

## COAXICON Contacts

### Product Facts

- Tyco Electronics provides a variety of contacts for coaxial connectors
- Contacts are available in a range of sizes that may be used with the various types of coaxial cable on the market
- COAXICON contacts are of the crimp, snap-in type and are available in the following designs: Miniature Contacts, Subminiature Contacts and Size 8 Contacts

**Miniature Contacts** are designed for high density multiple circuit connector applications. A wide range of cable sizes is accommodated by using three sizes of outer shell termination ends and three sizes of contacts.

**Subminiature Contacts** are used in high density applications and are ideal for mixing coaxial and other styles of pin and socket contacts in the same connector housing.

**Size 8 Contacts** are compatible with industry standard size 8 connectors such as Subminiature D and AMP-HDI connector housings. Straight and right-angle styles, as well as pc board versions for AMP-HDI connectors are available.



## Miniature Contacts

### Performance Characteristics

**Insulation Resistance** — 5000 megohms min

**Dielectric Withstanding Voltage** — 1,000 volts rms for 1 minute

**Contact Resistance** — 2.0 milliohms @ 1 ampere

**Low-Level Conductivity** — 10 milli-volts DC min.

**VSWR** — 1.3 to 1.0 @ 1,000 MHz max.

### Cable Retention —

RG/U Cable	Retention lbs [N]
58C	50 [222]
188A	30 [133]
180B	28 [125]
195A	16 [71]

**Durability** — 500 cycles @ 10 cycles per minute max.

**Vibration** — 2 hrs. per MIL-STD-202, Method 201

**Shock** — 50 G's per MIL-Std-202, Method 213, Cond. G

**Temperature Cycling** — 5 cycles per MIL-STD-202, Method 102, Cond C.

**Temperature Range** — -55°C to +125°C

**Test Method for Electronic and Electrical Component Parts** — MIL-STD-202

### Material

**Outer Shell** — Brass per MIL-C-50

**Center Conductor** — Brass per QQ-B-626, or Beryllium copper per QQ-C-533

### Note:

A ferrule and retention spring (201142-2) are required for each pin and socket.

