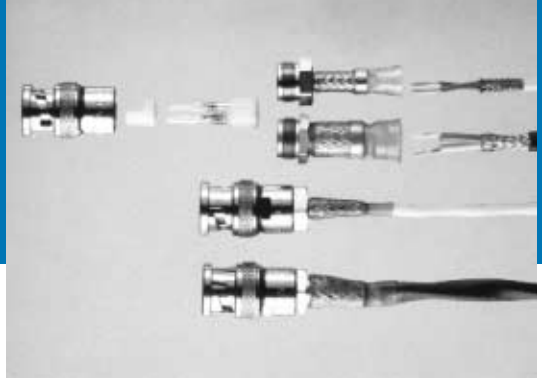


Coaxial Cable Termination

RF one-step BNC/TNC connectors

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.

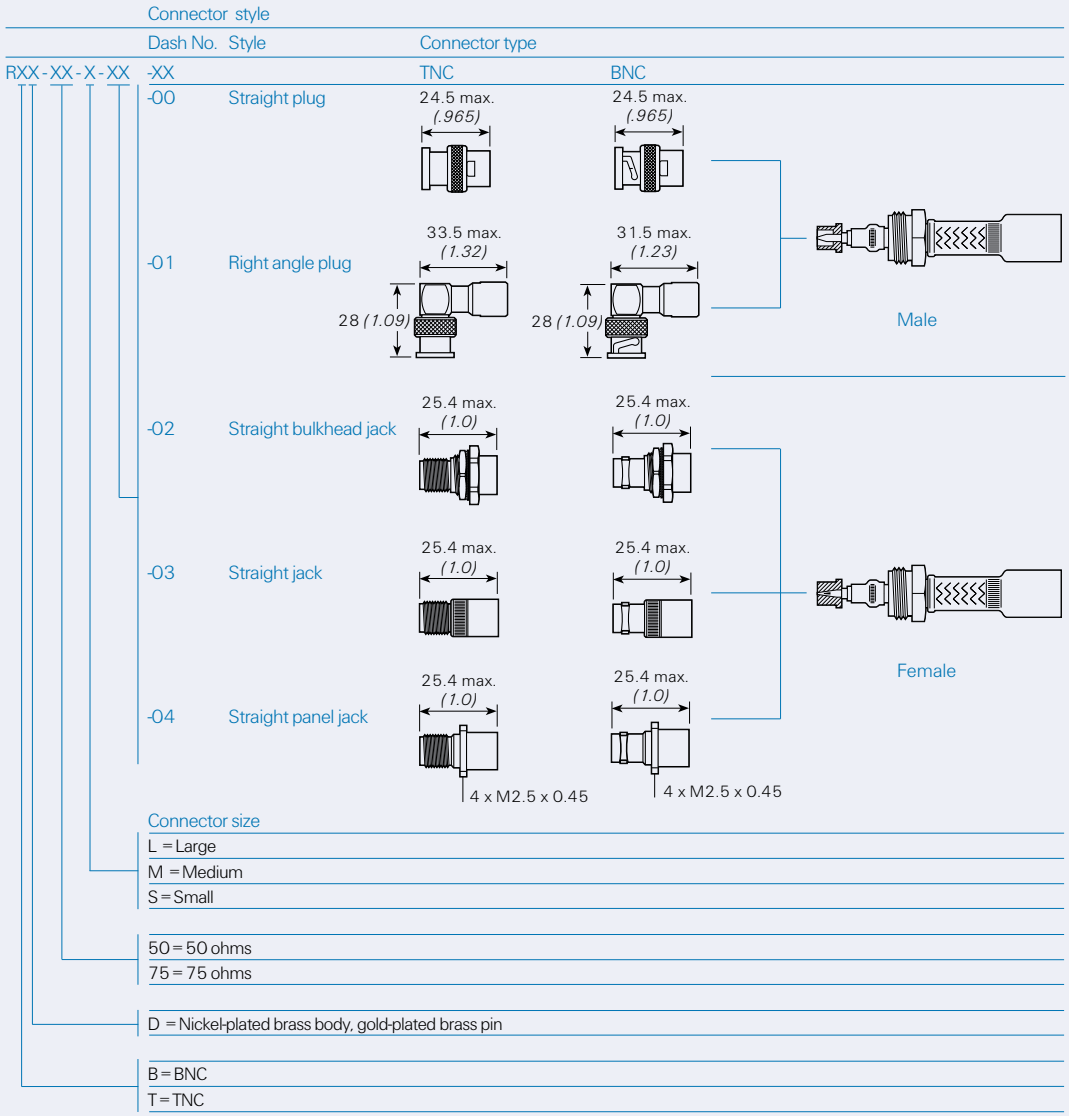
Features and benefits

- Easy, quick installation.
- Outstanding cable-retention force.
- Solder-solder connection type (center conductor and braid).
- One-step termination for easy, quick installation and lower installed cost.
- Exceptional cable retention force to withstand high vibration and frequent mates and demates.
- Fully soldered center conductor and braid.
- Excellent built-in strain relief against vibration and excessive handling.
- Long-term reliability.
- Controlled soldering termination.
- Use with standard RG/U cables and Raychem Cheminax cables.
- Three product sizes to accommodate a wide range of cables.
- Meets performance requirements of MIL-C-39012 up to 2.8 GHz.

Available in:	Americas	Europe	Asia Pacific
	■	■	■

Specifications	Installation	
Raychem RB-115	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: · Steinel Model HL1802E · CV-1981	Refer to Raychem installation procedure RPIP 683-00 for detailed instructions.

Product options and part numbering system (mm/in)

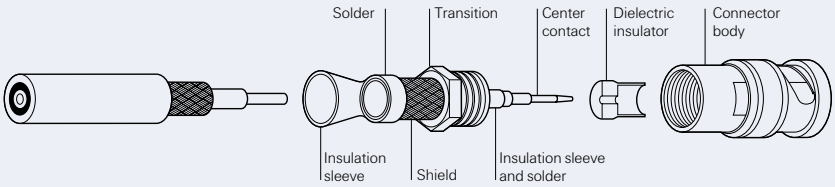


Example: RBD-50-L-00 is a BNC connector, 50 ohms, large size, with straight plug body.

Coaxial Cable Termination

RF one-step BNC/TNC connectors *(cont'd.)*

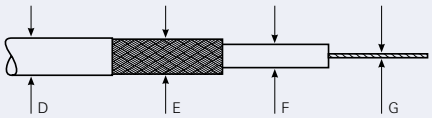
Product characteristics



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, 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	-55C to 150C
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	295N (66 lb) to 822N (196 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

Part selection process

1. From Product Options and Dimensions on page 8-61, select the connector style you need (BNC or TNC, plug or jack, male or female contacts).
2. From the tables that follow, find the appropriate table for the connector style you selected.
