

CPC Series 1

CPC Connectors, Series 1 for Cable or Panel Mount (Accepts Type III+, High-Current Power, Type II and Subminiature Coax Contacts)



Listed part numbers are for connectors only; **contacts must be ordered separately.**

**Material**

**Housing**—Thermoplastic, 94V-0 rated, black

**Related Product Data**

- Contacts—Pages 16-22
- Contact Arrangement—Page 23
- Component Dimensions—Page 24\*
- Accessories—Pages 37-41, 51-53
- Performance Characteristics—Page 6
- Application Tooling—Pages 75-78
- Technical Documents—Page 79

**Replacement Coupling Rings**

Shell Size	Part No.
11	213811-1
13	213813-1
17	213810-1
23	213812-1

**Keying**

Molded-in keying in two configurations:

**A**—Standard Configuration: 5 Keys

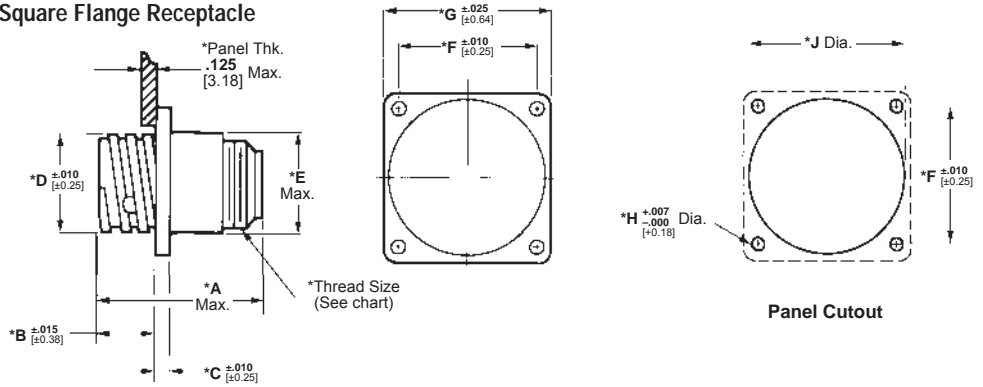


**B**—Optional Configuration: 4 Keys to prevent mismatching of standard and reverse sex.

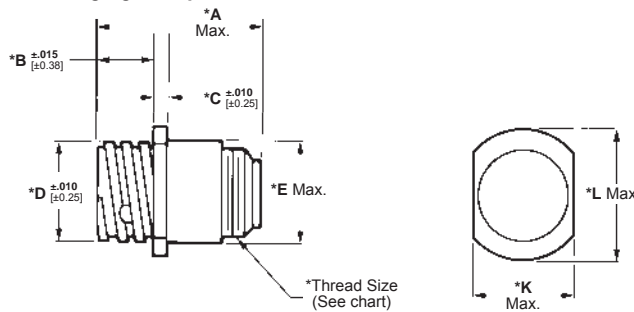


**Circular Plastic Connectors, Size 1**

**Square Flange Receptacle**

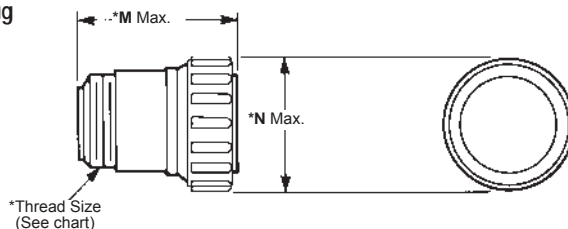


**Free-Hanging Receptacle**



\*Note: See page 24 for callout dimensions

**Plug**



**Standard Sex Connectors** (Receptacles accept pin contacts, Plugs accept socket contacts)

Arrangement	Keying	Square Flange Receptacle		Free-Hanging Receptacle	Plug
		With Threaded Inserts <sup>1</sup>	With Mounting Holes		
11-4	A	208130-1	206061-1	206153-1	206060-1
13-9	A	208131-1	206705-1	206705-2	206708-1
17-16	A	206036-8	206036-1	206036-3	206037-1
	B	—	213862-1	—	213849-1
23-24	A	211839-1	206838-1	206838-2	206837-1
	B	—	213866-1	—	213851-1
23-37	A	787610-1	206151-1	206151-2	206150-1
	B	—	213860-1	—	213848-1

<sup>1</sup>Four 4-40 threaded inserts per receptacle.

**Reverse Sex Connectors** (Receptacles accept socket contacts, Plugs accept pin contacts)

Arrangement	Keying	Square Flange Receptacle		Free-Hanging Receptacle	Plug
		With Threaded Inserts <sup>1</sup>	With Mounting Holes		
11-4	A	211102-1	206430-1	206430-2	206429-1
17-14	A	211103-1	206043-1	206043-3	206044-1
	B	—	796437-2	—	796449-1
23-37	A	206306-5	206306-1	206306-2	206305-1
	B	—	213864-1	—	213850-1



<sup>1</sup>Four 4-40 threaded inserts per receptacle.

Key Style "A" is the Standard 5 Locating Key arrangement. Key Style "B" is the 4 Locating Key arrangement.

**Circular Plastic Connectors, Series 1, VDE Tested**

**CPC Connectors, Series 1, for Cable or Panel Mount** (Accepts Type III+, High-Current Power, Type II and Subminiature Coax Contacts)



- Designed to meet requirements of VDE as shown in DIN Specification 57627
- Recognized under the Component Program of Underwriters Laboratories Inc. for 600 VAC and 600 VDC service, File No. E28476 
- Certified by Canadian Standards Association, File No. LR 7189 

Listed part numbers are for connectors only; **contacts must be ordered separately.**

**Material**

**Housing**—Thermoplastic, 94V-0 rated, black

**Related Product Data**

- Contacts—Pages 16-22
- Contact Arrangement—Page 23
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- Technical Documents—Page 79

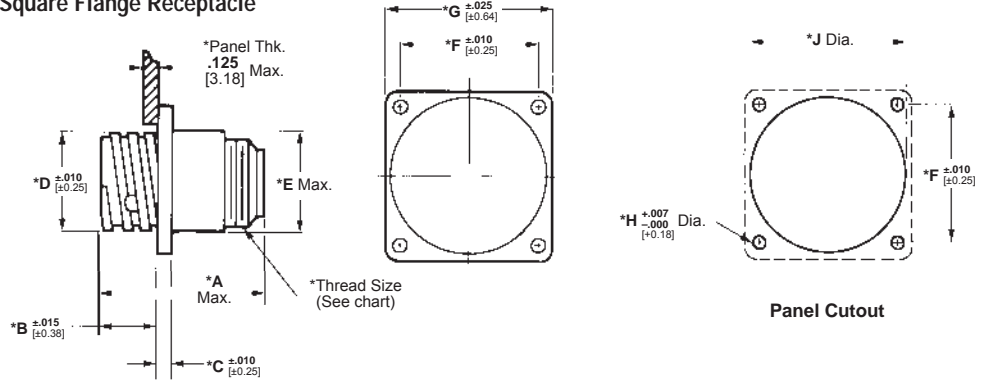
**Replacement Coupling Rings**

Shell Size	Part No.
13	213813-1
17	213810-1
23	213812-1

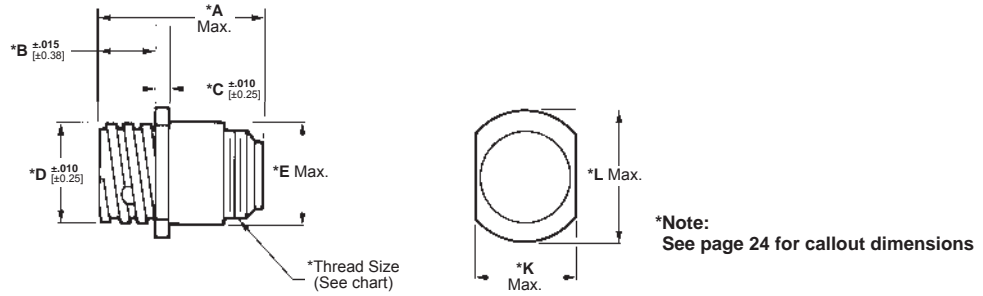
**Keying**

- A—Standard Configuration: 5 Keys
- B—Optional Configuration: 4 Keys

**Square Flange Receptacle**

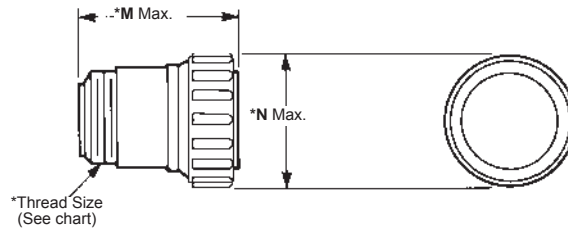


**Free-Hanging Receptacle**



\*Note: See page 24 for callout dimensions

**Plug**



**Standard Sex Connectors** (Receptacles accept pin contacts, Plugs accept socket contacts)

Arrangement	Shell Size	No. of Positions	Keying	Square Flange Receptacle		Plug
				With Threaded Inserts <sup>1</sup>	With Mounting Holes	
	13-7		A	211401-4	211401-1	211399-1
	17-9		A	211767-2	211767-1	211766-1
	23-19		A	211771-2	211771-1	211770-2
		B	—	213870-1	213853-1	

<sup>1</sup>Four 4-40 threaded inserts per receptacle.

