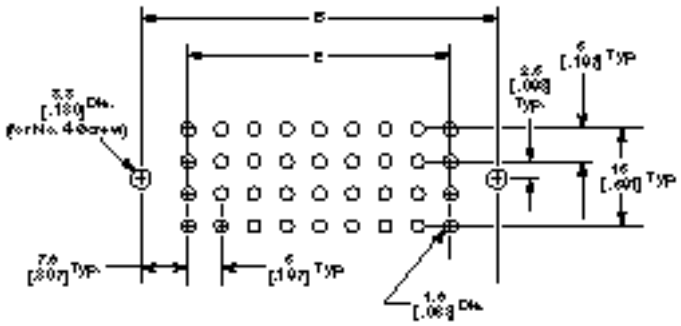
Square Grid Pin Header Specifications (Continued)

24 and 36 Position Headers







Recommended PC Board Layout

No. of Positions	Header Dimensions				PC Board Layout Dimensions	
	A	B	C	D	B	E
24	**47.32** 1.863	**40.6** 1.598	**32.85** 1.293	**29.36** 1.156	**40.6** 1.598	**25** .984
36	**62.31** 2.453	**55.58** 2.188	**48.01** 1.890	**29.87** 1.176	**55.58** 2.188	**40** 1.575

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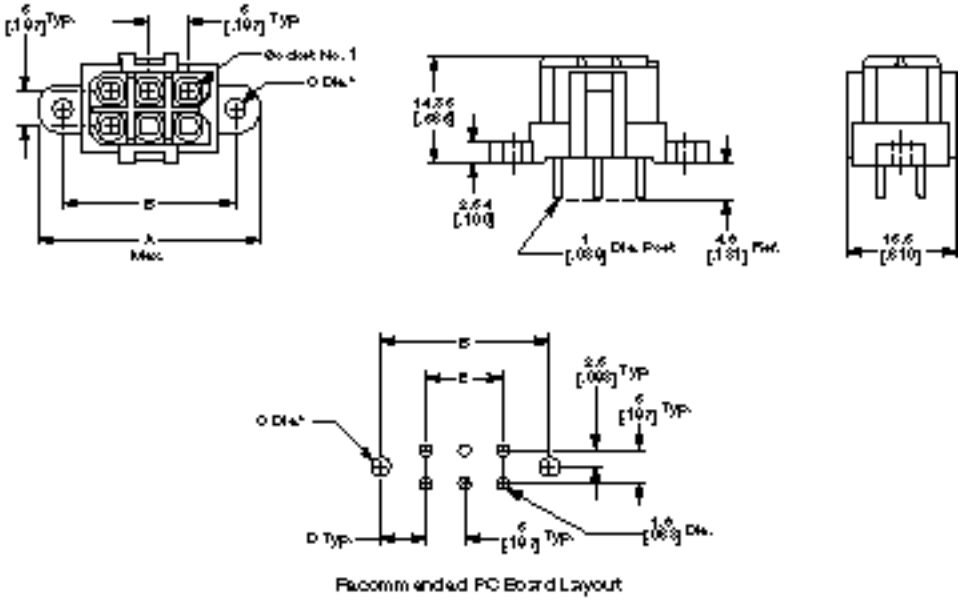
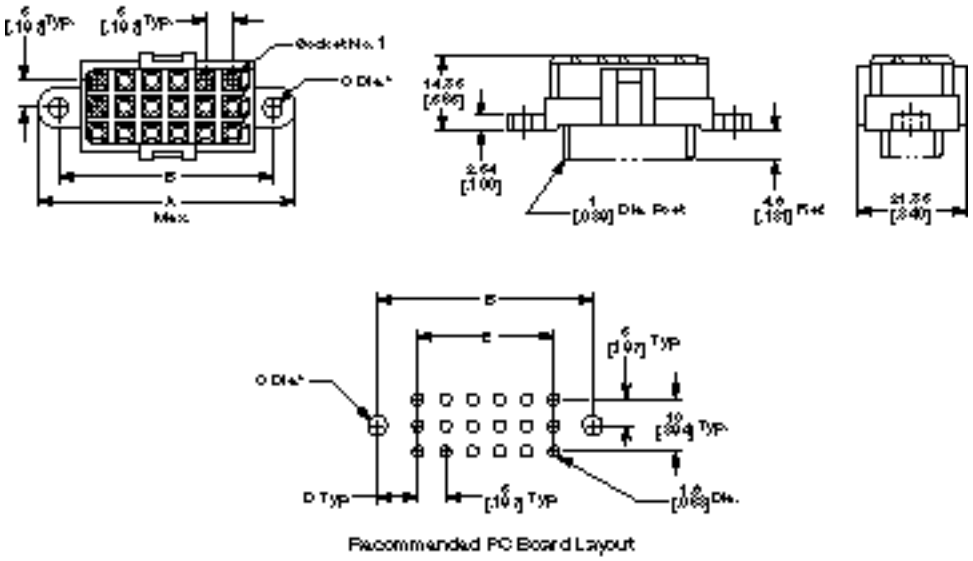
Square Grid Socket Header Specifications

4 and 6 Position Headers



9, 12 and 18 Position Headers



No. of Positions	Header Dimensions			PC Board Layout Dimensions			
	A	B	C*	B	C*	D	E
4	**22.61** .890	**17.4** .685	**2.65** .104	**17.4** .685	**2.65** .104	**6.2** .244	**5** .197
6	**27.69** 1.090	**22.4** .882	**2.65** .104	**22.4** .882	**2.65** .104	**6.2** .244	**10** .394
9	**27.69** 1.090	**22.4** .882	**2.65** .104	**22.4** .882	**2.65** .104	**6.2** .244	**10** .394
12	**32.5** 1.280	**27.3** 1.075	**2.65** .104	**27.3** 1.075	**2.65** .104	**6.2** .244	**15** .591
18	**47.32** 1.863	**40.6** 1.598	**3.3** .130	**40.6** 1.598	**3.3** .130	**7.8** .307	**25** .984

*__C__ Dia.—2.65 [.104] for No. 2 screw; 3.3 [.130] for No. 4 screw.

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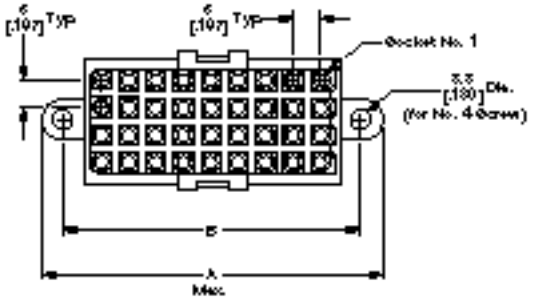
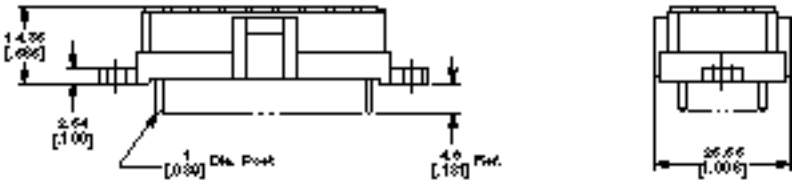
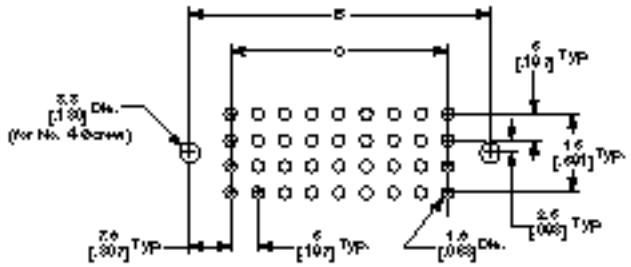
Square Grid Socket Header Specifications (Continued)

24 and 36 Position Headers







Recommended PC Board Layout

No. of Positions	Header Dimensions		PC Board Layout Dimensions	
	A	B	B	C
24	**47.32** 1.863	**40.6** 1.598	**40.6** 1.598	**25** .984
36	**62.31** 2.453	**55.58** 2.188	**55.58** 2.188	**40** 1.575

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Japan: 81-44-844-8013
UK: 44-141-810-8967

In-Line Connectors, 5 [.197] Centerline

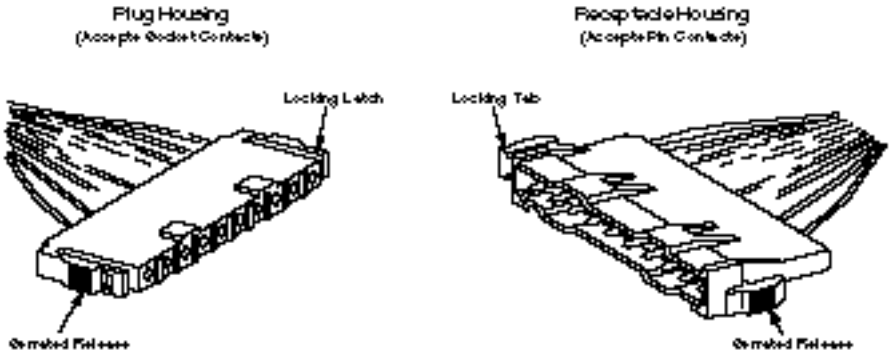
Free-Hanging Connectors

Material

Red thermoplastic, 94V-0 rated

Related Product Data

Mateable PC Board Mount Headers—Pages 41 and 48-51
Contacts—Pages 9–14
Keying Plug—Page 44
Dimensional Specifications—Page 40
Performance Characteristics—Page 3
Technical Documents—Page 58
Product Specification—108-10033
Application Specification—114-10040



No. of Positions	Housing Part No.*	
	Plug	Receptacle
1 (Positive Latch)	207535-1**	207535-1**
1 (Breakaway Latch)	211076-1**	211076-1**
3	207360-1	207359-1
6	207377-1	207376-1
10	207396-1	207397-1
16	207542-1	207543-1

*Housing only, order contacts separately. See pages 9–14 for contact specifications.
**Hermaphroditic housing accepts pins or sockets and mates with itself.
Note: 1-Position Housings with Positive Latch NOT designed to be unmated; Breakaway Latch designed to be unmated.

