



R75

R75 Series

40 to 75 KVDC
Cable Assemblies
and Receptacles

GENERAL SPECIFICATIONS

R75 Cable Assemblies and Receptacles for Ground Level Applications

Designed for pulse and DC applications, the R75 series is the vital interconnecting link in many electronic systems. The use of exclusive design techniques assures corona resistant performance up to 75 KVDC.

The R75 series achieves its rugged dependability through factory molding and assembly procedures where cable ends or wire leads become an integral part of the connector

The molded coaxial connector concept with an air reducing interface seal, semiconducting rubber corona shields and special mating threads combine to provide connectors with low corona characteristics and a robustness suitable for operating under adverse environmental conditions.

Applications (limited to ground level)

R75 series assemblies are used in:

- Radar systems • X-ray systems • Electron beam equipment
- Accelerators • Electron microscopes • Pulse applications
- Pulsed and direct current high voltage power supplies

Interface cleaning

High voltage connectors must always be cleaned prior to mating. The proper cleaning method is to wipe or spray the interface area with isopropyl alcohol and immediately blow an inert gas such as dry nitrogen over the interface area until dry. No other cleaning method should be attempted.

WARNING: These connectors should **NEVER** be handled, mated or unmated when voltage is applied.



Female Plug



Male Receptacle

GENERAL SPECIFICATION

Voltage rating (mated)

Altitude rating

Operating temperature range

Insulator material

Coupling

Male contact material/finish

Female contact material/finish

Uses coaxial cable

Plug Cable Assemblies

Up to 75 KVDC

To 15,000 ft.

-40°C to + 85°C

Rubber

Threaded

N/A

Be Cu/Gold

Yes

Receptacles

Up to 75 KVDC

To 15,000 ft.

-40°C to +85°C

Rubber

Threaded

Brass/Gold plate

N/A

No

Cable Assembly
Length vs Manufacturing
Tolerance Chart

Length: feet/M
7.5/2.28 or less
7.5/2.2 to 12.5/3.8
12.5/3.8 to 22.5/6.8
22.5/6.8 to 35/10.6
35/10.6 to 50/15.2
50/15.2 to 70/21.3
70/21.3 to 100/30.4

Tolerance: inches/mm
0.25/6.3
1.0/25.4
1.50/38.1
2.0/50.8
3.0/76.2
4.0/101.6
5.0/127

Note: Reynolds Industries, Inc. acquired the R75 product line from Rowe Industries, Inc. in 1997.



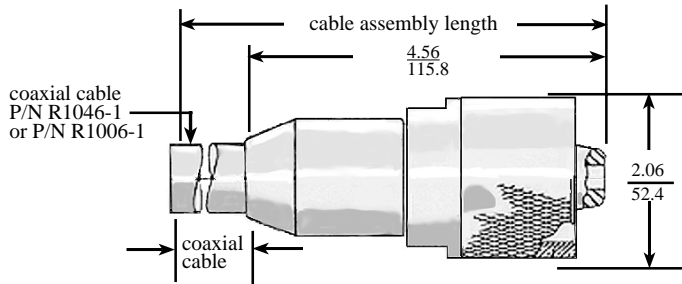
R75
Series

40 to 75 KVDC

Ground Level
Military/Industrial Applications
Operating Temperature:
-40°C to +85°C

R75 Series

50-75 KVDC Rated Cable Assemblies for DC and Pulse Applications



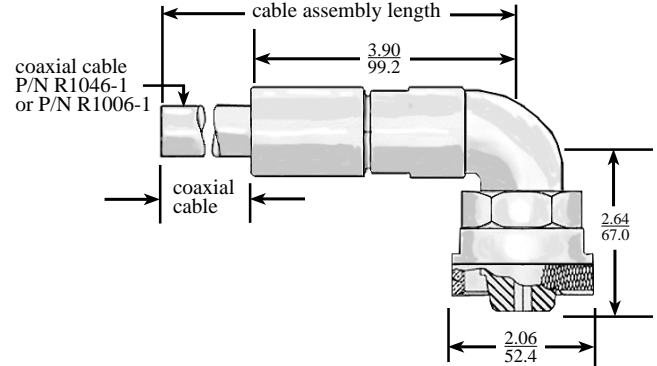
Straight Cable Assembly

P/N RC1046 (uses coaxial cable P/N R1046-1)

P/N 2RC1046* (uses coaxial cable P/N R1006-1)

Cable type P/N R1046-1: Coaxial with 2 semiconductor layers, overmolded rubber primary insulation and neoprene outer jacket.