**Reverse Sex Connectors** (Receptacles accept socket contacts, Plugs accept pin contacts)

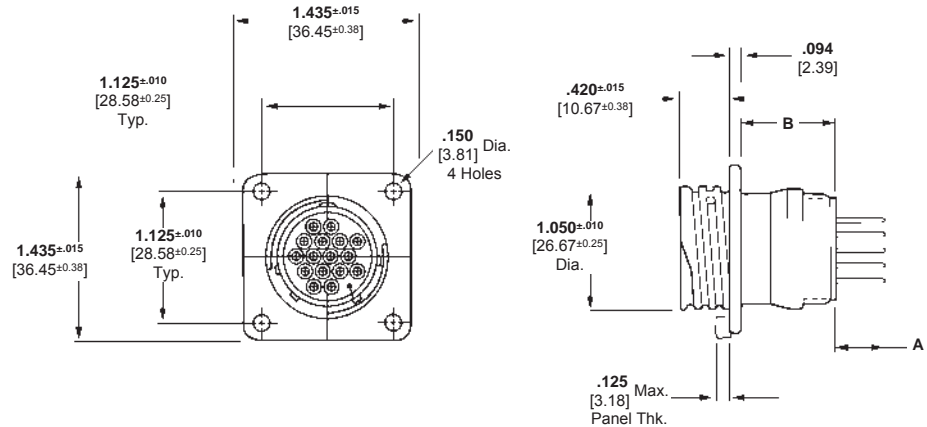
Arrangement	Shell Size	No. of Positions	Keying	Square Flange Receptacle		Free-Hanging Receptacle	Plug
				With Threaded Inserts <sup>1</sup>	With Mounting Holes		
	13-7		A	211398-4	211398-1	211398-2	211400-1
	17-9		A	—	211769-1	211769-3	211768-1
		B	—	796439-2	—	796450-1	
	23-19		A	—	211773-1	—	211772-1
		B	—	213868-1	—	213852-1	

<sup>1</sup>Four 4-40 threaded inserts per receptacle.

Key Style "A" is the Standard 5 Locating Key arrangement. Key Style "B" is the 4 Locating Key arrangement.

**Circular Plastic Connectors, Series 1**

**Square Flange Receptacles, Printed Circuit Board Mount**  
with .025 [0.64] sq. solder tails



CPC Series 1

**Material and Finish**

**Housing**—Thermoplastic, 94V-0 rated, black

**Contacts**—

**A**—Duplex plated gold flash on entire contact with .000030 [0.00076] min. gold on contact engagement area, tin on the termination area

**C**—Plated tin on the entire contact, tin on the termination area

**Related Product Data**

**Contact Arrangement**—Page 23

**Performance Characteristics**—Page 6

**Technical Documents**—Page 79

**Keying**

Molded-in keying in two configurations:

**A**—Standard Configuration: 5 Keys

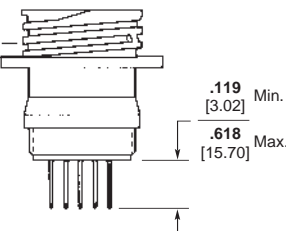


**B**—Optional Configuration: 4 Keys to prevent mismatching of standard and reverse sex.



**Other Available Posted Contacts**

Tyco Electronics can make available contacts with various solder tail lengths for loading into the standard or reverse sex, square flange receptacles for applications requiring custom solder tail lengths.



**Standard Sex (Posted Pin Contacts)**

Arrangement No.	Receptacle Assemblies		Keying Style	Dimensions		Contact Finish Code	Peripheral Seal
	Mounting Holes	4-40 Threaded Inserts		A	B		
11-4	—	207825-9	A	.119 3.02	.816 20.73	A	N
13-7	—	1-796433-1	A	.220 5.59	.816 20.73	A	N
13-9	208223-9	—	A	.220 5.59	.816 20.73	A	N
	—	1-208223-0	A	.220 5.59	.816 20.73	A	N
17-16	—	1-207303-4	A	.220 5.59	.816 20.73	A C	N
	1-207303-3	—	A	.220 5.59	.816 20.73	A	N
	213855-4	213855-3	B	.220 5.59	.816 20.73	A	N
23-19	213782-4	—	A	.429 10.90	.679 17.24	A	N
	213859-2	—	B	.618 15.70	.674 17.12	A	N
23-24	—	213588-2	A	.220 5.59	.654 16.61	C	N
	213798-3	—	A	.618 15.70	.679 17.24	A	N
	213780-2	—	A	.220 5.59	.536 13.61	A	N
	213857-2	—	B	.429 10.90	.679 17.24	A	N
	1-206934-1	—	A	.220 5.59	.654 16.61	A	N
23-37	206934-5	—	—	.119 3.02	.654 16.61	A	N Y
	—	1-206934-7	A	.119 3.02	.654 16.61	A	Y
	208132-2	—	A	.429 10.90	.654 16.61	C A	N
	1-206934-8	—	A	.429 10.90	.654 16.61	A	N
213854-3	—	B	.618 15.70	.654 16.61	A	N	
1-206934-9	—	A	.618 15.70	.654 16.61	A	N	

**Note:** Posts are .017 [0.43] offset from centerline of contacts. All posts must be oriented in the same plane for proper contact/post location.

**Square Flange Receptacles, Printed Circuit Board Mount**  
with .025 [0.64] sq. solder tails



**Material and Finish**

**Housing**—Thermoplastic, 94V-0 rated, black

**Contacts**—

**A**—Duplex plated gold flash on entire contact with .000030 [0.00076] min. gold on contact engagement area, tin on the termination area

**C**—Plated tin on the entire contact, tin on the termination area

**Related Product Data**

**Contact Arrangement**—Page 23

**Performance Characteristics**—Page 6

**Technical Documents**—Page 79

**Keying**—Page 12

**Special CPC Connectors, Square Flange Receptacles, Printed Circuit Board Mount With Round Posted Contacts (Size 16), Contact Arrangement 17-16**



**Material and Finish**

**Housing**—Thermoplastic, 94V-0 rated, heat-stabilized, fire-resistant, self-extinguishing, black

**Contacts**—Brass

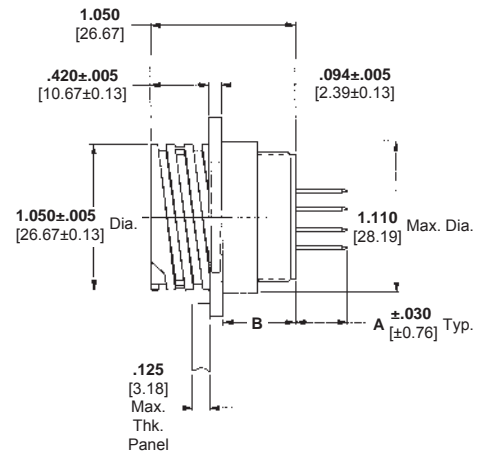
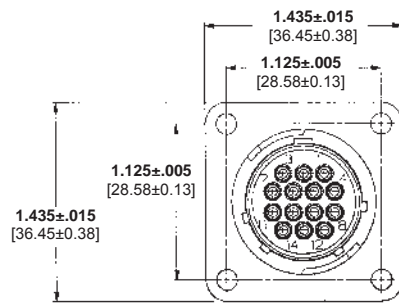
**Plating**—