1 position Housing (Breakaway Latch shown)

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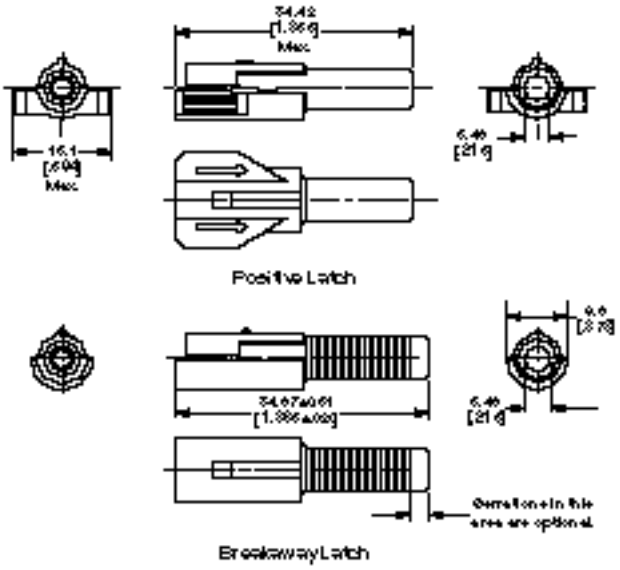
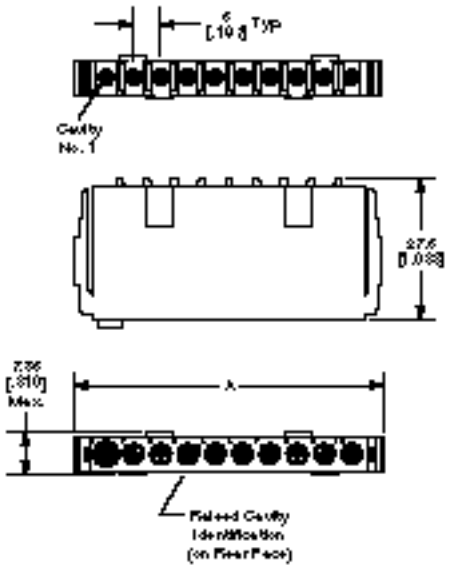
In-Line Connector Specifications, 5 [.197] Centerline

Single Position Hermaphroditic Housings

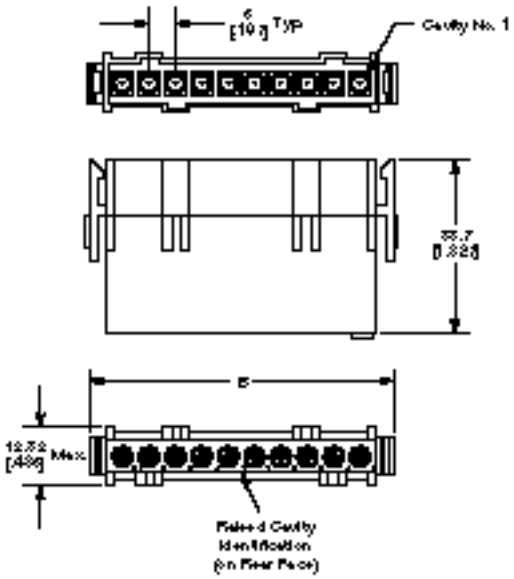


6, 10 and 16 Position Housings

Plug (for Sockets)



Receptacle (for Pins)

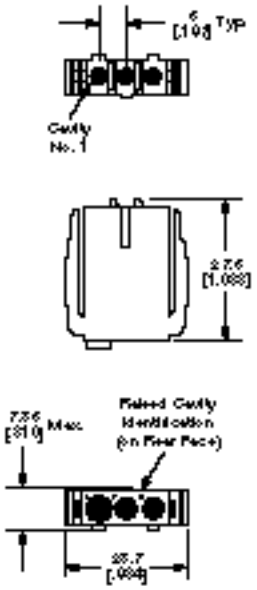


No. of Positions	Dimensions	
	A	B
6	**38.7** 1.524	**41.3** 1.625
10	**58.7** 2.312	**61.3** 2.413
16	**89.79*** 3.535	**91.19** 3.59

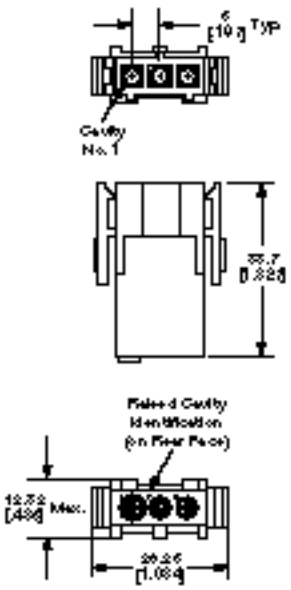
*A Dim. is Max. for 16-position housing.

3 Position Housings

Plug (for Sockets)



Receptacle (for Pins)



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UK: 44-141-810-8967

In-Line Connectors, 5 [.197] Centerline

PC Board Mount Headers

Material and Finish

Housing—Red thermoplastic, 94V-0 rated

Pin Contacts—Copper alloy, plated tin or gold duplex

Socket Contacts—Phosphor bronze, plated tin or gold duplex

Related Product Data

Mateable Free-Hanging Connectors—Page 39 (Pin and Socket Headers do not mate.)

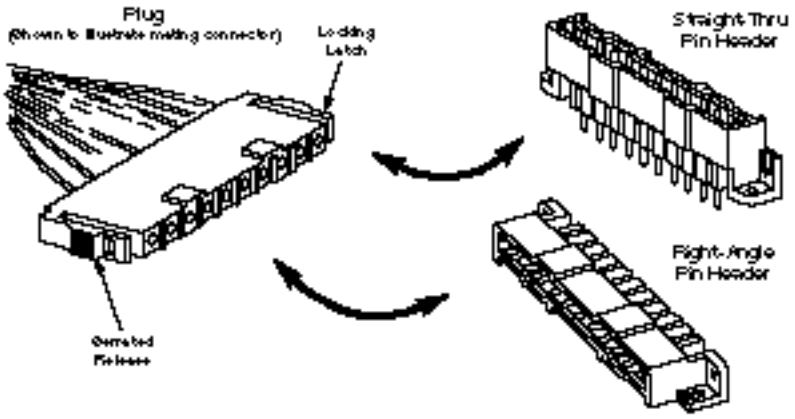
Dimensional Specifications and Recommended PC Board Layout—Pages 42, 43

Performance Characteristics—Page 3

Technical Documents—Page 58

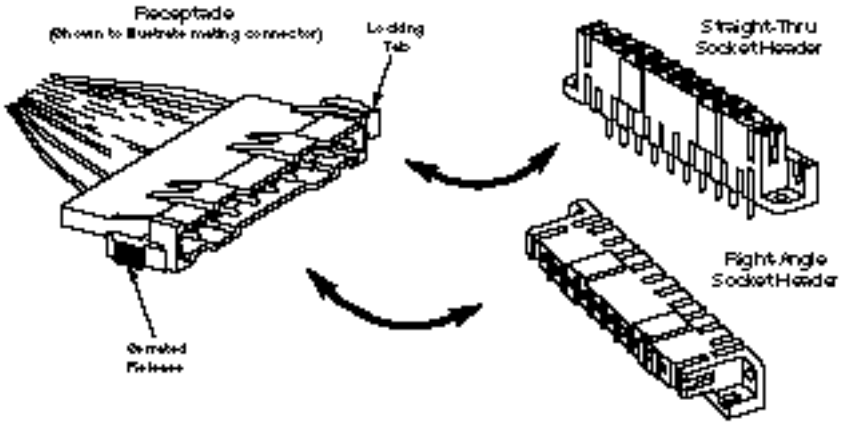
Product Specification—108-10033

Application Specification—114-10040



No. of Positions	Contact Plating	Pin Header Part No.		Mates with Plug Part No. (Page 39)
		Straight-Thru	Right-Angle	
3	Tin	207365-1	207541-1	207360-1
	Gold*	207365-3	207541-3	
6	Tin	207583-1	207378-1	207377-1
	Gold*	207583-3	207378-3	
10	Tin	207584-1	207398-1	207396-1
	Gold*	207584-3	207398-3	
16	Tin	207599-1	207544-1	207542-1
	Gold*	207599-3	207544-3	

*Duplex plated 0.00076 [.000030] gold on mating end, tin-lead on termination end, with entire contact nickel underplated.
Note: Pin and Socket Headers do not mate.



