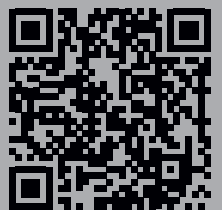




# Loudspeaker Connectors



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**NEUTRIK®, crystalCON®, etherCON®, maxCON®, miniCON®, nanoCON®, neutriCON®, opticalCON®, powerCON®, Profi®, rearTWIST®, silentPLUG®, speakON®, DIWA®, XIRIUM®, are registered trademarks of Neutrik AG.**

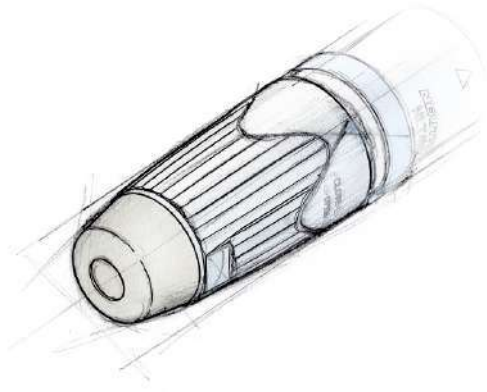
# speakON

## Introduction

The Neutrik speakON® Series, known in the professional audio industry as "The loudspeaker connector" has become the state of the art in speaker and amplifier connectivity. Introduced in 1987 speakON was invented by Neutrik as a result of customer demand for a reliable speaker connection. The pro audio market quickly realized the advantages of this completely new connection system.

The design is optimized for loudspeaker applications with an outstanding cost-performance ratio. As market leader for speaker connections we are proud to offer an all-encompassing product line for the specific needs of today's market. Recent designs such as the STX series and the speakON Combo offer solutions for nearly every speaker application.

## Integrated Design



One of Neutrik's goals is to create products that are easily distinguished from other manufacturers. We have successfully achieved this in our engineering efforts as well as the patent and trademark protection granted for our unique products. To further establish a clear difference between Neutrik and our competitor's products we give our customer the means to easily identify original Neutrik products. Therefore all of our new products such as the SPX and the STX series are designed according to the protected integrated design. (EU-Pat.: DM/057 379, US-Pat. Pending, CHINA-Pat.: 02305192.2 / 193.0/194.9 / 195.7)

## Features & Benefits

Today's speakON series is a result of a continuous product improvement process. The principal idea has been kept and optimized with material and design modifications over the years.

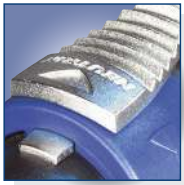
A traditional speakON stands for:

- Reliable and robust, easy and fast to assemble
- 2, 4 and 8 pole cable and chassis connectors in various versions
- Optimal "Quick Lock" system for speaker applications
- Neutrik proven and unique chuck type cable strain relief
- Outstanding cost-performance ratio
- De facto standard
- Meets all worldwide safety requirements (IEC, UL, ...)

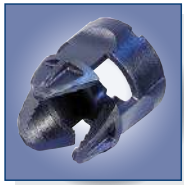
Beyond that, the latest designs as the SPX and STX series offer:

- Up to 50 A current rating
- Only 3 parts with 1 piece strain relief design for even easier assembly
- Convertable right-angle version
- Weatherproof and extremely robust





Quick lock



Chuck type strain relief



Right angle conversion



## speaKON® SPX Series 2 & 4 Pole Cable Connector



NL2FX



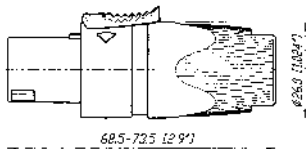
NL4FX



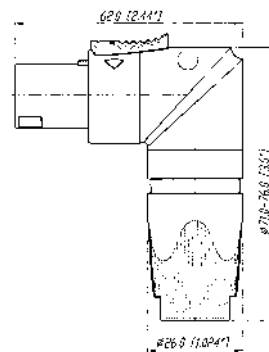
NL4FRX

- Current rating 40 A rms continuous
- Up to 50 A audio signal, duty cycle 50%
- Only 3 parts, easy to assemble
- High impact materials – long-lasting and reliable
- Easy and extremely precise locking system "Quick Lock"
- Improved grip on latch
- 1 piece strain relief, chuck for 7 to 14.5 mm cable O.D.
- Color coding possible
- Improved screw-type termination for highest pull-out force
- Integrated design guarantees "Made by NEUTRIK®"

NL4FX



NL4FRX



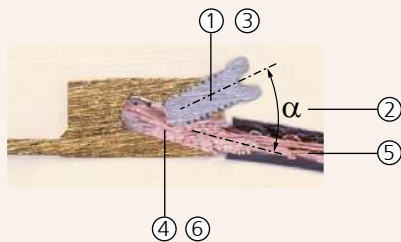
## Design Criteria

This second generation of speakON connectors features higher current rating for the operation of high power speakers and amplifiers carrying more than 1'000 Watts. Only 3 parts make it fast and easy to assemble with a more reliable

performance. Our unique design makes it possible to change easily and quickly from a straight connector to the right-angle version, even without disconnecting the cable.

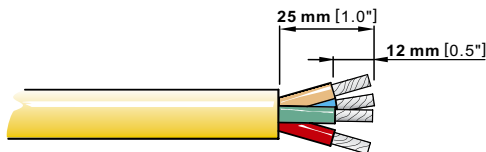


## Improved SPX-Series screw contacts! (Wire position after assembly)



## Assembly

Prepare cable as shown.



### HINT:

For easy wiring especially of thick cables, first screw on the inner contacts 1+ and 2+ and afterwards the outer contacts 1- and 2- !

Use screwdriver Pozidriv #1 only.





Glass reinforced housing



Quick lock



## speaKON® FC Cable Connector Series



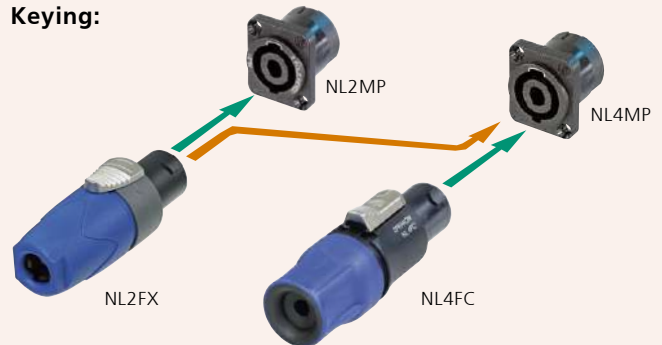
NL4FC



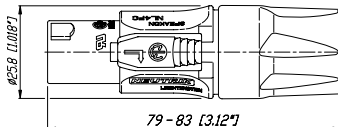
NL8FC

- 4 pole – branded with unique hologram – guarantees genuine and authentic Neutrik product
- Up to 30 A rms current rating
- Glass reinforced materials for housing and inserts
- Unique Neutrik chuck type strain relief
- Precise keyway for secure mating
- Accurate twist lock latching system
- 4 pole in new design with more ergonomic latch

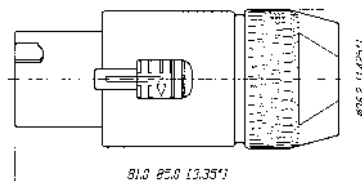
### Keying:



NL4FC



NL8FC





1/4" Jack adapter



Extension coupler

## spea k O N<sup>®</sup> Adapter



NA4LJX



NL4MMX



NL8MM

### NL4MMX:

Features permanent secure connection on a speakON cable connector using 2<sup>nd</sup> lock.



**Secure Lock!**

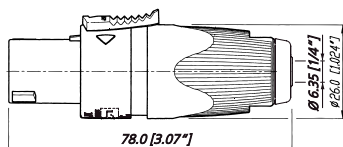
### NL4MMX + NL4FX:

(locked on the cable)

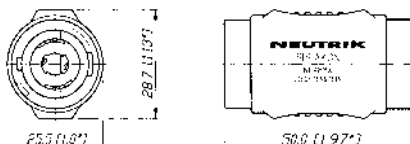
Changes gender to male when permanently locked on the cable.



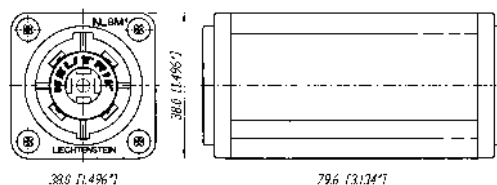
### NA4LJX



### NL4MM



### NL8MM





Reinforced locking area



Nickel housing



3/16" flat tabs



Vertical PCB mount



## speaKON® Chassis Connector



NL2MP



NL4MD-H-1



NL4MD-H-3



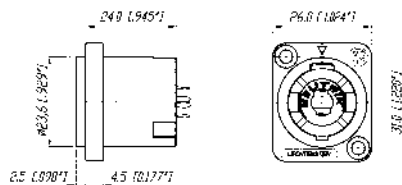
NL4MPR



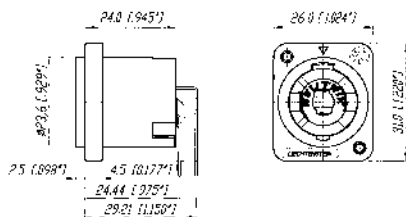
NL8MPR

- Standard version up to 30 A rms, ultra high current version up to 50 A audio current
- Glass reinforced materials
- Precise keyway for secure mating
- Accurate twist lock latching system
- Metal front plate (8 pole) or metal insert in locking area (2 & 4 pole)
- Various mounting and wiring possibilities
- "Air tight design", optimized for speaker applications
- D or G panel cutouts to be easily mounted on audio industry standard panels
- 4 pole branded with unique hologram

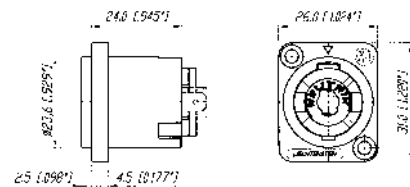
### NL4MD-V



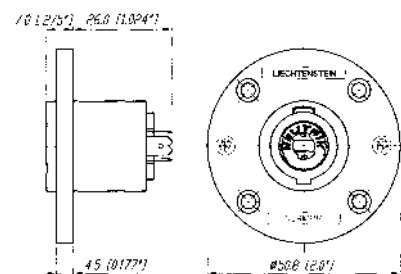
### NL4MD-H



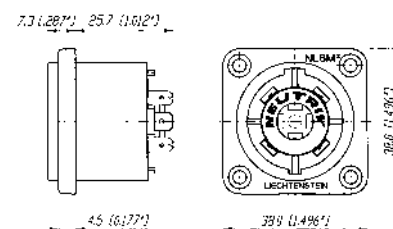
### NL4MP



### NL4MPR



### NL8MPR







Locking key



PCB solder pins



## spea k O N® Combo



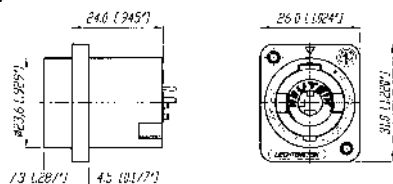
NLJ2MD-V

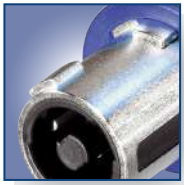
- D-size flange
- Compatible PCB layout and panel mount to NL4MD-V-1 (NL4MD-H)
- Cost saving – combines two connectors in one housing
- Mates with all 2, 4 pole speakON® and 1/4" Phone Plugs
- PA-wiring: 1+ is connected to TIP, 1- to the SLEEVE
- PCB layout of NLJ2MD-V is compatible with NL4MD-V and PCB layout of NLJ2MD-H is compatible with NL4MD-H



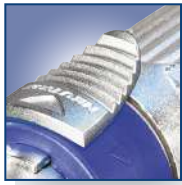
Combines a speakON® and 1/4" Phone Jack – one for two

NLJ2MD-V





Reinforced locking



Latch lock



XL-solder contacts



Protected latch

## speakON® STX Series Cable Connectors



NLT4FX-BAG



NLT4MX



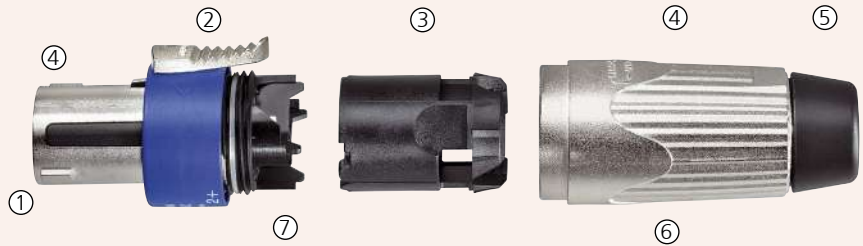
NLT8FX



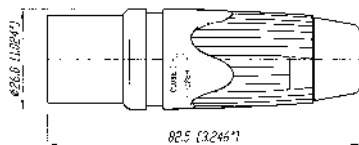
NLT8MX-BAG

- Up to 50 A current rating
- Robust and durable all metal housing
- Sealing ring provides weatherproof IP 54 rating in mated condition on 4 pole version
- Reinforced metal quick lock system for ease and precise locking
- Extra large solder contacts for up to 6 mm<sup>2</sup> (AWG 10) wires
- Compatible with all available speakON products

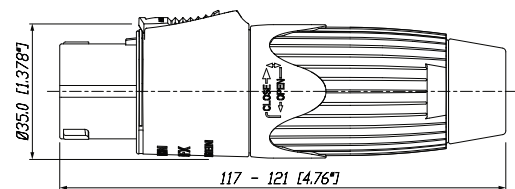
- ① Easy and extremely precise locking system "quick look", reinforced with metal
- ② Improved grip on latch
- ③ 1 piece strain relief, chuck for cables from 9 to 16 mm O.D.
- ④ Extreme rugged "Touring Approved"
- ⑤ Rubber sealing boot
- ⑥ Integrated Design guarantees "Made by NEUTRIK®"
- ⑦ X-large solder contacts for up to 6 mm<sup>2</sup> (AWG 10) wires



NLT4MX



NLT8FX





Robust metal housing



XL-solder contacts



1/4" flat tabs



## spea k O N® STX Series Chassis Connectors



NLT4FP-BAG



NLT4MD-V



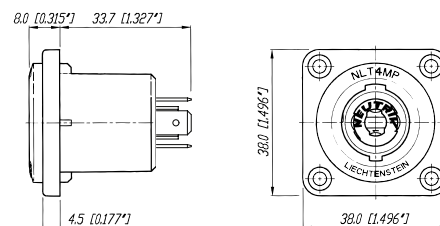
NLT4MP-BAG



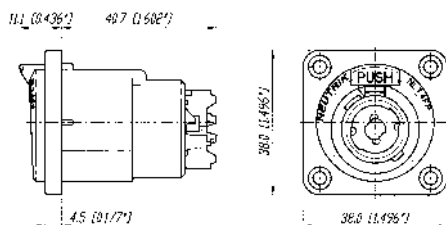
NLT8MP-BAG

- Extremely robust metal housing designed for harsh and demanding environment
- Weatherproof design features sealing gaskets
- 4 type range – also male cable connector and female receptacle on 4 pole version
- All-metal housing makes the STX Series rugged and durable
- Weatherproof built-in gasket meets IP 54 protection class (4 pole)
- Ideal product for touring applications and harsh environments
- Best electrical performance up to 50 A audio current
- Uses precise "Quick Lock" system
- Compatible with all currently available speakON products
- 4 pole version has UL recognized components, CSA listed

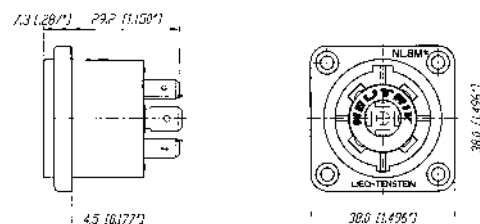
### NLT4MP



### NLT4FP



### NLT8MP



## Specification

SPX Series Cable Con.	STX Series Cable Con.	speakON FC Cable Con	speakON Chassis + Combo	Adapter	STX Series Chassis
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## Electrical

Number of contacts		2 + 4	4 + 8	4 + 8	2, 4, 8	2, 4, 8	4 + 8
Rated current per contact	40 A rms continuous	●	●	30 A	30 A**	15 A	●
CSA approved rating	25 A (4 pole) rms continuous	●	●	-	10 A	-	-
	50 A audiosignal, duty cycle 50%	●	●	40 A	40 A	30 A	●
Combo	15 A rms continuous	-	-	-	●	-	-
Rated insulation voltage	250 V ac	●	●	●	●	●	●
Contact resistance after lifetime	< 2 mΩ	●	●	≤ 3	≤ 3	≤ 3	●
Insulation resistance	> 1 GΩ	●	>100MΩ	●	●	●	>100MΩ
Dielectric strength	4 kV peak	●	●	●	●	●	●
	1/4" Jack	1.5 kV peak	-	-	-	●	-