**Connector Part No. 207292-1**—Plated tin over .000050 [0.00127] min. nickel on entire contact

**Connector Part No. 207292-2**—Plated .000030 [0.00076] min. gold over .000050 [0.00127] min. nickel on entire contact

**Notes:** 1. Connector can be used for pressure bulkhead feed-thru (sealed) applications.

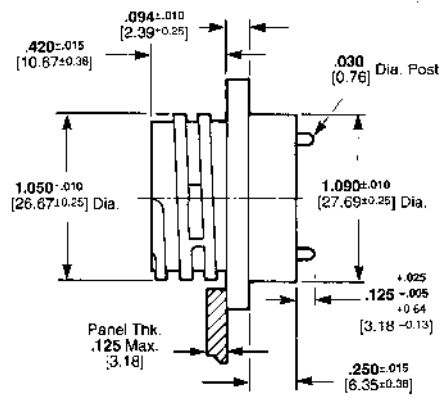
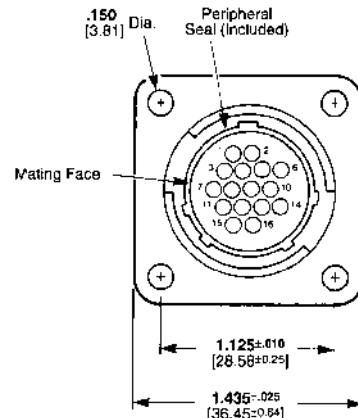
2. Receptacle is **Standard Sex**, supplied preloaded with 16 special round posted pin contacts, .030 [0.76] diameter.



**Reverse Sex (Posted Socket Contacts)**

Arrangement No.	Receptacle Assemblies		Keying Style	Dimensions		Contact Finish Code	Peripheral Seal
	Mounting Holes	4-40 Threaded Inserts		A	B		
11-4	208283-4	—	A	.159 4.04	.536 13.61	A	N
	1-788130-1	—	A	.704 17.88	.541 13.74	C	N
17-9	1-213826-1	—	A	.220 5.59	.536 13.61	C	Y
	213729-9	213729-6	A	.368 9.35	.536 13.61	A	N
17-14	1-213825-7	—	A	.220 5.59	.536 13.61	C	Y
	—	213729-8	A	.159 4.04	.536 13.61	C	N
	213858-3	—	B	.645 16.38	.394 10.00	A	N
23-19	213781-9	—	A	.557 14.15	.374 9.50	C	N
	213827-8	—	A	.368 9.35	.374 9.50	C	Y
	2-208224-1	—	A	.557 14.15	.374 9.50	A	N
23-37	213856-4	—	B	.125 3.18	.030 0.76	A	N
	1-208224-2	—	A	.368 9.35	.374 9.50	C	N
	1-213828-6	—	A	.368 9.35	.374 9.50	C	Y
	207890-2	—	A	.159 4.04	.374 9.50	A	N
	—	—	—	.125 3.18	.030 0.76	A	N

**Note:** Posts are .017 [0.43] offset from centerline of contacts. All posts must be oriented in the same plane for proper contact/post location.



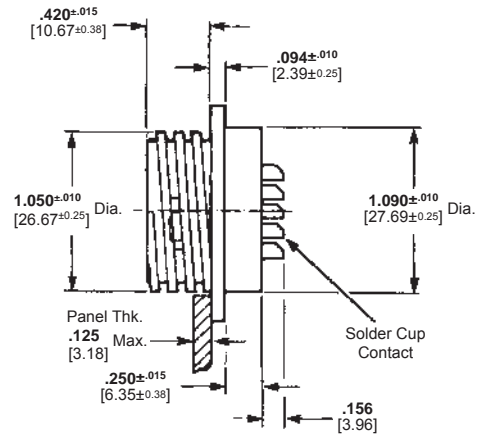
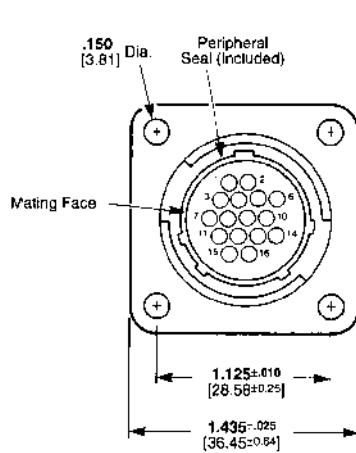
## Electronics

Special CPC Connectors,  
Square Flange Receptacles,  
With Solder Type Contacts  
(Size 16), Contact  
Arrangement 17-16



**Material and Finish**  
**Housing**—Thermoplastic, 94V-0 rated, heat-stabilized, fire-resistant, self-extinguishing, black  
**Contacts**—Brass  
**Plating**—  
**Connector Part No. 206404-1**—Plated .000030 [0.00076] min. gold over .000030 [0.00076] min. nickel on entire contact  
**Connector Part No. 206404-2**—Plated tin over .000100 [0.00254] min. copper on entire contact

## Circular Plastic Connectors, Series 1 (Continued)



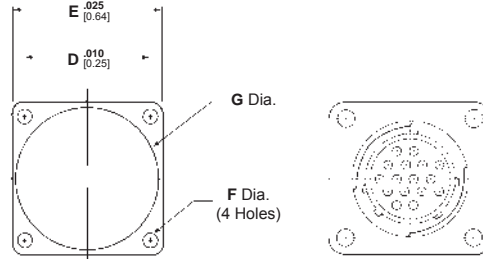
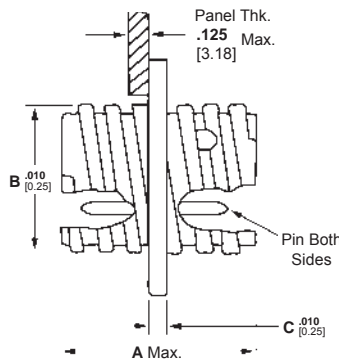
- Notes:**
1. Connector can be used for pressure bulkhead feed-thru (sealed) applications.
  2. Receptacle is standard sex, supplied preloaded with 16 special solder cup pin contacts.

Special CPC Connectors,  
Feed-Thru  
Pressure Rating up to 30 psi

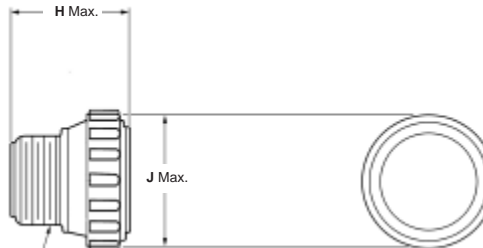


**Material and Finish**  
**Housing**—Thermoplastic, 94V-0 rated, black  
**Contacts**—Copper alloy, gold over nickel plated

### Receptacle, Feed-Thru



### Panel Cutout



### Plug

### Part Numbers

Arrangement	Standard Numbering Plug	Reverse Numbering Plug	Feed-Thru Receptacle
11-4	206060-1	206516-1	206518-2
17-16	206037-1	206554-1	206552-1

### Dimensions

Arrangement	Dimensions									Thread Size
	A	B	C	D	E	F	G	H	J	
11-4	1.209	.687	.094	.844	1.125	.125	.840	1.080	.975	5/8-24
	30.71	17.45	2.39	21.44	28.58	3.18	21.34	27.43	24.77	UNEF-2A
17-16	1.209	1.050	.094	1.125	1.435	.150	1.210	1.080	1.349	15/16-20
	30.71	26.67	2.39	28.58	36.45	3.81	30.73	27.43	34.26	UNEF-2A

**Note:** Feed-Thru Receptacles are fully loaded with Size 16, feed-thru pin contacts. Order Size 16 crimp, snap-in socket contacts for plugs separately.