No. of Positions	Contact Plating	Socket Header Part No.		Mates with Receptacle Part No. (Page 39)
		Straight-Thru	Right-Angle	
3	Tin	207609-1	207608-1	207359-1
	Gold*	207609-3	207608-3	
6	Tin	207611-1	207610-1	207376-1
	Gold*	207611-3	207610-3	
10	Tin	207613-1	207612-1	207397-1
	Gold*	207613-3	207612-3	
16	Tin	207615-1	207614-1	207543-1
	Gold*	207615-3	207614-3	

*Duplex plated 0.00076 [.000030] gold on mating end, tin-lead on termination end, with entire contact nickel underplated.
Note: Pin and Socket Headers do not mate.

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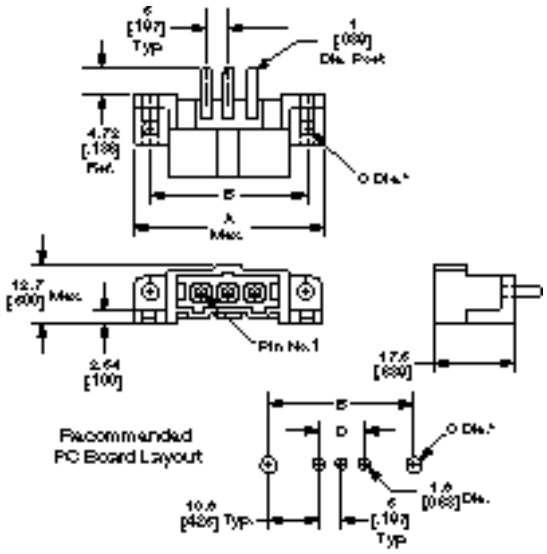
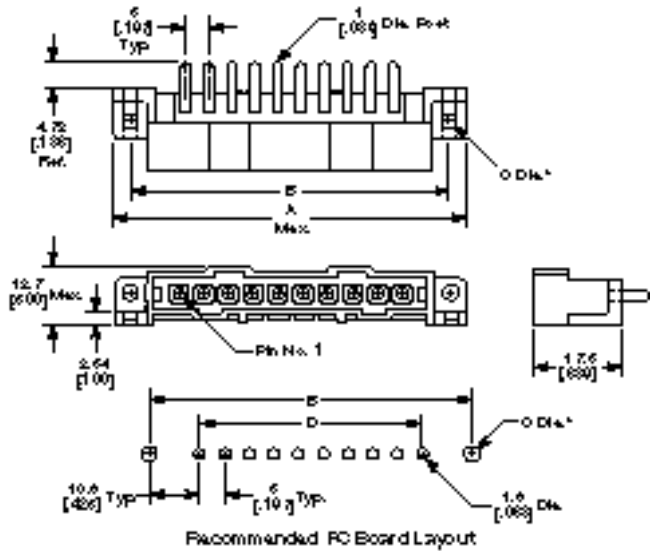
In-Line Pin Header Specifications, 5 [.197] Centerline

Straight-Thru

3 Position Header

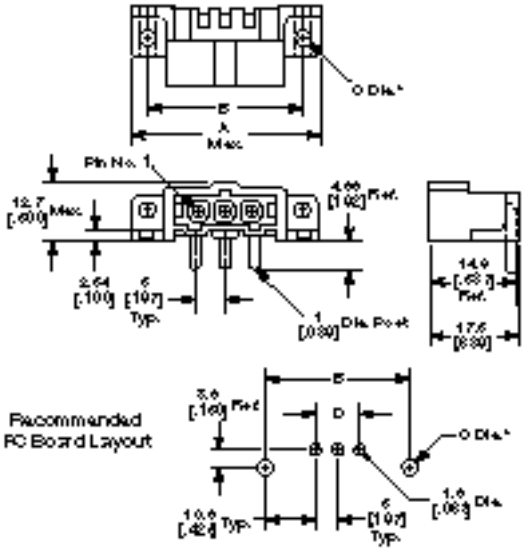


6, 10 and 16 Position Headers

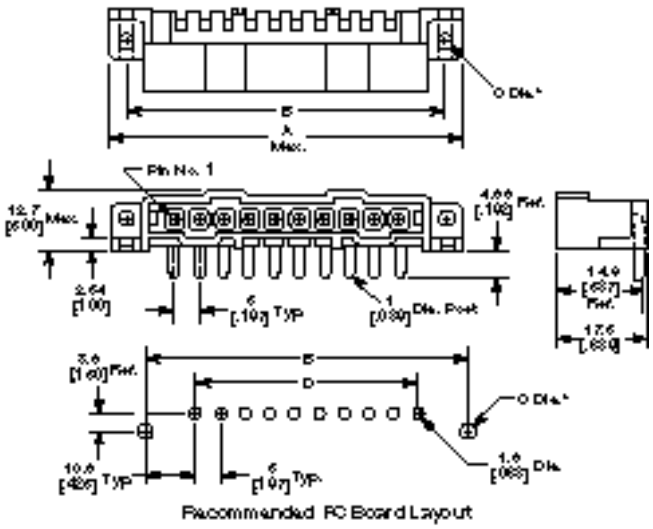


Right-Angle

3 Position Header



6, 10 and 16 Position Headers



No. of Positions	Header Dimensions			PC Board Layout Dimensions		
	A	B	C*	B	C*	D
3	**36.86** 1.451	**31.6** 1.244	**2.65** .104	**31.6** 1.244	**2.65** .104	**10** .394
6	**51.87** 2.042	**46.6** 1.834	**2.65** .104	**46.6** 1.834	**2.65** .104	**25** .984
10	**71.86** 2.829	**66.6** 2.622	**2.85** .112	**66.6** 2.622	**2.85** .112	**45** 1.772
16	**102.64** 4.041	**96.6** 3.803	**2.85** .112	**96.6** 3.803	**2.85** .112	**75** 2.953

*__C__ Dia.—2.65 [.104] for No. 2 screw; 2.85 [.112] for No. 3 screw.

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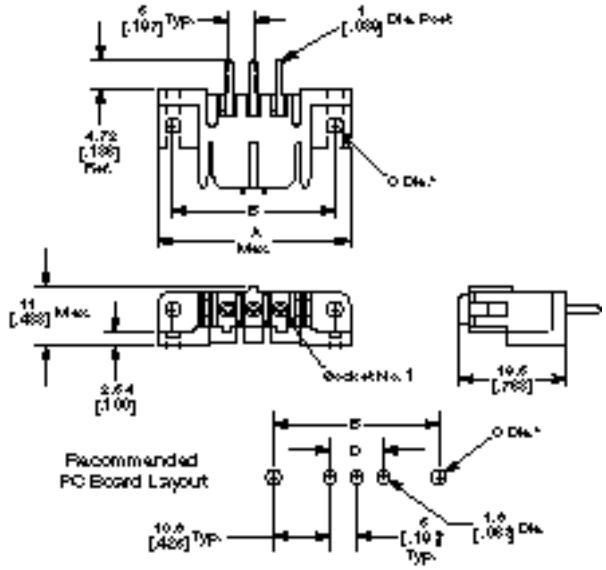
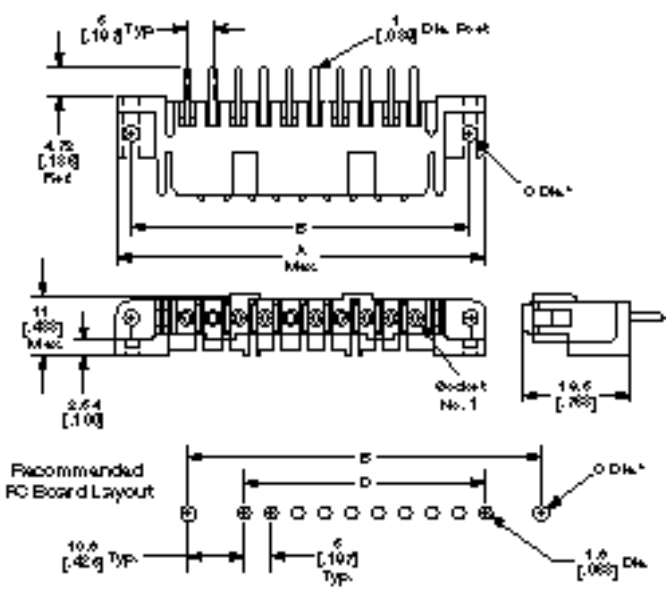
In-Line Socket Header Specifications, 5 [.197] Centerline