* Voltage rating is reduced to 50 KVDC



Right Angle Cable Assembly

P/N RC1060 (uses coaxial cable P/N R1059-1)

P/N 2RC1059* (uses coaxial cable P/N R1006-1)

Voltage rating: 75 KVDC or pulsed DC

Cable type P/N R1046-1: Coaxial with 2 semiconductor layers, overmolded rubber primary insulation and neoprene outer jacket

* Voltage rating is reduced to 50 KVDC

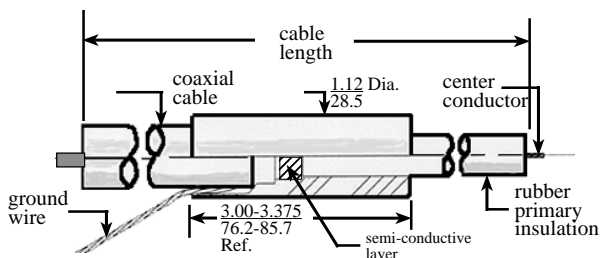
Ordering

- To order either a straight or right angle cable assembly, use the designated P/N and specify the length of cable required in feet or meters.
- To order R75 plug cable assemblies with cable shield terminations as shown below, contact Reynolds factory.

R75 Series

Cable Shield Terminations

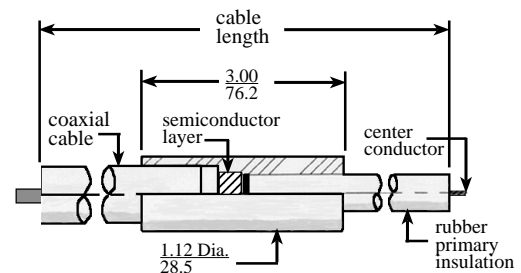
For Point-to-Point Hard
Wire Applications



P/N 4RT1008 (with R1046-1 Cable)

P/N RT1008 (with R1006-1 Cable)*

P/N 2RT1008 (with R1059-1 Cable)**



P/N 4RT1007 (with R1046-1 Cable)

P/N RT1007 (with R1006-1 Cable)*

P/N 2RT1007 (with R1059-1 Cable)**

Ordering: To order cable shield terminations without R75 connectors attached, specify terminator Part Number and cable length.

* Voltage rating is reduced to 50 KVDC

** Voltage rating is reduced to 40 KVDC



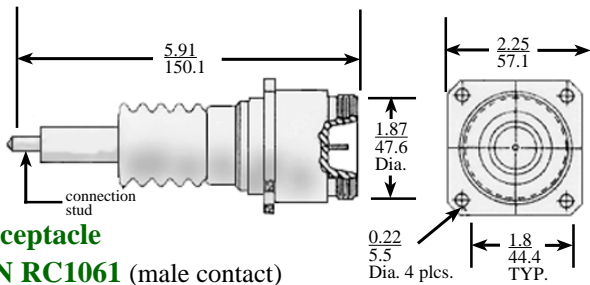
R75
Series

40 to 75 KVDC

Ground Level
Military/Industrial Applications
Operating Temperature:
-40°C to +85°C