**Electronics**

**Square Flange Receptacles,  
Right-Angle, Posted**

with .025 [0.64] sq. solder tails



**Material and Finish**  
**Housing**—Thermoplastic, 94V-0 rated, black

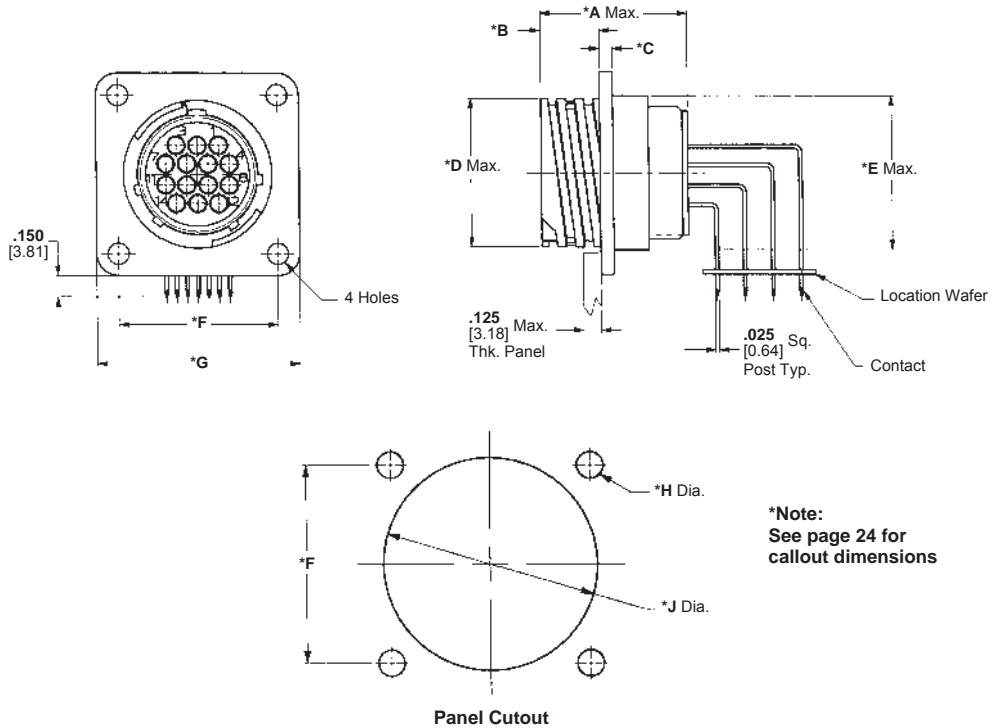
**Location Wafer**—Phenolic, black  
**Contact Posts**—.000100 [0.00254] min. tin over .000100 [0.00254] min. copper

**Contact Body**—  
**A**—.000100 [0.00254] min. tin over .000050 [0.00127] min. nickel  
**B**—.000030 [0.000762] min. gold for a length of .200 [5.08] min. from mating end, with remainder gold flash, both over .000050 [0.00127] min. nickel

**Related Product Data**

- Contact Arrangements**—Page 23
- Component Dimensions**—Page 24\*
- Performance Characteristics**—Page 6
- Keying**—Standard Configuration: 5 Keys
- Technical Documents**—Page 79

**Circular Plastic Connectors, Series 1 (Continued)**



CPC  
Series 1

**Standard Sex (Posted Pin Contacts)**

Arrangement No.	Receptacle Assemblies		Contact Body Finish Code	Mating Plug Part No.
	Mounting Holes	4-40 Threaded Inserts		
11-4	1-796403-1	1-796403-2	B	206060-1
13-7	1-796435-1	1-796435-2	B	211399-1
13-9	1-796375-1	1-796375-2	B	206708-1
17-9	1-796497-1	—	B	211766-1
17-16	1-796404-1	—	B	206037-1
23-19	1-796405-1	—	B	211770-2
23-24	1-796387-1	—	A	206837-1
	1-796387-2	—	B	
23-37	1-796406-1	—	B	206150-1

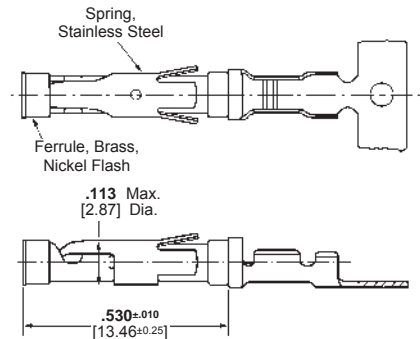
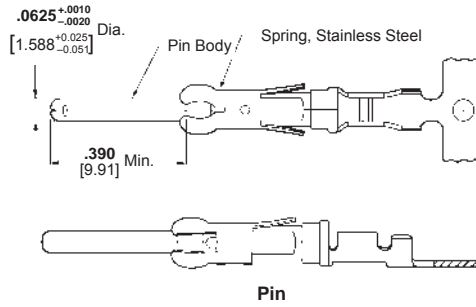
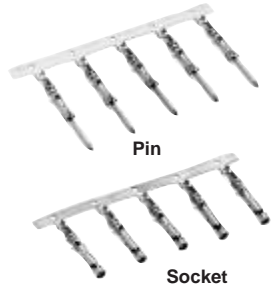
**Reverse Sex (Posted Socket Contacts)**

Arrangement No.	Receptacle Assemblies		Contact Body Finish Code	Mating Plug Part No.
	Mounting Holes	4-40 Threaded Inserts		
11-4	1-796407-1	—	B	206429-1
13-7	1-796500-1	—	B	211400-1
17-9	1-796501-1	—	B	211768-1
17-14 (shown)	796348-3	—	A	206044-1
	796348-2	—	B	
23-19	1-796502-1	—	B	211772-1
23-37	1-796409-1	—	B	206305-1

Electronics

Signal Contacts

Type III+, Crimp, Snap-In



**Material and Finish** — See chart.  
**Contact Body**—Brass or phosphor bronze  
**Retention Spring**—Stainless steel

**Application Tooling**—Pages 75-78  
**Technical Documents**  
 114-10004 Application Specification  
 108-10042 Product Specification

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

†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 8.

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

<sup>1</sup>Overall insulation crimp diameter, including crimp barrel, must not exceed .125 [3.18].  
<sup>2</sup>.000015 [0.00038] gold in the mating area over .000050 [0.00127] min. nickel.  
<sup>3</sup>.000030 [0.00076] gold in the mating area, with gold flash on remainder, over .000050 [0.00127] min. nickel.  
<sup>4</sup>.000030 [0.00076] gold in the mating area, with gold gradient on remainder, over .000050 [0.00127] min. nickel.

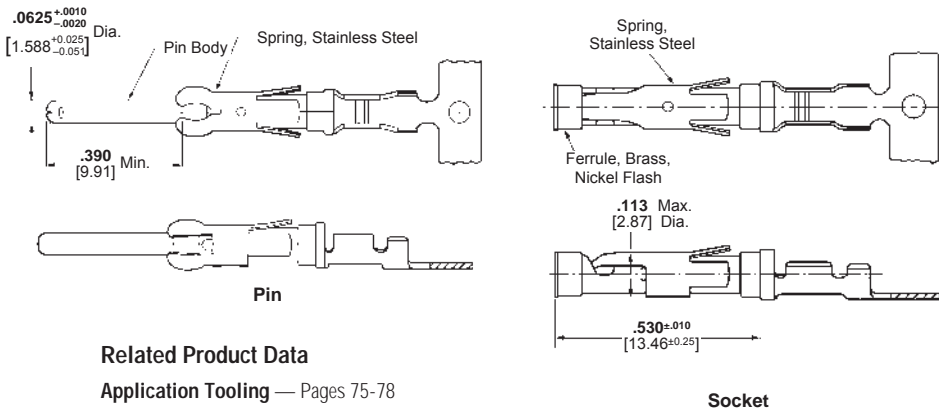
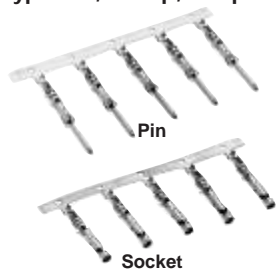
<sup>5</sup>Contacts can ONLY be used in: Metrimate; CPC Series 1 (Arr. 23-24), Series 4 (Arr. 23-13M, 23-16M, 23-22M), and VDE connectors.  
<sup>6</sup>To use with the 626 Pneumatic Tool: remove crimping head from Straight Action Hand Tool (SAHT), order SAHT Adapter Part No. 217201-1, Adapter Holder Part No. 356304-1 (with ratchet) or 189928-1 (without), and Power Unit Part No. 189721-1 (hand actuated) or 189722-1 (foot actuated).

<sup>6</sup>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 626 Pneumatic Tool System. Insertion Tool Part No. 91002-1 (for insulation diameters .070 [1.78] or less), No. 200893-2 (for insulation diameters .090 [2.29] max.). Extraction Tool Part No. 305183. (Instruction Sheet 408-1216)  
 \*\*\*Call Technical Support for Machine Applicator Part Numbers.

Electronics

Signal Contacts (Continued)

Enhanced High Current Type III+, Crimp, Snap-In



Material and Finish — See chart.

