

Fax-on-Demand: (800) 260-9099
(650) 361-6523

FAX ID	Description
9070	Data sheet

Before ordering check with factory for most current data.

Applications

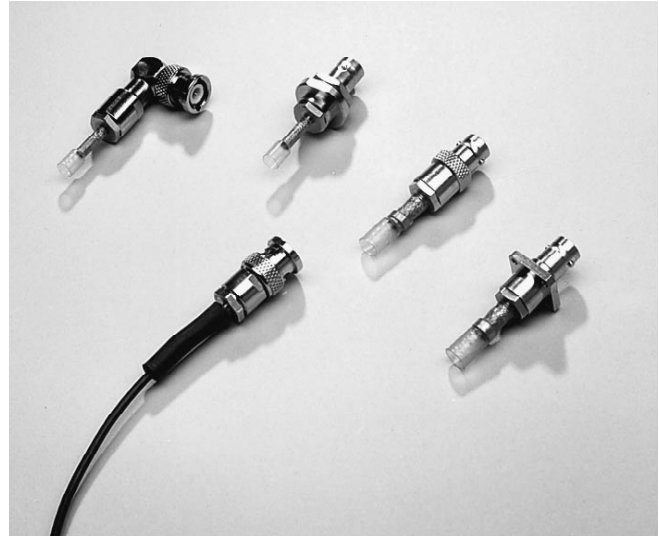
RF one-step BNC/TNC connectors are single-piece assemblies for terminating the center conductor and the braid of a broad range of coaxial cables. The connectors are fully intermateable with MIL-C-39012 connectors and are available in 50-ohm and 75-ohm versions.

Features/Benefits

- One-step termination for easy, quick installation and lower installed cost.
- Controlled soldering termination for the center conductor and shield.
- Excellent built-in strain relief against vibration and excessive handling.
- Three product sizes that accommodate a wide range of cables.
- Intermateable with MIL-C-39012 connectors.

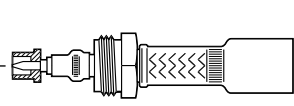
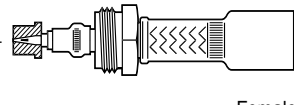
Coaxial Cable Termination

RF one-step BNC/TNC connectors



Product Selection Process

1. Select the connector style, size, and part number from Table A or B:
 - Use Table A to select by cable type.
 - Use Table B to select by cable dimensions.
2. Complete the part number by:
 - Determining the dash number for the selected connector style from the Product Options and Part Numbering System section.
 - Substituting the dash number for "- XX" in the part number.

Connector style		Connector type		
Dash No.	Style	TNC	BNC	
RXX-XX-X-XX	-XX			
-00	Straight plug	24.5 max. (.965)	24.5 max. (.965)	 <p>Male</p>
-01	Right angle plug	33.5 max. (1.32) 28 (1.09)	31.5 max. (1.23) 28 (1.09)	
-02	Straight bulk-head jack	25.4 max. (1.0)	25.4 max. (1.0)	 <p>Female</p>
-03	Straight jack	25.4 max. (1.0)	25.4 max. (1.0)	
-04	Straight panel jack	25.4 max. (1.0) 4 x M2.5 x 0.45	25.4 max. (1.0) 4 x M2.5 x 0.45	
Connector size				
L = Large		See Table A for size selection by cable type. See Table B for size selection by cable dimensions.		
M = Medium				
S = Small				
50 = 50 ohms				
75 = 75 ohms				
D = Nickel-plated brass body, gold-plated brass pin.				
B = BNC				
T = TNC				

Example: RBD-50-L-00 is a BNC connector, 50 ohms, large size, with straight plug body.

Hole Pattern for Panel-Mounted Products (mm/in)

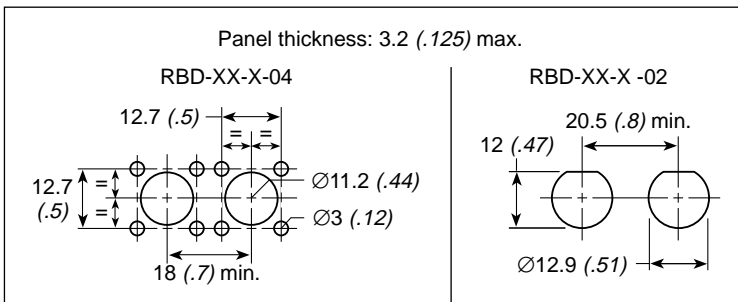
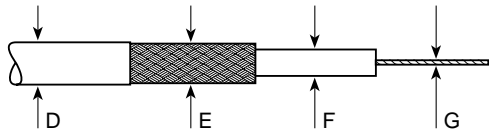