## Mechanical

Locking System	Quick lock (latch)	●	●	●	●	●	●
Life time (mating cycles)	> 5'000	●	●	●	●	●	●
Cable O.D. range (mm)	2 pole	6 - 10	-	-	-	-	-
	4 pole	7 - 14.5	9 - 16	6 - 15	-	-	-
	8 pole	-	8 - 20	8 - 20	-	-	-
Wiring	screw type terminals	4 mm² (AWG 12)	-	4 mm² (AWG 12)	● (ST)	-	-
	soldering	6 mm² (AWG 10)	6 mm² (AWG 10)	4 mm² (AWG 12)	●	-	●
	flat tabs for 3/16" FASTON® (4.8 x 0.5 mm)	-	-	-	●	-	-
	flat tabs for 1/4" FASTON® (6.3 x 0.8 mm)	-	-	-	● (UC)	-	●
	PCB-version	-	-	-	●	-	●
Insertion / withdrawal force	Combo Jack: ≤ 20 N / > 10 N	-	-	-	●	-	-
Cable retention force	≥ 220 N*	●	●	●	-	-	-

## Material

Housing	Polyamide PA 6 30% GR	-	-	●	●	●	-
	PBT 20% GR	●	-	-	-	-	-
Insert	Zinc diecast (ZnAl4Cu1)	-	●	-	-	-	●
	Polyamide PA 6 30% GR	-	●	-	-	●	●
Contacts	PBT 20% GR	●	-	●	-	-	-
	Brass (CuZn39Pb3)	●	●	●	-	-	-
	Bronze (CuSn6)	-	-	-	●	●	-
	Spring copper	-	●	-	● (UC)	-	●
Contact plating	4 μm Ag	●	●	●	●	●	●
Locking Element	Zinc diecast (ZnAl4Cu1)	●	●	●	-	-	● (FP)
Chuck	Polyacetal (POM)	●	●	●	-	-	-
Bushing	Polyamide (PA 6 15% GR)	●	●	●	-	-	-

## Environment

Temperature range	-30 °C to +80 °C	●	●	●	●	●	●
Protection class	IP 54 (mated condition)	-	●	-	-	-	●
	IP 50 (8 pole, mated cond.)	-	●	-	-	-	●
Flammability	UL94HB	●	●	●	●	●	●
Finger- Safety	IP2X/IEC 61984	●	●	●	●	●	●
Approvals	UL-Recognized, CSA listed	●	4 pole	●	●	●	4 pole
Solderability	complies with IEC 68-2-20	●	●	●	●	●	●

\*: subject to cable O.D. and material

\*\* : NL4MD-V-S - Rated current per contact: 20A

## Ordering Information Cable Connectors

### SPX Series

NL2FX	2 pole	Cable connector with chuck and blue bushing, intermates with 4 pole chassis connector and makes contact with +1/-1
NL4FX	4 pole	Cable connector with chuck and black bushing
NL4FX-2	4 pole	Cable connector with chuck and red bushing
NL4FX-4	4 pole	Cable connector with chuck and yellow bushing
NL4FX-5	4 pole	Cable connector with chuck and green bushing
NL4FX-9	4 pole	Cable connector with chuck and white bushing
NL4FRX	4 pole	Right-angle cable connector with chuck and black bushing

### FC Series

NL4FC	4 pole	Cable connector with latch lock
NL8FC	8 pole	Cable connector with latch lock

### Adapters

NA4LJX	4/2 pole	Adapter from speakON cable connector to 2 pole 1/4" Jack, wiring: +1 to TIP and -1 to SLEEVE
NL4MMX	4 pole	Lockable coupler to extend two 4 pole cables
NL8MM-BAG	8 pole	Coupler to extend two 8-pole cables, black-chrome metal housing, chuck and bushing

### STX Series

NLT4FX	4 pole	Female cable connector, nickel metal housing, chuck and bushing
NLT4FX-BAG	4 pole	Female cable connector, black-chrome metal housing, chuck and bushing
NLT4MX	4 pole	Male cable connector, nickel metal housing, chuck and bushing
NLT4MX-BAG	4 pole	Male cable connector, black-chrome metal housing, chuck and bushing
NLT8FX	8 pole	Female cable connector, nickel metal housing, chuck and bushing
NLT8FX-BAG	8 pole	Female cable connector, black-chrome metal housing, chuck and bushing
NLT8MX-BAG	8 pole	Male cable connector, black-chrome metal housing, chuck and bushing

## Accessories



### SPX Series

LCR-*	Colored coding rings for the right-angle version of the SPX Series. Available in blue (Standard), white, red, green and yellow.
LRX	Right-angle speakON conversion kit for changing the straight connector into a right-angel version without removing the cable from the insert.
NLRR	Strain relief reduction ring for NL4FX for thin loudspeaker cables with an O.D. of 5 to 8 mm

### FC Series

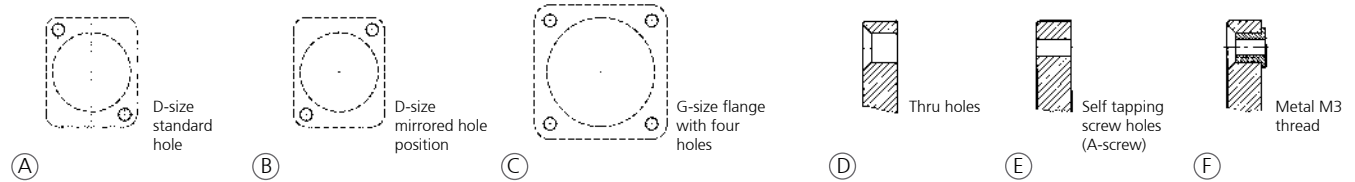
BSL-*	Colored 2 component bushing for NL4FC *: 0 - Black, 1- Brown, 2 - Red, 3 - Orange, 4 - Yellow, 5 - Green, 6 - Blue, 7 - Violet, 8 - Grey, 9 - White; Must be ordered in multiples of 100.
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## Ordering Information Chassis Connectors

Flange layout:

Hole layout:



Pole	Flange size	Flange layout	Hole layout	Color	Wiring	Remarks
------	-------------	---------------	-------------	-------	--------	---------

### Traditionally

NL2MP	2	D-size	A	D	black	3/16" flat tabs*	Does not intermate with 4-pole cable connector
NL2MD-H	2	D-size	A	D	grey	horizontal PCB	Does not intermate with 4-pole cable connector
NL2MD-V	2	D-size	A	D	black	vertical PCB	Does not intermate with 4-pole cable connector
NL4MP	4	D-size	A	D	black	3/16" flat tabs*	
NL4MP-1	4	D-size	A	E	grey	3/16" flat tabs*	
NL4MP-2	4	D-size	B	E	black	3/16" flat tabs*	
NL4MP-3	4	D-size	A	E	black	3/16" flat tabs*	
NL4MP-M3	4	D-size	A	F	black	3/16" flat tabs*	
NL4MD-H	4	D-size	A	E	grey	horizontal PCB	
NL4MD-H-1	4	D-size	A	D	black	horizontal PCB	
NL4MD-H-2	4	D-size	B	E	black	horizontal PCB	
NL4MD-H-3	4	D-size	A	E	black	horizontal PCB	
NL4MD-V	4	D-size	A	D	black	vertical PCB	
NL4MD-V-1	4	D-size	A	E	grey	vertical PCB	
NL4MD-V-2	4	D-size	B	E	black	vertical PCB	
NL4MD-V-S	4	D-size	A	E	black	vertical PCB	switched contacts
NL4MP-ST	4	D-size	A	D	black	screw terminal	
NL4MP-UC	4	D-size	A	D	black	1/4" flat tabs*	Ultra high current, up to 40 A rms
NL4MPR	4	round G-size flange	C	D	black	3/16" flat tabs*	
NL8MD-V	8	square G-size flange	C	D	Ni	vertical PCB	
NL8MD-V-BAG	8	square G-size flange	C	D	black chrome	vertical PCB	
NL8MD-V-1	8	square G-size flange	C	E	Ni	vertical PCB	
NL8MPR	8	square G-size flange	C	D	Ni	3/16" flat tabs*	
NL8MPR-BAG	8	square G-size flange	C	D	black chrome	3/16" flat tabs*	

### STX Series

NLT4MP	4	square G-size flange	C	D	nickel	1/4" flat tabs*	
NLT4MP-BAG	4	square G-size flange	C	D	black chrome	1/4" flat tabs*	
NLT4MD-V	4	square G-size flange	C	E	nickel	vertical PCB	
NLT4MD-V-1	4	square G-size flange	C	D	nickel	vertical PCB	
NLT4FP	4	square G-size flange	C	D	nickel	solder contacts	
NLT4FP-BAG	4	square G-size flange	C	D	black chrome	solder contacts	
NLT4FD-V-BAG	4	square G-size flange	C	D	black chrome	vertical PCB	
NLT8MP	8	square G-size flange	C	D	nickel	1/4" flat tabs*	
NLT8MP-BAG	8	square G-size flange	C	D	black chrome	1/4" flat tabs*	
NLT8FP-BAG	8	square G-size flange	C	D	black chrome	solder contacts	

\*: flat tabs to be used with FASTON® connectors or to solder the wire (FASTON® is a trademark of AMP Inc.)

## Ordering Information Chassis Connectors

	Pole	Flange size	Flange layout	Hole layout	Color	Wiring	Remarks
<b>Combo Series</b>							
NLJ2MD-V	2	D-size	A	E	green	vertical PCB	
NLJ2MD-V-1	2	D-size	A	E	grey	vertical PCB	
NLJ2MD-H	2	D-size	A	E	green	horizontal PCB	

## Accessories



A-Screw-1-8	Black self tapping PLASTITE® screw 2.9 x 8 for rear panel mount
NLFASTON	FASTON® receptacle for tabs with "positiv lock" for use with NL4MP, NL4MPR, NL8MPR, Pack of 100 pcs.
MFD	M3 mounting frame for D-size chassis
NDL	dummyPLUG for 2 & 4 Pole chassis connector
NZP1RU-8	Panel 1RU housing with 8 D-shape cutouts
NZP1RU-12	Panel 1RU housing with 12 D-shape cutouts
SCL	Plastic sealing cover to protect the connectors against dust and moisture
SCDR	Rear end protection cover for D-size chassis connectors
SCDP-*	D-Size sealing gaskets, color coding
SCDX	Hinged cover seals D-size chassis connectors, IP 42 rated
SCCD-W	Spring-loaded cover to seals for D-size chassis Connectors, IP 65 rated
SCNLT	Gasket for NLT4MP
	(To make a cabinet with an Amphenol EP cutout airtight, use the rubber sealing which covers the entire hole.)

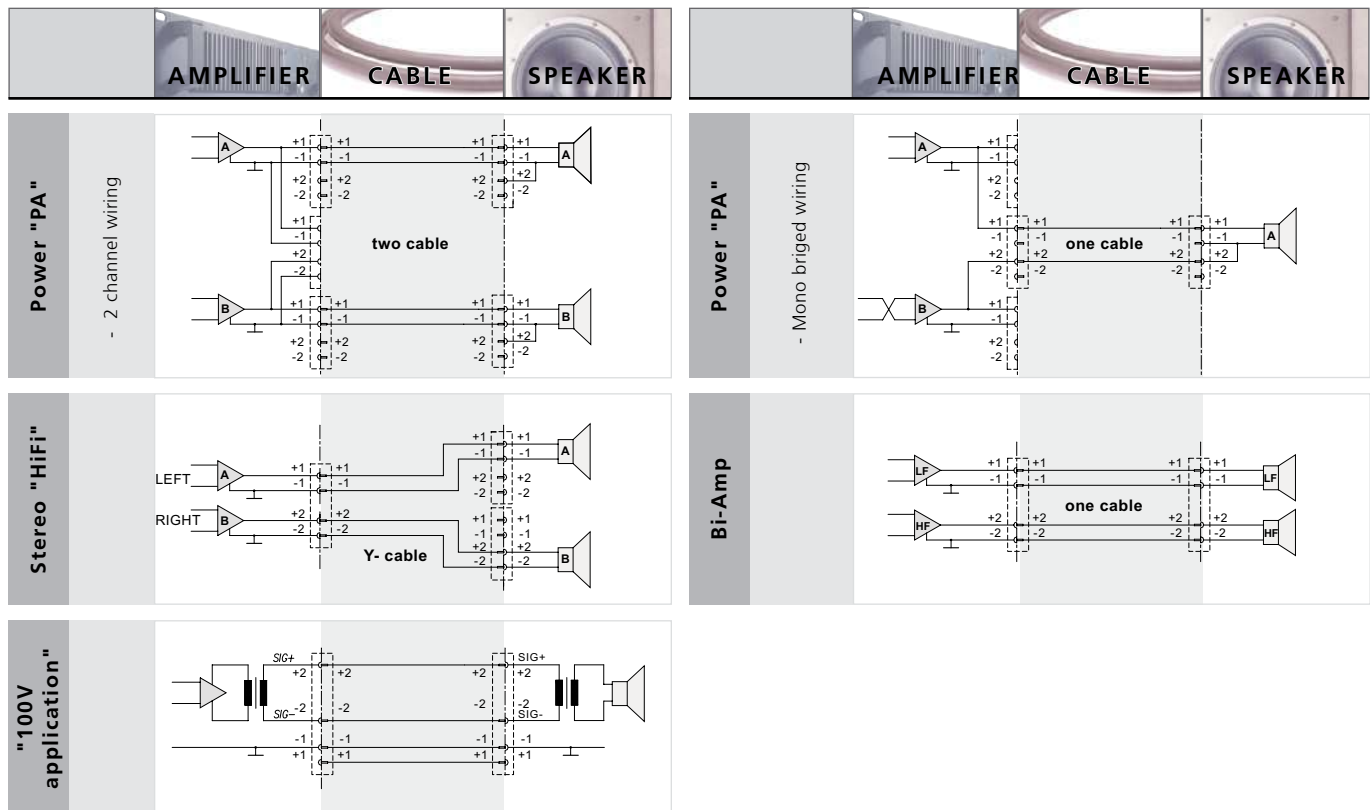
(\*: 0- black, 2- red, 4- yellow, 5- green, 6- blue, 9- white)

## Wiring Suggestion

Positive signal on speaker pin "+" produces positive wave-form from driver (moves cone outwards)

"+" = In phase (high) "-" = Ground (out of phase, low)  
Lower numbers for lower frequencies.

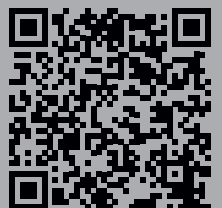
	AMPLIFIER	CABLE	SPEAKER
<b>Stereo ("HiFi")</b>	one NL4MP socket left channel pins 1+/1- right channel pins 2+/2-	NL4FC on amplifier end, four conductor cable splits into two pairs with NL4FX on each end	one NL4MP per speaker left speaker pins 1+/1- right speaker pins 2+/2-
<b>POWER ("PA") Standard</b>	three NL4MP sockets "A" socket: left channel pins 1+/1- "B" socket: right channel pins 1+/1-	a two-conductor cable for each channel with NL4FX on both ends	NL4MP pins 1+ to speaker coil "+" NL4MP pins 1- and 2+ to speaker coil "-"
<b>Bridged mono</b>	"M" socket: left channel pins 1+/1- right channel pins 2+/2-	a special two-conductor cable, on both ends wired to pin 1+/2+ of NL4FX	NL4MP pin 1+ to speaker coil "+" NL4MP pins 1- and 2+ to speaker coil "-"
<b>Bi-Amp</b>	one NL4MP socket low frequency pins 1+/1- high frequency pins 2+/2-	a four-conductor cable on both ends wired to pins 1+/1-, 2+/2- of NL4FX	one NL4MP socket low frequency pins 1+/1- high frequency pins 2+/2-
<b>4 Way System</b>	one NL8MPR socket low frequency pins 1+/1- low mid frequency pins 2+/2- high mid frequency pins 3+/3- high frequency pins 4+/4-	an eight-conductor cable wired on both ends to pins 1+/1-, 2+/2-, 3+/3-, 4+/4- of NL8FC	one NL8MPR socket low frequency pins 1+/1- low mid frequency pins 2+/2- high mid frequency pins 3+/3- high frequency pins 4+/4-







## Plugs & Jacks



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<p><b>NEUTRIK®, crystalCON®, etherCON®, maxCON®, miniCON®, nanoCON®, neutriCON®, opticalCON®, powerCON®, Profi®, rearTWIST®, silentPLUG®, speakON®, DIWA®, XIRIUM®, are registered trademarks of Neutrik AG.</b></p>	





## Introduction

The Neutrik® plug and jack program offers a wide range of professional phone connectors including 1/4", 3.5 mm, MIL/B-gauge style and TT or bantam style plugs. The jack range offers an exceptional "slim" 1/4" PCB jack that is almost 20 % smaller than most other designs. The heavy duty M line combines a wide range of options such as three different nose forms and four styles of contacts including 3 PCB and one solder tab. It also includes a 1/4" chassis and cable jack line with the secure locking feature, well known from the XLR range. All jacks are manufactured from strong high-grade thermoplastics and are available in all common versions which make them suitable for audio and industrial applications.