Contact Body—Copper Nickel Alloy

Retention Spring—Stainless steel

Related Product Data

Application Tooling — Pages 75-78

Technical Documents

114-10004 Application Specification

108-10024-2 Product Specification

Contact Size 16—Pin Diameter .062 [1.57]

Wire Size Range		Ins. Dia. Range	Contact Finish	Strip Form Contact No.		Loose Piece Contact No.		Tooling Part No.	
AWG	mm <sup>2</sup>			Pin	Socket	Pin	Socket	Loose Piece Hand Tool	Strip Form Applicators
18-14	0.8-2.0	.080-.100 <sup>1</sup> 2.03-2.54	Gold	1-66359-6	1-66358-9	1-66361-4	1-66360-4	91519-1 <sup>3</sup>	466326-□*** or
			Tin	1-66359-9	2-66358-1	1-66361-6	1-66360-6		466923-2***
		.110-.150 <sup>2</sup> 2.79-3.81	Gold	1-66597-0	1-66598-1	66602-9	1-66601-0	91521-1 <sup>3</sup>	466958-1*** or
			Tin	1-66597-1	1-66598-2	1-66602-0	1-66601-2		567364-□***

<sup>1</sup> Overall insulation crimp diameter, including crimp barrel, must not exceed .125 [3.18].

<sup>2</sup> Contacts can ONLY be used in CPC, Series 1 (Arr. 23-24), Series 4 (Arr. 23-13M, 23-16M, 23-22M), and VDE connectors.

<sup>3</sup> 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. 217201-1, Adapter Holder Part No. 356304-1 (with ratchet) or 189928-1 (without), and Power Unit Part No. 189721-1 (hand actuated) or 189722-1 (foot actuated).

\*\*\* Call Technical Support for Automatic Machine Applicator Part Numbers.

Ratings

Voltage: 250 Volts AC/DC

600 Volts AC/DC, Series I, VDE tested and select loaded only

Base Current: Type III+ contacts: 17 amperes, 30°C temperature rise with single contact on 14 AWG wire

Enhanced High Current Type III+ contacts: 25 amperes, 30°C temperature rise with single contact on 14 AWG wire

Temperature: -55°C to +105°C

VDE 0627: XA/630/4KV/2 - Series I, VDE tested only

Multiplication Rating Factor (F)

Type III+ Contacts (Note: 1 = 17 amperes)

Shell Size	Percent Connector Loading					
	Single Circuit		≅ 50%		100%	
	Wire Size		Wire Size		Wire Size	
	30 AWG	14 AWG	30 AWG	14 AWG	30 AWG	14 AWG
11-4	.291	1	.212	.905	.140	.684
13-9	.278	.995	.175	.750	.134	.567
17-16	.270	.990	.146	.625	.127	.472
23-24	.281	.985	.138	.550	.120	.416
23-37	.275	.985	.131	.497	.114	.376

Enhanced High Current Type III+ Contacts (14 AWG wire only - Note: 1 = 25 amperes)

Shell Size	Percent Connector Loading		
	Single Circuit	≅ 50%	100%
	14 AWG	14 AWG	14 AWG
11-4	.880	.840	.640
13-9	.880	.640	.480
17-16	.880	.520	.400
23-24	.880	.520	.400
23-37	1	.440	.320



**Electronics**

**Type III+ (Precision Formed, Crimp)**

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

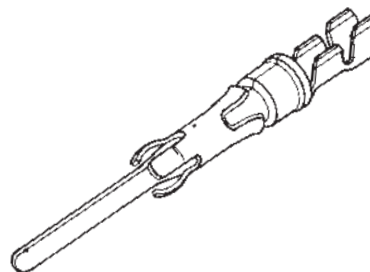
**Material and Finish**

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

**Grounding Pin**  
(make first - break last)

**Related Product Data**

Performance Characteristics—Page 6  
Application Tooling—Pages 75-78  
Technical Documents—Page 79



Wire Size Range		Ins. Dia. Range <sup>1</sup>	Contact Finish	Grounding Pin Part No.		Strip Form Applicator Part No.	Loose Piece Hand Tool Part No.
mm <sup>2</sup>	AWG			Strip Form	Loose Piece		
0.12-0.2	26-24	.035-.055 0.89-1.4	Tin	164159-3	164162-1	—	91515-1 <sup>5</sup> or 58495-1*
			Sel. Gold/Nickel <sup>4</sup>	164159-4	164162-2		
0.2-0.6	24-20	.045-.070 1.14-1.78	Bright Tin	164160-3	164163-1	466323-□*** or 466907-2***	91515-1 <sup>5</sup> or 91505-1 <sup>5</sup> or 58495-1*
			Sel. Gold/Nickel <sup>4</sup>	164160-4	164163-2		
0.8-1.4	18-16	.078-.098 1.98-2.49	Tin	164161-3	164164-1	466741-□*** or 680114-3***	91523-1 <sup>5</sup> or 91505-1 <sup>5</sup> or 58495-1*
			Sel. Gold/Nickel <sup>4</sup>	164161-4	164164-2		

<sup>1</sup>Overall insulation crimp diameter, including crimp barrel, must not exceed .125 [3.18].  
<sup>4</sup>Gold flash over .000030 [0.00076] min. nickel on entire contact, with .000030 [0.00076] gold in contact area.  
<sup>5</sup>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. 217201-1, Adapter Holder Part No. 356304-1 (with ratchet) or 189928-1 (without), and Power Unit Part No. 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. 539972-1.**

**High Current Power Contact—Size 16**

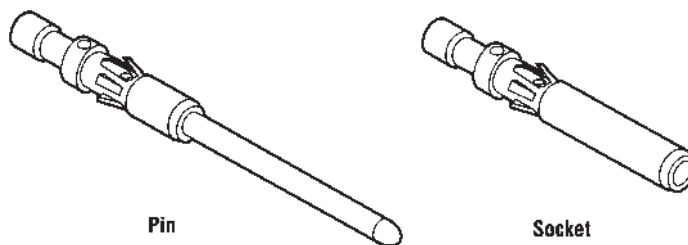
The features of the High Current Size 16 contact have been designed to retrofit into the existing AMP Connectors such as CPC (Circular Plastic Connector), CMC (Circular Metal Connector), G Series, M Series, Metrimate Square Grid and Drawer Connector housings. An initial T-Rise test in free air has shown a 23 amp capability with a 30° T-Rise. The contact may be crimped onto 14 AWG wire with an AMP hand tool Part No. 601967-1. Use turret TH502 (1-601967-6) for the pin and turret TH501 (1-601967-5) for the socket.

**Material**

Body—Copper alloy  
Louvertac Band—Beryllium copper  
Retention Spring—Stainless steel

**Finish**

Body—Silver  
Louvertac Band—Gold



Wire Range		Contact Part Nos.				Crimping Tool		
		Pin		Socket		Tool	Turret	
mm <sup>2</sup>	AWG	Loose Piece	Tape Mounted	Loose Piece	Tape Mounted		for Pins	for Sockets
0.8-1.4	18-16	796964-1	796964-2	796966-1	796966-2	601967-1	1-601967-5	1-601967-5
2	14	193844-1	193844-2	193846-1	193846-2	601967-1	1-601967-6	1-601967-5

**Extraction Tool Part No. 305183**

Signal Contacts (Continued)

Type III+ (Precision Formed, Solder)

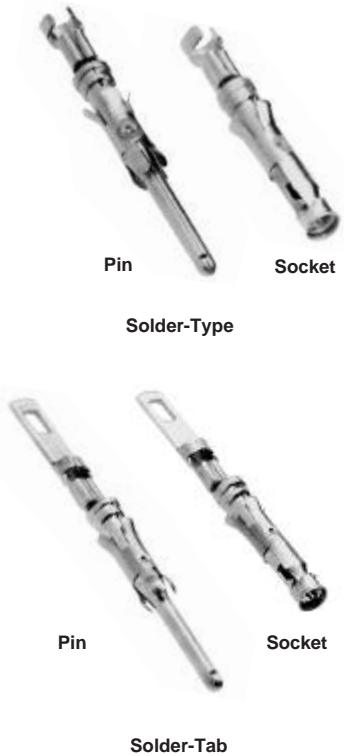
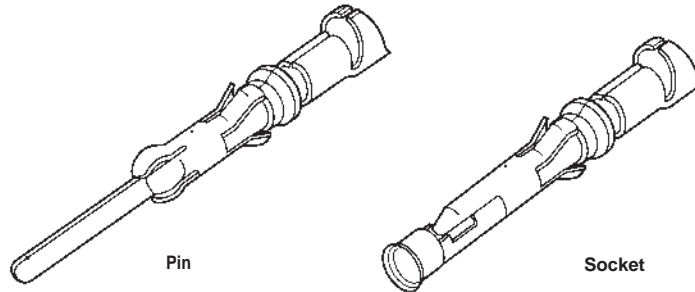
Contact Size—16  
Pin Diameter—.062 [1.57]