Straight-Thru

3 Position Header

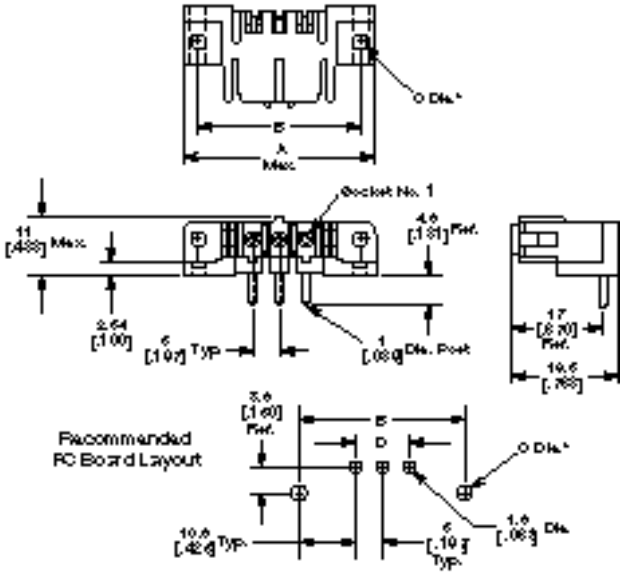


6, 10 and 16 Position Headers

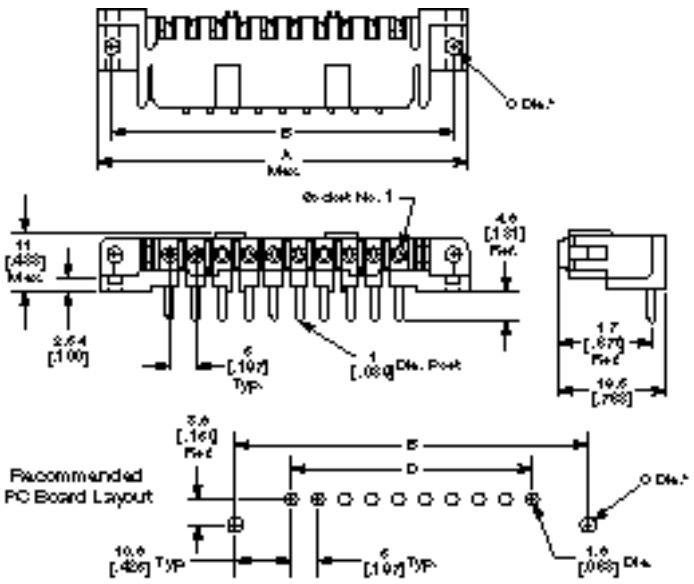


Right-Angle

3 Position Header



6, 10 and 16 Position Headers



No. of Positions	Header Dimensions			PC Board Layout Dimensions		
	A	B	C*	B	C*	D
3	**36.55** 1.439	**31.6** 1.244	**2.65** .104	**31.6** 1.244	**2.65** .104	**10** .394
6	**51.59** 2.031	**46.6** 1.834	**2.65** .104	**46.6** 1.834	**2.65** .104	**25** .984
10	**71.6** 2.819	**66.6** 2.622	**2.85** .112	**66.6** 2.622	**2.85** .112	**45** 1.772
16	**101.78** 4.007	**96.6** 3.803	**2.85** .112	**96.6** 3.803	**2.85** .112	**75** 2.953

*C Dia.—2.65 [.104] for No. 2 screw; 2.85 [.112] for No. 3 screw.

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UK: 44-141-810-8967

In-Line Connectors, 5.08 [.200] Centerline

Free-Hanging Connector and PC Board Mount Pin Header

Material and Finish

Connector

Red thermoplastic, 94V-0 rated

Header

Housing—Red thermoplastic, 94V-0 rated

Contact—Copper alloy, plated tin or gold duplex

Related Product Data

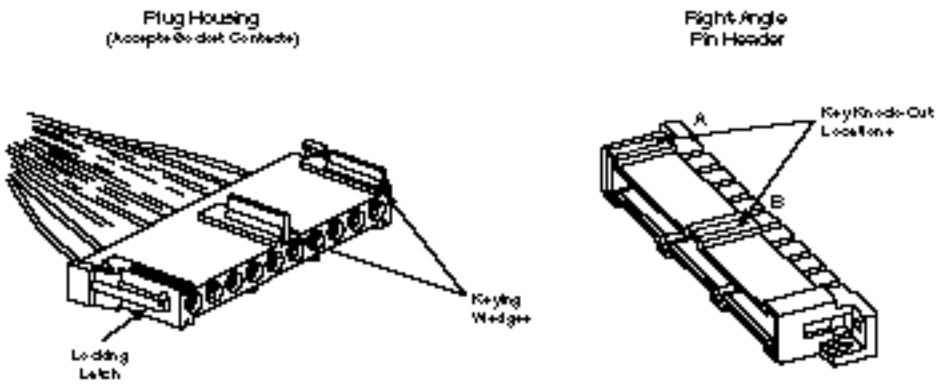
Contacts—Pages 9–14

Keying Plug—See Below

Dimensional Specifications and Recommended PC Board Layout—Pages 45–47

Performance Characteristics—Page 3

Technical Documents—Page 58



No. of Positions	In-Line Connector Plug Part No.*	Right-Angle Pin Header		
		Contact Plating	Standard Part No.	Keyed Part No.
6	208117-1	Tin	208116-1***	—
10	208404-1	Tin	208403-1	1-208403-1[1], 2-208403-1[2]
19	208100-1	Tin	208099-1	—
		Gold**	212630-1	—

*Housing only, order contacts separately. See pages 9–14 for contact specifications.

**Duplex plated 0.00076 [.000030] gold on mating end, tin-lead on termination end, with entire contact nickel underplated.

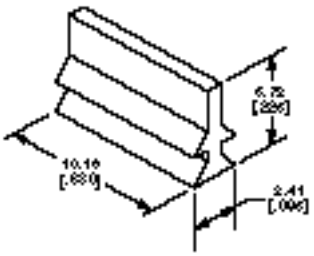
***Longer tail version also available.

[1]Location A knocked out.

[2]Location B knocked out.

Keying Wedge Part No. 208400-1

(for use with In-Line Plug Connectors, above)



Keying Plugs

Keying Plugs

(for use with all types)

Material

Nylon

Related Product Data

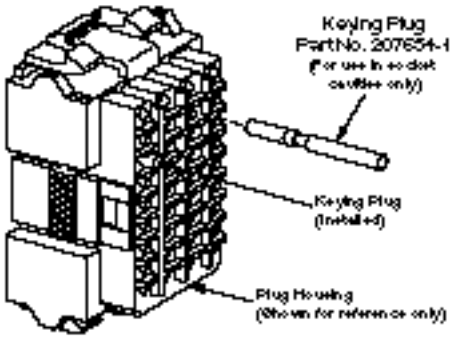
Used with:

Square Grid Connectors—Pages 31–34

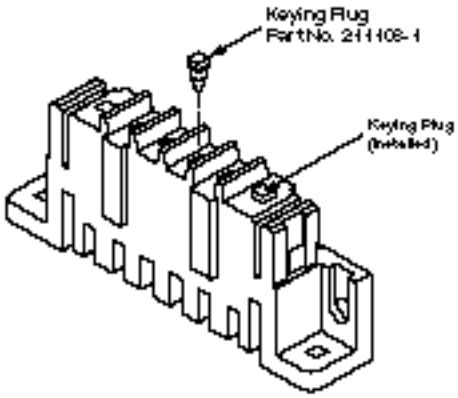
In-Line Connectors—Pages 39–41

Drawer Connectors—Pages 18, 19

For Plug Housings



For Socket Headers



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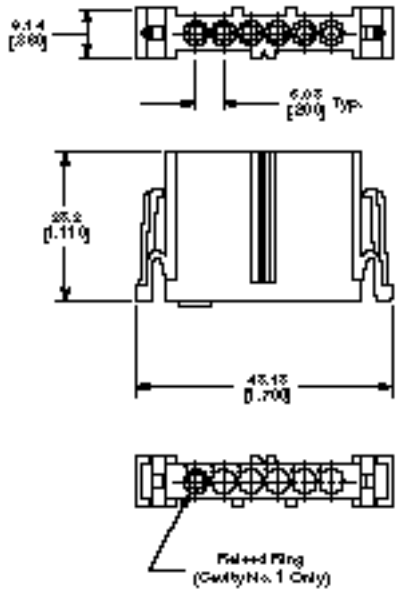
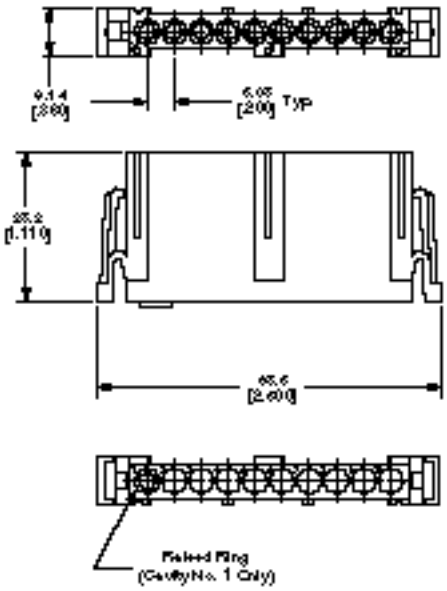
In-Line Connector Specifications, 5.08 [.200] Centerline

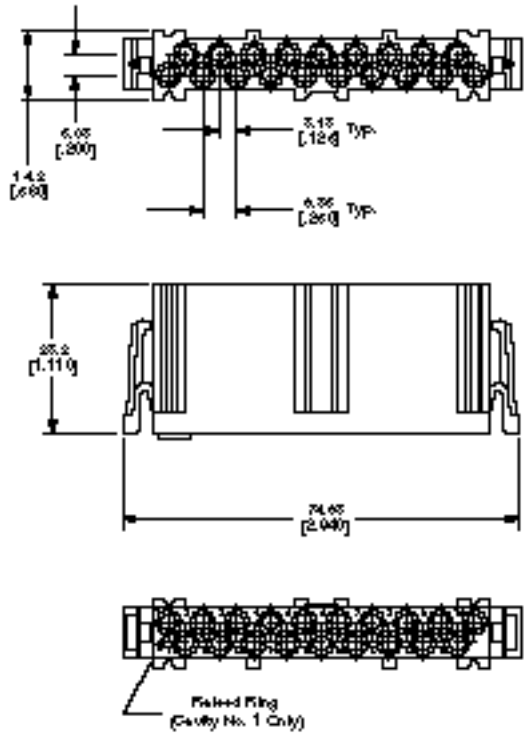
6 Position Plug Housing
(for Sockets)