The plug line features:

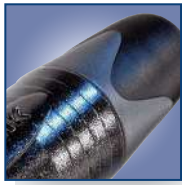
- Mono (TS) and Stereo (TRS) plugs
- Straight and right-angle versions
- Rugged diecast shell in nickel or black chromium
- Nickel or gold plated contacts
- Chuck type strain relief
- Precision machined plugfinger without rivets
- Coloured boots and rings for coding
- Silent Plug , timbrePLUG and ultimatePLUG for instrument (guitar) applications

All plugs and jacks are specified to IEC 60603-11 and EIA RS-453 or the respective MIL standard.

Neutrik® also offers a special jack version which is a combined 3 pole XLR receptacle and a 1/4" phone jack for balanced mic or line inputs in one XLR shell. This "one for two" panel mount offers substantial cost, labour and material savings. For more information on the Combo products see page 36 and 37 or visit our website at [www.neutrik.com](http://www.neutrik.com).



Neutrik brand



Anti-kink bushing



Chuck type strain relief



White painted housing



Right angle plug

## 1/4" Phone Plug - PX and PRX Series



NP2X



NP3X-B



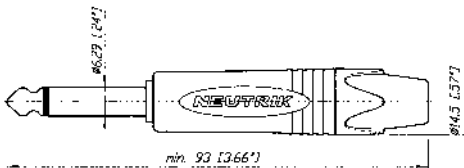
NP2X-WT



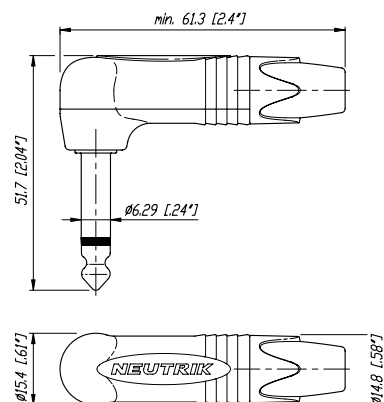
NP3RX-B

- Slim 1/4" plug with million fold proven chuck type strain relief
- Precision machined one piece contacts – no rivets
- Sleek attractive design for best handling convenience
- 14.5 mm only in diameter (right angle 15.4 mm) – serves highest packing density of 15.88 mm jack pitch
- Nickel or gold plugfinger in mono (TS) and stereo (TRS)
- Screwless assembly (PRX series as well)
- L-D version available which accommodates cable O.D.s up to 8 mm

NP2X

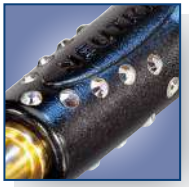


NP2RX



15.88 mm jack pitch:





CRYSTALLIZED™ –  
Swarovski Elements

crystalCON



Robust metal  
housing



Big bushing for  
cable up to 10 mm

jumboPLUG

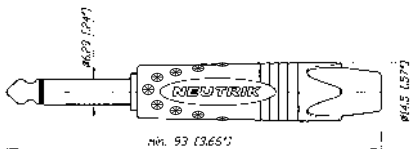
crystalCON



NP2X-B-CRYSTAL

- Mono 1/4" phone plug embellished with CRYSTALLIZED™ – Swarovski Elements
- Fancy, noble, valuable, attractive package – an eye-catcher

NP2X-B-CRYSTAL



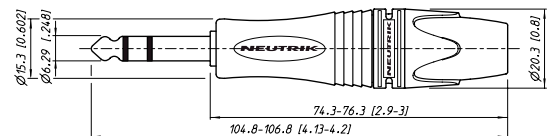
jumboPLUG



NP2XL

- 2 or 3 pole 1/4" professional phone plug
- Up to 10 mm cable O.D.
- Robust diecast shell in stylish design
- Proven chuck type strain relief for reliable cable retention
- Ergonomic design for best handling convenience
- Precision machined one piece contacts – avoid hook up of tip contact

NP3XL





Moving magnet



Right angle plug

### Attention!

For use with instrument (guitar) applications only. Damage may occur if connected to amplifier output.

silentPLUG

## silentPLUG – 1/4" Phone Plug



NP2X-AU-SILENT



NP2RX-AU-SILENT

### Design Criteria

The silentPLUG automatically mutes (shorts) an instrument (guitar) cable to avoid pops and squeals when changing the instrument (guitar) under load.

The integrated silent switch (pat. pending) is based on REED-technology and guarantees a lifetime beyond 10'000 mating cycles. The PX silentPLUG features a rugged metal shell enhanced with a rubber cushion overlay for improved shock protection.

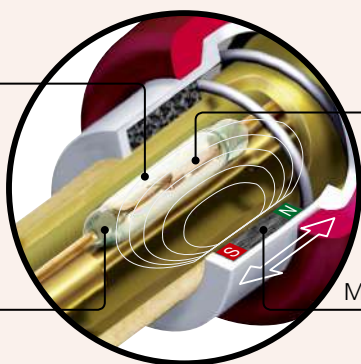
#### Detail Silent Switch:

Hermetically sealed

Gold plated contacts

#### REED SWITCH

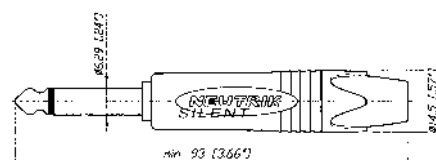
Moving magnet



- Cannot corrode or pollute
- No wear, constant contact resistance
- Decoupled from switching mechanism

- Avoids pops and squeals
- Hermetically sealed switching contacts
- Lifetime beyond 10'000 mating cycles
- Slim right-angle plug with industry proven and reliable chuck type cable strain relief
- Sleek attractive design for convenient handling and connections
- Rubber overlay on straight housing for best shock-protection and reliability
- L-D version available accommodating up to 8 mm

#### NP2X-AU-SILENT





Rotary knob to change the timbre



Right angle plug

timbrePLUG

## timbrePLUG – 1/4" Guitar Plug



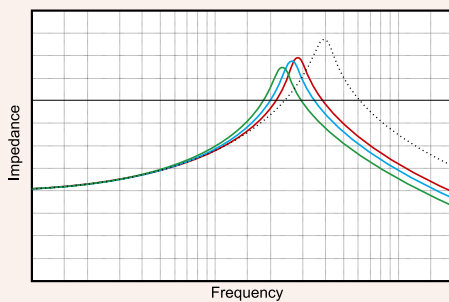
NP2RX-TIMBRE

### Design Criteria

The characteristic sound of a guitar is not only influenced by the guitar (strings, pickups, body) alone but also by the attached instrument cable and the following guitar amp. The timbrePLUG provides the possibility to change the timbre of your guitar sound from neutral, clear sound to warm characteristics.

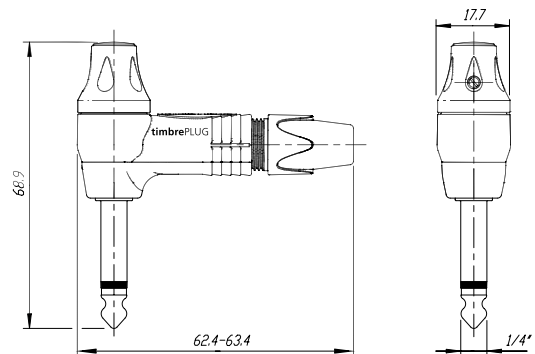
### timbrePLUG - charakteristic

- neutral position / basic sound characteristic
- position 1 / sound characteristic 1
- position 2 / sound characteristic 2
- position 3 / sound characteristic 3



- Standard timbre of your cable plus 3 additional sound characteristics
- Slim right-angle plug with industry proven and reliable chuck type cable strain relief
- Sleek attractive design for convenient handling
- Gold plug finger, precision machined one piece contacts

### NP2RX-TIMBRE





Rotary knob to change the timbre



Right angle plug



Moving magnet

## Attention!

For use with instrument (guitar) applications only. Damage may occur if connected to amplifier output.

ultimatePLUG

## ultimatePLUG – 1/4" Guitar Plug

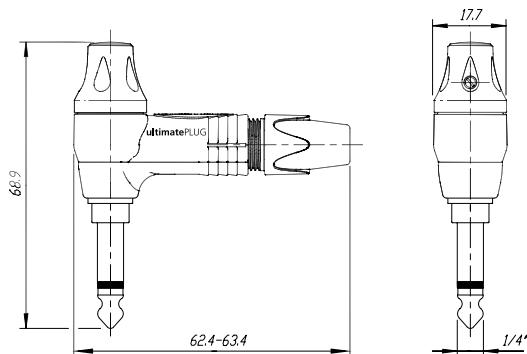


NP2RX-ULTIMATE

- 2 in 1 – combines timbrePLUG & silentPLUG
- Change of timbre and avoiding of pop and squeals are combined in one plug
- The ultimate guitar plug
- Slim right-angle plug with industry proven and reliable chuck type cable strain relief
- Sleek attractive design for convenient handling
- Gold plug finger, precision machined one piece contacts

Details of **silentPLUG** on page 50 and **timbrePLUG** characteristics on page 51.

### NP2RX-ULTIMATE







The standard of professional phone plugs



B-Gauge type

## C Series



NP2C + BSP-3

- Available in mono (TS) or stereo (TRS)
- Meets EIA / IEC standards
- Unique plug finger design without rivets
- Sturdy diecast metal shell
- Excellent Neutrik® chuck type strain relief

## MIL/B-Gauge Type Plugs



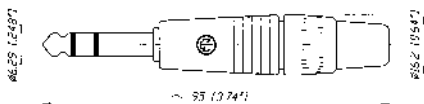
NP3TB-R



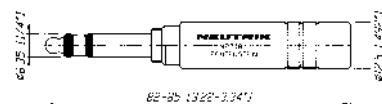
NP3CM-B

- 1/4" "B-Gauge" and "MIL" Type Plugs
- All metal design, chuck type strain relief, no rivets
- Meet all prevailing standards
- Available as plug fingers only for overmolding

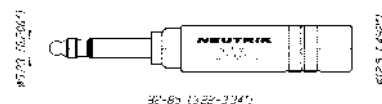
### NP3C



### NP3TB-B



### NP3CM-B





Bantam plug



Dual bantam plug



Gold plated contacts



Easy connector assembly

## 0.173" Bantam Type Miniature Plugs



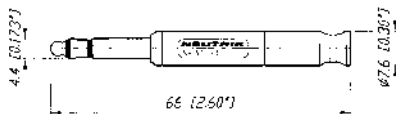
NP3TT-1-B



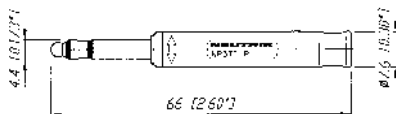
NP3TT-2

- Very robust ergonomic design
- Gold contact version in combination with the NJ3TTA jack eliminates contact problems due to corrosion or dirt
- The single plug NP3TT-P and the dual bantam plug NP3TT-2 are made for assembling with a standard HEX crimping tool as used with coax cables
- Solder termination for T + R, crimp termination for sleeve contact

NP3TT-1



NP3TT-P



## 3.5 mm Right-Angle Stereo Plug



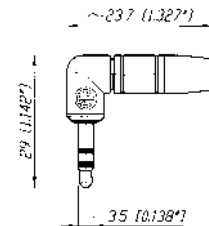
NTP3RC



NTP3RC-B

- The only available 3.5 mm plug with chuck type strain relief
- All metal housing – reliable and robust
- Easy to assemble, simple to use
- Slim design – space saving
- Excellent cable protection
- All nickel or black housing, available with gold plated contacts

NTP3RC



## Specifications

1/4" Phone Plugs    MIL / B-Gauge Type    0.173" Bantam Type    3.5 mm Stereo Plugs  
SILENT & CRYSTAL  
timbrePLUG & ultimatePLUG  
jumboPLUG

## Electrical

Rated current:	depends on mating connector	•	•	•	•
Contact resistance:	depends on mating connector	•	•	•	•
Insulation resistance:	- initial:	> 2 GΩ	•	•	•
	- after damp heat test:	≥ 1 GΩ	•	•	•
		> 0.1 GΩ	ULTIMATE + TIMBRE	•	•
Dielectric strength	1 kV dc	•	-	-	-
	200 V dc	SILENT	-	-	-
	100 V dc	ULTIMATE + TIMBRE	-	-	-

## Mechanical

Lifetime	> 1'000 mating cycles	•	•	•	•
Wiring:	solder terminals	•	•	•	•
Wire size	mm <sup>2</sup>	1	1 (NP3CM: 0.5)	0.25	0.22
	AWG	18	18 (NP3CM: 20)	24	24
Cable O.D.:	mm	4 – 7 (≤ 10: NP*XL)	4 – 7	4 – 4.8	2 – 4.5

## Materials

Shell:		Zinc diecast (ZnAl4Cu1) Ni or black Cr plated	Brass (CuZn39Pb3) black or red coated	Brass (CuZn39Pb3) 2 µm Ni (Su) plated PA 6 30 % GR	Zinc diecast (ZnAl4Cu1) Ni or black Cr plated
Insulation:	Polyamide (PA 6.6 30 % GR)	•	•	•	PA 6.6 15% GR
Contacts:	Brass (CuZn39Pb3) 2 µm Ni (Su) or Au plated	•	•	• (Tip: CuSn6) 2 µm TRIBOR® (NiP-AuCo)	•
Chuck:		POM	POM	-	POM
Bushing:		POM + PU	-	-	CuZn39Pb3 + PU (Ni or black Chrome)
Rubber shell-overlay:		EPDM	-	-	-

## Environmental

Temperature range:	-20 °C to +65 °C	•	•	•	•
Solderability complies with	IEC 68-2-20	•	•	•	•

## Ordering Information

Part Number	Shell	Contacts	Standards Compatibility	Remarks
-------------	-------	----------	-------------------------	---------

### 1/4" Professional Phone Plugs - PX and PRX Series

NP2X	NP2RX	Nickel	Nickel	IEC 60603-11 / EIA RS-453	Mono plug, black bushing
NP2X-BAG	NP2RX-BAG	Black Cr	Nickel	●	Mono plug, black bushing
NP2X-B	NP2RX-B	Black Cr	Gold	●	Mono plug, black bushing
NP2X-WT	-	White painted	Nickel	●	Mono plug, white bushing
NP3X	NP3RX	Nickel	Nickel	●	Stereo plug, black bushing
NP3X-BAG	NP3RX-BAG	Black Cr	Nickel	●	Stereo plug, black bushing
NP3X-B	NP3RX-B	Black Cr	Gold	●	Stereo plug, black bushing
*-D	*-D				Bulk packed to be ordered in multiples of 100

### silentPLUG - special Guitar Plug

NP2X-AU-SILENT	Rubber overlay	Gold	IEC 60603-11 / EIA RS-453	Mono plug, silent switch
NP2RX-AU-SILENT	red coated	Gold	IEC 60603-11 / EIA RS-453	Right angle mono plug, silent switch

### timbrePLUG - special Guitar Plug

NP2RX-TIMBRE	red coated	Gold	IEC 60603-11 / EIA RS-453	Right angle mono plug, timbre switch
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### ultimatePLUG - special Guitar Plug

NP2RX-ULTIMATE	Black Cr	Gold	IEC 60603-11 / EIA RS-453	Right angle mono plug, timbre switch & silent switch
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### crystalCON - 1/4" Professional Phone Plug

NP2X-B-CRYSTAL	Black Cr	Gold	IEC 60603-11 / EIA RS-453	Mono plug, black bushing, equipped with CRYSTALLIZED™ – Swarovski Elements
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### jumboPLUG - 1/4" plug for thick instrument and loudspeaker cables

NP2XL	Nickel	Nickel	IEC 60603-11 / EIA RS-453	Mono plug, black bushing
NP3XL	Nickel	Nickel	●	Stereo plug, black bushing

### 1/4" Professional Phone Plugs - PC Series

NP2C	Nickel	Nickel	IEC 60603-11 / EIA RS-453	Mono plug, black bushing
NP2C-BAG	Black Cr	Nickel	●	Mono plug, black bushing
NP2C/B	Black Cr	Gold	●	Mono plug, black bushing and gold contacts
NP3C	Nickel	Nickel	●	Stereo plug, black bushing
NP3C-BAG	Black Cr	Nickel	●	Stereo plug, black bushing
NP3C/B	Black Cr	Gold	●	Stereo plug, black bushing and gold contacts
NP2C-BAG-T-AU	Black Cr	Nickel + T: Gold	●	Mono plug, black bushing with gold tip
NP2C-T10AA	Nickel	Nickel	●	Mono plug, red bushing, with built-in 1:10 transformer to convert microphone levels to guitar inputs
NP2RCS	Nickel + black plastic	Nickel	●	Mono right-angle plug, black bushing
NP3RCS	Nickel + black plastic	Nickel	●	Stereo right-angle plug, black bushing
NP*C-D				Bulk packed to be ordered in multiples of 100

## Ordering Information

Part Number	Shell	Contacts	Standards Compatibility	Remarks
-------------	-------	----------	-------------------------	---------