Extraction Tool No. 305183-8

**Inner Dielectric** — Polypropylene, nylon, or polymethylpentene, general purpose

**Retention Spring** — Stainless steel per QQ-S-766

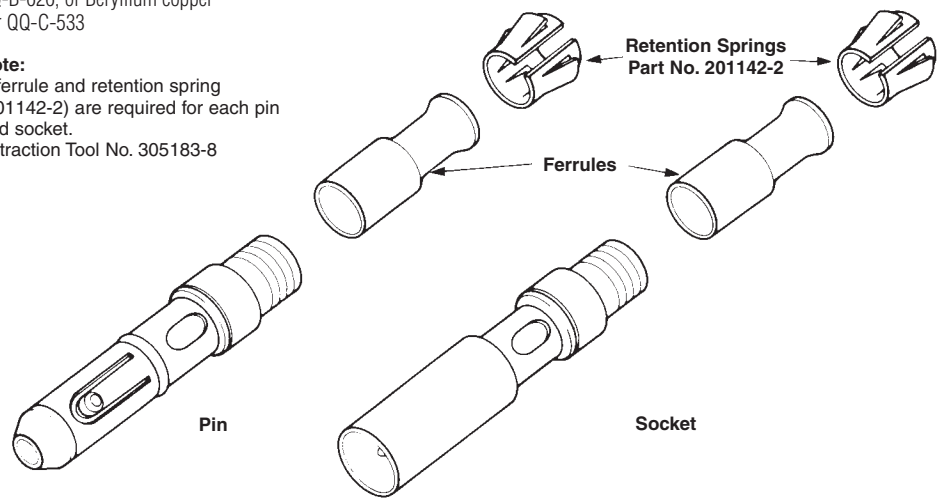
**Ferrule** — Copper per QQ-C-576

### Finish

**Outer Shell, Center Conductor** — 0.00076 [.000030] gold over 0.00076 [.000030] nickel

**Retention Spring** — Nickel per QQ-N-290

**Ferrule** — Bright tin per MIL-T-10727



RG/U Cable	Ferrule No.	Integral Die Hand Tool	PRO-CRIMPER	Die Insert for Tools: Hand Tool 69710-1 Pneu. 69365-2, 69365-3 <sup>2</sup>	Part Numbers	
					Pin	Socket
316, 188, 188A 174	328666	—	—	69227-2	<b>201143-5</b>	<b>201144-5</b>
179, 179A, 179B 161, 187, 187A Belden 9221	328666	—	—	69227-2	<b>201143-1</b>	<b>201144-1</b>
188 Double Braid 316 Double Braid	221848-3	58290-1	—	69227-2	<b>201143-5</b>	<b>201144-5</b>
122	328664	45639-2	91912-3	69222-2	<b>201145-1</b>	—
180, 180A, 180B 195, 195A, 21-597	328664	45639-2	91912-3	69222-2	<b>201145-2</b>	<b>201146-2</b>
Belden 8218	328664	45639-2	91912-3	69222-2	<b>201145-2</b>	<b>201146-2</b>
58, 58A, 58B, 58C	328663	45740-2	—	69220-2	<b>201145-4</b>	<b>201146-4</b>
141 55, 55A, 55B, 223	330478	69248-4	—	69315-4	<b>201145-4</b>	<b>201146-4</b>
124, 140, 210 62, 62A, 62B 59, 59A, 59B	329006	—	—	69675-1	<b>201097-1*</b>	<b>201098-1*</b>
<b>Twisted Pair</b>						
24-22 AWG [0.2-0.4 mm <sup>2</sup> ] (Stranded) <sup>1</sup>	328666	91912-4	—	69672	<b>201143-5</b>	<b>201144-5</b>
Shielded Wire 22, NAS-702, Class B	328663	45740-2	—	69220-2	<b>201145-4</b>	<b>201146-4</b>
Brand Rex T5788A 26 AWG [0.12-0.155 mm <sup>2</sup> ] <sup>3</sup>	328664	45639-2	91912-3	69222-2	<b>201145-2</b>	<b>201146-2</b>

\*These contacts are for use in the 4-position G Series connector modules only.

<sup>1</sup>Maximum insulation diameter—**2.92** [.115] (two wires combined).

<sup>2</sup>Includes bench mount and foot control; requires Manual Take-Up Attachment No. 69689.

<sup>3</sup>Dielectric O.D.—**2.69** [.106] max.; Cable O.D.—**4.06** [.160].

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

## Miniature PC Board Sockets

### Material

**Shell and Center Contact** — Brass per MIL-C-50 and QQ-B-626

**Dielectric** — Polypropylene, or Polymethylpentene, general purpose

### Finish

**Center Contact** — 0.00076 [.000030] gold over copper

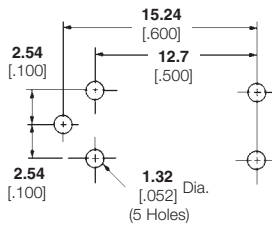
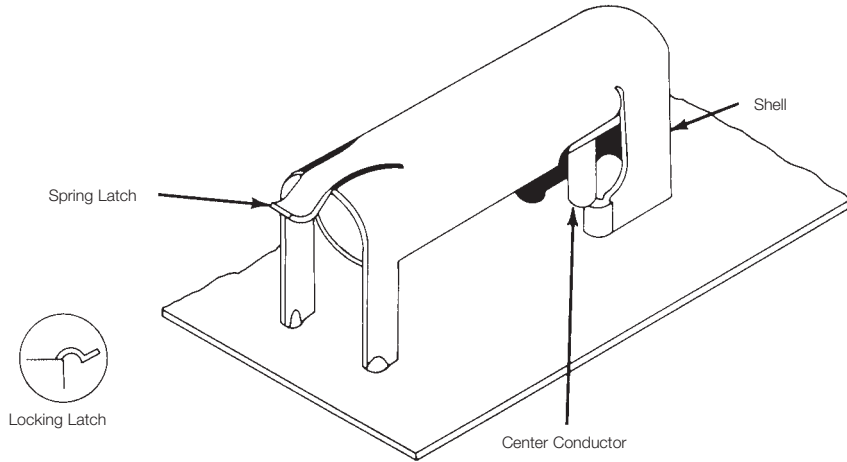
**Shell** — Gold plated per MIL-G-45204

### Performance Characteristics

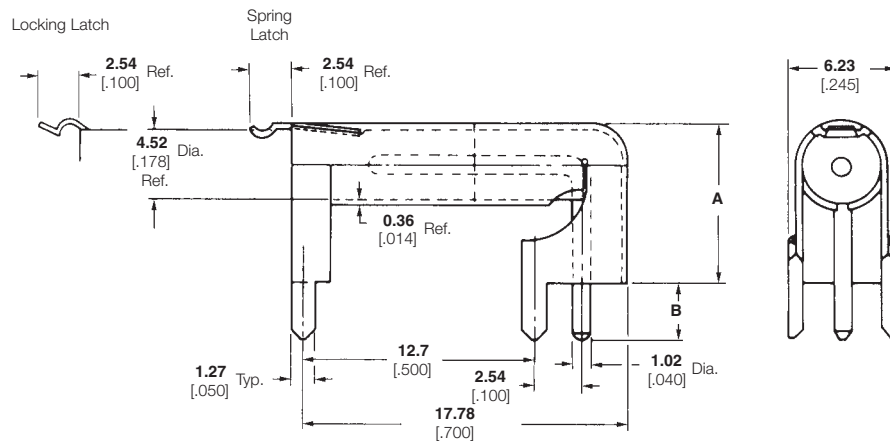
**Dielectric Withstanding Voltage** — 1,000 volts, rms