3. From the appropriate table, select the connector part number based on the RG cable type or Raychem cable part number. For cable types not shown use the cable dimensions.
   Note: The cable dimensions in each table are keyed to the diagram below.



Part number selection - BNC coaxial connectors

Cable type			Cable dimensions in millimeters (inches)				
Impedance (ohms)	RG cables	Raychem cables	D (min.–max.)	E (min.–max.)	F (max.)	G (max.)	Part Number
BNC straight plugs, male contacts							
50	RG-174, RG-178, RG-188, RG-196,RG–316	5026A1311, 5028A1317, 5030A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RBD-50-S-00
50	RG-58, RG-141, RG-142, RG-303, RG-400	5019D3318, 5021D1331, 5020A1311	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.0 *(.118)*	1.25 *(.050)*	RBD-50-M-00
50	RG-165, RG-215, RG-213, RG-225, RG-214	5012F3332, 5012A3311	5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RBD-50-L-00
75	RG-179, RG-187	7530A1317	1.5–5. *(.060–.217)*	5 0.9-3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RBD-75-S-00
75		7524A1311, 7528A1317	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.7 *(.126)*	1.25 *(.050)*	RBD-75-M-00
75	RG-6, RG-11, RG-12, RG-59 RG-144, RG-216		5.0–.12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RBD-75-L-00
BNC right-angle plugs, male contacts							
50	RG-174, RG-178, RG-188, RG-196,RG–316	5026A1311, 5028A1317, 5030A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RBD-50-S-01
50	RG-58, RG-141, RG-142, RG-303, RG-400	5019D3318, 5021D1331, 5020A1311	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.0 *(.118)*	1.25 *(.050)*	RBD-50-M-01
50	RG-165, RG-215, RG-213, RG-225, RG-214	5012F3332, 5012A3311	5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RBD-50-L-01
75	RG-179, RG-187	7530A1317	1.5–5.5 *(.060–.217)*	0.9-3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RBD-75-S-01
75		524A1311, 7528A1317	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.7 *(.146)*	1.25 *(.050)*	RBD-75-M-01
75	RG-6, RG-11, RG-12, RG-59 RG-144, RG-216		5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RBD-75-L-01

