



## NBNC75BFH6X

The rearTWIST UHD BNC connectors are specifically designed for high resolution video signal transmissions. Due to the unique insulator and contact pin design, the connectors feature low return loss values for 4K and 8K signals.

### Features & Benefits

- ✓ Optimized contact pin and insulator design for UHD-data transmissions
- ✓ Proven rearTWIST technology
- ✓ Swiss antraloy plating
- ✓ Fully compatible with conventional BNC chassis connectors
- ✓ Improved return loss values at high frequencies

### Optimized Return Loss

Due to optimized insulator design and reduced crimp diameter from center pin the Neutrik rearTWIST UHD BNC connector achieves increased headroom compared to conventional BNC connectors and offers additional return loss reserve for potential impedance deviations resulting from cable bending, incorrect connector assembly or faulty connection interfaces without signal interruption.

For more details see Neutrik UHD BNC White Paper.

### Crimp Dimensions

In order to achieve optimum return loss values at high frequencies the crimp dimension of the contact pin has been reduced.

|            |                  |
|------------|------------------|
| Pin:       | 1.07 mm (square) |
| Shield:    | 5.00 mm (hex)    |
| Crimp die: | DIE-R-BNCX-PDG   |

## Approved Cables

To guarantee high performance for each cable-connector combination at high frequencies Neutrik measured common COAX cables which are specifically designed for ultra high definition transmission (UHD). Find all approved cables listed below.

Suitable cables:  
Kansai 3C-5S, Proel HPC 820

## Technical Information

| Product         |             |
|-----------------|-------------|
| Title           | NBNC75BFH6X |
| Connection Type | BNC 75 Ω    |
| Gender          | male        |

| Electrical            |                                                                                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Contact resistance    | $\leq 3 \text{ m}\Omega$ (inner)                                                                                                            |
| Contact resistance    | $\leq 2 \text{ m}\Omega$ (outer)                                                                                                            |
| Dielectric strength   | 1.5 kVdc                                                                                                                                    |
| Impedance             | 75 $\Omega$                                                                                                                                 |
| Insulation resistance | $> 5 \text{ G}\Omega$                                                                                                                       |
| Rated voltage         | $< 50 \text{ V}$                                                                                                                            |
| VSWR                  | $\leq 1.06$ / $> 30 \text{ dB}$ up to 6 GHz<br>$\leq 1.13$ / $> 24 \text{ dB}$ up to 12 GHz<br>$\leq 1.22$ / $> 20 \text{ dB}$ up to 18 GHz |

| Mechanical       |                           |
|------------------|---------------------------|
| Cable O.D.       | 4.9 mm                    |
| Cable retention  | $> 30 \text{ N}$ (center) |
| Crimp size       | 5.00 Hex crimp (shield)   |
| Crimp size (pin) | 1.6 crimp                 |
| Insertion force  | $< 25 \text{ N}$          |
| Lifetime         | $> 1000$ mating cycles    |
| Wiresize         |                           |
| Locking device   | Bayonett                  |
| Cable anchoring  | Jacket crimping           |

| Material      |                                |
|---------------|--------------------------------|
| Contacts      | Brass (CuZn35Pb2), 0.2 µm AuCo |
| Shell         | Brass (CuZn39Pb3)              |
| Shell plating | Antraloy                       |
| Insert        | PP                             |

| Environmental        |                                         |
|----------------------|-----------------------------------------|
| Temperature range    | - 30 °C to +85 °C                       |
| Contact crimpability | Complies with IEC 60803 and IEC 60352-2 |