### MIL/B-gauge Type Phone Plugs

NP3TB-B	Black	Nickel	B-GAUGE BP0316	1/4" B-Gauge plug
NP3TB-R	Red	Nickel	•	1/4" B-Gauge plug
NP3TM-B	Black	Nickel	MIL-P-642/2	1/4" MIL plug
NP3TM-R	Red	Nickel	•	1/4" MIL plug
NP2CM-B	Black	Brass	MIL-P-642/4	Mono 1/4" MIL plug
NP2CM-R	Red	Brass	•	Mono 1/4" MIL plug
NP3CM-B	Black	Brass	MIL-P642/5A	Stereo 5.23 mm (0.206") MIL plug
NP3CM-R	Red	Brass	•	Stereo 5.23 mm (0.206") MIL plug

### 0.173" Bantam Type Miniature Plugs

NP3TT-1-B	Nickel + black plastic	Nickel	MIL-P-642/13	4.4 mm (0.173") Bantam plug with solder contacts, black sleeve
NP3TT-1-R	Nickel + red plastic	Nickel	•	4.4 mm (0.173") Bantam plug with solder contacts, red sleeve
NP3TT-AU-B	Nickel + black plastic	Gold	•	4.4 mm (0.173") Bantam plug with solder contacts, black sleeve
NP3TT-AU-R	Nickel + red plastic	Gold	•	4.4 mm (0.173") Bantam plug with solder contacts, red sleeve
NP3TT-P-B	Black plastic	Nickel	•	4.4 mm (0.173") Bantam plug with solder contacts, black sleeve
NP3TT-P-R	Red plastic	Nickel	•	4.4 mm (0.173") Bantam plug with solder contacts, red sleeve
NP3TT-P-AU-B	Black plastic	Gold	•	4.4 mm (0.173") Bantam plug with solder contacts, black sleeve
NP3TT-P-AU-R	Red plastic	Gold	•	4.4 mm (0.173") Bantam plug with solder contacts, red sleeve
NP3TT-2	Black plastic	Nickel	•	4.4 mm (0.173") Twin Bantam plug with solder contacts, black sleeve

### 3.5 mm Right-Angle Stereo Plug

NTP3RC	Nickel	Nickel	IEC 60603-11	3.5 mm audio plug with chuck and bushing
NTP3RC-B	Black Cr	Gold	IEC 60603-11	3.5 mm audio plug with chuck and bushing

## Accessories



BSP-\*



BPX-\*



BSTT-\*



BSTP-\*



PXR-\*



PCR-\*

BSP-\* Colored bushing for NP\*C Series

BPX-\* Colored bushing for NP\*X Series

BPX-L Large bushing for NP\*X Series up to 8.0 mm cable O.D.

BSTT-\* Colored sleeves for NP3TT Series

BSTP-\* Colored sleeves for NP3TT-P Series

PXR-\* Colored marking rings for NP\*X Series

PCR-\* Colored marking rings for NP\*C Series

\*: Must be ordered in multiples of 100.

Black	Brown	Red	Orange	Yellow	Green	Blue	Violet	Grey	White
0	1	2	3	4	5	6	7	8	9

## Assembly tool



HX-TT-1



HX-R-BNC



HX-R-BNC-PJ



HTXP



HTPXS

HX-TT-1 Assembly and crimp tool for NP3TT-1/AU

HX-R-BNC HEX crimp tool for NP3TT-P\*

DIE-R-BNC-PJ HEX crimp die for NP3TT-P\* (5.4 mm)

HTXP Hand tool to tighten the PX and XX-bushing

HTPXS Hand tool to hold shell of PX Plug



1/4" cable jack with locking



Neutrik cable retention

## Locking 1/4" Cable Jacks



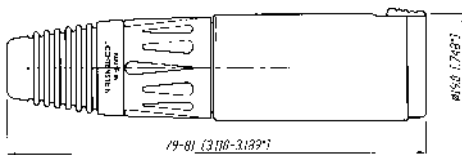
NJ3FC6



NJ3FC6-BAG

- Securely locking cable jack
- Mates with all mono or stereo plugs specified to EIA RS-453
- Extremely robust and reliable
- Excellent Neutrik cable retention
- Colored boots available in 10 colors
- For cable O.D.s up to 8 mm

### NJ3FC6





Release latch



Standard D mounting dimensions

## Locking 1/4" Chassis Jacks



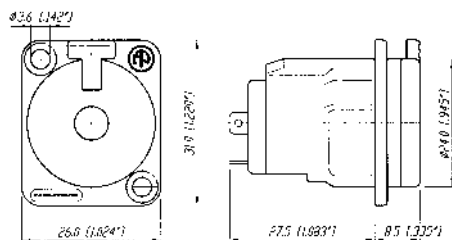
NJ3FP6C



NJ3FP6C-BAG

- Mates with all mono or stereo plugs specified to EIA RS-453
- Dimensionally compatible with D Series (31 x 26 mm)
- Securely locking chassis jack
- Solder terminals
- Special version with black plastic shell
- Choice of grounding option (see on [www.neutrik.com](http://www.neutrik.com))

### NJ3FP6C







Snapping cap



Solder tags

## 1/4" Vertical Jacks



NJ\*FD-V



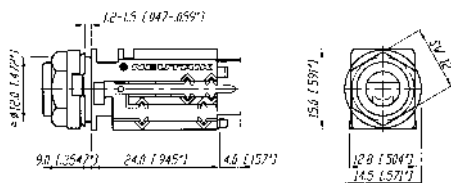
NJ6TB-V



- Neutrik 1/4" Vertical PCB Jacks come in either standard 1/4" (FD) or mil gauge (TB) versions
- They feature a snap on/twist off cap which drastically reduces assembly times
- Retention force is provided by a special spring element independent of the contacts which results in optimal contact force with minimal contact wear
- Gold plated contact area for long durability and reliable, corrosion free operation

- High packing density compact design allows for more jacks in less space
- Available in Stereo switching and non-switching versions, and Mono non-switching version
- More than 10'000 insertion / withdrawal cycles

### NJ\*FD-V



\*: 2, 3, 5, 6



Half threaded nose



Chrome ferrule



Plastic nut

## M Jacks



NMJ4HHD2



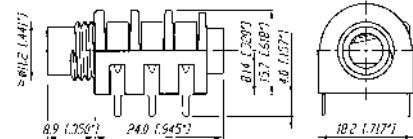
NMJ2HC-S



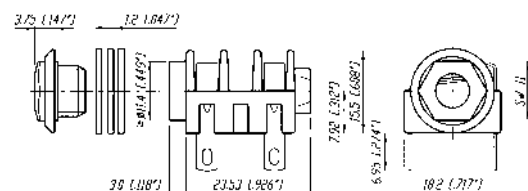
NMJ6HFD2

- Wide body and extremely durable contacts
- Available in all common versions:
  - mono
  - stereo
  - switched
  - unswitched
- Hardwire and PCB version
- Nose type in
  - half threaded
  - fully threaded
  - chrome ferrule
- Full threaded and chrome nose M Jacks are supplied with washer and fixing nut
- Mounting hardware for half threaded nose must be ordered separately
- Fascia appearance in plastic or chrome

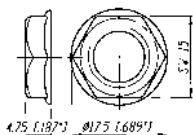
NMJ6HHD2



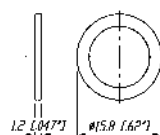
NMJ4HC-S



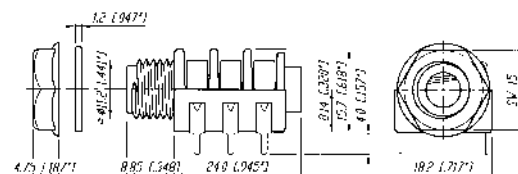
NRJ-NUT-B



NRJ-WB (washer)



NMJ6HFD2





Half threaded nose



Chrome nose



Chassis ground contact



Gold plated contacts

## Slim Jacks



NRJ4HH-1



NRJ6HF-1



NRJ6HM-1



NRJ-NUT-B



NRJ-NUT-MK



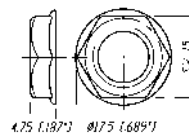
NRJ-NUT-MS



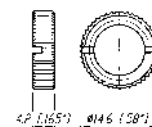
NRJ-NUT-MN  
(Metal Nose only)

- High board packing density
- Nose type in
  - half thread
  - fully threaded
  - metal
- \*-1 versions meet the requirements of EMC rules through efficient chassis grounding system
- Retention spring ensures optimal grip on inserted plugs, avoiding the chance of lost connection
- All Slim line jacks have PCB horizontal mount pins
- Mounting nuts in different versions available – must be ordered separately

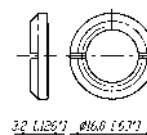
NRJ-NUT-B



NRJ-NUT-MK

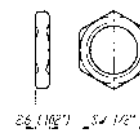


NRJ-NUT-MS

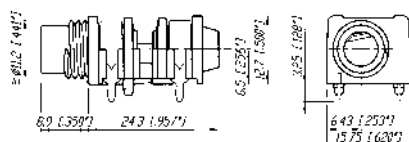


NRJ-NUT-MN

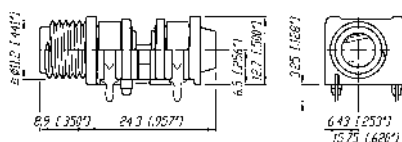
(Only compatible with metal nose).  
Thread pitch is a 3/8" 32 UNEF 2A.



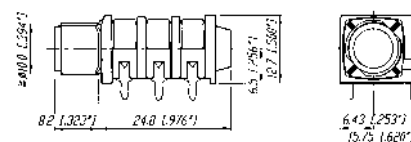
NRJ4HH-1



NRJ4HF-1



NRJ6HM-1





Plane nose



Quick fix nose



Quick fix nut



Fully threaded nose

## Stacking Jacks



NSJ8HC



NSJ12HL



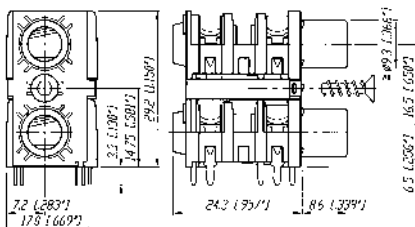
NSJ12HH-1



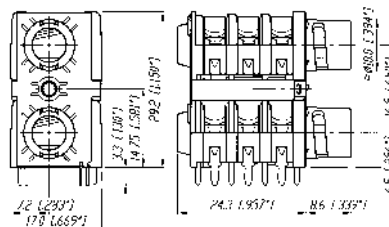
NSJ12HF-1

- Mono and stereo dual slim jack socket for PCB mounting with switch contacts
- Mounting method by either two quick fix or threaded nuts or one single center screw
- Highest board packing density as two jacks are in a single footprint, fit in 1 RU
- Version with fully and half threaded nose, full nose, quick-fit and plane

NSJ8HC

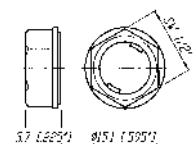


NSJ12HL

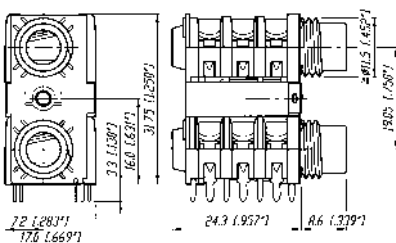


NSJ-NUT-B

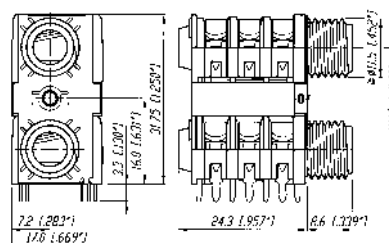
(Quick fix nut)



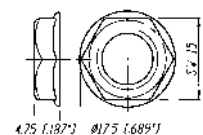
NSJ12HH-1



NSJ12HF-1



NRJ-NUT-B



## Specifications

Vertical  
Jack

Locking  
Cable & Chassis  
Jack

M Jack

Slim Jack

Stacking  
Jack

## Electrical

Contact resistance	- initial	< 10 mΩ	< 6 mΩ	< 15 mΩ	< 10 mΩ	-
	- Top row	-	-	-	-	< 15 mΩ
	- Bottom row	-	-	-	-	< 10 mΩ
Switch contact resistance	- for silver	-	-	< 30 mΩ	< 25 mΩ	-
	- for gold	< 15 mΩ	-	-	< 10 mΩ	-
	- Top row	-	-	-	-	< 15 mΩ
	- Bottom row	-	-	-	-	< 10 mΩ
Insulation resistance	≥ 1GΩ @ 500 V dc	●	●	●	●	●
Dielectric strength	1 kV dc	●	●	●	●	●
Rated current		3 A	10 A	3 A	3 A	3 A
Rated switch contact current		0.25 A @ 12 V	-	0.5 A @ 50 V	0.5 A @ 50 V	0.5 A @ 50 V

## Mechanical

Lifetime	> 10'000 cycles	●	●	●	●	●
Insertion / withdrawal force		< 20 N / > 8 N	< 30 N / > 20 N	< 30 N / > 10 N	< 30 N / > 10 N	< 30 N / > 10 N
Cap opening torque		25 N cm / 9.84 N in	-	-	-	-
Locking force		-	> 80 N	-	-	-
Wire size		-	1 mm² / 18 AWG ①	-	-	-
Cable O.D. (FC6 only)		-	3.5 - 8.0 mm	-	-	-
Panel thickness		1.2 - 1.5 mm [0.047 - 0.06"]	-	-	-	-
	- Full nose type	-	-	< 3.0 mm	< 3.0 mm	-
	- Half nose type	-	-	< 1.0 mm	< 1.0 mm	-
	- Chrome nose	-	-	< 4.7 mm	-	-
	- NSJ*HL	-	-	-	-	1.0 - 1.6 mm
	- NSJ*HC	-	-	-	-	> 1.0 mm

## Material

Shell / Handle		PA 6.6 30% GR	ZnAl4Cu1	PA 6.6 15% GR	PA 6 15% GR	PA 6 15% GR
	- FP6P	-	Ni or black PA 6.6 30% GR	-	-	-
Insulation		-	PA 6.6 30% GR	-	-	-
Contacts		CuSn6	CuBe2/CuZn37 (ground)	CuSn6	CuSn6	CuSn6
Contact surface		0.2 μm Au	2 μm Ag	gal 2 μm Ag / 0.2 μm Au	gal 2 μm Ag / 0.2 μm Au	gal 2 μm Ag
Cap / Nut / Washer		POM	-	PA 6.6 15% GR	PA 6.6 15% GR	PA 6.6 15% GR
Ring Nut		-	-	-	Brass (Ni plated)	Brass (Ni plated)
Chuck		-	POM	-	-	-
Bushing		-	PA 6.6 15% GR + PUR	-	-	-

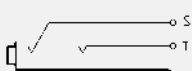
①... max. for soldering tag

## Environmental

Solderability complies with	IEC 68-2-20	●	●	●	●	●
Standard Compatibility						
	EIA RS 453 + IEC 60603-11	NJ*FD	●	●	●	●
	B-GAUGE BPO 316, MIL-J-641/3	NJ*TB	-	-	-	-
Temperature range	-25 °C to +70 °C	●	●	●	●	●

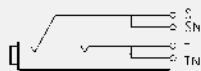
## Circuits:

Mono unswitched



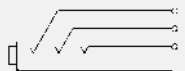
N\*J2\*\*

Mono switched



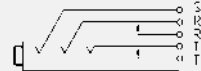
N\*J4\*\*

Stereo unswitched



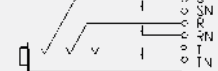
N\*J3\*\*

2x switching  
(normalling) Stereo



N\*J5\*\*

3x switching  
(normalling) Stereo



N\*J6\*\*

EXCEPTION: NRJ\*HM-1-PRE & NRJ\*HH(F)-1 ..... Sleeve not switched

## Ordering Information

Part Number	Shell	Contacts	Terminations	Standards Compatibility	Remarks
-------------	-------	----------	--------------	-------------------------	---------

### Slim Jack

#### PCB Mount Sockets - Switched

NRJ3HF-1	Black/Plastic	Silver	Horizontal PCB mount	IEC 60603-11/EIA RS 453	Stereo, full threaded nose, chassis ground contact
NRJ4HF	•	•	•	•	Mono, full threaded nose
NRJ4HF-1	•	•	•	•	Mono, full threaded nose, chassis ground contact
NRJ6HF	•	•	•	•	Stereo, full threaded nose
NRJ6HF-1	•	•	•	•	Stereo, full threaded nose, chassis ground contact
NRJ4HH	•	•	•	•	Mono, half threaded nose
NRJ4HH-1	•	•	•	•	Mono, half threaded nose, chassis ground contact
NRJ6HH	•	•	•	•	Stereo, half threaded nose
NRJ6HH-1	•	•	•	•	Stereo, half threaded nose, chassis ground contact
NRJ6HF-AU	•	Gold	•	•	Stereo, full threaded nose, gold plated contacts
NRJ6HF-1-AU	•	Gold	•	•	Stereo, full threaded nose, chassis ground contact, gold plated contacts
NRJ6HH-AU	•	Gold	•	•	Stereo, half threaded nose, gold plated contacts
NRJ-NUT-B	•	-	-	-	Hexagonal black plastic nut
NRJ-NUT-R	Red/Plastic	-	-	-	Hexagonal red plastic nut
NRJ-NUT-MK	Metal/Ni plated	-	-	-	Metal ring nut, knurled
NRJ-NUT-MS	Metal/Ni plated	-	-	-	Metal ring nut

#### PCB Mount Sockets - Switched with Metal Nose

NRJ6HM-1	Black/Plastic	Silver	Horizontal PCB mount	IEC 60603-11/EIA RS 453	Stereo, metal threaded nose
NRJ6HM-1-AU	•	Gold	•	•	Stereo, metal threaded nose, gold plated contacts
NRJ-NUT-MN	Metal	-	-	-	Hexagonal metal nut (for metal nose jack only)

### Stacking Jack

NSJ8HL	Polyamid PA 6.6 GR	Silver	Horizontal PCB mount	IEC 60603-11/EIA RS 453	Mono, quick fix nose
NSJ12HL	•	•	•	•	Stereo, quick fix nose
NSJ8HC	•	•	•	•	Mono, full nose
NSJ12HC	•	•	•	•	Stereo, full nose
NSJ12HF-1	•	•	•	•	Full threaded nose
NSJ12HH-1	•	•	•	•	Half threaded nose
NSJ-NUT-B	Black/Plastic	-	-	-	Quick fix nut

All Slim jacks are for PCB mount only.