10 Position Plug Housing
(for Sockets)



19 Position Plug Housing
(for Sockets)



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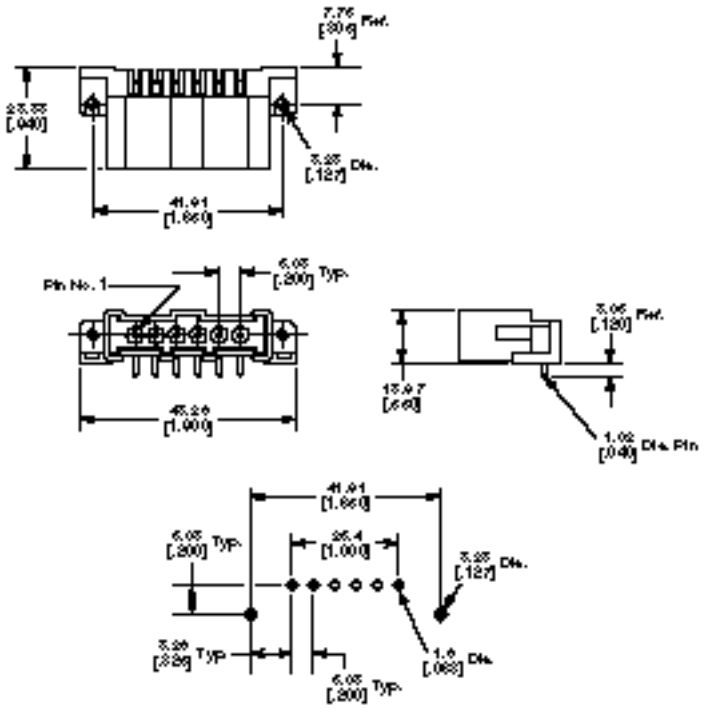
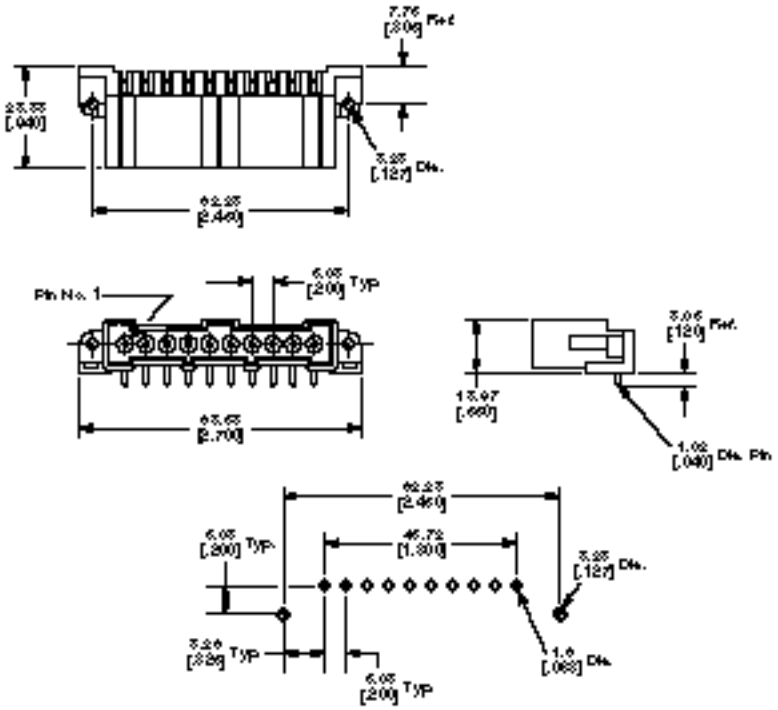
In-Line Right-Angle Pin Header Specifications, 5.08 [.200] Centerline

6 Position Header



Recommended PC Board Layout

10 Position Header



Recommended PC Board Layout

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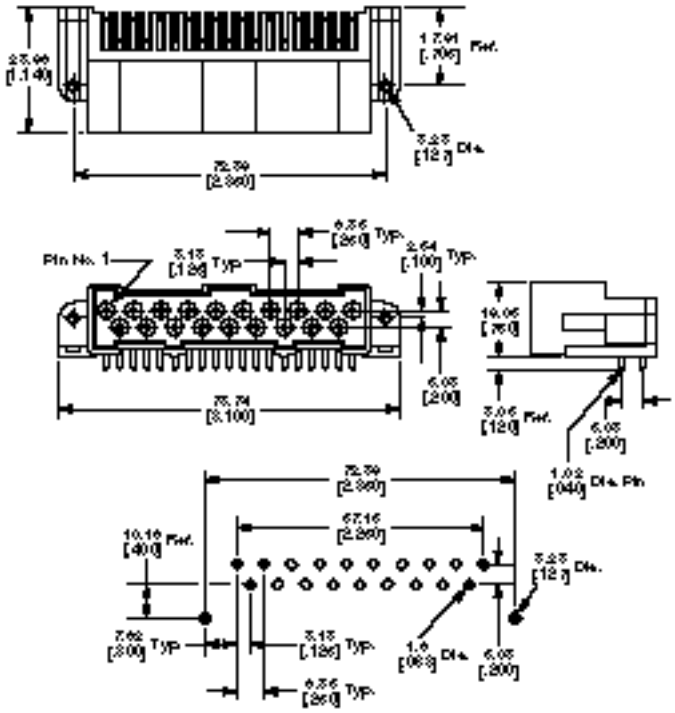
In-Line Right-Angle Pin Header Specifications, 5.08 [.200] Centerline (Continued)

19 Position Header



Recommended PC Board Layout

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UK: 44-141-810-8967

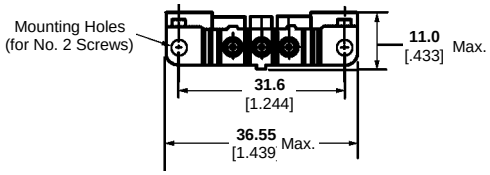
In-Line Coaxial Socket Headers, Straight-Thru (PC Board Mount)

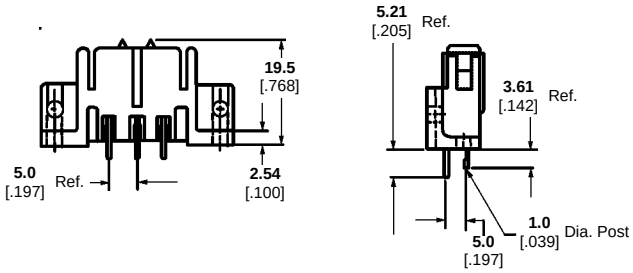
3 Circuit Assembly
Part No. 208708-1

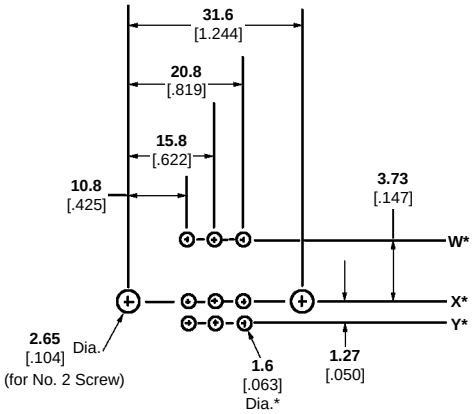
Material and Finish (Coaxial Contacts)

Center Conductor—Copper Alloy plated 0.00127 [.000050] gold over 0.00076 [.000030] nickel

Outer Shell—Copper alloy, plated 0.00038 [.000015] gold over 0.00127 [.000050] nickel







Recommended PC Board Layout

*Drill 1.6 [.063] Dia. holes in rows **"W"** and **"Y"** for subminiature coaxial contacts; and in row **"X"** only for power contacts.

Notes: 1.All cavities are preloaded with subminiature coaxial socket contacts.
2.3 circuit assembly mates with in-line receptacle. **Part No. 207359-1** (page 39).

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Japan: 81-44-844-8013
UK: 44-141-810-8967

In-Line Coaxial Socket Headers, Straight-Thru (PC Board Mount) (Continued)

10 Position Circuit Assemblies

Material and Finish

Coaxial Contacts

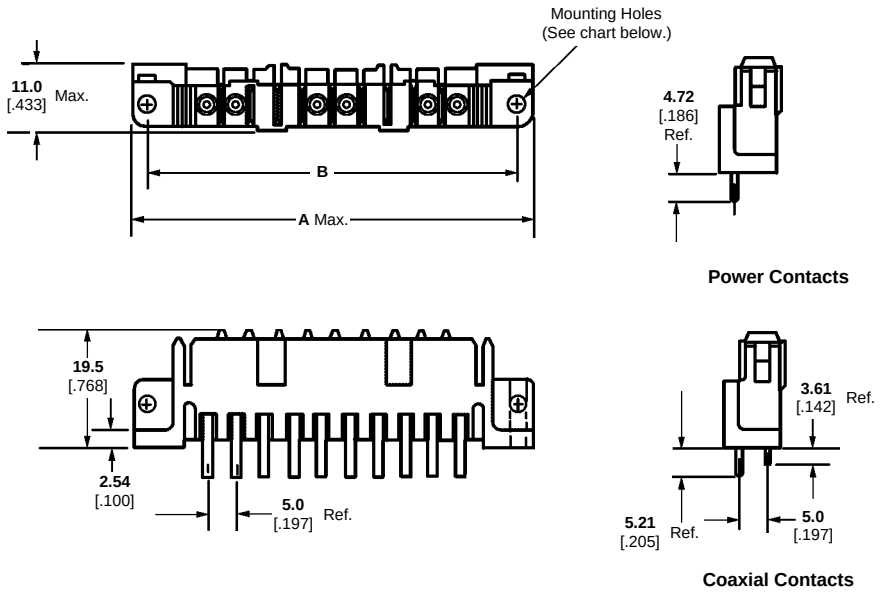
Center Conductor—Copper Alloy plated 0.00127 [.000050] gold over 0.00076 [.000030] nickel