**Impedance** — Non-constant

**Operating Temperature Range** — -55°C to +85°C



**Recommended Mounting Hole Layout**



Type	PC Board Thickness	Retention		Dimensions		Part No.
		lb.	[N]	A	B	
Spring Latch	1.57 .062	1.25	5.56	9.07 .357	3.18 .125	50084-1
Spring Latch	3.18 .125	1.25	5.56	7.49 .295	4.75 .187	50095-1
Locking Latch	3.18 .125	7	31.1	7.49 .295	4.75 .187	50105-1
Locking Latch	1.57 .062	7	31.1	9.07 .357	3.18 .125	50107-1

**Note:** For mateable Miniature Contacts, see page 245.

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

## Subminiature PC Board Sockets

### Material

**Shell and Center Contact** — Brass per MIL-C-50 and QQ-B-626

**Dielectric** — Polypropylene, or polymethylpentene, general purpose

### Finish

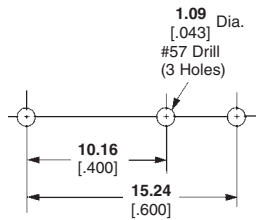
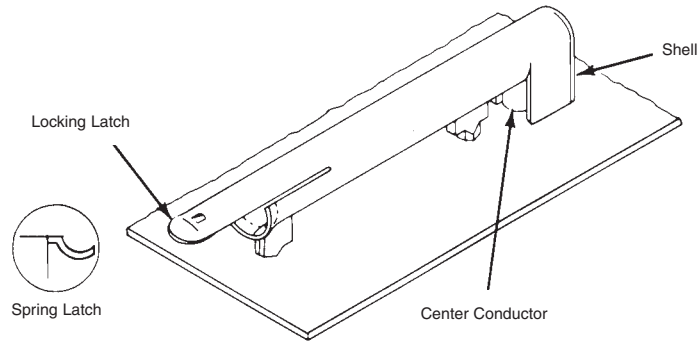
**Center Contact** — 0.00076[.000030] gold per MIL-G-45204 over copper per MIL-C-14550

**Shell** — Gold

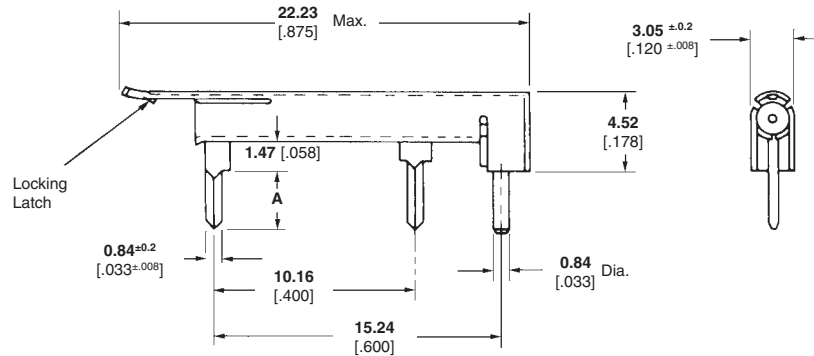
### Performance Characteristics

**Dielectric Withstanding Voltage** — 600 volts, rms

**Operating Temperature Range** — -55°C to +85°C



**Recommended Mounting Hole Layout**



Type	PC Board Thickness	Dim. L	Part No.
Spring Latch	1.57 .062	2.54 .100	226023-1
Locking Latch	1.57 .062	2.54 .100	226060-1

### Mating Subminiature COAXICON Pins

These short Subminiature COAXICON Pins are recommended for use with any of the sockets listed above.