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

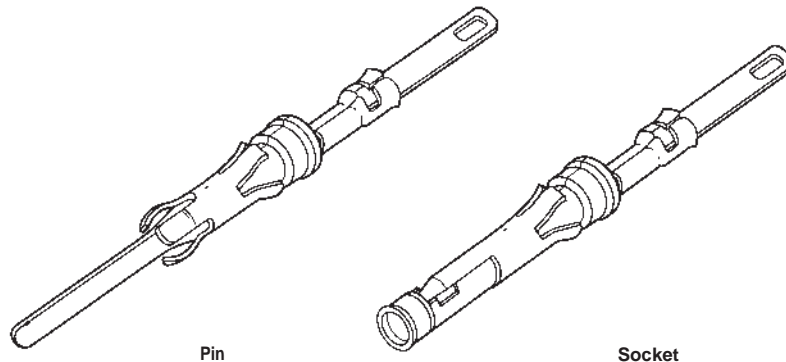
Related Product Data  
Performance Characteristics—Page 6  
Technical Documents—Page 79

CPC Series 1

Solder-Type  
(with Preformed Wire Barrel/Insulation Support)



Solder-Tab



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

Wire Size Range		Contact Finish	Loose Piece Contact No.	
AWG	mm <sup>2</sup>		Pin	Socket
26-20	0.12-0.6	Gold/Nickel <sup>1</sup>	66182-1	66183-1
18-16	0.8-1.4	Gold/Nickel <sup>1</sup>	66180-1	66181-1
Solder Tab <sup>4</sup>		Duplex <sup>2</sup>	202236-7	202237-7
		Bright Tin	202236-5	202237-5

<sup>1</sup>.000030 [0.00076] gold in mating area over .000030 [0.00076] min. nickel.  
<sup>2</sup>Duplex plated .000030 [0.00076] gold in mating area over .000030 [0.00076] min. nickel on contact body; bright tin on solder tab.  
<sup>3</sup>Bright tin on entire contact.  
<sup>4</sup>Designed for up to 14 AWG; but, not to exceed current limitation of contact.  
**Note:** These contacts can be used in Multimate contact cavities of all connector housings.  
<sup>‡</sup>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 8.  
**Extraction Tool Part No. 305183**

*Electronics*

**Signal Contacts** (Continued)

**Type II, Screw Machined,  
Crimp**

**Material**

**Contact Body**—Brass  
**Retention Spring**—Stainless steel

**Finish**

**Contact Body**—.000030 [0.00076]  
gold over .000050 [0.00127]  
nickel. Gold thickness controlled  
on socket O.D.

**Retention Spring**—Stainless steel

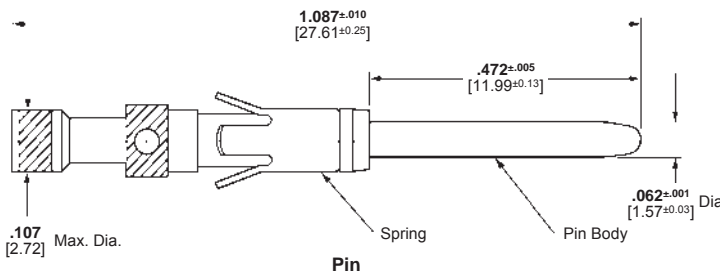
**Related Product Data**

**Application Tooling**—Pages 75-78

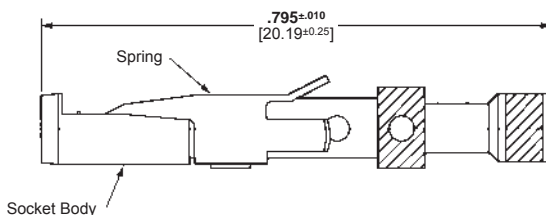
CPC  
Series 1



Pin



Socket



Socket

**Contact Size 16—Pin Diameter .062 [1.57] (Test Current, 13 Ampere)†**

Wire Size Range		Ins. Dia. Range <sup>1</sup>	Tape Mounted Contact No. <sup>2</sup>		Loose Piece Contact No.		Contact Color Code	Tooling Part No.		
			Pin	Socket	Pin	Socket		Tape Mounted Dies for AMP-TAPETRONIC Machine 69875	Loose Piece Die Set for 626 Pneumatic Tool System	Hand Tool
28-24	0.08-0.20	.035-.055 0.89-1.40	201611-4	—	201611-1 <sup>4</sup>	201613-1 <sup>5</sup>	Red/Red	90249-2	90230-1 <sup>7</sup>	91538-1 or 601967-1
		.048-.065 1.22-1.65	—	—	201334-1 <sup>4</sup>	201332-1 <sup>5</sup>	Red/Red		—	—
		.095-.110 2.41-2.79	—	—	202410-1 <sup>4</sup>	202411-1 <sup>5</sup>	Green	—	—	601967-1
24-20	0.2-0.6	.040-.062 1.02-1.57	201578-4	—	201578-1 <sup>4</sup>	201580-1 <sup>5</sup>	Yellow/Red	90249-2	90230-1 <sup>7</sup>	91538-1 or 58541-1* or 601967-1
		.055-.088 1.40-2.16	201330-6	201328-9	201330-1 <sup>4</sup>	201328-1 <sup>5</sup>	Yellow/Red		—	—
18 (Two)	0.9-0.9 (Two)	No. Ins. Support	—	—	202725-1 <sup>4</sup>	202726-1 <sup>4</sup>	Blue	—	90231-2 <sup>7</sup>	91539-1 or 601967-1
18-16	0.8-1.4	.080-.105 2.03-2.67	—	—	202507-1 <sup>4</sup>	202508-1 <sup>5</sup>	—	—	—	90136-1 or 601967-1
		No Ins. Support	200336-6	200333-8	200336-1 <sup>4</sup>	200333-1 <sup>4</sup>	Blue/Blue	90250-1	90231-2 <sup>7</sup>	91539-1 58541-1* or 601967-1
14	2	No Ins. Support	212618-2 <sup>3</sup>	201568-3	201570-1 <sup>4</sup>	201568-1 <sup>5</sup>	Violet/Blue	90250-1	90231-2 <sup>7</sup>	91539-1 58541-1* or 601967-1
			201570-2	—	212618-1 <sup>3,6,†</sup>	—	—	—	—	—

<sup>1</sup>Overall insulation crimp diameter, including crimp barrel, must not exceed .125 [3.18].

<sup>2</sup>For AMP-TAPETRONIC Machine No. 69875, order contacts by Tape Mounted Contact No., plus packaging code "IM REEL" (5000 parts per reel).

<sup>3</sup>Grounding pin is used to provide a make-first/break-last condition when mating and unmating connector halves.

<sup>4</sup>Use turret TH502 (1-601967-6) with hand tool 601967-1.

<sup>5</sup>Use turret TH501 (1-601967-5) with hand tool 601967-1.

<sup>6</sup>Pin length is .630±.005 [16.002±.127] on these two pins.

<sup>7</sup>Die Set requires "C" Head Adapter Part No. 318161-1; Adapter Holder Part No. 356304-1 (with ratchet) or 189928-1 (without); and Power Unit Part No. 189721-2 (hand actuated) or 189722-2 (foot actuated).

\*Commercial PRO-CRIMPER II Hand Tool for field repair use only. **Note:** Die Set can be adapted for use with the 626 Pneumatic Tool System.

†Does not use Hand Tool 91539-1 or 601967-1.

‡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 8.