Table A. Connector Size and Part Number by Cable Type

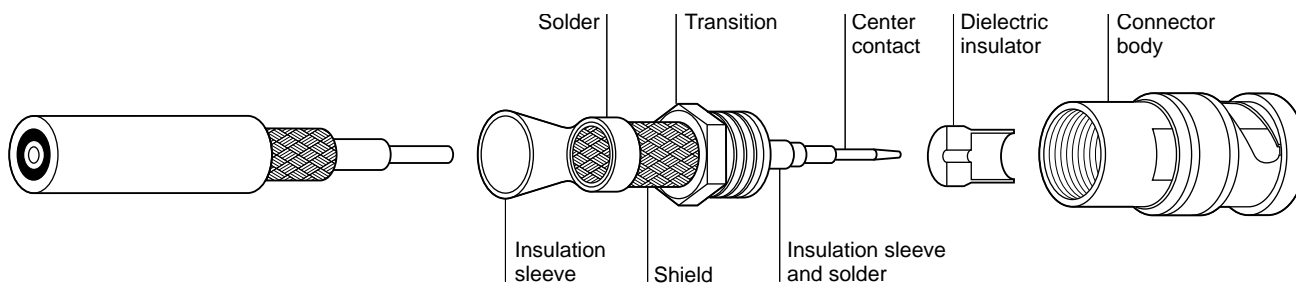
RG cables		Raychem cables	Connector size	Nominal impedance (ohms)	Part number by connector type	
					BNC	TNC
RG-165 RG-213 RG-214	RG-215 RG-225	5012F3332 5012A3311	Large	50	RBD-50-L-XX	RTD-50-L-XX
RG-58 RG-141 RG-142	RG-303 RG-400	5019D3318 5021D1331 5020A1311	Medium	50	RBD-50-M-XX	RTD-50-M-XX
RG-174 RG-178 RG-188	RG-196 RG-316	5026A1311 5028A1317 5030A1317	Small	50	RBD-50-S-XX	RTD-50-S-XX
RG-6 RG-11 RG-12	RG-144 RG-216		Large	75	RBD-75-L-XX	RTD-75-L-XX
RG-59		7524A1311 7528A1317	Medium	75	RBD-75-M-XX	RTD-75-M-XX
RG-179 RG-187		7530A1317	Small	75	RBD-75-S-XX	RTD-75-S-XX

Table B. Size Selection by Cable Dimensions (mm/in)



D (min.–max.)	E (min.–max.)	F (max.)	G (max.)	Connector size	Nominal impedance (ohms)	Part number by connector type	
						BNC	TNC
5.0–12.5 (.197–.500)	4.1–9.5 (.161–.375)	7.3 (.287)	2.45 (.100)	Large	50	RBD-50-L-XX	RTD-50-L-XX
3.5–7.0 (.138–.276)	2.1–5.0 (.083–.197)	3.0 (.118)	1.25 (.050)	Medium	50	RBD-50-M-XX	RTD-50-M-XX
1.5–5.5 (.060–.217)	0.9–3.0 (.035–.118)	1.55 (.060)	0.65 (.025)	Small	50	RBD-50-S-XX	RTD-50-S-XX
5.0–12.5 (.197–.500)	4.1–9.5 (.161–.375)	7.3 (.287)	2.45 (.100)	Large	75	RBD-75-L-XX	RTD-75-L-XX
3.5–7.0 (.138–.276)	2.1–5.0 (.083–.197)	3.0 (.118)	1.25 (.050)	Medium	75	RBD-75-M-XX	RTD-75-M-XX
1.5–5.5 (.060–.217)	0.9–3.0 (.035–.118)	1.55 (.060)	0.65 (.025)	Small	75	RBD-75-S-XX	RTD-75-S-XX

Product Characteristics



Material

Center contact	Gold-plated beryllium copper (female) Gold-plated brass (male)
Dielectric insulator	PTFE
Transition	Silver-plated brass
Connector body	Nickel-plated brass
Solder and flux	Sn63Pb37, RMA flux
Braided shield	Tin-plated copper wire per ASTM B3
Insulation sleeve	Radiation-crosslinked, heat-shrinkable polyvinylidene fluoride (Kynar), transparent blue
Strain relief/sealing sleeve	Radiation-crosslinked, heat-shrinkable modified polyolefin with adhesive, black

Typical Performance

Dielectric withstand voltage	1500 V
Insulation resistance	5000 megohms
Temperature rating	-55°C to 150°C
Contact resistance-straight	Inner = 1.5 milliohms, outer = 1.0 milliohm
Contact resistance-right angle	Inner = 2.5 milliohms, outer = 1.5 milliohms
Cable retention force	Size S = 195N (39 lb), size M&L = 235N (47 lb)
Voltage rating	500 V RMS
Connector durability	500 mating cycles minimum

Electrical Performance

Nominal impedance	50 and 75 ohms
Frequency range	Up to 2.8 GHz

Specifications/Approvals

Raychem

RB-115

Installation

For proper installation of these devices, the correct heating tool and reflector attachment must be used.

Any one of the following Raychem heating tools is recommended:

- HL1802E
- CV-1981

You will find ordering information for these tools in the Application Equipment section of this catalog.

Refer to Raychem installation procedure RPIP 683-00 for detailed instructions.

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