

### BNC 50 Ohm

The high-frequency connection BNC 50 Ohm for flexible coaxial lines of 2 up to 11 mm diameter used in electrical installations and machines of the news-and measurement technology with the frequency range of 4 GHz. The coaxial connection with a bayonet coupling mechanism is small, light and moisture proofed.

The connectors are produced for the two series 50 and 75 Ohm impedance, which are intermateable.<sup>1</sup> The connectors are designed with a crimp connection, and alternatively with a combined solder/clamp connection for the cable assembly.

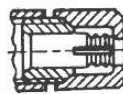
<sup>1</sup> The enlargement of the reflection coefficient at higher frequencies have to be considered.

### Additional Cable strain relief for the solder/clamp version

The version with solder/clamp connection can be equipped with additional clamping of the cable sheath and so provide a more effective cable strain relief<sup>2</sup>.



Cable Plug  
solder/clamp connection  
with additional clamping  
of the cable sheath



<sup>2</sup> Additional clamping  
of the cable sheath  
on request



## Electrical Characteristics (at 20°C and 65 % relative humidity)

Impedance.....	50 Ω
Frequency range .....	0 to 4 GHz
Return loss (connector plugged with socket) .....	≥ 19 dB
Contact resistance (connector plugged with socket)	
Inner conductor.....	≤ 3 mΩ
Outer conductor.....	≤ 1 mΩ
Insulation resistance.....	≥ 5 GΩ
Test voltage $U_{\text{eff}}$	
at connectors for cable diameter .....	≤ 4 mm 1000 V
at connectors for cable diameter.....	≥ 5 mm 1500 V
Operating voltage $U_{\text{eff}}$	
at connectors for cable diameter.....	≤ 4 mm 400V
at connectors for cable diameter .....	≥ 5 mm 500V
<b>Operating Temperature Range.....</b>	<b>- 65 °C to +165 °C</b>

## Mechanical Characteristics

Durability (mating cycles) .....	≥ 1000
RoHS .....	compliant

## Construction

Inner conductor.....	Brass/Beryllium copper, hard gold-plated
Dielectric.....	PTFE
Outer conductor.....	Brass with corrosion resistant finish
Spring elements.....	Stainless steel
Other material parts.....	Brass/Copper with corrosion resistant finish
Gasket .....	Silicon
Strain Relief Sleeve.....	Polyurethane (PUR)

The specified data serve only to describe the product and should not be considered legally binding, guaranteed properties. Depending on the application, design, type of cable and assembly method the specified values may differ. We reserve the right to make constructional changes, determine delivery and are not responsible for any errors and omissions.

### Individual customized High Performance Cable Connectors

On the basis of our 90 years of experience as Developer and Producer of high quality cable connectors we are able to provide customer-specific solutions by manufacturing individual precision cable connectors from Damar & Hagen.

#### Options

Surface .....	special surfaces according to customers requirement, for the layer structure and also for the layer thicknesses
Cable connections.....	halogen-free cables, two braids cable, multi-wire cable, unusual cable diameter, different cable length, additional clamping of the cable sheath, Assembly by our company,
Dimensions.....	all dimensions, distances, nuts, tread length mounting holes, insulation bases etc. are variable according to customers requirement
Electrically variable.....	special resistors, circuits, contacts are possible According to customers requirement
Insulating parts, gaskets and contacts .....	other colours and materials are possible (e. g. Beryllium bronze for outer conductor contact)