Mounting nuts must be ordered separately, except for Stacking Jack type NSJ8HL and NSJ12HL.

### Ordering Key:

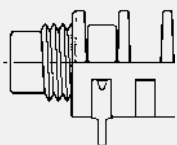
**NRJ\*H** NEUTRIK Jack Horizontal

**H** half threaded nose  
**F** full threaded nose  
**L** quick fix nose  
**M** metal threaded nose  
**C** plane nose  
**-1** chassis ground contact

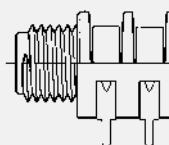
**\*** number of contacts:

**2** mono unswitched  
**4** mono switched  
**6** stereo switched  
**8** mono stacking jack  
**12** stereo stacking jack

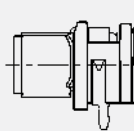
**Nose: -H**



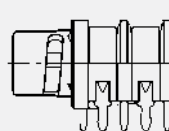
**-F**



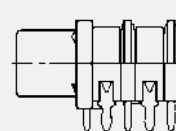
**-M**



**-L**



**-C**



Part Number	Shell	Contacts	Terminations	Standards Compatibility	Remarks
-------------	-------	----------	--------------	-------------------------	---------

## 1/4" Locking Jack

NJ3FC6	Nickel	Silver	Wire soldering	IEC 60603-11/EIA RS 453	Cable Jack
NJ3FC6-BAG	Black	•	•	•	•
NJ3FP6C	Nickel	•	•	•	Chassis Jack
NJ3FP6C-B	Black	Gold	•	•	•
NJ3FP6C-BAG	Black	Silver	•	•	•
NJ3FP6F-P	Black/Plastic	•	•	•	Plastic Chassis
NJ3FP6P-BAG	Black/Plastic	•	•	•	Plastic Chassis

## Accessories



DSS



SCDR

Example



NDJ



NZP1RU-12



SCDX

Example



SCCD-W



SCDP-\*

NZP1RU-8	Panel 1RU housing with 8 D-shape cutouts	SCDX	Hinged cover seals locking 1/4 chassis jack, IP42 rated
NZP1RU-12	Panel 1RU housing with 12 D-shape cutouts	SCCD-W	Spring-loaded cover to seals locking 1/4 chassis jack, IP 65
DSS-*	Lettering plate, colored plastic	SCDP-*	D-Size sealing gaskets, color coding
SCDR	Rear end protection cover for locking 1/4" chassis jack		
NDJ	dummyPLUG for 1/4" chassis jack		(*: 0- black, 2- red, 4- yellow, 5- green, 6- blue, 9- white)

## 1/4" Vertical Jack

NJ2FD-V	Black/Plastic	Gold	Vertical PCB mount	IEC 60603-11/EIA RS 453	Non-switching Mono Jack (T/S)
NJ3FD-V	•	•	•	•	Non-switching Stereo Jack (T/R/S)
NJ5FD-V	•	•	•	•	2 x switching (normalling) Stereo jack (T/TN/R/RN/S)
NJ6FD-V	•	•	•	•	3 x switching (normalling) Stereo jack (T/TN/R/RN/S/SN)
NJ6TB-V	•	•	•	B-Gauge BPO316 Mil-J-641/3	3 x switching (normalling) Stereo jack (T/TN/R/RN/S/SN)

## M Jack

NMJ2HF-S	Black/Plastic	Silver	Horizontal PCB mount	IEC 60603-11/EIA RS 453	Mono, unswitched, full threaded nose, solder tags
NMJ3HF-S	•	•	•	•	Stereo, unswitched, full threaded nose, solder tags
NMJ4HF-S	•	•	•	•	Mono, switched, full threaded nose, solder tags
NMJ2HC-S	•	•	•	•	Mono, unswitched, Chrome ferrule, solder tags
NMJ4HC-S	•	•	•	•	Mono, switched, Chrome ferrule, solder tags
NMJ4HFD2	•	•	•	•	Mono, switched, full threaded nose, PCB mount
NMJ4HFD3	•	•	•	•	Mono, switched, full threaded nose, offset PCB mount
NMJ4HCD2	•	•	•	•	Mono, switched, Chrome ferrule, PCB mount,
NMJ4HHD2	•	•	•	•	Mono, switched, half threaded nose, PCB mount, without nut and washer
NMJ6HF-S	•	•	•	•	Stereo, switched, full threaded nose, solder tags
NMJ6HC-S	•	•	•	•	Stereo, switched, Chrome ferrule, solder tags
NMJ6HCD2	•	•	•	•	Stereo, switched, Chrome ferrule, PCB mount
NMJ6HHD2	•	•	•	•	Stereo, switched, half threaded nose, PCB mount, without nut and washer
NMJ6HFD2	•	•	•	•	Stereo, switched, full threaded nose, PCB mount
NMJ6HFD3	•	•	•	•	Stereo, switched, full threaded nose, offset PCB mount
NMJ6HCD3	•	•	•	•	Stereo, switched, Chrome ferrule, offset PCB mount
NMJ6HFD4	•	•	•	•	Stereo, switched, full threaded nose, tear drop PCB mount

Full threaded and Chrome nose M-Jacks are supplied with fixing nut and washers. Mounting hardware for half threaded nose must be ordered separately.

## Ordering Key:

<b>NMJ*H</b>	NEUTRIK M Jack Horizontal
<b>H</b>	half threaded nose
<b>F</b>	fully threaded nose
<b>C</b>	chrome nose
<b>-S</b>	solder tag
<b>D2</b>	PCB pins 02
<b>D3</b>	PCB pins 03
<b>D4</b>	PCB pins 04

<b>*</b>	number of contacts:
<b>2</b>	mono unswitched
<b>3</b>	stereo unswitched
<b>4</b>	mono switched
<b>5</b>	stereo switched (T/S)
<b>6</b>	stereo switched (T/R/S)

-S



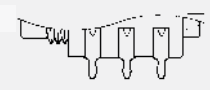
-D2



-D3



-D4





Gold plated contacts



Soft-touch surface

**Profi®**



Phono socket

## Profi® RCA Series

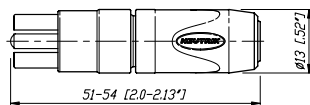


NF2C-B2



- Makes ground before signal contact and breaks signal before ground
- No more disturbing noise and broken speaker cones
- Precisely machined to our demanding quality standards
- Neutrik unique chuck type strain relief
- Gold plated contacts
- Sleek barrel with soft touch surface and colored shrink sleeve
- Improved ground solder lug for ease soldering

**NF2C-B2**



## Phono Socket



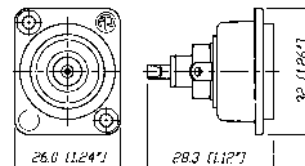
NF2D-4



NF2D-B-6

- Precisely machined to our demanding quality standards
- Gold plated contacts

**NF2D-\***



\*: available in 9 colors see page 69



Specification		Profi®	Phono Socket
---------------	--	--------	--------------

## Electrical

Rated current per contact	10 A rms continuous	●	●
Rated insulation voltage	50 V ac	●	●
Insulation resistance		> 100 GΩ	< 5 GΩ
Dielectric strength		1.5 kV dc	0.5 kV dc
Capacitance (pin to shell)		7 pf	9 pf

## Mechanical

Life time (mating cycles)	> 2000	●	●
Cable O.D. range	3.0 – 7.3 mm	●	-
Wiring	soldering	●	●
Max. wire size	2.5 mm² / AWG 14	●	-
Cable anchoring	Neutrik® chuck type strain relief	●	-

## Material

Housing	Brass (CuZn39Pb3)	●	-
	Zinc diecast (ZnAlCu1)	-	●
Insert	PBTP 20% GR	●	-
Contacts	Brass (CuZn39Pb3)	●	●
Contact plating	0.05 µm Au plated over 2 µm Ni	●	●
Chuck	Polyacetal (POM)	●	-

## Environment

Temperature range	-30 °C to +80 °C	●	●
Protection class	IP 40	●	●
Flammability	UL 94 HB	●	●
Solderability	complies with IEC 68-2-20	●	●

## Ordering Information

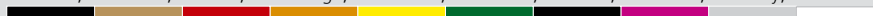
### Phono Profi®

NF2C-B2	Professional "phono Plug" (RCA or CINCH type), two plugs with red and black coding, two strain relief chucks for a second cable diameter
---------	--

### Phono (RCA) Socket

NF2D-*	Chassis Phono (RCA) socket in D Shape housing
NF2D-B-*	Chassis Phono (RCA) socket in black D Shape housing

\* color coding: 0 - Black, 1 - Brown, 2 - Red, 3 - Orange, 4 - Yellow, 5 - Green, 6 - Blue, 7 - Violet, 8 - Grey, 9 - White



## Accessories

NDP	Dummy plug for phone socket
NZP1RU-8	Panel 1RU housing with 8 D-shape cutouts
NZP1RU-12	Panel 1RU housing with 12 D-shape cutouts
SCL	Plastic sealing cover to protect the connector sockets against dust and moisture
SCDP-*	D-Size sealing gaskets, colour coding (*: 0- black, 2- red, 4- yellow, 5- green, 6- blue, 9- white)
SCDX	Hinged cover seals D-size chassis connectors, IP 42 rated
SCCD-W	Spring-loaded cover to seals D-size chassis connectors, IP 65 rated



Simple housing

plug2PLUG

plug2PLUG



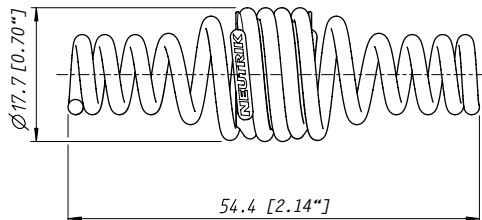
NA2JJ



Application: 1/4" Phone Plug to 1/4" Phone Plug

- The plug2PLUG is a simple yet sophisticated plug adapter for a quick and easy connection of two mono TS plugs.

## NA2JJ



## Ordering Information

### plug2PLUG

NA2JJ 2 pole coupler to extend two 2 pole 1/4" Phone Plugs



## Neutrik® Part Number Guide

### NC3FAH1-B-0-D

<b>Packaging:</b>	<b>D</b>	Cable connector: bulk packed
<b>Assembly:</b>	<b>D</b>	Chassis connector: disassembled push latch
<b>Retention:</b>	<b>w/o</b>	Latch lock
	<b>-0</b>	Retention spring
	<b>-DA</b>	Asymmetric PUSH
<b>Shell:</b>	<b>B</b>	Black shell, gold contacts
	<b>BAG</b>	Black shell, silver contacts
<b>Grounding:</b>	<b>0</b>	Separate ground contact connected to shell, male only
	<b>1</b>	Pin 1 & panel & shell connected, no separate ground contact
	<b>2</b>	Separate ground contact connected to shell & panel, separate Pin 1
	<b>E</b>	Additional ground contacts
	<b>w/o number</b>	No ground /shell contact (except 4/5 pole), female only
<b>Termination:</b>	<b>H</b>	Horizontal PCB mount
	<b>HL</b>	Lateral left PCB mount
	<b>HR</b>	Lateral right PCB mount
	<b>L</b>	Solder cups
	<b>V</b>	Verticale PCB mount
	<b>Y</b>	IDC for wires (no ground)
	<b>M3</b>	Mounting holes with M3 thread
	<b>M25</b>	Mounting holes with M2.5 thread
	<b>-</b>	Not applicable
<b>Series:</b>	<b>A, AA, B, D, DL, DLX, MPR, P, PX, RX, X, XX</b>	
<b>Gender:</b>	<b>F</b>	Female
	<b>M</b>	Male
<b>Number of Contacts:</b>	<b>2, 3, 4, 5, 6, 7, 8, 12</b>	
<b>Connector Type:</b>	<b>A</b>	Adapter
	<b>AC</b>	powerCON
	<b>B</b>	BNC
	<b>C</b>	XLR
	<b>D</b>	dummyPLUG
	<b>E</b>	etherCON - RJ45
	<b>F</b>	RCA / CINCH
	<b>J (MJ, RJ, SJ)</b>	Jack
	<b>K</b>	Cable Assembly
	<b>L</b>	speakON - Loudspeaker
	<b>M</b>	Module
	<b>O</b>	opticalCON - Fiber Optic Connector
	<b>P</b>	Plug
	<b>PP</b>	Patch Panel
	<b>R</b>	Circular Connector
	<b>T</b>	Transformer

Definitions, abbreviations & useful information see page 186.





## XLR Connectors



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**NEUTRIK®**, **crystalCON®**, **etherCON®**, **maxCON®**, **miniCON®**, **nanoCON®**, **neutriCON®**, **opticalCON®**, **powerCON®**, **Profi®**, **rearTWIST®**, **silentPLUG®**, **speakON®**, **DIWA®**, **XIRIUM®**, are registered trademarks of Neutrik AG.



## Introduction

---

Neutrik XLR connectors are the most well known series of products manufactured by Neutrik, and have provided the professional audio industry a simple, yet striking, concept in connector features. We introduced our first XLR product 40 years ago. Today it is the accepted standard worldwide.

XLR connectors are part of almost every aspect of professional audio; as a microphone connector, in lighting systems, and found in almost any piece of sound equipment in the entertainment industry. The outstanding success of our XLR products is Neutrik's blend of innovation with the highest quality performance.

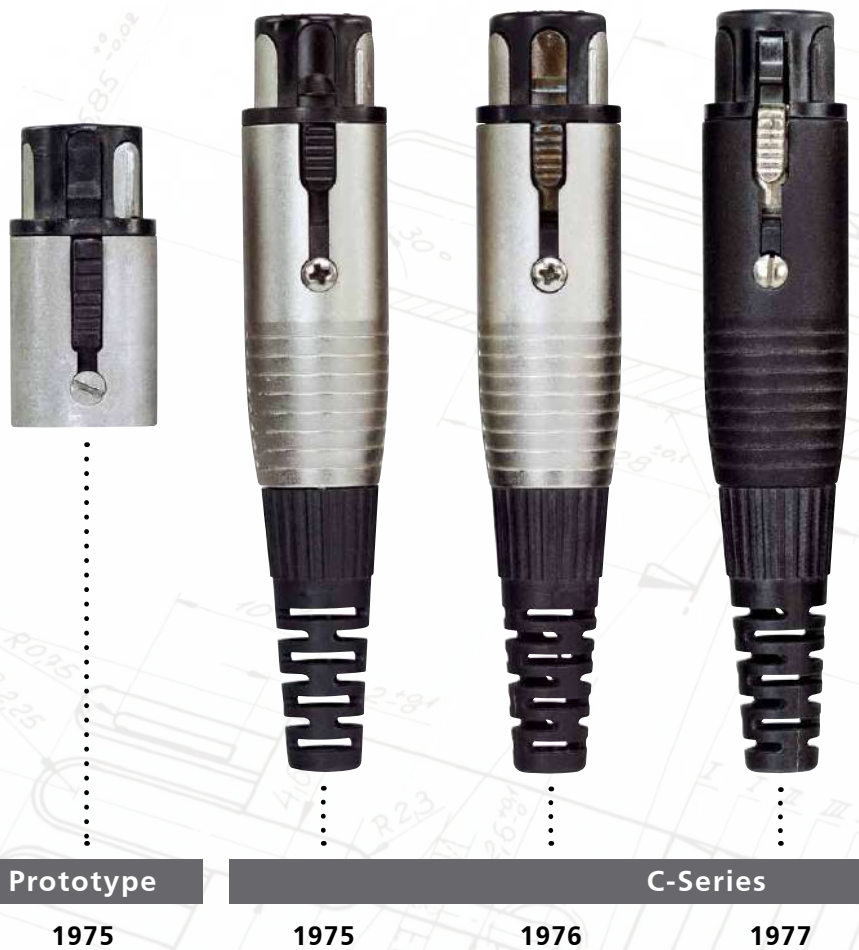
# A glance into the future: maxCON® – the new XLR standard

Neutrik's success story began with the construction of the first prototype of a new XLR female cable connector.

