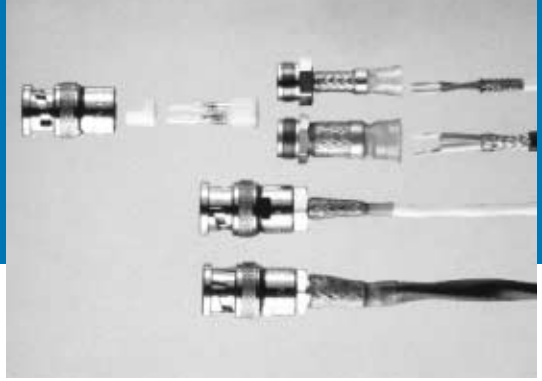


Coaxial Cable Termination

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.

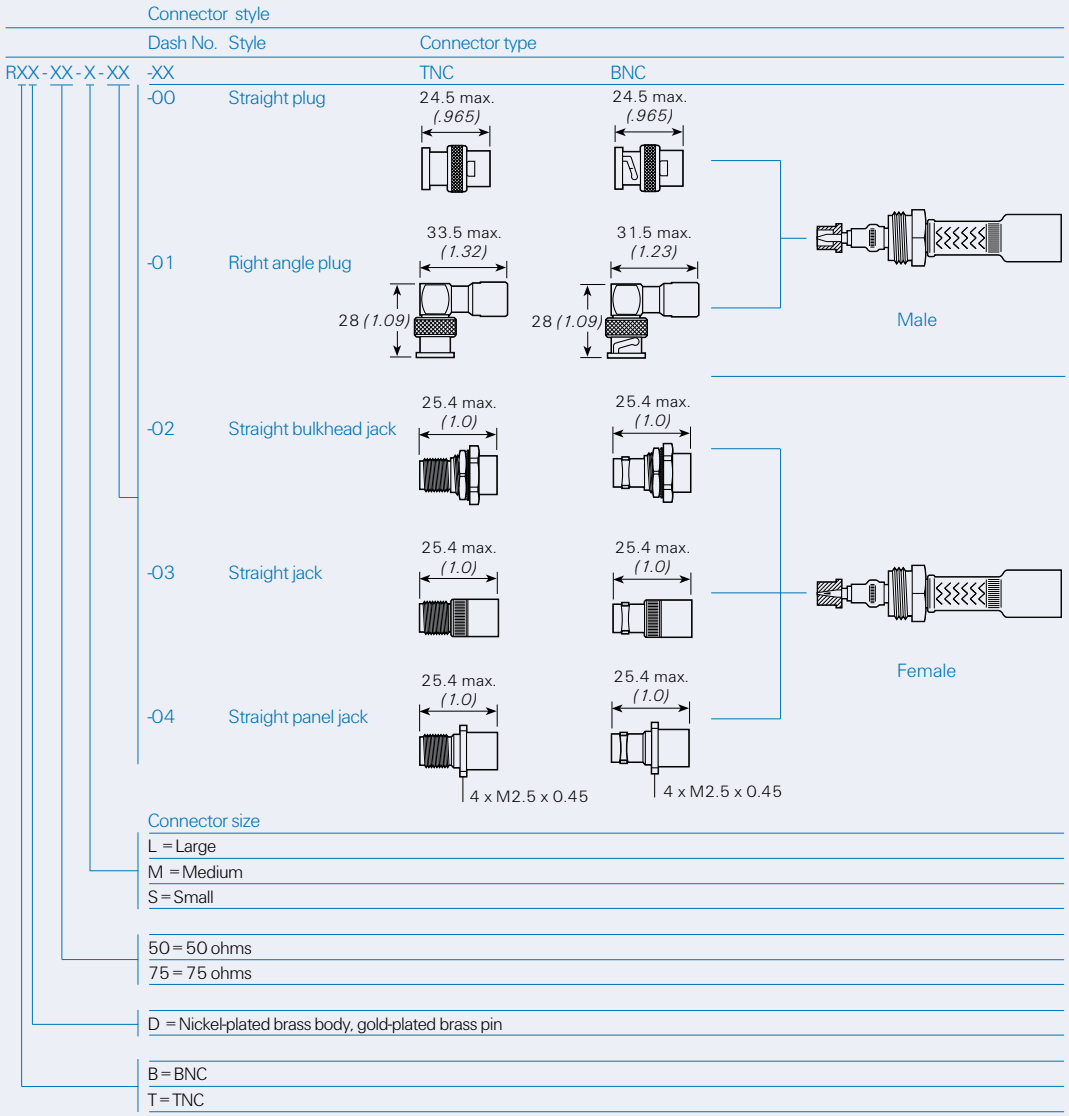
Features and benefits

- 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)

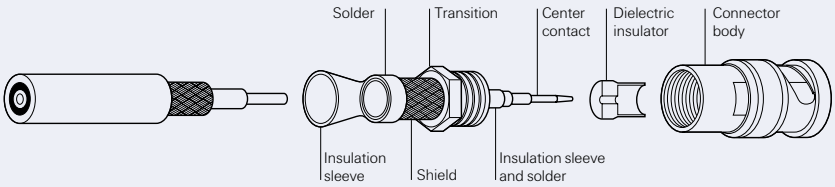


Example: RBD-50-L-00 is a BNC connector, 50 ohms, large size, with straight plug body.

Coaxial Cable Termination

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

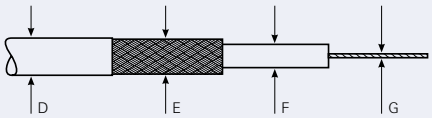
Product characteristics



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.)*

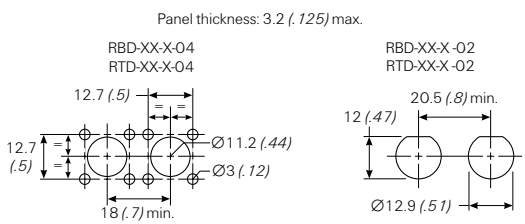
Part number selection - TNC coaxial connectors (continued)

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.

LifeElectronics
Живое партнерство

ООО «ЛайфЭлектроникс» **“LifeElectronics” LLC**

ИНН 7805602321 КПП 780501001 Р/С 40702810122510004610 ФАКБ "АБСОЛЮТ БАНК" (ЗАО) в г.Санкт-Петербурге К/С 30101810900000000703 БИК 044030703

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- *Конкурентоспособные цены и скидки постоянным клиентам.*
- *Специальные условия для постоянных клиентов.*
- *Подбор аналогов.*
- *Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.*

- *Приемлемые сроки поставки, возможна ускоренная поставка.*
- *Доставку товара в любую точку России и стран СНГ.*
- *Комплексную поставку.*
- *Работу по проектам и поставку образцов.*
- *Формирование склада под заказчика.*

- *Сертификаты соответствия на поставляемую продукцию (по желанию клиента).*
- *Тестирование поставляемой продукции.*
- *Поставку компонентов, требующих военную и космическую приемку.*
- *Входной контроль качества.*
- *Наличие сертификата ISO.*

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- *Регистрацию проекта у производителя компонентов.*
- *Техническую поддержку проекта.*
- *Защиту от снятия компонента с производства.*
- *Оценку стоимости проекта по компонентам.*
- *Изготовление тестовой платы монтаж и пусконаладочные работы.*

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