Coaxial Cable Termination

RF one-step BNC/TNC connectors *(cont'd.)*

Part number selection - BNC coaxial connectors

Cable type Impedance (ohms)	RG cables	Raychem cables	Cable dimensions in millimeters (inches) D (min.–max.)	E (min.–max.)	F (max.)	G (max.)	Part Number
BNC straight bulkhead jacks, female contacts							
50	RG-174, RG-178, RG-188, RG-196,RG–316	5026A1311, 5028A1317, 5030A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RBD-50-S-02
50	RG-58, RG-141, RG-142, RG-303, RG-400	5019D3318, 5021D1331, 5020A1311	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.0 *(.118)*	1.25 *(.050)*	RBD-50-M-02
50	RG-165, RG-215, RG-213, RG-225, RG-214	5012F3332, 5012A3311	5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RBD-50-L-02
75	RG-179, RG-187	7530A1317	1.5–5. *(.060–.217)*	5 0.9-3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RBD-75-S-02
75		75 7524A1311, 7528A1317	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.7 *(.146)*	1.25 *(.050)*	RBD-75-M-02
75	RG-6, RG-11, RG-12, RG-59 RG-144, RG-216		5.0-12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RBD-75-L-02
BNC straight jacks, female contacts							
50	RG-174, RG-178, RG-188, RG-196,RG–316	5026A1311, 5028A1317, 5030A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RBD-50-S-03
50	RG-58, RG-141, RG-142, RG-303, RG-400	5019D3318, 5021D1331, 5020A1311	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.0 *(.118)*	1.25 *(.050)*	RBD-50-M-03
50	RG-165, RG-215, RG-213, RG-225, RG-214	5012F3332, 5012A3311	5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RBD-50-L-03
75	RG-179, RG-187	7530A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RBD-75-S-03
75		75 7524A1311, 7528A1317	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.7 *(.146)*	1.25 *(.050)*	RBD-75-M-03
75	RG-6, RG-11, RG-12, RG-59 RG-144, RG-216		5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RBD-75-L-03

Part number selection - BNC coaxial connectors (continued)

Cable type Impedance (ohms)	RG cables	Raychem cables	Cable dimensions in millimeters (inches) D (min.–max.)	E (min.–max.)	F (max.)	G (max.)	Part Number
BNC straight panel jacks, female contacts							
50	RG-174, RG-178, RG-188, RG-196,RG–316	5026A1311, 5028A1317, 5030A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RBD-50-S-04
50	RG-58, RG-141, RG-142, RG-303, RG-400	5019D3318, 5021D1331, 5020A1311	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.0 *(.118)*	1.25 *(.050)*	RBD-50-M-04
50	RG-165, RG-215, RG-213, RG-225, RG-214	5012F3332, 5012A3311	5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RBD-50-L-04
75	RG-179, RG-187	7530A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RBD-75-S-04
75		7524A1311, 7528A1317	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.7 *(.146)*	1.25 *(.050)*	RBD-75-M-04
75	RG-6, RG-11, RG-12, RG-59 RG-144, RG-216		5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RBD-75-L-04

Part number selection - TNC coaxial connectors

Cable type Impedance (ohms)	RG cables	Raychem cables	Cable dimensions in millimeters (inches) D (min.–max.)	E (min.–max.)	F (max.)	G (max.)	Part Number
TNC straight plugs, male contacts							
50	RG-174, RG-178, RG-188, RG-196,RG–316	5026A1311, 5028A1317, 5030A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RTD-50-S-00
50	RG-58, RG-141, RG-142, RG-303, RG-400	5019D3318, 5021D1331, 5020A1311	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.0 *(.118)*	1.25 *(.050)*	RTD-50-M-00
50	RG-165, RG-215, RG-213, RG-225, RG-214	5012F3332, 5012A3311	5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RTD-50-L-00
75	RG-179, RG-187	7530A1317	1.5–5.5 *(.060–.217)*	0.9-3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RTD-75-S-00
75		7524A1311, 7528A1317	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.7 *(.146)*	1.25 *(.050)*	RTD-75-M-00
75	RG-6, RG-11, RG-12, RG-59 RG-144, RG-216		5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RTD-75-L-00

Coaxial Cable Termination

RF one-step BNC/TNC connectors *(cont'd.)*

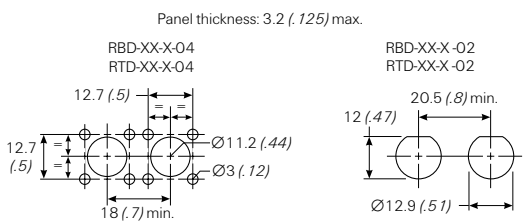
Part number selection - TNC coaxial connectors (continued)