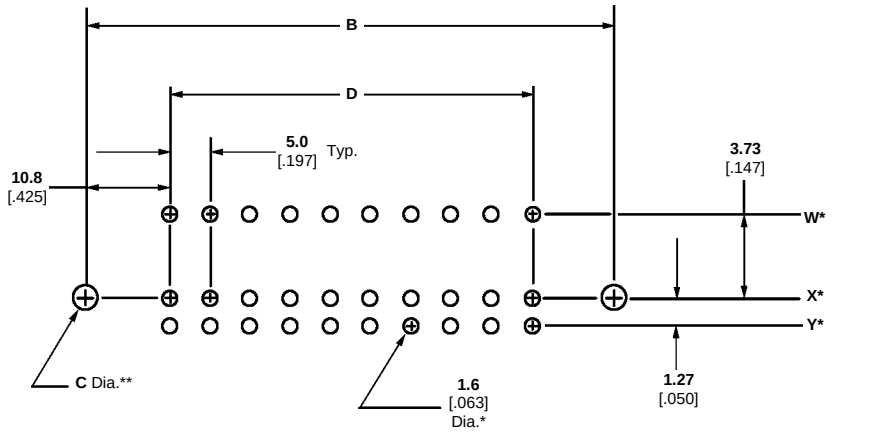
Outer Shell—Copper alloy, plated 0.00038 [.000015] gold over 0.00127 [.000050] nickel

Power Contacts

Body—Copper Alloy plated 0.00076 [.000030] gold on mating area, 0.00381 [.000150] tin-lead on remainder, both over 0.00127 [.000050] nickel

Hood—Stainless steel





Recommended PC Board Layout

PC Board Layout

No. of Positions	Dimensions B	C**	D
10	**66.6** 2.622	**2.85** .112	**45** 1.772

****C** Dia. = 2.85 [.112] for No. 3 Screw.

In-Line Coaxial Socket Headers, Straight-Thru

No. of Positions	Dimensions A	B	Mounting Hole (for Screw Size)	Cavity Loading Coaxial Contacts	Power Contacts	Socket Header Part No.	Mates with In-Line Receptacle Part No.
10	**71.6** 2.869	**66.6** 2.622	3	All	—	208309-1	207397-1 (page 39)
				3, 8 thru 10	1, 2, 4 thru 7	208309-2	

*Drill 1.6 [.063] Dia. holes in rows **"W"** and **"Y"** for subminiature coaxial contacts; and in row **"X"** only for power contacts.

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UK: 44-141-810-8967

In-Line Coaxial Socket Headers, Right-Angle (PC Board Mount) (Continued)

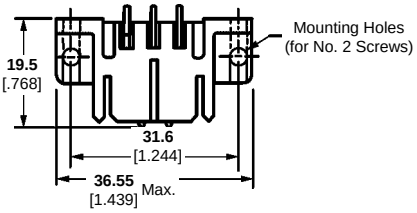
3 Circuit Assembly
Part No. 208222-2

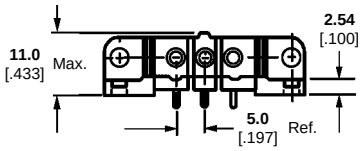
Material and Finish

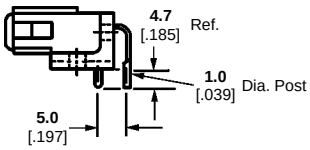
Coaxial Contacts

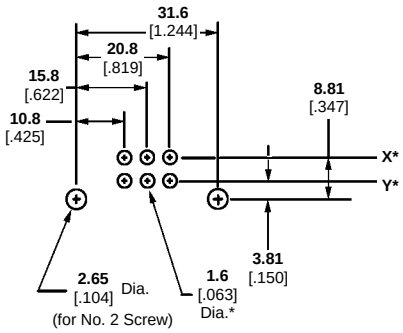
Center Conductor—Copper Alloy plated 0.00127 [.000050] gold over 0.00076 [.000030] nickel

Outer Shell—Copper alloy, plated 0.00038 [.000015] gold over 0.00127 [.000050] nickel









Recommended PC Board Layout

*Drill 1.6 [.063] Dia. holes in rows **"X"** and **"Y"** for subminiature coaxial contacts.

Notes: 1.All cavities are preloaded with subminiature coaxial socket contacts.
2.3 circuit assembly mates with in-line receptacle. **Part No. 207359-1** (page 39).

In-Line Coaxial Socket Headers, Right-Angle (PC Board Mount) (Continued)

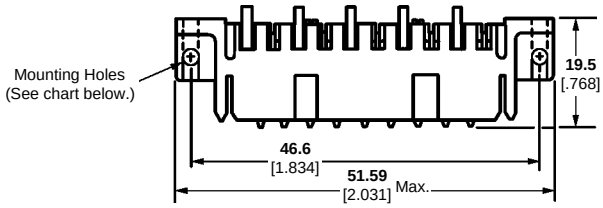
6 Circuit Assembly
Part No. 208212-3

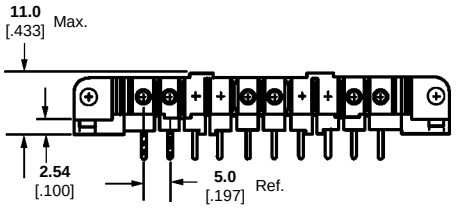
Material and Finish

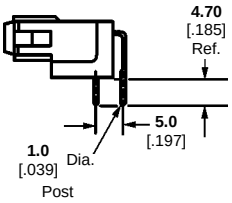
Coaxial Contacts

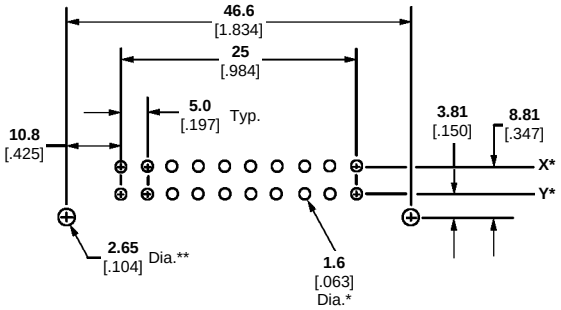
Center Conductor—Copper alloy plated 0.00127 [.000050] gold over 0.00076 [.000030] nickel

Outer Shell—Copper alloy, plated 0.00038 [.000015] gold over 0.00127 [.000050] nickel









Recommended PC Board Layout

*Drill 1.6 [.063] Dia. holes in rows **"X"** and **"Y"** for subminiature coaxial contacts; and in row **"Y"** only for power contacts.

**Dia. = 2.65 [.104] for No. 2 Screw.

Notes: 1.All cavities are preloaded with subminiature coaxial socket contacts.
2.6 circuit assembly mates with in-line receptacle. **Part No. 207376-1** (page 39).

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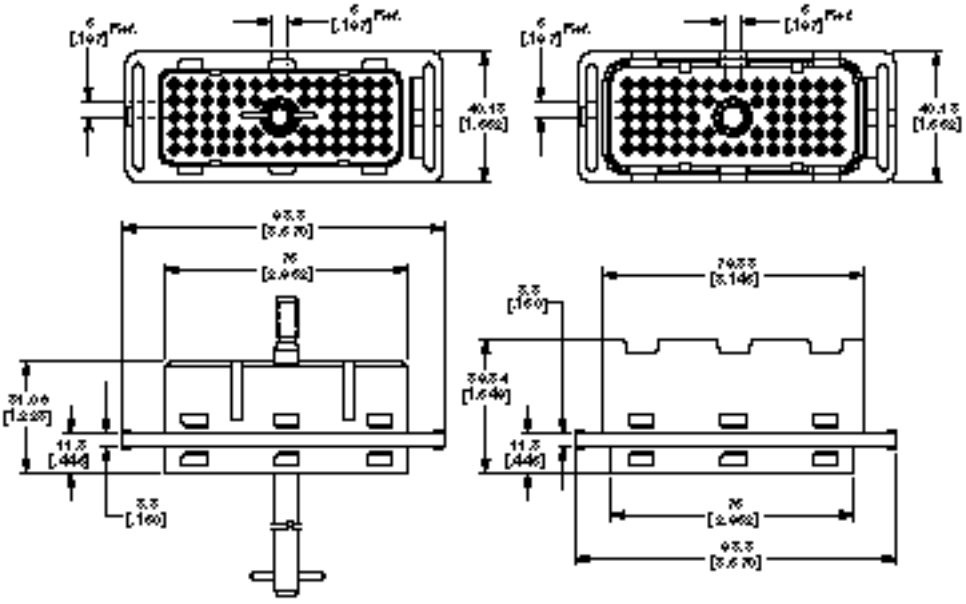
Rectangular Connectors

62 Position Rectangular Connector (Panel Mount)

Material

Black thermoplastic, 94V-0 rated

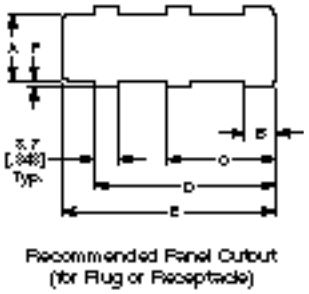


Rectangular Connector

Mating Half	With Male Jackscrew	With Female Jackscrew Threads	Pin Headers
Plug	208334-4[1]	208627-1[2]	—
Receptacle	208628-1	—	211580-2 (**19.76** [.778] posts) 211580-3 (**3.56** [.140] posts)

[1]Mates with 211580-2 or 211580-3.
[2]Mates with 208628-1.