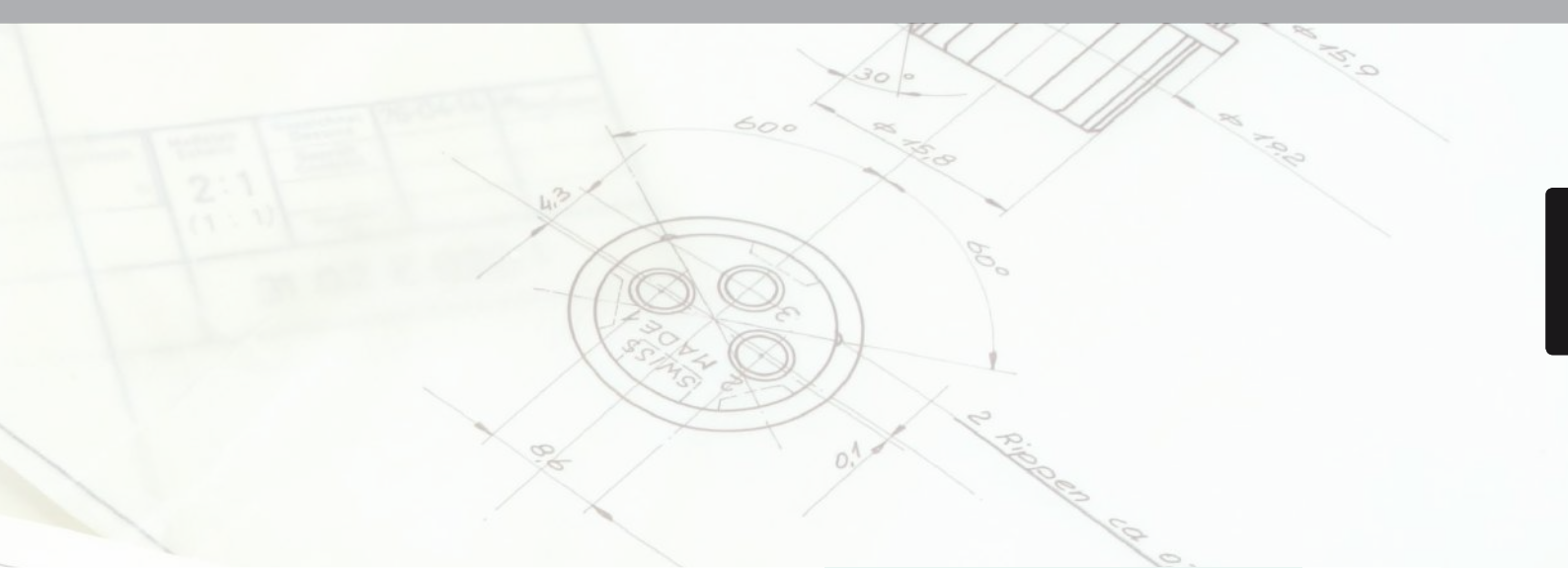
The first NC3FC products were delivered in October 1975. During the years 1976, 1977 and 1978 this product range was continuously reworked and improved. In 1983 a new concept was introduced with the X series that has become a world standard.

The further development of the X series leading to the XX series with the unique protection against copying, the hologram, is based on this hundred million times sold X series.

The next generation of audio connectors – maxCON® – will offer unique features and benefits based on the small and innovative design.







1978



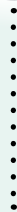
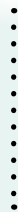
X-Series

1983



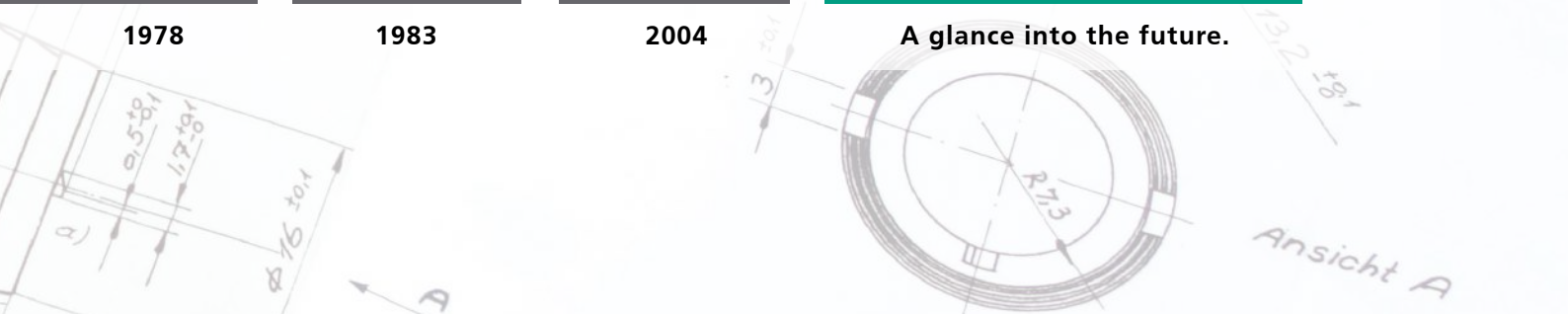
XX-Series

2004



maxCON®

A glance into the future.







Ergonomic latch design



White painted housing



Circumferential ground shield contact



Neutrik hologram

## XX Series



NC3FXX



NC6MXX-B

## EMC-XLR Series



NC3FXX-EMC

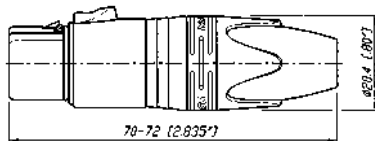


NC3MXX-EMC

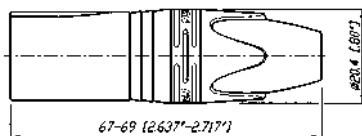
- The next generation of the worldwide accepted standard
- Unique cage type female contact – increases conductivity
- Female contact with "solder stop" for ease of soldering
- Male connector without locking "window" – more robust housing, increases durability
- Improved chuck type strain relief - increases retention force and makes assembly easier and faster
- New ground contact – excellent contact integrity between chassis and cable connector
- Customized branding using translucent ring
- Sleek and ergonomic design – valuable and handy
- Unique hologram – guarantees genuineness and protects against counterfeits
- Internal thread on shell is well protected against any damage

- 3 pole male / female XLR cable connector with integrated capacitive shield to shell connection to avoid RF-interference and LF-noise
- 360° shield contact on female connector ensures best possible shielding and chassis contact
- Avoid ground loops as there is no LF-shield connection to ground
- Patented

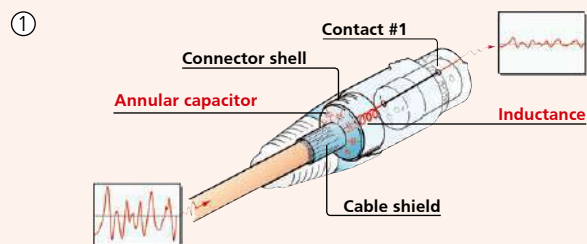
NC\*FXX



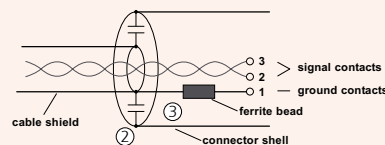
NC\*MXX



\*: 3 - 7 contacts



- ① Design guarantees a continuous RF-shield connection but avoids ground loops (no LF-shield connection)
- ② Circular capacitor enables low-inductive shield connection to connector housing
- ③ Cable shield - PIN 1 connection includes EMI suppression bead (blocks high frequencies)





Right angle male connector



High temperature resistant insulator

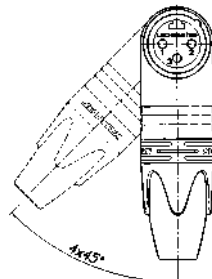


Velour chromium housing

## RX Series



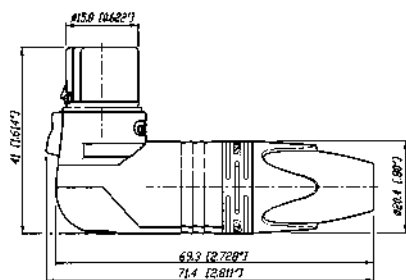
NC3FRX-BAG



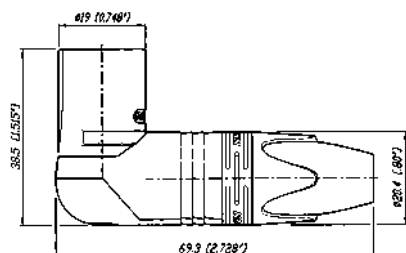
Outlet position

- Right angle version of the XX Series – only 20 mm wide
- Extra slim right-angle connector
- Neutrik chuck type strain relief
- 5 selectable cable outlet positions on female & 7 position on male connectors

### NC\*FRX



### NC\*MRX



\*: 3 - 7 contacts

## XX-HE Series



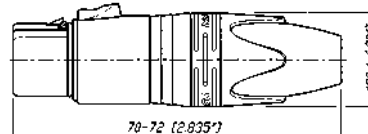
NC3FXX-HE



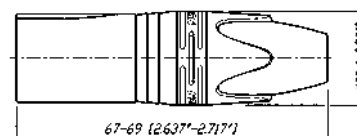
NC3MXX-HE

- Exclusive "High End" version of standard XX Series
- Premium velour chromium plating provides soft satin finish
- Extra high temperature resistant insulator material rated to 280 °C (536 °F)
- Machined female contacts standard
- Insert is dark grey to distinguish it from standard XX-Series insulators
- Flammability UL 94V-0

### NC3FXX-HE



### NC3MXX-HE





Large cable outlet



Ergonomic latch design



Neutrik hologram



## XX-14 Series



NC3FXX-14



NC3MXX-14-B

- Special version of the XX Series XLR cable connector for large diameter cables
- Incorporates all the features of the XX product series
- Rear boot features large opening for use with cable O.D. 8.0 – 10.0 mm
- Bulk packed; must be ordered in multiples of 100

## XX Crimp Series



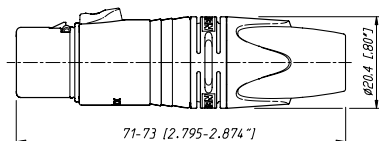
NC3FXX-HA-BAG



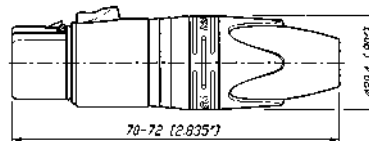
NC3MXX-HA

- 3 pin XX Series with crimp contacts
- Accommodates wire size AWG 24 - 22 or 0.22 – 0.34 mm<sup>2</sup>
- Utilize standard B-type crimp tool (acc. IEC 60352-2)
- Absolute leadfree and solderless connection:
  - RoHs compliance
  - health and eco-friendly
- Fast and easy assembly
- Gas-tight connection offers a constant contact resistance
- Ideal solution for field and on-site termination

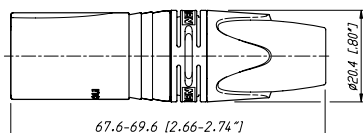
NC3FXX-14



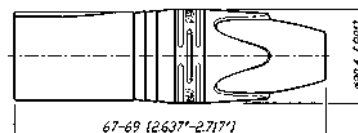
NC3FXX-HA



NC3MXX-14



NC3MXX-HA





CRYSTALLIZED™ – Swarovski Elements



convertCON position male – female

## crystalCON



NC3FXX-B-CRYSTAL



NC3MXX-B-CRYSTAL

- 3 pole XLR XX-Series embellished with CRYSTALLIZED™ – Swarovski Elements
- Exclusively with gold plated contacts, and black chrome housing
- Fancy, noble, valuable, attractive package – an eye-catcher
- With all benefits of the XLR XX-Series

## convertCON



NC3FM-C-B



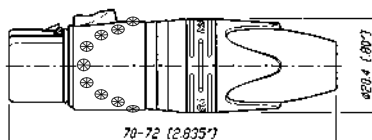
NC3FM-C

- World's first Unisex XLR cable connector
- 3 pole male and female cable connector in one housing
- Easy selectable gender – converted by sliding housing back and forth
- Substitutes adapters, ideal as an emergency kit
- Exclusively with gold plated contacts
- With all benefits of the XLR XX-Series

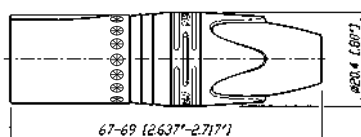


Convert  
**male – female**  
and vice versa

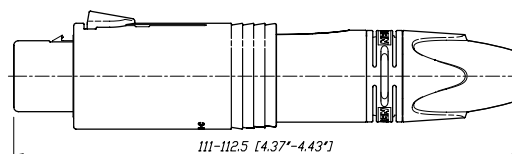
NC3FXX-B-CRYSTAL



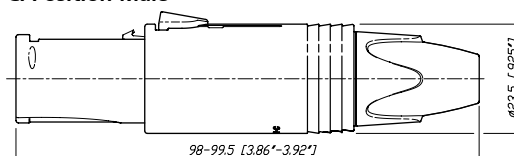
NC3MXX-B-CRYSTAL



NC3FM-C: Position Female



NC3FM-C: Position Male





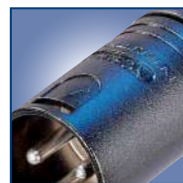
Rubber sealing protection



Neutrik original design



Female locking



Male metal locking window



## XX-HD Series



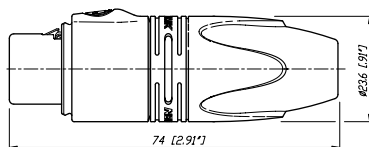
NC3FXX-HD-D



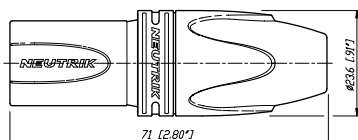
NC3MXX-HD-B-D

- "Heavy duty" cable connector for outdoor use
- Rubber sealing jacket protects against water ingress and mechanical shock
- Dust and water resistant according to IP 67 in the following combinations:
  - NC3FXX-HD and NC3MPR-HD
  - NC3FXX-HD and NC3MXX-HD
- Gold contacts
- Chuck type strain relief system for secure clamping of cables
- Rugged zinc diecast shell, longlasting and dependable

NC3FXX-HD-D



NC3MXX-HD-D



## X Series



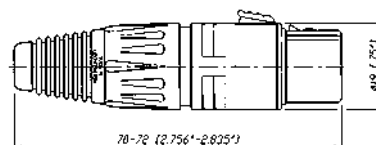
NC3FX



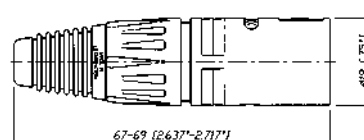
NC3MX + BSX-5

- The XLR connector standard worldwide
- Available in 3 – 7 pin configurations including 6 pin Switchcraft® configuration
- Assembly is quick and easy – no screws or special tools required
- Unique Neutrik chuck type internal strain relief
- Female shell features rubber ring for secure mating to male XLR or microphone
- Sleek profile and compact design
- Rugged diecast shell
- UL recognized components

NC\*FX



NC\*MX



\*: 3 - 7 contacts



Rubber sealing protection



Metal bushing



Coding ring

## X-HD Series



NC5FX-HD



NC4MX-HD

- "Heavy duty" cable connectors for outdoor use
- All metal design, male stainless steel
- NC\*FX-HD mates with NC\*MPR-HD chassis connector and NC\*MX-HD
- Dust and water resistant according IP 65 in mated condition
- Available in 3 – 5 pin configuration
- Metal bushing including O-ring

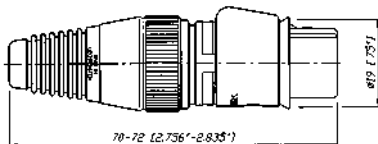
## XCC Series



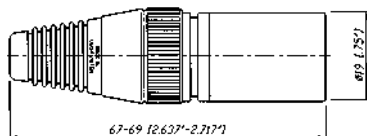
NC3FXCC

- Coaxial ground spring and hex crimp ferrule at cable entrance allow continuous (360°) ground connection to shell which is essential when transmitting low level audio signals
- Includes Zebra coding ring to indicate digital AES signals
- Ground contact uses 6.5 mm (.255") size "E" hex crimp (IEC 60803). Use part # HX-R-BNC with DIE-R-BNC-PT

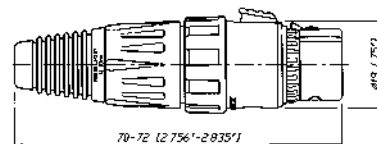
NC\*FX-HD



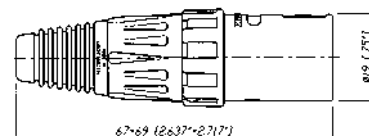
NC\*MX-HD



NC3FXCC



NC3MXCC



\*: 3 - 5 contacts





Switch activating ring



Locking ring

## FXS Series



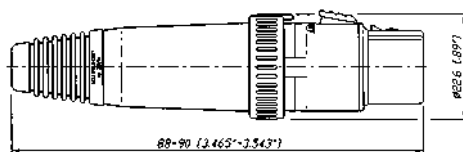
NC3FXS



NC3FXS-B

- Available exclusively in a 3 pin female configuration
- Features a noiseless ON/OFF switch which shorts pins 2 and 3 together muting the signal voltage between conductors
- For use with a microphone that does not have its own On / Off switch
- Rugged zinc diecast shell, long lasting and durable
- Chuck type strain relief system for secure clamping of cables
- Boot with rubber gland gives high protection against bending stresses

### NC3FXS



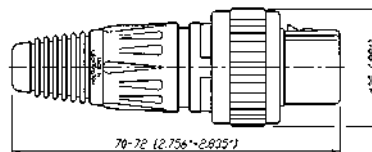
## FX-SPEC Series



NC3FX-SPEC.