Cable type			Cable dimensions in millimeters (inches)				
Impedance			D	E	F	G	
(ohms)	RG cables	Raychem cables	(min.–max.)	(min.–max.)	(max.)	(max.)	Part Number
TNC right-angle plugs, male contacts							
50	RG-174, RG-178, RG-188, RG-196,RG–316	5026A1311, 5028A1317, 5030A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RTD-50-S-01
50	RG-58, RG-141, RG-142, RG-303, RG-400	5019D3318, 5021D1331, 5020A1311	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.0 *(.118)*	1.25 *(.050)*	RTD-50-M-01
50	RG-165, RG-215, RG-213, RG-225, RG-214	5012F3332, 5012A3311	5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RTD-50-L-01
75	RG-179, RG-187	7530A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RTD-75-S-01
75		7524A1311, 7528A1317	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.7 *(.146)*	1.25 *(.050)*	RTD-75-M-01
75	RG-6, RG-11, RG-12, RG-59 RG-144, RG-216		5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RTD-75-L-01
TNC straight bulkhead jacks, female contacts							
50	RG-174, RG-178, RG-188, RG-196,RG–316	5026A1311, 5028A1317, 5030A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RTD-50-S-02
50	RG-58, RG-141, RG-142, RG-303, RG-400	5019D3318, 5021D1331, 5020A1311	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.0 *(.118)*	1.25 *(.050)*	RTD-50-M-02
50	RG-165, RG-215, RG-213, RG-225, RG-214	5012F3332, 5012A3311	5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RTD-50-L-02
75	RG-179, RG-187	7530A1317	1.5–5.5 *(.060–.217)*	0.9-3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RTD-75-S-02
75		7524A1311, 7528A1317	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.7 *(.146)*	1.25 *(.050)*	RTD-75-M-02
75	RG-6, RG-11, RG-12, RG-59 RG-144, RG-216		5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RTD-75-L-02

Part number selection - TNC coaxial connectors

Cable type Impedance (ohms)	RG cables	Raychem cables	D (min.–max.)	Cable dimensions in millimeters (inches) E (min.–max.)	F (max.)	G (max.)	Part Number
TNC straight jacks, Female contacts							
50	RG-174, RG-178, RG-188, RG-196,RG–316	5026A1311, 5028A1317, 5030A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RTD-50-S-03
50	RG-58, RG-141, RG-142, RG-303, RG-400	5019D3318, 5021D1331, 5020A1311	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.0 *(.118)*	1.25 *(.050)*	RTD-50-M-03
50	RG-165, RG-215, RG-213, RG-225, RG-214	5012F3332, 5012A3311	5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RTD-50-L-03
75	RG-179, RG-187	7530A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RTD-75-S-03
75		7524A1311, 7528A1317	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.7 *(.146)*	1.25 *(.050)*	RTD-75-M-03
75	RG-6, RG-11, RG-12, RG-59 RG-144, RG-216		5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RTD-75-L-03
TNC straight panel jacks, female contacts							
50	RG-174, RG-178, RG-188, RG-196,RG–316	5026A1311, 5028A1317, 5030A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RTD-50-S-04
50	RG-58, RG-141, RG-142, RG-303, RG-400	5019D3318, 5021D1331, 5020A1311	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.0 *(.118)*	1.25 *(.050)*	RTD-50-M-04
50	RG-165, RG-215, RG-213, RG-225, RG-214	5012F3332, 5012A3311	5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RTD-50-L-04
75	RG-179, RG-187	7530A1317	1.5–5.5 *(.060–.217)*	0.9–3.0 *(.035–.118)*	1.55 *(.060)*	0.65 *(.025)*	RTD-75-S-04
75		7524A1311, 7528A1317	3.5–7.0 *(.138–.276)*	2.1–5.0 *(.083–.197)*	3.7 *(.146)*	1.25 *(.050)*	RTD-75-M-04
75	RG-6, RG-11, RG-12, RG-59 RG-144, RG-216		5.0–12.5 *(.197–.500)*	4.1–9.5 *(.161–.375)*	7.3 *(.287)*	2.45 *(.100)*	RTD-75-L-04

Hole pattern for panel-mounted products (mm/in)



Users should independently evaluate the suitability of the product for their application.
Before ordering check with factory for most current data.

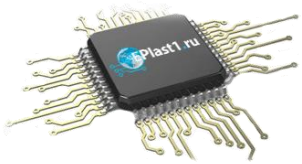
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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