



## Description

BNC connectors are miniature units, light in weight and feature a quick disconnect bayonet lock coupling mechanism. One of the most widely used connector interfaces in the industry today, BNC connectors are available in a number of termination styles and accommodate a variety of popular coaxial cables.

## Applications

- Computers/LANs
- Instrumentation
- Test and Measurement
- Medical Equipment
- Broadcast (75  $\Omega$ )

## Features

BNC connectors with a 50 ohm nominal impedance are designed for use in telecommunication, datacommunication and test and instrumentation equipment. BNC connectors with a 75 ohm nominal impedance are designed for broadcast, video and other applications which require impedance matched performance. Both 50 ohm and 75 ohm BNC connectors are intermateable.

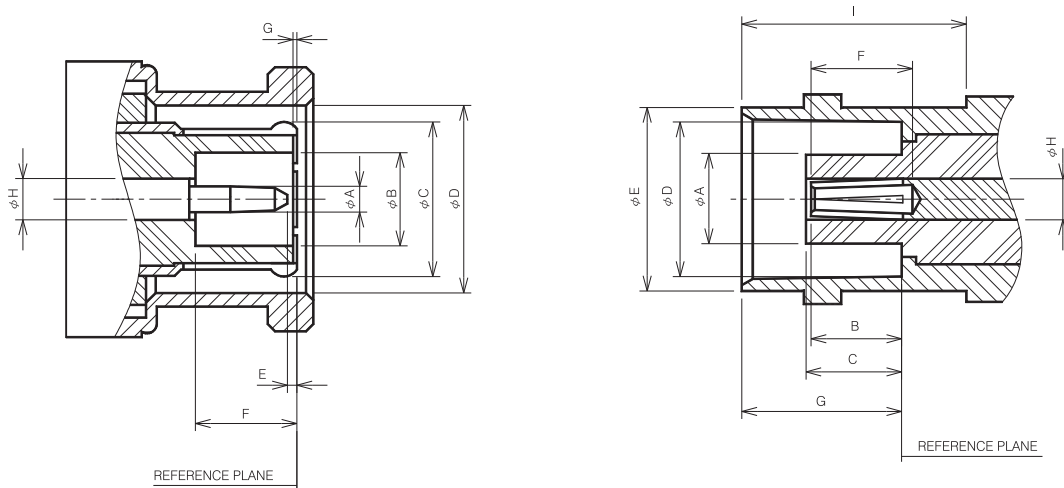
# BNC Series

## Specification BNC 50 ohm 0-4 GHz

BNC coaxial connectors are one of the world's most popular RF connectors. They are miniature, light-weight and can operate satisfactorily up to 11 GHz. The BNC is typically used in applications from DC to 4 GHz and yield low reflection in this frequency range.

Cable terminations are available in crimp, clamp, solder and jacket quick twist configurations. The two-stud bayonet lock coupling provides ease of connecting and disconnecting and is ideally suited for applications such as test equipment where this feature is notable significant. BNC connectors are most prevalent in computer networks, audio, data processing and telecommunications equipment because of their size and relatively low installed cost.

## Interface Mating Dimensions:



### PLUG

Letter	Millimeters(Inches)	
	Minimum	Maximum
A	1.32(0.052)	1.37(0.054)
B	4.83(0.190)	-
C	-	-
D	9.78(0.385)	9.91(0.390)
E	0.35(0.014)	-
F	5.33(0.210)	-
G	0.15(0.006)	-
H	2.14(0.0842) nom.	

### JACK

Letter	Millimeters(Inches)	
	Minimum	Maximum
A	4.60(0.1810)	4.67(0.1837)
B	4.55(0.179)	5.23(0.206)
C	-	5.28(0.208)
D	8.10(0.319)	8.15(0.321)
E	9.60(0.378)	9.70(0.382)
F	4.95(0.195)	-
G	8.31(0.327)	8.51(0.335)
H	2.140(0.0842) nom.	
I	10.52(0.414)	-

## Electrical :

Impedance	50 ohm	75 ohm
Frequency Range	0 to 4.0 GHz	0 to 1 GHz
VSWR	1.3 max	
Voltage Rating	500 volts rms max * RG-58,141,142,223→500 volts rms max * RG-174,188,316→335 volts rms max	
Dielectric withstanding Voltage	1,500 volts rms max * RG-58,141,142,223→1000 volts rms max * RG-174,188,316→750 volts rms max	
Contact resistance	center contact= 1.5 milliohms max outer contact=0.5 milliohms max	
RF Leakage	-55 dB min @3 GHz	
Insertion Loss	0.2dB max. @3 GHz	
Insulator resistance	5,000 Megohms min	

## Mechanical & Environmental

Mating	Two stud bayonet coupling
Durability	500 matings
Coupling Nut Retention	100 lbs min
Cable Retention	RG-58,141,142,223→40 lbs min RG-59,62A,210→40 lbs min RG-174,188,316→20 lbs min RG-179B,187A→20 lbs min
Temperature Range	-65°C to 165°C
Vibration	MIL-STD-202 Method 204 test Cond.D.
Salt Spray	MIL-STD-202 Method 101 test Cond.B.

## Material

	Material	Plating
Connector Body	Brass	Gold or Nickel
Center Contact	Male: Brass Female : Brass, Phosphor Bronze or Beryllium-Copper	Gold Gold
Insulation	Teflon or Derlin	None
Gasket	Silicone Rubber, Rubber	None
Crimp Ferrule	Annealed Copper or Brass	Same as Body