

# BNCslim at a glance

## BNCslim for UHD/4K (12G)

Easiest handling with high packing density  
(Pitch 13,5mm)

### INNER SPRING RING MADE FROM BERYLLIUM COPPER

Constant contact pressure over the entire operating life of at least 2000 connections - designed for outdoor use, shock resistant

### THREADED GROOVE IN THE CONTACT PIN

Greater axial load capacity

-28 dB  
Return loss  
up to 6 GHz

### SLIM COUPLING RING

Only Ø 12,5 mm  
precisely turned from solid brass

### ROTARY SLEEVE MADE OF POLYURETHANE FOR EASY COUPLING

Ergonomic handling,  
11 colors for signal identification

### FREQUENCY RANGE UP TO 6 GHz

Specification to Full HD  
and Ultra HD/4K/8K;  
Virtually interference-free  
delivery of video signals;  
signal path is magnet-free

### CONTINUOUS CRIMP

Better cable fixation, more anti-twist protection

BNCslim is mating compatible with commercially available BNC connectors.

**DAMAR & HAGEN**

Made  
in  
Germany

### BNCslim for 4K and 8K Video Signals

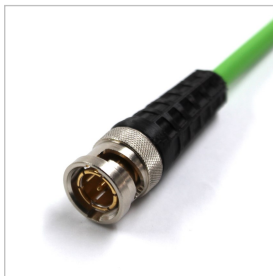
BNCslim is a variation of our approved BNCpro series, which due to their slim design especially suited for crossbars and video routers as well as for patch panels with high packing density (Pitch from 13,5 mm).

The electrical properties (return loss etc.) as well as the operating life of at least 2000 connections are identical to those of the BNCpro series. Therefore the BNCslim series is equally suitable for transmitting 4K and 8K video signals.

BNCslim cable plugs are equipped with a so-called rotary sleeve for easier coupling in extreme tight space conditions such as crossbars and patch panels.

### Features:

- BNCslim Cable Plugs are fast and easy to couple, preferably using the attached rotary sleeve
- BNCslim can be installed very tightly. Due to their small pitch of only 13.5 mm, 19 inch patch panels with 32 sockets each row are possible.
- BNCslim is compliant to norms and therefore intermateable with all common BNC connectors available on the market.
- Inner and outer conductor are gold-plated and the signal path is magnet-free
- Technical Values as in our proven BNCpro series
- Cable installation is performed by simply crimping the inner and outer conductor and thereby contributes to a high level of efficiency.
- Rotary sleeves for all cable diameters from 3 to 7 mm



Cable Plug



Bulkhead Adaptor



Bulkhead Insulated-Adaptor

BNCslim made by Damar & Hagen is intermateable with all common BNC-Series.



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

Impedance .....	75 $\Omega$
Frequency range .....	0 up to 6 GHz (12 Gbit/s)
Return loss* - Plug .....	$\geq 32$ dB up to 3 GHz $\geq 28$ dB up to 6 GHz
VSWR - Plug .....	$\leq 1.05$ up to 3 GHz $\leq 1.08$ up to 6 GHz
Reflection factor - Plug .....	$\leq 2.5\%$ up to 3 GHz $\leq 4\%$ up to 6 GHz
Return loss* - Socket .....	$\geq 31$ dB up to 3 GHz $\geq 27$ dB up to 6 GHz
VSWR - Socket .....	$\leq 1.06$ up to 3 GHz $\leq 1.09$ up to 6 GHz
Reflection factor - Socket .....	$\leq 2.8\%$ up to 3 GHz $\leq 4.5\%$ up to 6 GHz

### Contact resistance (connector plugged with socket)

Inner conductor .....	$\leq 3$ m $\Omega$
Outer conductor .....	$\leq 1$ m $\Omega$
Isolation resistance .....	$\geq 5$ G $\Omega$

### Test voltage $U_{eff}$

Connectors for cable diameter .....	$\leq 4$ mm 1000 V
Connectors for cable diameter .....	$\geq 5$ mm 1500 V

### Operating voltage $U_{eff}$

Connectors for cable diameter .....	$\leq 4$ mm 400 V
Connectors for cable diameter .....	$\geq 5$ mm 500 V

### Operating Temperature Range .....

- 65 °C up to +165 °C

### Mechanical Characteristics

Durability (mating cycles)\* .....  $\geq 2000$

RoHS ..... compliant

### Construction Socket

Inner conductor .....	Beryllium copper, non-magnetic, hard gold-plated
Dielectric .....	PTFE
Outer conductor .....	Brass, non-magnetic, hard gold-plated
Crimp sleeve .....	Copper, nickel-plated
Rotary sleeve .....	Polyurethane (PUR)

\*Divergent data mentioned at the respective product.

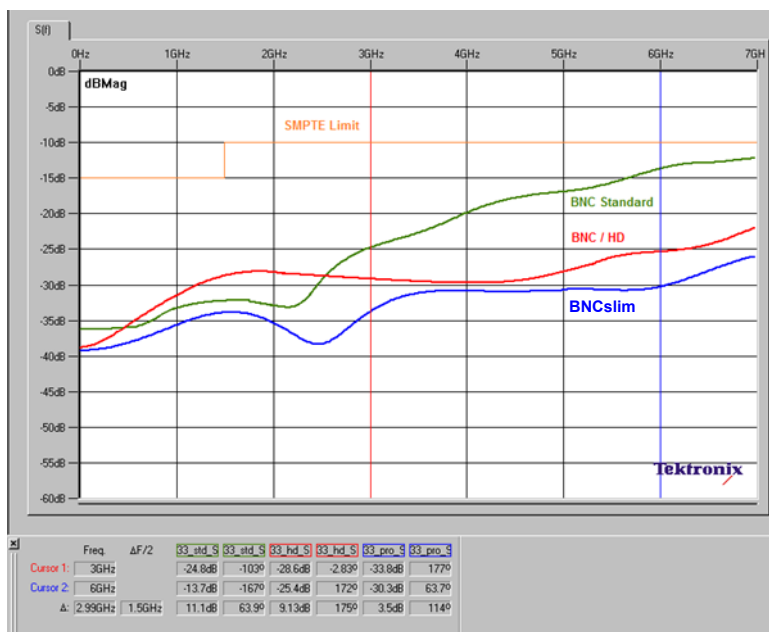
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## Construction Plug

Inner conductor .....	Brass, non-magnetic, hard gold-plated
Dielectric .....	PTFE
Outer conductor .....	Brass, non-magnetic, hard gold-plated
Spring elements .....	Beryllium copper/ Stainless steel
Other material parts .....	Brass, nickel-plated/ Stainless steel
Gasket .....	Silicon
Coupling ring .....	Brass, nickel-plated
Crimp sleeve .....	Copper, nickel-plated
Rotary sleeve .....	Polyurethane (PUR)

## Comparative measurement of Cable Plugs:



Series	Part Number	R <sub>L</sub> [dB] (Return loss)		VSWR (Voltage standing wave ratio)		r [%] (Reflection)	
		3 GHz	6 GHz	3 GHz	6 GHz	3 GHz	6
BNC Standard	1-5126-2100	-23	-12	1.15	1.67	7	25
BNC HD	1-6051-2100	-27	-23	1.09	1.15	4.5	7
BNCslim	1-8805-13100	-32	-28	1.05	1.08	2.5	4

Measured: Patch cable 0.3 m with cable plugs of different BNC-Series

Instrument: Measurement with time domain reflectometer of Tektronix.

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)