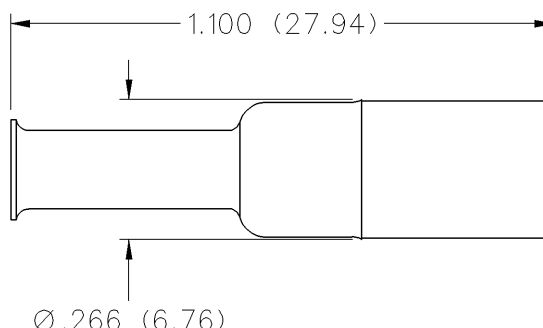
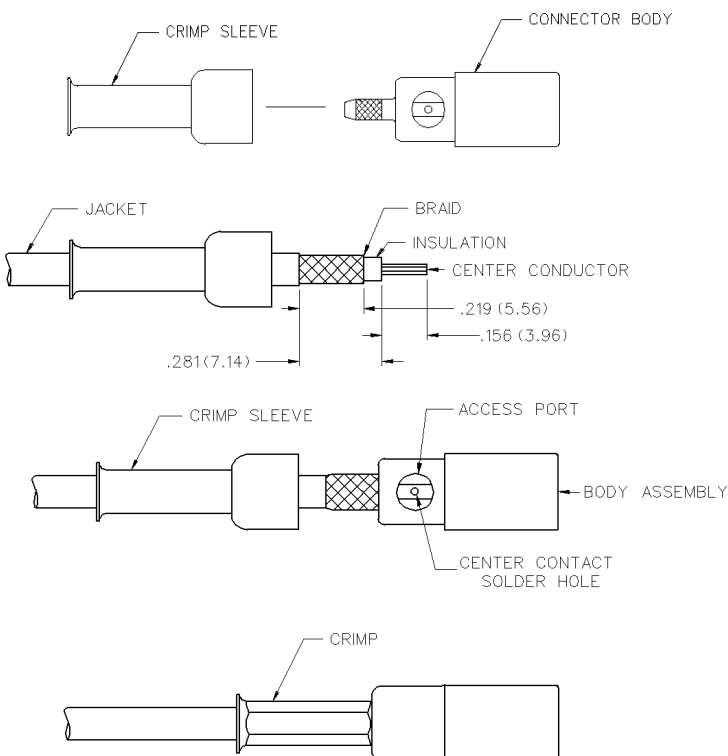


## Straight Crimp Type Plug - Solder or Crimp Captivated Contact



| CABLE TYPE                          | GOLD PLATED  |
|-------------------------------------|--------------|
| RG-316DS, 188 DS,<br>179 DS, 187 DS | 131-9404-001 |

## SMB Straight Crimp Type Straight Plugs For Flexible Cable



| CABLE GROUP                          | PART NUMBER  | CRIMP HEX   |
|--------------------------------------|--------------|-------------|
| RG-316/u, 188, 174,<br>179, 187      | 131-9403-001 | .128 (3.25) |
| RG-316 DS, 188 DS,<br>179 DS, 187 DS | 131-9404-001 | .151 (3.83) |

1. Identify connector parts. (2 piece parts)
2. Strip cable to dimensions shown. Do not nick braid or center conductor. A wire stripper of correct size is recommended for this step. Twist stranded center conductor into tight bundle and tin. Slide crimp sleeve onto cable as shown.
3. Flare braid and slide cable into body making certain that the cable insulation bottoms in center contact.

**Solder Attachment:** Solder center conductor to contact through the side access ports and hole in center contact. Use a minimum amount of solder for a full fillet joint. **.020 (0.51) diameter solder is recommended.**

Crimp 50 Ohm connector contacts with 141-0000-911 dieset in 144-900 tool frame. Crimp 75 Ohm connector contacts with 141-0000-924 dieset in 144-0000-900 tool frame.

# SMB Non-Magnetic RF Connectors

## Cable Assembly Instructions

### ELECTRICAL RATINGS

**Impedance:** 50 ohms

**Frequency Range:** 0-4 GHz

**VSWR:** (f = GHz)

|                            | Straight<br>Cabled | Right Angle<br>Cabled |
|----------------------------|--------------------|-----------------------|
| RG-316 .....               | 1.25 + .04f        | 1.35 + .04f           |
| Uncabled receptacles ..... | N/A                |                       |

**Working Voltage:** (Vrms maximum)

| Connectors for Cable Type         | Sea Level | 70K Feet |
|-----------------------------------|-----------|----------|
| RG-316, uncabled connectors ..... | 335       | 85       |

**Dielectric Withstanding Voltage:** (VRMS minimum at sea level)

|                                                   |      |
|---------------------------------------------------|------|
| Connectors for RG-316, uncabled receptacles ..... | 1000 |
|---------------------------------------------------|------|

**Corona Level:** (Volts minimum at 70,000 feet)

|                             |     |
|-----------------------------|-----|
| Connectors for RG-316 ..... | 250 |
| Uncabled receptacles .....  | N/A |

**Insertion Loss:** (dB maximum, tested at 1.5 GHz)

|                                    |         |
|------------------------------------|---------|
| Straight cable connectors .....    | 0.30 dB |
| Right angle cable connectors ..... | 0.60 dB |
| Uncabled receptacles .....         | N/A     |

**Insulation Resistance:** 1000 megohms minimum

**Contact Resistance:** (milliohms maximum) Initial After Environmental

|                                                                               |      |      |
|-------------------------------------------------------------------------------|------|------|
| Center contact (straight cabled connectors<br>and uncabled receptacles) ..... | 6.0  | 8.0  |
| Center contact (right angle cabled connectors) .....                          | 12.0 | 16.0 |
| Outer contact (gold plated connectors) .....                                  | 1.0  | 1.5  |
| Braid to body (gold plated connectors) .....                                  | 1.0  | N/A  |

**RF Leakage:** (dB minimum tested at 2.5 GHz)

|                            |        |
|----------------------------|--------|
| Cable connectors .....     | -55 dB |
| Uncabled receptacles ..... | N/A    |

**RF High Potential Withstanding Voltage:** (Vrms minimum, tested at 4 and 7 MHz)

|                             |     |
|-----------------------------|-----|
| Connectors for RG-316 ..... | 700 |
| Uncabled receptacles .....  | 600 |

**Power Rating (Dummy Load):** 0.5 watt @ +25°C, derated to 0.25 watt @ +125° C

### MECHANICAL RATINGS

**Engagement Design:** MIL-STD-348, Series SMB

**Engagement/Disengagement Force:** 2 pounds min to 14 pounds maximum axial force

**Contact Retention:** 4 lbs. min axial force (captivated contacts)  
1 inch-ounce min torque (uncabled receptacles)

| Cable Retention:      | Axial Force*<br>(pounds) | Torque<br>(in-oz) |
|-----------------------|--------------------------|-------------------|
| Connectors for RG-316 | 20                       | N/A               |

\*or cable breaking strength whichever is less.

**Durability:** 500 cycles minimum

### ENVIRONMENTAL RATINGS

**(Meets or exceed the applicable paragraph of MIL-PRF-39012)**

**Temperature Range:** - 65°C to + 165°C

**Thermal Shock:** MIL-STD-202, Method 107, Condition B

**Corrosion:** MIL-STD-202, Method 101, Condition B

**Shock:** MIL-STD-202, Method 213, Condition B

**Vibration:** MIL-STD-202, Method 204, Condition B