**Insertion Tool Part No. 200893-2** (for insulation diameters .070 [1.78] or less).

**Extraction Tool Part No. 305183.**

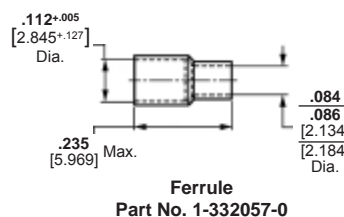
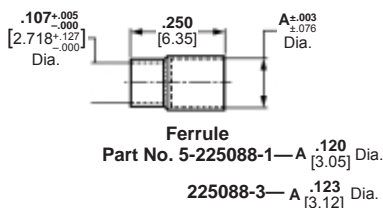
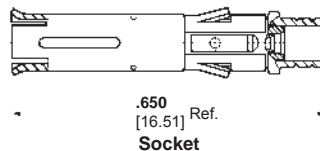
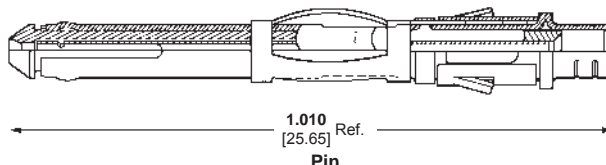
Subminiature Coax, Size 16 Precision Formed, Crimp



Pin



Socket



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

Finish

- Outer Shell, Center Conductor**—See charts
- Ferrule**<sup>†</sup>—Bright tin per MIL-T-10727

Related Product Data

Application Tooling—Pages 75-78

Coaxial Contacts

Selection Chart for Coaxial Cable

Cable Size (RG/U)	Contact Finish	Loose Piece Contact No.		Ferrule Part No.	Tooling Part No.	
		Pin	Socket		Die Sets for Hand Tool 69710-1 or 626 Pneumatic Tool System	Hand Tool or Die Set*
178, 196	Gold/Nickel Gold/Copper <sup>1</sup>	226537-2	51565-2	1-332057-0 <sup>†</sup>	69690-2 <sup>7</sup>	69656-2
	Gold/Nickel Gold/Copper <sup>2</sup>	—	51565-5			
196 (Double Braid)	Gold/Nickel Gold/Copper <sup>1</sup>	226537-2	51565-2	5-225088-1 <sup>†</sup>	—	69656-9
	Gold/Nickel Gold/Copper <sup>2</sup>	—	51565-5			
174, 188, 316	Gold/Nickel Gold/Copper <sup>1</sup>	226537-1	51565-1	1-332056-0	69690 <sup>7</sup>	91911-3*
	Gold/Nickel Gold/Copper <sup>2</sup>	226537-4	51565-4			
174 (Double Braid)	Gold/Nickel Gold/Copper <sup>1</sup>	226537-1	51565-1	5-225088-3	—	69656-7
	Gold/Nickel Gold/Copper <sup>2</sup>	226537-4	51565-4			
179, 187	Gold/Nickel Gold/Copper <sup>1</sup>	226537-1	51565-1	1-332056-0	69690-1 <sup>7</sup>	91911-4*
	Gold/Nickel Gold/Copper <sup>2</sup>	226537-4	51565-4			
187 (Double Braid)	Gold/Nickel Gold/Copper <sup>1</sup>	226537-1	51565-1	5-225088-1 <sup>†</sup>	—	69656-8
	Gold/Nickel Gold/Copper <sup>2</sup>	226537-4	51565-4			
161	Gold/Nickel Gold/Copper <sup>1</sup>	226537-1	51565-1	1-332056-0	—	—
	Gold/Nickel Gold/Copper <sup>2</sup>	226537-4	51565-4			

<sup>1</sup>.000030 [0.00076] gold over .000050 [0.00127] nickel—outer shell and socket center conductor; .000030 [0.00076] gold over .000100 [0.00254] copper—pin center conductor.  
<sup>2</sup>.000050 [0.00127] gold over .000050 [0.00127] nickel—outer shell and socket center conductor; .000050 [0.00127] gold over .000100 [0.00254] copper—pin center conductor.  
<sup>7</sup>Die Set requires "C" Head Adapter **Part No. 318161-1**; Adapter Holder **Part No. 356304-1** (with ratchet) or **189928-1** (without); and Power Unit **Part No. 189721-2** (hand actuated) or **189722-2** (foot actuated).  
<sup>†</sup>Does not use Hand Tool 91539-1 or 601967-1.  
\*Used with PRO-CRIMPER II Hand Tool Frame **Part No. 354940-1**.  
**Extraction Tool Part No. 305183**

**Subminiature Coax, Size 16  
Precision Formed, Crimp**  
(Continued)

**Finish**

Ferrule<sup>†</sup>—Bright tin per  
MIL-T-10727

**Related Product Data**

Application Tooling—Pages 75-78

**Coaxial Contacts** (Continued)

**Selection Chart for Twisted Pair and Shielded Wire**

Wire Size		Contact Finish	Loose Piece Contact No.		Ferrule Part No.	Tooling Part No.	
AWG	mm <sup>2</sup>		Pin	Socket		Die Sets for Hand Tool 69710-1 or 626 Pneumatic Tool System	Hand Tool or Die Set*
30	0.05 (Twisted Pair, Solid)	Gold/Nickel Gold/Copper <sup>1</sup>	226537-3	51565-3	1-332057-0†	69690-2 <sup>7</sup>	69656-2
		Gold/Nickel Gold/Copper <sup>2</sup>	226537-6	51565-6			
28	0.08-0.09 (Twisted Pair, Solid)	Gold/Nickel Gold/Copper <sup>1</sup>	226537-3	51565-3	1-332057-0†	69690 <sup>7</sup>	91911-3*
		Gold/Nickel Gold/Copper <sup>2</sup>	226537-6	51565-6			
28	0.08-0.09 (Twisted Pair, Stranded 7 Str., .0050 [0.13] Dia.)	Gold/Nickel Gold/Copper <sup>1</sup>	226537-3	51565-3	1-332057-0†	69690-1 <sup>7</sup> or 69690-2 <sup>7</sup>	91911-4* or 69656-2
		Gold/Nickel Gold/Copper <sup>2</sup>	226537-6	51565-6			
26	0.12-0.15 (Twisted Pair, Solid or Stranded 7 Str., .0063 [0.16] Dia.)	Gold/Nickel Gold/Copper <sup>1</sup>	226537-3	51565-3	1-332057-0†	69690 <sup>7</sup>	91911-3*
		Gold/Nickel Gold/Copper <sup>2</sup>	226537-6	51565-6			
26	0.12-0.15 (Shielded, .075 [1.91] Max. O.D.)	Gold/Nickel Gold/Copper <sup>1</sup>	226537-1	51565-1	1-332057-0†	69690-3 <sup>7</sup>	69656-3
		Gold/Nickel Gold/Copper <sup>2</sup>	226537-4	51565-4			

<sup>1</sup>.000030 [0.00076] gold over .000050 [0.00127] nickel—outer shell and socket center conductor; .000030 [0.00076] gold over .000100 [0.00254] copper—pin center conductor.

<sup>2</sup>.000050 [0.00127] gold over .000050 [0.00127] nickel—outer shell and socket center conductor; .000050 [0.00127] gold over .000100 [0.00254] copper—pin center conductor.

<sup>7</sup>Die Set requires "C" Head Adapter **Part No. 318161-1**; Adapter Holder **Part No. 356304-1** (with ratchet) or **189928-1** (without); and Power Unit **Part No. 189721-2** (hand actuated) or **189722-2** (foot actuated).

\*Used with PRO-CRIMPER II Hand Tool Frame **Part No. 354940-1**.

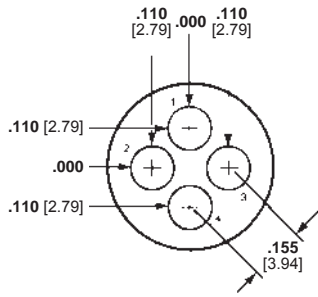
**Note:** A ferrule is required for each pin and socket.