R75 Series

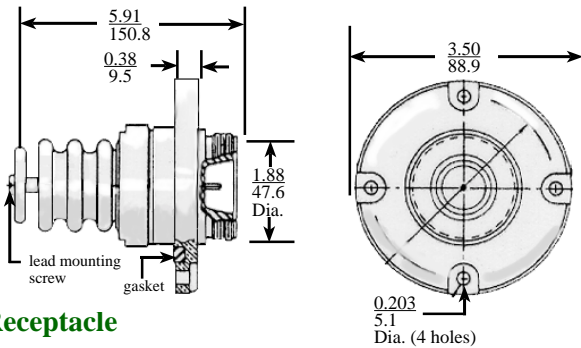
Receptacles for DC and Pulse Applications • Rated to 75 KVDC



Receptacle

P/N RC1061 (male contact)

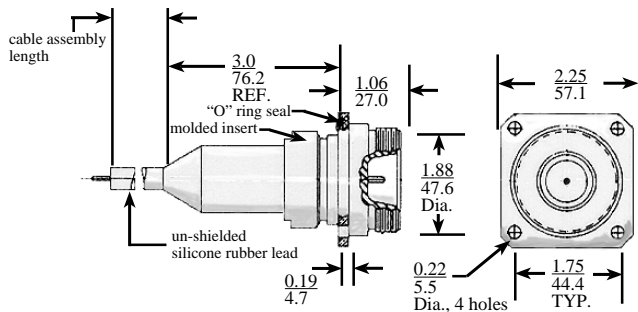
Mounting: Front flange
Terminal type: Connection stud
Seals: None
Voltage rating: 50 KVDC



Receptacle

P/N RC1062 (male contact)

Mounting: Front flange
Terminal type: Lead mounting screw
Seals: Gasket bulkhead seal
Voltage Rating: 75 KVDC



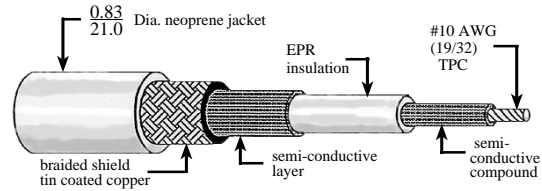
Receptacle Cable Assembly

P/N 4RC1063 (male contact)

Mounting: Front flange
Terminal type: Cabled with silicone rubber cable. Specify length when ordering.
Seals: "O" ring bulkhead seal
Voltage rating: 50 KVDC

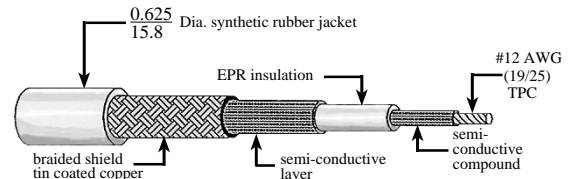
R75 Series

Specifications for Coaxial and Armored Cable • Rated to 75 KVDC



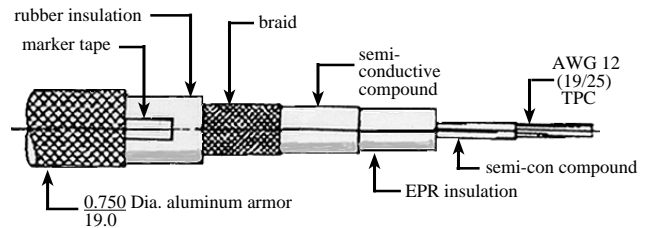
P/N R1046-1 Corona Resistant Coaxial Cable

Voltage rating: 75 KVDC
Nom. Capacitance: 46 pf/ft./150 pf/m
Nom. Impedance: 50 Ohms @ 1 MHz
Operating temperature: -40°C to 85°C



P/N R1006-1 Corona Resistant Coaxial Cable

Voltage rating: 50 KVDC
Nom. Capacitance: 50 pf/ft./164 pf/m
Nom. Impedance: 48 Ohms @ 1 MHz
Operating temperature: -40°C to 85°C



P/N R1059-1 Armored Pulse Cable

Voltage rating: 40 KVDC
Nom. Capacitance: 50 pf/ft./164 pf/m
Nom. Impedance: 48 Ohms @ 1 MHz
Operating temperature: -40°C to 85°C