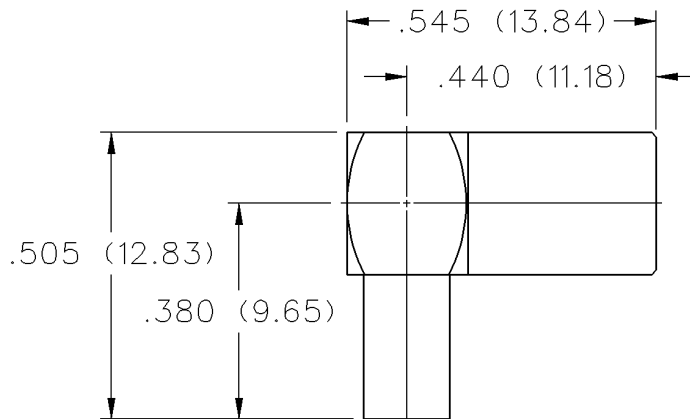
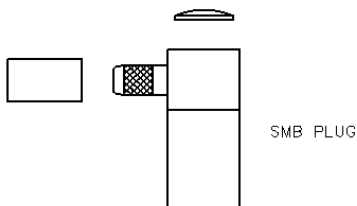
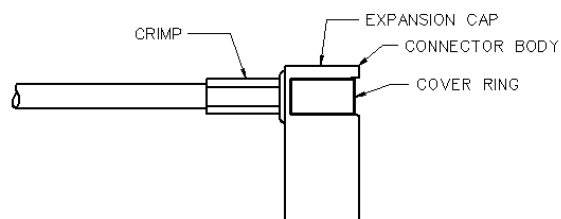
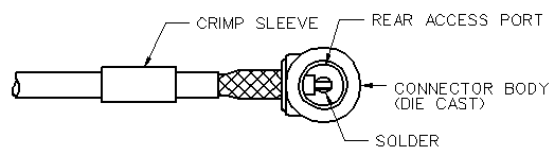
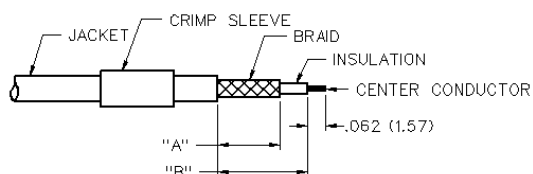


## Right Angle Crimp Type Plug - Captivated Contact



| CABLE TYPE                      | GOLD PLATED  |
|---------------------------------|--------------|
| RG-316/u, 188, 174,<br>179, 187 | 131-9403-101 |



| CABLE GROUP                          | PART NUMBER      | "A"         | "B"         | CRIMP HEX   |
|--------------------------------------|------------------|-------------|-------------|-------------|
| RG-316/u, 188, 174,<br>179, 187      | 131-9403-101/116 | .177 (4.50) | .289 (7.34) | .128 (3.25) |
| RG-316 DS, 188 DS,<br>179 DS, 187 DS | 131-9404-101/116 | .177 (4.50) | .289 (7.34) | .151 (3.83) |

1. Identify connector parts. (4 piece parts: crimp sleeve, body assembly, expansion cap and covering ring. Die cast body only.)
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 (optional). Slide crimp sleeve onto cable as shown.
3. Flare braid and slide cable into body assembly making certain that the cable insulation bottoms on center contact. Solder center conductor to contact through the rear and side access ports. Use a minimum amount of solder for a good joint. **.020 (0.51) diameter solder is recommended.**
4. Arrange braid uniformly around crimp stem of body assembly. Slide crimp sleeve over braid and crimp securely using recommended crimp tool. Place expansion cap in access port and seat with a .125 (3.17) diameter flat punch. Snap cover ring over side access port.

# SMB Non-Magnetic RF Connectors Specifications

## 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