Note: Housings shown with jackscrew in plug and female jackscrew threads in receptacle. Either half can be equipped with female jackscrew threads or jackscrew as necessary.



Recommended Panel Cutout (for Plug or Receptacle)

Recommended Panel Cutout for Front & Rear Mounted Plug and Rear Mounted Receptacle

Panel Thickness	Dimensions*					
	A	B	C	D	E	F
0.8–1.4	**29.9**	**13.3**	**41.7**	**68**	**82.7**	**2.6**
.031–.055	1.177	.524	1.642	2.677	3.256	.102
1.4–2	**32.2**	**13.3**	**41.7**	**68**	**82.7**	**1.6**
.055–.078	1.268	.524	1.642	2.677	3.256	.063

Recommended Panel Cutout for Front Mounted Receptacle

Panel Thickness	Dimensions*					
	A	B	C	D	E	F
0.8–1.4	**35.4**	**15.9**	**44.3**	**70.2**	**85.4**	**2.6**
.031–.055	1.394	.626	1.744	2.764	3.362	.102
1.4–2	**37.7**	**15.9**	**44.3**	**70.2**	**85.4**	**1.6**
.055–.078	1.484	.626	1.744	2.764	3.362	.063

*All dimensional tolerances listed are +0.3 [.012, −.001].

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UK: 44-141-810-8967

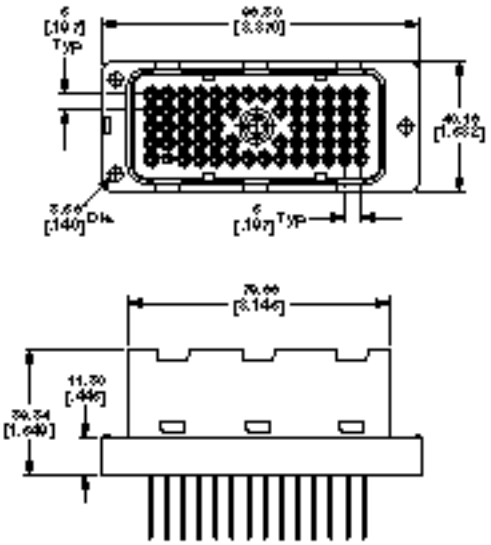
62 Position PC Pin Headers (Mates with Plug Part No. 208334-4)

Material

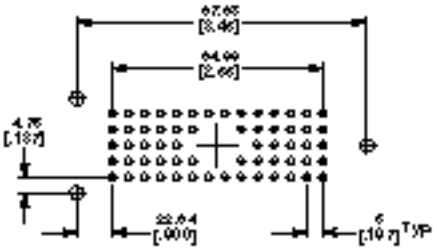
Black thermoplastic, 94V-0 rated

Related Product Data

Mateable Plug—Page 52
Performance Characteristics—Page 3
Technical Documents—Page 58
Product Specification—108-10033
Application Specification—114-10040



Part No. 211580-2 with posts 19.76 [.778]
Part No. 211580-3 with posts 3.56 [.140]



Recommended PC Board Layout

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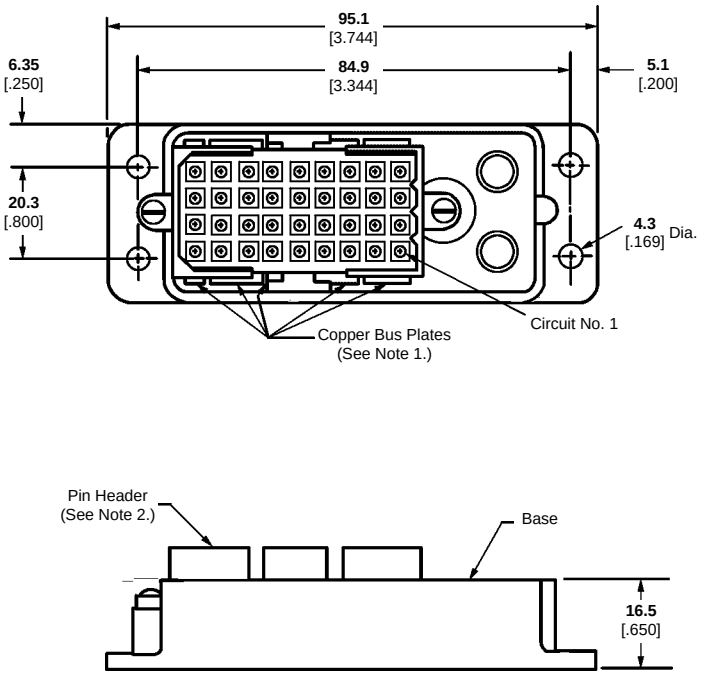
Commoning Connectors

Product Facts

- **36-circuit commoning system**
- **Choice of bussing configurations: full bus and split bus of 8-8-8-8-4. Other arrangements are available, consult Tyco Electronics.**
- **Compact design: 95.1 [3.744] x 33 [1.300]**
- **Mounts onto machine frame and other panel areas**

Material and Finish

Contacts—Copper alloy, tin plated



Notes: 1. See chart below for bus configurations.
2. These connectors mate with 36-circuit Square Grid Plug **Part No. 207019-1** (page 31).
3. Dimensional tolerances are not illustrated. This information is available on engineering drawings; use product part number when ordering drawings.

Bus Configuration	Commoning Arrangements	Part Number
Split 8-8-8-8-4	1 thru 8	208062-1
	9 thru 16	
	17 thru 24	
	25 thru 32	
	33 thru 36	
Full	All Circuits Common	208062-3

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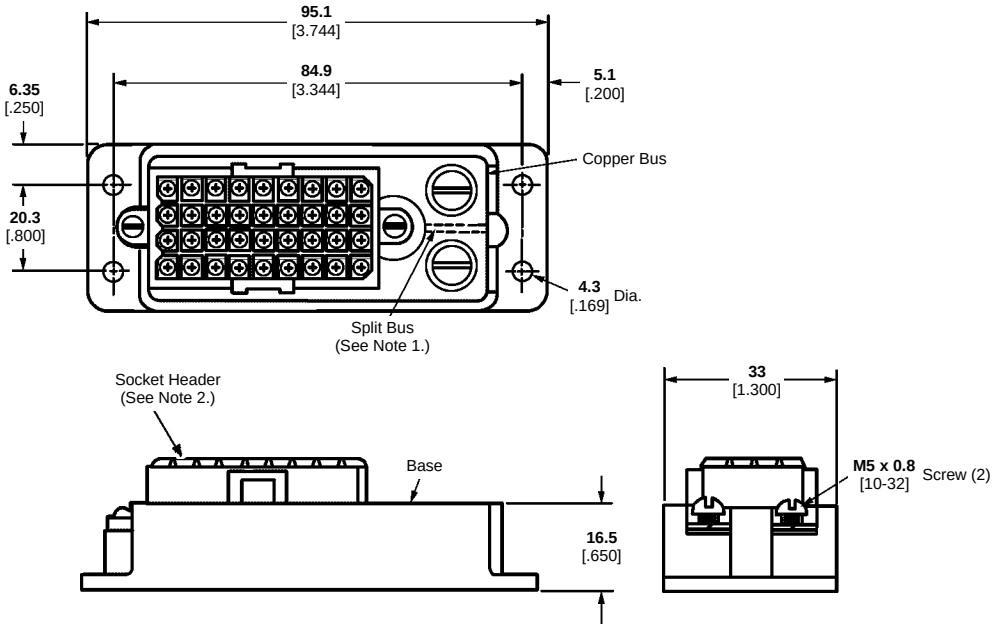
Power Distribution Connectors

Product Facts

- **36-circuit power distribution system**
- **High current capability**
- **Compact design: 95.1 [3.744] x 33 [1.300]**
- **Accommodates one or two voltages (with split bus)**

Bus Configuration	Contact Plating	Connector Part No.
Full Bus	Tin	208063-1
Split Bus (See Note 1.)	Tin	208063-2
	Sel. Gold/ Nickel[1]	208063-4

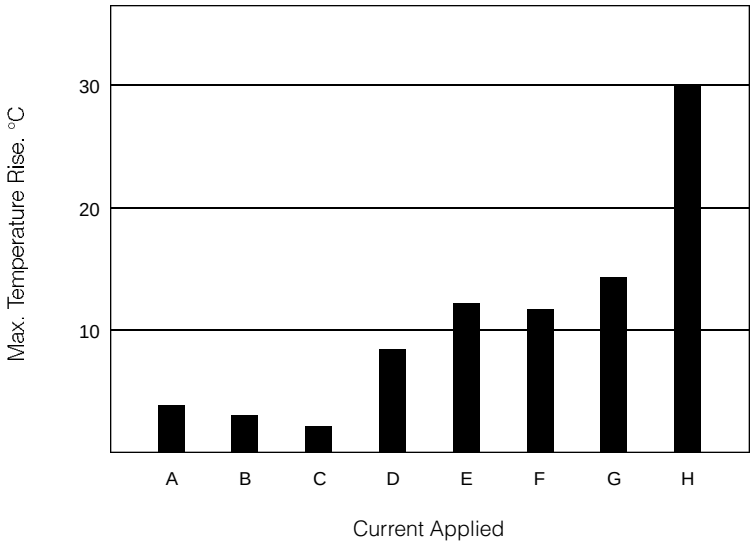
[1]0.00076 [.000030] gold on mating area, 0.00381 [.000150] tin-lead on remainder, both over 0.00127 [.000050] nickel.