- Available in a 3 pin female standard configuration with gold plated contacts
- Features a locking ring which is secured with a M 2.5 screw and 1.27 mm allen wrench
- Offers the highest security protection for your microphones
- Protects against accidental disconnects and theft
- Black chrome housing and locking ring
- Eliminates movements and noises

### NC3FX-SPEC.





NEW 8 + 2 pole  
cable connector



Ergonomic latch  
design



New 8 + 2 pole  
D-size receptacle



Solder termination

## XLR Type Data Power Connectors – 8 + 2 pole

**NEW**



NC10FXX-14-B



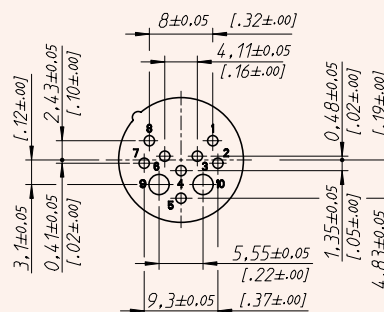
NC10FRX-14-B



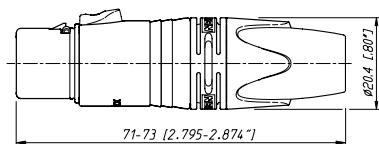
NC10MD-LX-B

- Suitable for data offering CAT 5e performance and power up to 16 A and 50 V - exceeds PoE+ capabilities
- Superior ruggedness compared to RJ45 type connectors
- All metal housing offers best overall RF protection and electromagnetic shielding
- D-size housing provides installation compatibility with industry standard D mounting dimensions
- Receptacle with duplex ground contact for excellent signal integrity

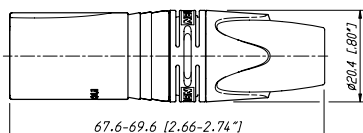
### 8 + 2 pole Contact Arrangements:



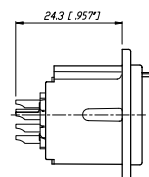
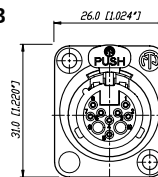
NC10FXX-14-B



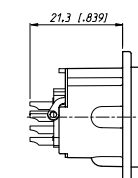
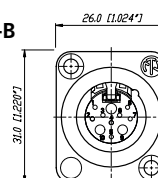
NC10MXX-14-B



NC10FD-LX-B



NC10MD-LX-B





Specification		XX & XX-14 & CRYSTAL	EMC Series	XX-HD Series	XX-HE Series	RX Series	XX Crimp Series	convert- CON Series
<b>Electrical</b>								
Number of contacts		3 - 7 <sup>1)</sup>	3	3	3	3 - 7	3	3
Contact resistance	≤ 3 mΩ	●	●	●	●	●	●	●
Insulation resistance - initial:	> 10 GΩ	●	●	●	●	●	●	●
- after damp heat test:	> 1 GΩ	●	●	●	●	●	●	●
Dielectric strength	1.5 kV dc	●	●	●	●	●	●	●
Cable shield-shell connection	choosable	●	-	●	●	●	●	●
	determined	-	capacitive	-	-	-	-	-
Shielding effectiveness	> 55 dB @ 1.3 GHz	-	●	-	-	-	-	-
Lossy ferrite bead on PIN 1		-	●	-	-	-	-	-
Rated current per contact	@ 35°C							
3 pole:	16 A	●	5 A	●	●	●	1 A	●
4 pole:	10 A	●	-	-	-	●	-	-
5, 6 pole:	7.5 A	●	-	-	-	●	-	-
7 pole:	5 A	●	-	-	-	●	-	-
Capacitance between contacts								
3 pole:	≤ 4 pF	●	●	●	●	●	●	●
4, 5, 6 pole:	≤ 7 pF	●	-	-	-	●	-	-
7 pole:	≤ 9 pF	●	-	-	-	●	-	-
Rated Voltage	< 50 V ac	●	●	●	●	●	●	●
<b>Mechanical</b>								
Lifetime	> 1'000 cycles	●	●	●	●	●	●	●
Insertion / withdrawal force	≤ 20 N	●	≤ 50 N	●	●	●	●	●
Cable O.D. range	3.5 - 8.0 mm	● <sup>2)</sup>	●	6.0 - 8.0 mm	●	●	●	●
Max. wire size	3 pole: 2.5 mm <sup>2</sup> / AWG 14	●	AWG 20	●	●	●	-	●
	4 pole: 1.5 mm <sup>2</sup> / AWG 16	●	-	-	-	●	-	-
	5, 6, 7 pole: 1.0 mm <sup>2</sup> / AWG 18	●	-	-	-	●	-	-
Crimp tool:	6.5 mm Hex die (size "E" acc. to IEC 60352-2)	-	-	-	-	-	●	-
Crimp XX:	0.22 - 0.34 mm <sup>2</sup> / AWG 24 - 22	-	-	-	-	-	●	-
<b>Material</b>								
Shell	Zinc diecast (ZnAl4Cu1)	●	●	-	●	●	●	●
	Stainless steel	-	-	-	-	-	-	-
Shell plating	gal Ni or black Cr	●	●	-	velour Cr	●	●	●
Insert	Polyamide PA 6.6 30% GR	●	●	●	PPS 40% GR	●	●	●
Contacts - female 3 pole:	Bronze (CuSn8)	●	●	●	Brass	●	●	●
- female 4 - 7 pole & male:	Brass (CuZn39Pb3)	●	●	●	●	-	●	●
Contact surface	Silver gal 2 µm Ag	●	-	-	-	●	●	●
	or Gold gal 0.2 µm Au hard alloy over 2 µm Ni	●	●	●	●	●	-	●
Latch lock	St3K32 (latch) / Ck 67 (spring)	-	-	-	-	-	-	-
	Zinc diecast (ZnAl4Cu1) / CK67 (Spring)	●	●	●	●	●	●	●
Strain-relief clamp	POM	●	●	●	●	●	●	●
Bushing	PA / PU	●	●	●	●	●	●	●
Circumferential ground spring	Bronze (CuSn6), Ni plated	-	●	-	-	-	-	-
Crimp ferrule	Brass (CuZn39Pb3), Ni plated	-	-	-	-	-	-	-
Coding ring	Polyamide PA 6 15% GR	-	-	-	-	-	-	-
Sealing jacket	EPDM	-	-	●	-	-	-	-
Securing ring	Brass (CuZn39Pb3)	-	-	-	-	-	-	-
<b>Environmental</b>								
Operating temperature	-30 °C to +80 °C	●	●	●	●	●	●	●
Flammability	UL 94 HB	●	●	●	V-0	●	●	●
Protection class	IP 40	●	●	IP 67	●	●	●	●
Solderability complies with	IEC 68-2-20	●	●	●	●	●	●	●
Manufacturing Standard	IEC 61076-2-103	●	●	●	●	●	●	●

<sup>1)</sup> : XX-14, CRYSTAL: 3 pole

<sup>2)</sup> : XX-14: Cable O.D. 8.0 – 10.0 mm

Specification		X Series	XCC Series	X-HD Series	FXS Series	FX-SPEC Series	Data Power XLR
<b>Electrical</b>							
Number of contacts		3 - 7	3	3 - 5	3	3	8 + 2
Contact resistance	≤ 3 mΩ	●	●	●	●	●	●
Insulation resistance	- initial: > 10 GΩ	●	●	●	●	●	●
	- after damp heat test: > 1 GΩ	●	●	●	●	●	0.1 GΩ
Dielectric strength	1.5 kV dc	●	●	●	●	●	1 kV dc
Cable shield-shell connection	choosable	●	-	●	-	●	●
	determined	-	crimp	-	-	-	-
Shielding effectiveness	> 55 dB @ 1.3 GHz	-	●	-	-	-	-
Lossy ferrite bead on PIN 1		-	-	-	-	-	-
Rated current per contact	@ 35°C						
	3 pole: 16 A	●	●	●	●	●	2 A (power pins)
	4 pole: 10 A	●	-	●	-	-	-
	5, 6 pole: 7.5 A	●	-	●	-	-	-
	7 pole: 5 A	●	-	-	-	-	3 A (data pins)
Capacitance between contacts							
	3 pole: ≤ 4 pF	●	●	●	●	●	-
	4, 5, 6 pole: ≤ 7 pF	●	-	●	-	-	-
	7 pole: ≤ 9 pF	●	-	-	-	-	-
Rated Voltage	< 50 V ac	●	●	●	●	●	-
Transmission Performance	CAT 5e	-	-	-	-	-	●
<b>Mechanical</b>							
Lifetime > 1'000 cycles		●	●	●	●	●	●
Insertion / withdrawal force	≤ 20 N	●	●	●	●	●	●
Cable O.D. range	3.5 – 8.0 mm	●	5.4 - 6.2 mm	●	3.5 - 7.0 mm	●	8.0 - 10.0 mm
Max. wire size	3 pole: 2.5 mm² / AWG 14	●	●	●	●	●	● (2 power)
	4 pole: 1.5 mm² / AWG 16	●	-	●	-	●	-
	5, 6, 7 pole: 1.0 mm² / AWG 18	●	-	●	-	-	● (8 data)
Crimp tool:	6.5 mm Hex die (size "E" acc. to IEC 60803)	-	●	-	-	-	-
Crimp XX:	0.22 - 0.34 mm² / AWG 24 - 22	-	-	-	-	-	-
<b>Material</b>							
Shell	Zinc diecast (ZnAl4Cu1)	●	●	female	●	●	●
	Stainless steel	-	-	male	-	-	-
Shell plating	gal Ni or black Cr	-	●	female	●	●	black Cr
Insert	Polyamide PA 6.6 30% GR	●	●	●	●	●	●
Contacts	- female 3 pole: Bronze (CuSn8)	●	●	●	●	●	-
	- female 4 – 7 pole & male: Brass (CuZn39Pb3)	●	●	●	-	-	●
Contact surface	Silver gal 2 µm Ag	●	-	-	●	-	-
	or Gold gal 0.2 µm Au hard alloy over 2 µm Ni	-	●	●	-	●	●
Latch lock	St3K32 (latch) / Ck 67 (spring)	●	●	●	●	●	-
	Zinc diecast (ZnAl4Cu1)	-	-	-	-	-	●
Strain-relief clamp	POM	●	●	●	●	●	●
Bushing	PA / PU	●	●	SS/PU	PU	●	●
Circumferential ground spring	Bronze (CuSn6), Ni plated	-	●	-	-	-	-
Crimp ferrule	Brass (CuZn39Pb3), Ni plated	-	●	-	-	-	-
Coding ring	Polyamide PA 6 15% GR	-	●	-	-	-	-
Sealing jacket	EPDM	-	-	●	-	-	-
Securing ring	Brass (CuZn39Pb3)	-	-	-	-	●	-
<b>Environmental</b>							
Operating temperature	-30 °C to +80 °C	●	●	●	●	●	●
Flammability	UL 94 HB	●	●	●	●	●	●
Protection class	IP 40	●	●	IP 65	●	●	●
Solderability complies with	IEC 68-2-20	●	●	●	●	●	●
Manufacturing Standard	IEC 61076-2-103	●	●	●	●	●	●

## Ordering Information for Cable Connectors

Female	Male	Shell	Contact - plating	3 pole	4 pole	5 pole	6 pole	7 pole
<b>XX Series</b>								
NC*FXX	NC*MXX	Nickel	Silver	●	●	●	●	●
NC*FXX-B	NC*MXX-B	Black Cr	Gold	●	●	●	●	●
NC*FXX-BAG	NC*MXX-BAG	Black Cr	Silver	●	●	●	●	●
NC3FXX-WT	NC3MXX-WT	White painted	Silver	●	-	-	-	-
NC3FXX-**-D <sup>1</sup>	NC3MXX-**-D <sup>1</sup>	Nickel / Black Cr	Silver / Gold	●	-	-	-	-
NC6FSXX <sup>2</sup>	NC6MSXX <sup>2</sup>	Nickel	Silver	-	-	-	●	-
NC6FSXX-B <sup>2</sup>	NC6MSXX-B <sup>2</sup>	Black Cr	Gold	-	-	-	●	-
NC6FSXX-BAG <sup>2</sup>	NC6MSXX-BAG <sup>2</sup>	Black Cr	Silver	-	-	-	●	-
<b>XX-EMC Series</b>								
NC3FXX-EMC	NC3MXX-EMC	Nickel	Gold	●	-	-	-	-
NC3FXX-EMC-B	-	Black Cr	Gold	●	-	-	-	-
<b>RX Series</b>								
NC*FRX	NC*MRX	Nickel	Silver	●	●	●	●	●
NC*FRX-B	NC*MRX-B	Black Cr	Gold	●	●	●	●	●
NC*FRX-BAG	NC*MRX-BAG	Black Cr	Silver	●	●	●	●	●
<b>XX-HE Series</b>								
NC3FXX-HE	NC3MXX-HE	Velour Chromium	Gold	●	-	-	-	-
<b>XX-14 Series</b>								
NC3FXX-14-D	NC3MXX-14-D	Nickel	Silver	●	-	-	-	-
NC3FXX-14-B-D	NC3MXX-14-B-D	Black Cr	Gold	●	-	-	-	-
NC3FXX-14-BAG-D	NC3MXX-14-BAG-D	Black Cr	Silver	●	-	-	-	-
<b>XX Crimp Series</b>								
NC3FXX-HA	NC3MXX-HA	Nickel	Silver	●	-	-	-	-
NC3FXX-HA-BAG	NC3MXX-HA-BAG	Black Cr	Silver	●	-	-	-	-
<b>convertCON Series</b>								
	NC3FM-C	Nickel	Gold	●	-	-	-	-
	NC3FM-C-B	Black Cr	Gold	●	-	-	-	-
<b>Crystal XLR</b>								
NC3FXX-B-CRYSTAL	NC3MXX-B-CRYSTAL	Black Cr	Gold	●	-	-	-	-
<b>XX-HD Series</b>								
NC3FXX-HD-D	NC3MXX-HD-D	Nickel	Gold	●	-	-	-	-
NC3FXX-HD-B-D	NC3MXX-HD-B-D	Metal Black	Gold	●	-	-	-	-

## Ordering Information for Cable Connectors

Female	Male	Shell	Contact - plating	3 pole	4 pole	5 pole	6 pole	7 pole
<b>X Series</b>								
NC*FX	NC*MX	Nickel	Silver	●	●	●	●	●
NC*FX-B	NC*MX-B	Black Cr	Gold	●	●	●	●	●
NC*FX-BAG	NC*MX-BAG	Black Cr	Silver	●	●	●	●	●
NC3FX-**-D <sup>1</sup>	NC3MX-**-D <sup>1</sup>	Nickel / Black Cr	Silver / Gold	●	-	-	-	-
NC6FSX <sup>2</sup>	NC6MSX <sup>2</sup>	Nickel	Silver	-	-	-	●	-
NC6FSX-B <sup>2</sup>	NC6MSX-B <sup>2</sup>	Black Cr	Gold	-	-	-	●	-
NC6FSX-BAG <sup>2</sup>	NC6MSX-BAG <sup>2</sup>	Black Cr	Silver	-	-	-	●	-
<b>X-HD Series</b>								
NC*FX-HD	NC*MX-HD	Nickel	Gold	●	●	●	-	-
NC3FX-HD-B	NC3MX-HD-B	Metal Black	Gold	●	-	-	-	-
<b>XCC Series</b>								
NC3FXCC	NC3MXCC	Nickel	Gold	●	-	-	-	-
<b>FXS Series</b>								
NC3FXS	-	Nickel	Gold	●	-	-	-	-
NC3FXS-B	-	Black Cr	Gold	●	-	-	-	-
<b>FX-SPEC. Series</b>								
NC3FX-SPEC.	-	Black Cr	Gold	●	-	-	-	-

## Ordering Information for 8 + 2 pole Data Power Connectors

Female	Male	Shell	Contact - plating	8 + 2 pole
<b>Cable Connector</b>				
NC10FXX-14-B	NC10MXX-14-B	Black Cr	Gold	●
NC10FRX-14-B	NC10MRX-14-B	Black Cr	Gold	●
<b>Receptacle</b>				
NC10FD-LX-B	NC10MD-LX-B	Black Cr	Gold	●

## Accessories and Assembly Tools

Detailed information on page 38 and 43.

