Straight Crimp Type Plug (3-piece) - Captivated Contact

.706 (17.93)

HEX .312 (7.92)
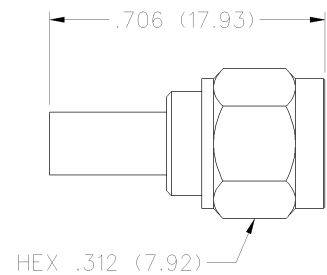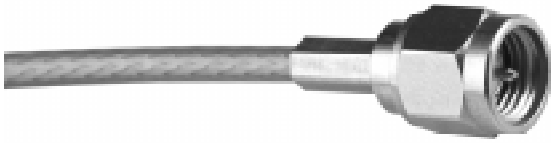
CABLE TYPE	VSWR & FREQ. RANGE	GOLD PLATED
RG-58/u, 141	1.15 + .01f (GHz) 0-12.4 GHz	142-9407-001

SMA Type Straight Plugs For Flexible Cable - Crimp or Solder Contacts

CABLE GROUP	PART NUMBER	CRIMP HEX
RG-316/u, 188, 174	142-9403-011	.128 (3.25)
RG-316 DS, 188 DS	142-9404-011	.151 (3.83)
RG-58/u, 141	142-9407-011	.213 (5.41)
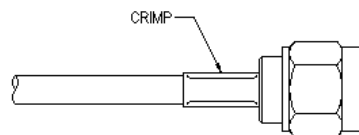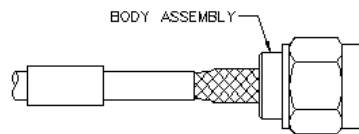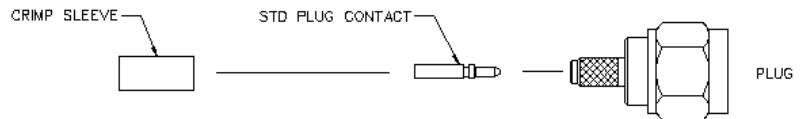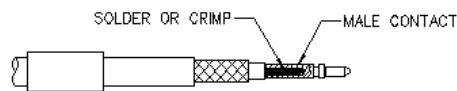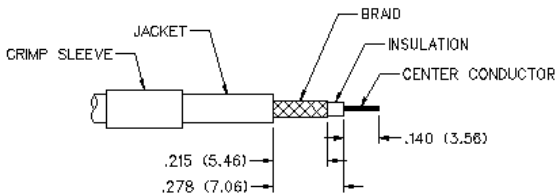
1. Identify connector parts. (3 piece parts)
2. Strip cable to dimensions shown. Do not nick braid or center conductor. Tin center conductor if contact will be solder attached. Do not tin center conductor if contact is to be crimp attached. When stripping LMR-100 low loss cable, remove foil back to where cable jacket is stripped. A wire stripper of correct size is recommended for this step. Slide heat shrink (as applicable) and crimp sleeve onto jacket of cable.
3. Assemble contact onto cable as shown.
   Solder Attachment: Solder contact to center conductor through solder hole using .020 (0.51) diameter solder. Use a minimum amount of solder for a good joint.
   Crimp Attachment: Crimp contact to center conductor using Johnson Components™ Hand Tool 144-0000-910, setting #2, with positioner 141-0000-907. Crimp location should be centered between end of contact and X-hole. Crimp attachment to solid center conductor cables is not recommended.
4. Flare braid and slide body assembly over contact and under braid. Then seat body assembly firmly onto contact. The cable may have to be held in a clamping fixture. Arrange braid uniformly around crimp stem. Slide crimp sleeve forward and crimp using recommended crimp tool. Slide heat shrink forward and shrink (as applicable).

SPECIFICATIONS

ELECTRICAL RATINGS

Impedance: 50 ohms

Frequency Range: Flexible cable connectors .... 0-12.4 GHz
Uncabled receptacles .... 0-18.0 GHz

VSWR: (f = GHz)	Straight Cabled Connectors	RA Cabled Connectors
RG-316	1.15 + .02f	1.15 + .03f
RG-58	1.15 + .01f	1.15 + .02f
Uncabled receptacles .... N/A		

Working Voltage: (Vrms maximum)

Connectors for Cable Type	Sea Level	70K Feet
RG-316	250	65
RG-58, uncabled receptacles	335	85

Dielectric Withstanding Voltage: (VRMS minimum at sea level)
Connectors for RG-316 750
Connectors for RG-58, uncabled receptacles 1000

Corona Level: (Volts minimum at 70,000 feet)=
Connectors for RG-316 190
Connectors for RG-58, uncabled receptacles 250

Insertion Loss: (dB maximum)
Straight flexible cable connectors .... $0.06 \sqrt{f \text{ (GHz)}}$, tested at 6 GHz
Right angle flexible cable connectors .... $0.15 \sqrt{f \text{ (GHz)}}$, tested at 6 GHz
Uncabled receptacles .... N/A

Insulation Resistance: 5000 megohms minimum

Contact Resistance: (milliohms maximum)

	Initial	After Environmental
Center contact (straight cabled connectors, uncabled receptacles) ...	3.0	4.0
Center contact (right angle cabled connectors)	4.0	6.0
Outer contact (all connectors)	2.0	N/A
Braid to body	0.5	N/A

RF Leakage: (dB minimum, tested at 2.5 GHz)
Flexible cable connectors .... -60 dB
Uncabled receptacles .... N/A

RF High Potential Withstanding Voltage: (Vrms minimum, tested at 4 and 7 MHz)=
Connectors for RG-316 500
Connectors for RG-58, uncabled receptacles 670

MECHANICAL RATINGS

Engagement Design: MIL-STD-348, Series SMA
Engagement/Disengagement Force: 2 inch-pounds maximum
Mating Torque: 7 to 10 inch-pounds
Coupling Proof Torque: 15 inch-pounds minimum
Coupling Nut Retention: 60 pounds minimum
Contact Retention: 6 lbs. minimum axial force (captivated contacts)
4 inch-ounce minimum torque (uncabled receptacles)

Cable Retention:	Axial Force*(lbs)	Torque (in-oz)
Connectors for RG-316	20	N/A
Connectors for RG-58	40	N/A

*Or cable breaking strength whichever is less.
Durability: 500 cycles minimum

ENVIRONMENTAL RATINGS (Meets or exceed the applicable paragraph of MIL-C-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 I
Vibration: MIL-STD-202, Method 204, Condition D
Moisture Resistance: MIL-STD-202, Method 106