



PRODUCT MANUAL

Professional DMX AES/EBU Cable Assemblies

1 PRODUCT EXAMPLE



1039640 (NKX3D134-X1X1-M2000)

The product Professional DMX AES/EBU Cable uses a 20 m cable.

It is assembled with NEUTRIK® NC3FXX-B and NC3MXX-B. It contains exclusive re-usable velcro straps and unshrunk tubes for labeling.

2 GENERAL

When flawless signal transmission is critical on stage, in the studio, or across complex installations the NEUTRIK® Professional DMX AES/EBU Cable Assemblies deliver exactly what professionals need.

Designed for digital lighting control (DMX512 / DMX512-A) and digital audio interconnects (AES/EBU), these cable assemblies ensure stable,

interference resistant performance in any professional environment.

Whether you're managing moving lights in a live show, integrating a theatre lighting grid, or routing audio control data in a broadcast facility, these assemblies provide extreme reliability with the build quality and signal consistency expected from Neutrik.

A TECHNICAL DATA

Product

Title	Profesional DMX AES/EBU Cables Assemblies (NKX*D1*-X*X*-M*)
Product group	premium DATA CABLES
Product family	DATA CABLES
Connection type	NEUTRIK® XLR

Electrical

Characteristical impedance	120 Ω @ 1 kHz (nominal)
Attenuation	2.0 dB/100 m @ 1 MHz (nominal)
Capacitance	Cable conductor to conductor: 55 pF/m @ 1 kHz Cable conductor to shield: 110 pF/m @ 1 kHz 3 Pin connector contact to contact: ≤ 4 pF 5 Pin connector contact to contact: ≤ 7
Conductor resistance	0.22 mm ² /AWG 24: ≤ 80 m Ω /m @ 20 °C (nominal) 0.34 mm ² /AWG 22: ≤ 55 m Ω /m @ 20 °C (nominal)
Contact resistance	≤ 3 m Ω
Insulation resistance	Cable: > 1 G Ω /m @ 20 °C, 500 VDC Connector: > 10 G Ω (initial)
Dielectric strenght	Cable conductor to screen: 1000 VAC @ 50 Hz, 1 min. Connector: 1.5 kVDC





Mechanical	
Insertion force	≤ 20 N
Withdrawal force	≤ 20 N
Lifetime	min. 1000 mating cycles
Locking device	Latch lock
Minimum bending radius	approx. 65 mm
Wiring	Soldered
Composition of conductor	0.22 mm ² / AWG 24: 7 x 0.20 mm OFC 0.34 mm ² / AWG 22: 19 x 0.15 mm OFC
Composition of drain wire	7 x 0.20 mm OFC (0.22 mm ² / AWG 24 only)
Shielding	0.22 mm ² / AWG 24: Foil + Braided (≥60%) 0.34 mm ² / AWG 22: Spiral (≥95%)
Overall diameter	6.5 +/- 0.15 mm

Mechanical	
Wire	Annealed copper
Wire Insulation	Foamed PE
Drain Wire	Tinned copper (0.22 mm ² / AWG 24 only)
Filler	Cotton (0.34 mm ² / AWG 22 only)
Shield	0.22 mm ² / AWG 24: AL/PT Foil + Tinned Copper 0.34 mm ² / AWG 22: Tinned Copper
Outer Jacket	PVC
Connector	See datasheets of NEUTRIK® NC3FXX-B, NC3MXX-B, NC5FXX-B, NC5MXX-B

Environmental	
Standard compliance	DMX512 / DMX512-A according to ANSI E1.11 AES/EBU according to AES3 RoHS according to 2011/65/EU
Ingress protection class	IP20
Temperature range	Mobile: -10 °C to +70 °C Fixed: -20 °C to +70 °C

B ASSEMBLY HEAT SHRINK TUBING

The shrink tubing serves as an optional protective device for a label applied to the cable by a third person.

- Shrinking of the shrink tubing is not necessary for the operation of the cable
- Shrinking of the heat shrinkable tubing is done at your own risk.
- The manufacturer is not liable for any damage to the cable caused by processing the shrink tubing.
- Shrinking of the shrink tubing with open flame and hot air devices without temperature adjustment is not permitted.
- Permissible temperature range for shrinking is 70°C to 90°C.
- The cable must be free of tension during shrinking.





C „TYPE KEY“ EXAMPLE FOR ARTICLES

N K X 3 D 1 2 2 - X 1 X 1 - M 0 0 5 0

NEUTRIK XLR Cable

CONNECTOR TYPE

3 3 Pin Connectors
5 5 Pin Connectors

CABLE TYPE

D1 1 DMX Channel (PVC Sheath)
D2 2 DMX Channels (PVC Sheath)
TD1 1 DMX Channel (PUR Sheath - TOP)
TD2 2 DMX Channels (PUR Sheath -

CROSS SECTION TYPE

22 0.22mm² Cross Section Wires
34 0.34mm² Cross Section Wires.

CONNECTOR COMBINATION

X1X1 NC3FXX-B / NC3MXX-B
X2X2 NC5FXX-B / NC5MXX-B

LENGTH

M0050.....0.5 m
M0100.....1 m
M0150.....1.5 m
M0300.....3 m
M0500.....5 m
M1000.....10 m
M1500.....15 m
M2000.....20 m
M2500.....25 m
M3000.....30 m
M4000.....40 m
M5000.....50 m

UNIT OF LENGTH

Metric in m

D DISPOSAL



Electronic devices are recyclable materials and do not belong in household waste. Dispose of the product at the end of its service life in accordance with the applicable legal regulations.

E APPLICATION AND SAFETY INSTRUCTIONS



Read the operating instructions carefully, and observe the safety instructions in particular. If you do not follow the safety instructions and the information on proper handling in this operating manual, we accept no liability for any resulting personal injury or damage to property. Damage to property. In addition, the warranty/guarantee will become void in such cases.





3 Application and Safety Instructions

A Assembly

- Replacement parts are suitable only when used in combination with the designated components.
- The product's characteristics are guaranteed only in the intended combination.

B Application

- When used with other products, suitability and safety must be assessed and appropriate safety measures must be taken if necessary.
- The product is not intended for use in medical applications.
- The product is not intended for use in potentially explosive or flammable environments.

C Operation

- Before plugging in, check the contact area for dry surfaces.
- Product surfaces may cause burns at elevated ambient temperatures. Ensure the use of appropriate protective equipment.
- Neutrik products should only be combined with products from Neutrik Group brands.

D Cleaning

- Clean only with dry and lint-free materials or compressed air. of cleaning agents.
- The product must not be cleaned while under load. The product may only be cleaned while it is not connected to any voltage and without the use of cleaning agents.

E Damages

- Handle products with care.
- In case of visible damages, check the suitability of the product for use.

i More Information on the website

<https://www.neutrik.com/de/Professional%20DMX%20AES/EBU%20Cable%20Assemblies>



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