**Extraction Tool Part No. 305183.**

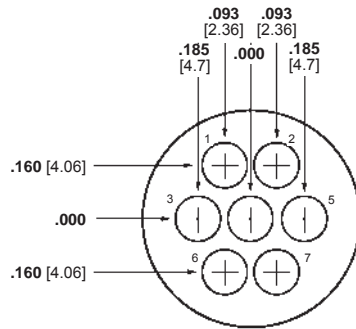
*Electronics*

**Contact Arrangements, Series 1**

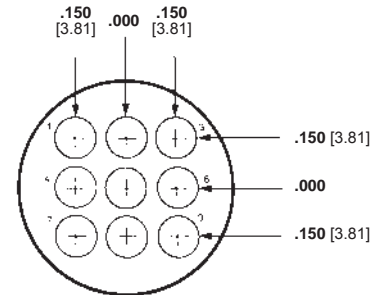
**Shell Sizes 11 and 13**



**Arrangement 11-4**  
Max. Wire Ins. Dia. = .100 [2.54]

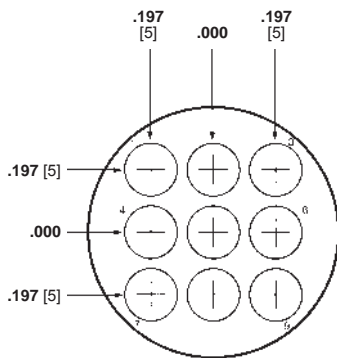


**Arrangement 13-7**  
Max. Wire Ins. Dia. = .100 [2.54]

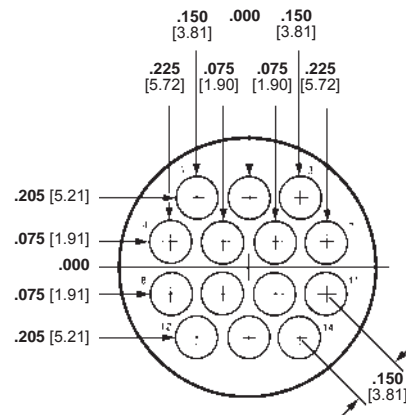


**Arrangement 13-9**  
Max. Wire Ins. Dia. = .100 [2.54]

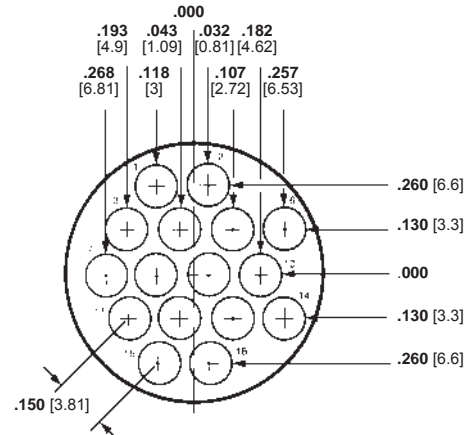
**Shell Size 17**



**Arrangement 17-9**  
Max. Wire Ins. Dia. = .150 [3.81]

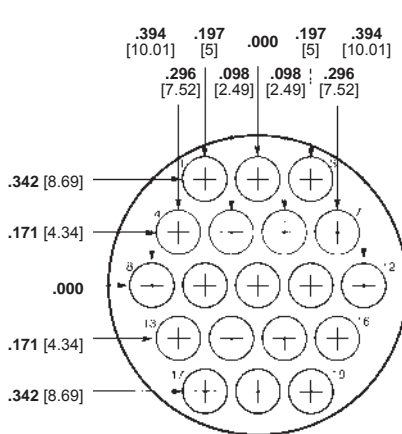


**Arrangement 17-14**  
Max. Wire Ins. Dia. = .100 [2.54]

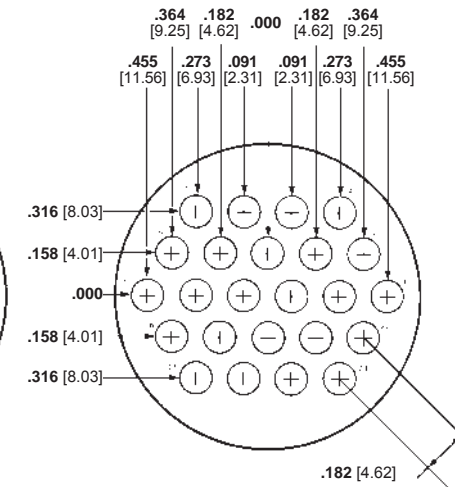


**Arrangement 17-16**  
Max. Wire Ins. Dia. = .100 [2.54]

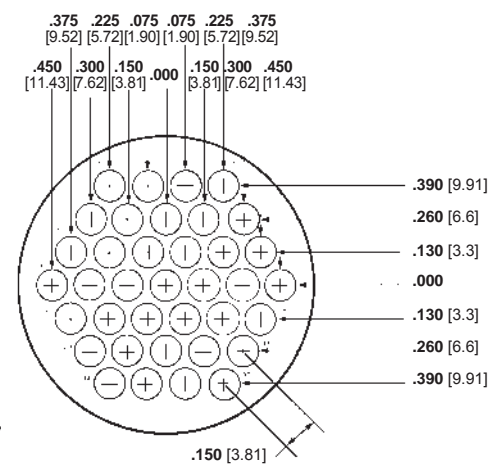
**Shell Size 23**



**Arrangement 23-19**  
Max. Wire Ins. Dia. = .150 [3.81]



**Arrangement 23-24**  
Max. Wire Ins. Dia. = .150 [3.81]

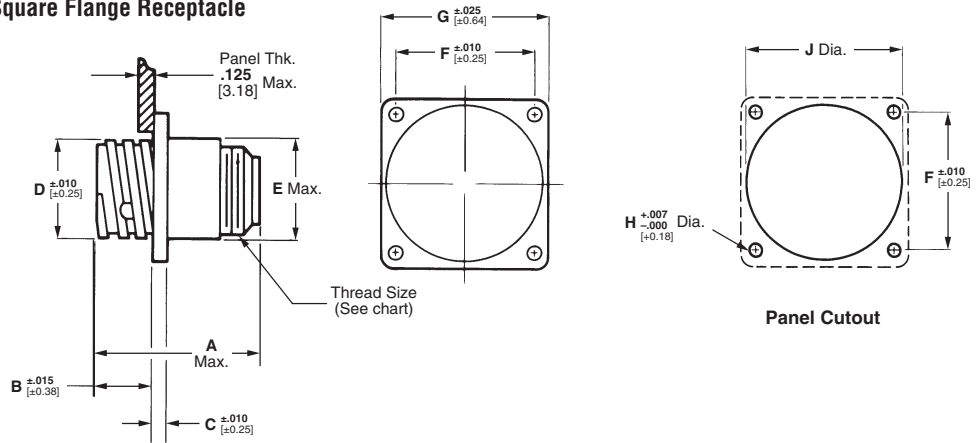


**Arrangement 23-37**  
Max. Wire Ins. Dia. = .100 [2.54]

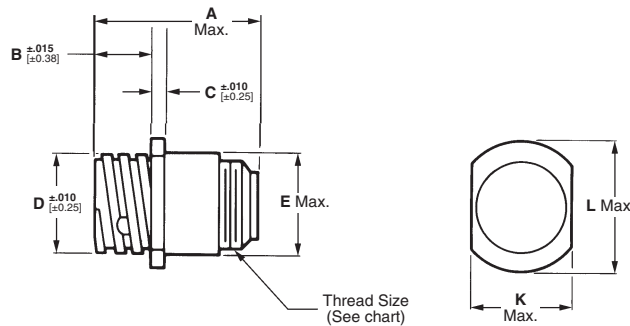
**Note:** Contact arrangements shown are for pin mating face (plug or receptacle). Socket mating face is mirror image.

**Component Dimensions, Series 1**

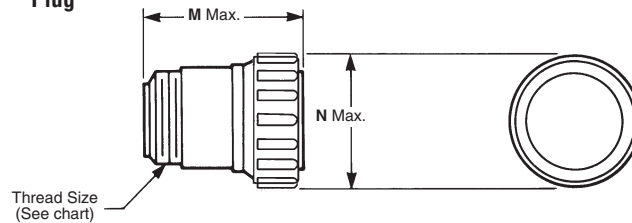
**Square Flange Receptacle**



**Free-Hanging Receptacle**



**Plug**



Shell Size	Sex	Dimensions													Thread Size		
		A	B	C	D	E	F	G	H	J	K	L	M	N			
11	Rev.	1.070											1.365				
	Std.	27.18	.420	.094	.687	.740	.844	1.125	.125	.840	.817	.935	34.67	.975			
13	Std.	1.350	.420	.094	.812	.879	.969	1.281	.125	.979	.874	1.072	1.080	1.105			
		34.29	10.67	2.39	20.62	22.33	24.61	32.54	3.18	24.87	22.2	27.23	27.43	28.07			
17	Rev.	1.070											1.365				
	Std.	27.18	.420	.094	1.050	1.110	1.125	1.435	.150	1.210	1.161	1.310	34.67	1.349			
23	Std.	1.350	.520	.156	1.438	1.510	1.438	1.750	.150	1.610	1.505	1.733	1.080	1.788			
		34.29	13.21	3.96	36.53	38.35	36.53	44.45	3.81	40.89	38.23	44.02	27.43	45.42			