Notes: 1. Copper bus for **Part Nos. 208063-2** and **208063-4** is divided lengthwise, providing dual 18-circuit buses. Other bussing configurations can be made available, consult Tyco Electronics.
2.These connectors mate with 36-circuit Square Grid Receptacle **Part No. 207020-1** (page 31).
3.Dimensional tolerances are not illustrated. This information is available on Tyco Electronics engineering drawings; use product part number when ordering drawings.

Heat Rise Characteristics

The following graph indicates the maximum temperature rise of a power distribution connector with various currents being applied. The specific connector under test is a fully bussed, 36-circuit power distribution connector with 7-8 mm² [8 AWG] input wire. The mating connector is a standard 36-circuit Metrimate receptacle with all contacts terminated to 1 219 [48] leads using 2 mm² [14 AWG] wire.



A —13 amperes, one central contact.
B —13 amperes (combined), two adjacent central contacts.
C—20 amperes (combined), four central contacts.
D—40 amperes (combined), four central contacts.
E —60 amperes (combined), four central, three end contacts.
F —50 amperes (combined), four corner contacts.
G—100 amperes (combined), 36 contacts.
H—155 amperes (combined), 36 contacts.

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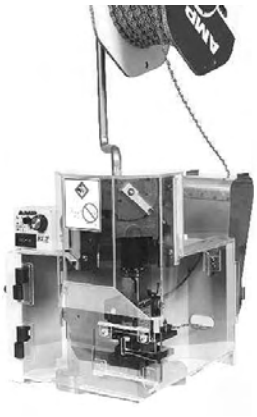
Application Tooling



Entry Level Terminator (ELT)

Semiautomatic Bench Terminator for side- and end-feed reeled terminals and contacts. The ELT uses a DC motor with gear box drive. Cycle time is less than 0.400 seconds with an operation sound level of 76 dBA. With a crimp force capacity of 3,000 pounds, the ELT is available for all but the highest crimp force applications.

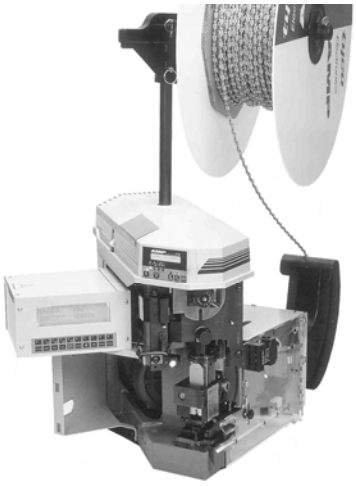
AMPOMATOR CLS IV+ Lead-Making Machine

This microprocessor-controlled, fully-automatic lead maker combines ease of operation with the flexibility to handle production requirements ranging from non-stop high volume to countless series of short runs. Production rates range up to 4,800 leads per hour (for 76 [3] lengths). It can produce leads up to 25,400 [1,000] using optional long-lead conveyors.

For further information, request Catalog 124324.

Stripping Module (shown on the Entry Level Terminator)

The Stripping Module can be added to the Entry Level Terminator (ELT) or the AMP-O-LECTRIC Model G Terminator providing an economic method of stripping the wire and crimping terminals on the same machine. The wires are stripped moments before crimping, minimizing chances of damaging the wire conductors during handling or storage.



AMP-O-LECTRIC Model G Terminating Machine

A totally new design of our most popular machine for bench-top operation. It features a quiet and highly-reliable direct motor drive, microprocessor controls for ease of setup and operation, and improved guarding and lighting for operator convenience and safety. It also includes a precision crimp height adjustment that enables you to maintain tight tolerances.

Features include:

- Toolless changeover of applicators
- Rates up to 1,800 terminations per hour
- Accepts Heavy Duty Miniature (HDM) applicators
- Designed for optimum operator ease of use with either end-feed or side-feed applicators.

(Shown with optional Crimp Quality Monitor)

For further information, request Catalog 65828.

Need more information?

For further information specifically about AMP tooling, call Technical Support at **1-800-522-6752.**

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Application Tooling (Continued)

SDE Electric Terminator

Compact, portable, electric terminator allows for horizontal or vertical loading and is compatible with SDE dies. UL and CE approved.

PH 1600 Crimp Unit

Completely portable, battery-powered, hydraulic crimp unit, producing approx. 200 crimps per charge (12 min. re-charge). SDE die compatible. CE and UL approved.

Crimp Quality Monitor

This system measures the crimp height of each termination as it is made. It also evaluates the quality of each crimp. If a crimp is questionable, the monitor alerts the operator with both visual and audible alarms. It also features ports for printing and networking.

For further information, request Catalog 82275.

626 Pneumatic Tool System

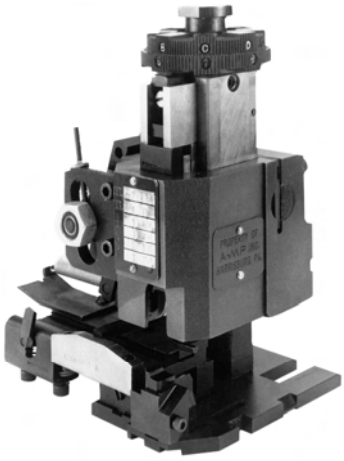
For contacts, see pages 9-17.

For further information, request Catalog 124208.

AMP-O-MATIC Side Feed Stripper-Crimper Machine

As the name implies, this machine also strips wire, and is therefore used to terminate jacketed cable. All adjustments can be made from the front of the machine without special tools, providing setup times of 10 minutes or less. (Shown with optional Crimp Quality Monitor)

For further information, request Catalog 65004.



Applicators

These various applicators can be changed to afford maximum flexibility and minimum production downtime for a wide range of automatic machines. Crimp height for a given wire size is simply “dialed in.”

For further information, see specific AMP automatic machine catalogs.

PRO-CRIMPER II Hand Tool with SDE Dies

The PRO-CRIMPER II Hand Tool with an all-new design requires dramatically less hand force to produce the same connection as comparable tools. PRO-CRIMPER II hand tools are ideally suited for R&D prototypes, networking applications, and commercial, industrial and institutional maintenance and repair work. For use with Type III+ contacts, see pages 9 and 10.

For further information, request Catalog 82276.

CERTI-CRIMP Hand Tools

These tools are ideal for small production, prototype and experimental applications. They are used for terminating pin and socket contacts to wire and feature a ratchet device to provide for consistently formed crimps each and every time.

Straight Action Hand Tool

For Type III+ contacts, see pages 9 and 10.

“C” Head Straight Action Hand Tool
Part No. 69710-1

For .125 POWERBAND contacts, see page 17.

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UK: 44-141-810-8967

Technical Documents

The following is a list of technical documents covering the application, performance and maintenance of Metrimate Connectors.

Product Specifications describe technical performance characteristics and verification tests. They are intended for the Design, Component and Quality Engineer.

108-10033	Metrimate Connectors
108-10042	Contacts, Type III+ Stamped and Formed
108-12011	Subminiature COAXICON Contacts
108-1317	Power Drawer Connectors
108-1682	Power Drawer Connectors with .125 POWERBAND Contacts
108-1449	Power Drawer with High Current Louvertac Size 8
108-10033-1	Metrimate Connectors loaded with contacts

Application Specifications describe requirements for using the product in its intended application and/or crimping information. They are intended for the Packaging and Design Engineer and the Machine Setup Person.

114-10014	Contacts, Pin and Socket, Power Application of
114-10004	Contacts, Type III+
114-10039	Drawer Connectors
114-10040	Metrimate Connectors
114-10043	POWERBAND Contacts

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

408-7846	Metrimate Connectors (Square Grid)
408-1379	Pin and Socket Contacts
408-7347	Insertion Tool 91002-1, Type III+ Contacts
408-2024-2	Subminiature COAXICON Contacts, Instruction, Maintenance and Inspection
408-1216	Extraction Tool 305183, Type III+ and Subminiature COAXICON Contacts
408-4374	Extraction Tool 318813-1
408-4391	CERTI-CRIMP SAHT 90716-1
408-8547	Operation and Maintenance of CERTI-CRIMP II Straight Action Hand Tools
408-7414	CERTI-CRIMP SAHT 90225-2
408-9819	PRO-CRIMPER II Hand Tool 58495-1
408-1817	Insertion Tool 200893-2
408-2095	“C” Head Hand Tool 69710-1
408-9930	PRO-CRIMPER II Hand Crimping Tool Frame Assembly 354940-1

Customer Manuals provide a compilation of customer prints, product specifications, application specifications, features and benefits, IS sheets, test specifications and could include a product catalog.

409-5862	AMP 626 Pneumatic Tool Assemblies

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Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are equivalent U.S. Customary Units.

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

Part Number Index

Note: This numerical index lists all cataloged part numbers by base number only. Complete part numbers (with prefixes and/or suffixes) are shown on the page indicated.

Tooling

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