**Note:** Alignment springs are not required for this application and are not included with the pin assemblies.



RG/U Cable	Ferrule No.	Integral Die Hand Tool	Die Insert for Tools: Hand Tool 69710-1 Pneu. 69365-2, 69365-3	Part No.
174 316, 188, 188A	1-332056-0	91911-3	69690	51563-8
179, 179A, 179B 187, 187A	1-332056-0	91911-4	69690-1	51563-8
161	1-332056-0	69656-5	—	51563-8

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

## Subminiature Contacts

### 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, nylon, or polymethylpentene, general purpose

**Retention Spring** — Stainless steel per QQ-S-766

**Ferrule** — Copper per QQ-C-576

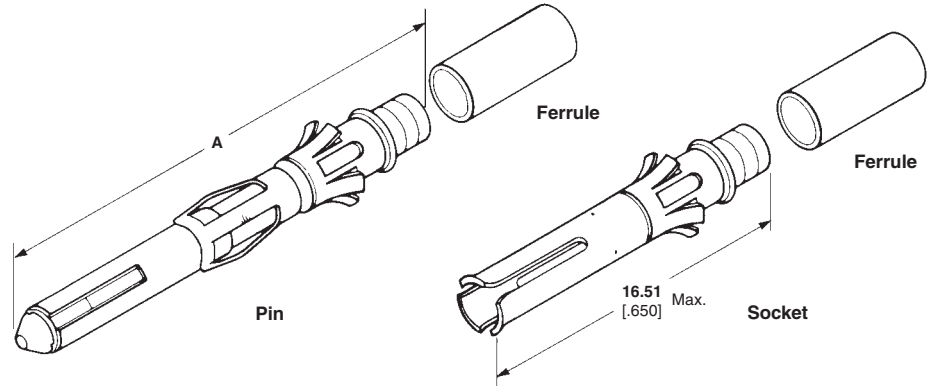
### Finish

**Outer Shell and Socket**

**Center Conductor** — 0.00076 [.000030] gold over 0.00127 [.000050] nickel

**Pin Center Conductor** — 0.00076 [.000030] gold over 0.00254 [.000100] copper

**Ferrule** — Bright tin per MIL-T-10727



**A** = Multimate Pin **25.65** [1.010]  
Short Pin **22.66** [.892]

### Selection Chart for Coaxial Cable

RG/U Cable	Integral Die Hand Tool	PRO-CRIMPER	Die Insert for Tools: Hand Tool 69710-1 Pneu. Tool 69365-2, 69365-3*	Contact Part Numbers			
				Multimate Pin	Short Pin	Socket	Ferrule
178, 178A, 178B 196, 196A	69656-2	—	69690-2	<b>226537-2</b>	—	<b>51565-2</b>	1-332057-0
196 (Double Braid)	69656-9	—	—	<b>226537-2</b>	—	<b>51565-2</b>	225088-1
174, 316 188, 188A	—	91911-3	69690	<b>226537-1</b>	—	<b>51565-1</b>	1-332056-0
179, 179A, 179B 187, 187A Belden 9221	—	911911-4	69690-1	<b>226537-1</b>	—	<b>51565-1</b>	1-332056-0
RD-316	69656-7	—	—	<b>226537-1</b>	—	<b>51565-1</b>	225088-3
187 (Double Braid)	69656-8	—	—	<b>226537-1</b>	—	<b>51565-1</b>	225088-1
161	69656-5	—	—	<b>226537-1</b>	—	<b>51565-1</b>	1-332056-0

### Selection Chart for Twisted Pairs and Shielded Wire

Wire Size AWG	[mm <sup>2</sup> ]	Integral Die Hand Tool	PRO-CRIMPER	Die Insert for Tools: Hand Tool 69710-1 Pneu. Tool 69365-2, 69365-3*	Contact Part Numbers			
					Multimate Pin	Short Pin	Socket	Ferrule
30 (Twisted Pair, Solid)	0.05	69656-2	—	69690-2	<b>226537-3</b>	<b>51563-3</b>	<b>51565-3</b>	1-332057-0
28 (Twisted Pair, Solid)	0.08-0.09	—	91911-3	69690	<b>226537-3</b>	<b>51563-3</b>	<b>51565-3</b>	1-332057-0
28 (Twisted Pair, Stranded; 7 str., .005 [0.13] Dia.)	0.08-0.09	—	91911-4	69690-1 or 69690-2	<b>226537-3</b>	<b>51563-3</b>	<b>51565-3</b>	1-332057-0
26 (Twisted Pair, Solid or Stranded; 7 str., .0063 [0.16] Dia.)	0.12-0.15	—	91911-3	69690	<b>226537-3</b>	<b>51563-3</b>	<b>51565-3</b>	1-332057-0
26 (Shielded, 0.75 [1.91] Max. O.D.)	0.12-0.15	69656-3	—	69690-3	<b>226537-1</b>	—	<b>51565-1</b>	1-332057-0

\*Includes bench mount and foot control.

Extraction Tool 305183

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

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.