\* : Number of Contacts

\*\* : Nickel or Black

-D<sup>1</sup>: Bulk packed, to be ordered in multiples of 100 pcs.

<sup>2</sup>: Switchcraft Equivalent



Smallest receptacle



Lateral right PCB mount



Locking release tab



Ground contact



**NEW:** Ergonomic asymmetric locking release tab

## A Series



NC3FAH



NC3MAV

- Smallest XLR receptacles, highest packing density
- Plastic housing
- Various grounding options
- "Tulip" type female contact design with high contact pressure
- Selective gold plated contact and PCB termination area for best conductivity and solderability
- Plastic housing flammability UL 94V-0

## AA Series

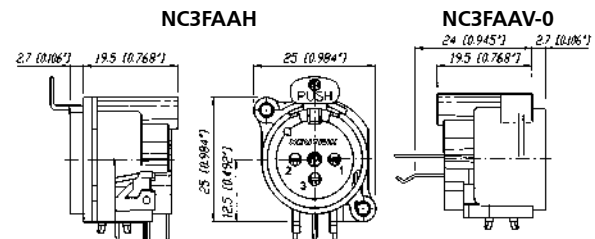
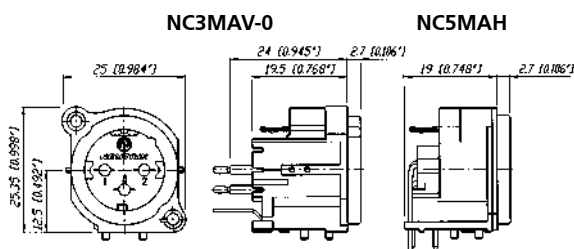
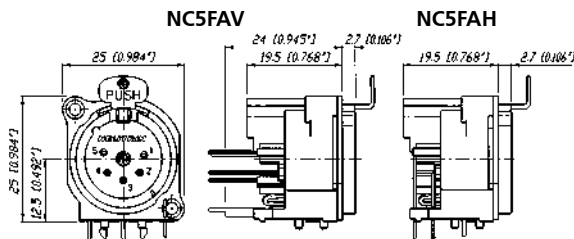


NC3FAAV2



NC3MAAH-1

- Front panel cutout and PCB layout 100% compatible to the A Series
- Most cost-effective series
- "Tulip" type female contact design with high contact pressure
- Selective gold plated contact and PCB termination area for best conductivity and solderability
- Plastic housing flammability UL 94 HB



### Grounding Options (A / AA / B Series):

#### Female:

- 1: Pin 1 & Panel & Shell connected, no separate ground contact
- 2: Separate ground contact connected to shell & panel, separate Pin 1 w/o number: No ground / Shell contact (except 4 / 5 pole)

#### Male:

- 0: Separate ground contact, connected to shell, separate Pin 1
- 1: Pin 1 & Panel & Shell connected, no separate ground contact w/o number: Separate ground contact connected to shell & panel, separate Pin 1



Circumferential metal ring



Front panel grounding



Tear drop contact design



**NEW:** Ergonomic asymmetric locking release tab



## B Series



NC3FBV1



NC3MBV



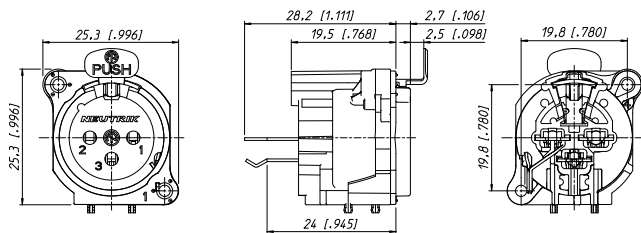
NC4FBH



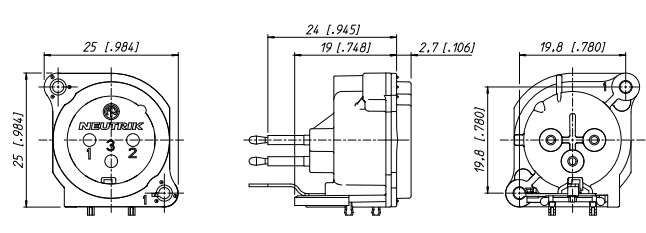
NC4MBV

- The B Series XLR receptacle offers the same features as our A Series product line with the added feature of a metal ring
- Metal ring on shell (nickel or black) offers complete EMC and RF protection
- Female versions available latchless
- Rear mount only
- "Tulip" type female contact
- Plastic housing flammability UL 94V-0

**NC3FBV1**



**NC3MBV**





Incorporated switch



Insert removable



## A/B Series - Switch



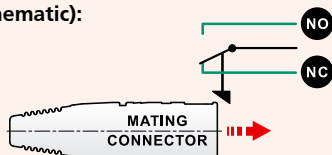
NC3FBV2-SW



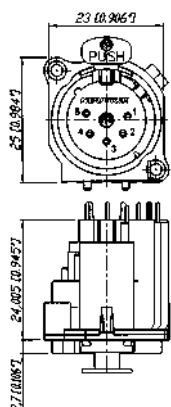
NC3MBV-SW

- A and B Series connector with additional switch
- Normally open, normally closed (NO – NC) contact
- Switch activated by mating XLR cable connector

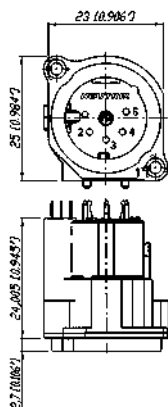
### Inserting (Schematic):



NC5FAV-SW



NC5MBV-SW



## D Series



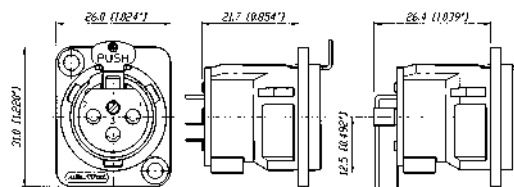
NC3FDM3-H-B



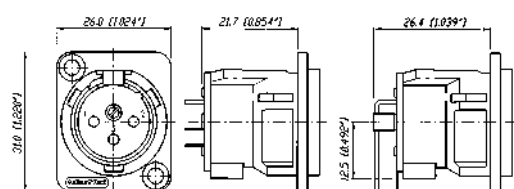
NC3MD-V

- "D" Shape metal shell
- Optimal RF protection using 3 shield contacts
- Horizontal and vertical PCB mount with separate ground contact
- Mounting holes with M3 threads available
- 2 piece connector, insert is removable from shell
- Front locked / unlocked insert
- Special version with screw termination (\*M3)

NC3FD-V / NC3FD-H



NC3MD-V / NC3MD-H





Locking release tab



Horizontal PCB mount



Ground shielding



White painted housing



## DL Series



NC3FD-L-1



NC7MD-L-B-1

- Unified "D" metal shell
- Solder cups on 3 – 7 pole version
- Additional PCB mount on 4 and 5 pole
- Front and rear mountable

## DLX Series



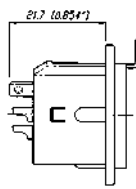
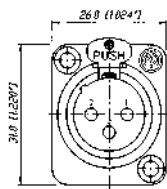
NC3FD-LX-HE



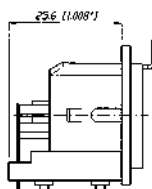
NC5MD-LX

- Next generation of the popular DL Series with greater functionality
- All metal housing works in combination with a new duplex ground contact yielding the best RF protection and ground conductivity in a chassis mount XLR
- Male connector's retention bar replaces plastic design with all metal version
- Unique cage type female contacts on 3 pole version for increased conductivity
- Machined male and female contacts on 4 - 7 pole versions
- D-style housing provides installation compatibility with industry standard D mounting dimensions

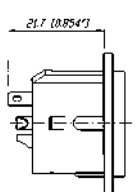
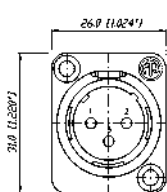
NC3FD-L-1



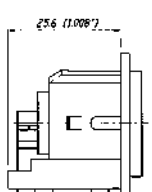
NC\*FDM3-H



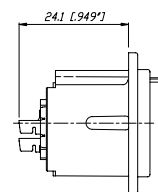
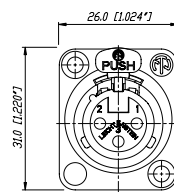
NC3MD-L-1



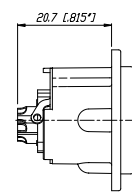
NC\*MDM3-H



NC3FD-LX



NC\*MD-LX



\*: 3 - 5 contacts

\*: 3 - 7 contacts





Crimp type contact



Circumferential ground spring

## DLX Crimp Series



NC3FD-LX-HA



NC3MD-LX-BAG-HA

- 3 pole DLX Series with crimp contacts
- Accommodates wire size AWG 24 – 22 or 0.22 – 0.34 mm<sup>2</sup>
- Utilizes standard B-type crimp tool (acc. IEC 60352-2)
- Absolute leadfree and solderless connection:
  - RoHs compliance
  - Health and eco-friendly
- Fast and easy assembly
- Gas-tight connection offers a constant contact resistance
- Ideal solution for field and on-site termination

## EMC Series

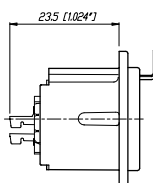
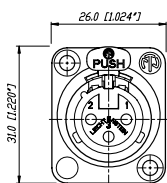


NC3FDX-EMC-SPEC

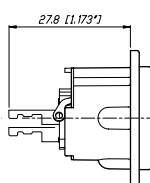
- 3 pole female XLR chassis connector with integrated capacitive shield to shell connection to avoid RF-interference and LF-noise
- 360° shield contact ensures best possible shielding and chassis contact
- D flange chassis for panel mount applications
- Includes the locking nut of the NC3FX-SPEC for secure fastening of a gooseneck for instance
- Special flange for large openings available
- Patent pending

Detailed information of RF-shielding see page 18 – EMC cable connector.

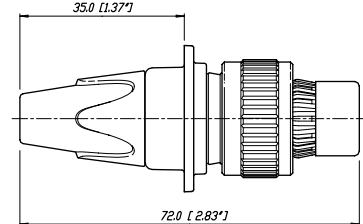
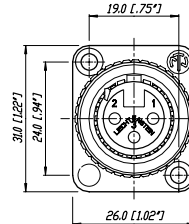
NC3FD-LX-HA



NC3MD-LX-HA



NC3FDX-EMC-SPEC





Sealing Gasket



Through hole fastening



## MPR-HD Series



NC3MPR-HD



NC5MPR-HD

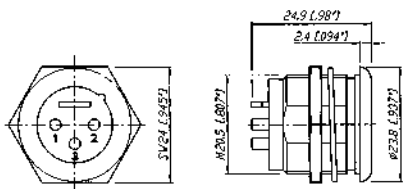
- IP 65 – in combination with NC\*FX-HD cable connectors
- Perfect for outdoor applications
- Sealing gasket for water tight panel mount
- Gold plated contacts



NC5MPR-HD

NC5FX-HD

NC3MPR-HD



\*: 3 - 5 contacts

## P Series



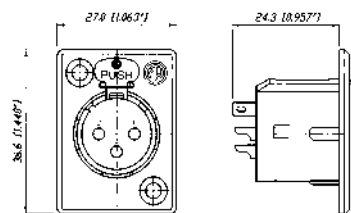
NC3FP-1



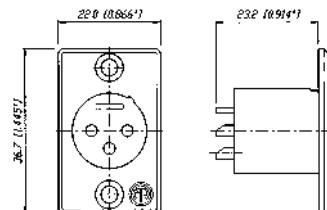
NC6MP-B

- Male and female available in 3 – 6 pin configurations; 7 pin version available in female only
- Smallest available hard wiring receptacles with large solder cups
- Male and female use different mounting hole dimensions and do not fit in same mounting hole
- Front mountable only
- One piece version – insert is NOT removable from shell
- Short female receptacle
- Compatible with Switchcraft® DxM, DxP; Cannon XLRx31, XLRx32
- 6 pole female version available with Switchcraft contact arrangement

NC3FP-1



NC3MP





Front end design



Solder termination

## Combo Series



NCJ9FI-V

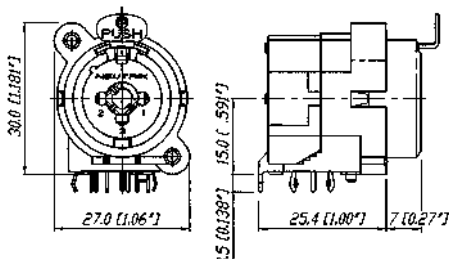


NCJ10FI-S

- Combined XLR receptacle and 1/4" phone jack
- Attractive "front end" design
- Saves rack space by combining 2 connectors in one housing
- Horizontal or vertical PCB mount or hard wire soldering
- Fully normalised
- Stereo or mono version

- Very low conductor capacitance, therefore suitable for digital audio
- Fastening: Self-tapping Plastite® screws with thread 2.9 x 1.06 and tri-rondular configuration (A screw)

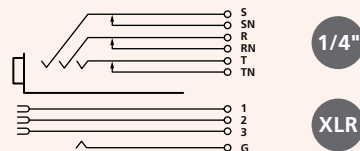
NCJ10FI-H



XLR receptacle or  
1/4" phone jack



Wiring: Example of NCJ9FI-H





Hologram



Horizontal PCB mount



Vertical PCB mount



**NEW:** Ergonomic asymmetric locking release tab

## Combo A Series



NCJ6FA-V-0



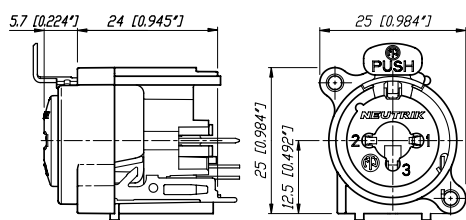
NCJ6FA-H



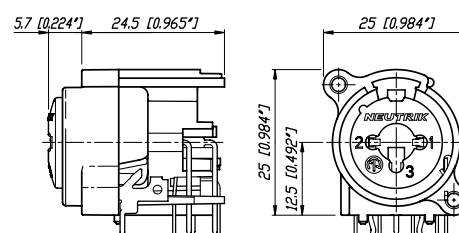
NCJ6FA-V-0

- Combined 3 pole XLR receptacle and 1/4" phone jack for balanced mic and line or instrument inputs in one XLR housing
- Dramatic space saving – 15 % over the predecessor Combo
- Two connectors in one housing – substantial cost, material and labour saving
- Horizontal and vertical PCB mount available
- 3 pole female XLR combined with stereo TRS jack
- Very low conductor capacitance – ideal for digital audio
- Front panel cut-out compatible with Neutrik XLR A Series
- Branded with unique hologram – guarantees genuine and authentic Neutrik product

### NCJ6FA-V



### NCJ6FA-H



## Colour Coded Accessories

Part No.	Description	Black 0	Brown 1	Red 2	Orange 3	Yellow 4	Green 5	Blue 6	Violet 7	Grey 8	White 9
<b>XLR Cable Connectors</b>											
BSX-*	Colored bushing for X Series										
BXX-*	Colored bushing for XX Series										
XCR-*	Colored coding ring for X Series										
XXR-*	Colored coding ring for XX Series										
<b>XLR Chassis Connectors</b>											
ACRF-*	Colored ring for female 4 pole A Series and 4 + 5 pole B Series.										
ACRM-*	Colored ring for male 4 pole A Series and 4 + 5 pole B Series										
DSS-*	Lettering plate for D Series										

## Accessories

XLR Cable Connectors	
BXX-CR	Bushing with translucent coding ring
BXX-14	Large bushing set (cable O.D. 8.5 mm)
XXCR	Translucent coding ring for XX Series
	Label Dimensions: 57.9 mm x 6.35 mm – 2.25" W x 0.25" H)
	<div><div> BXX-CR</div><div> XXCR      Example</div></div>
XLR Chassis Connectors	
A-Screw-1-8	Plastite® screw 2.9 x 8
B-Screw-1-8	TAPTITE® screw 2.5 x 8
DBA	Dummy-plate for D Series panel cut outs
FDR1	Round panel mounting flange for NC3FDX-EMC-SPEC
HA-3FXX	Set of 50 female spare contacts for crimp XLR
HA-3MXX	Set of 50 male spare contacts for crimp XLR
MFD	M3 mounting frame for D-size chassis
ND*	dummyPLUG for female / male XLR chassis connector
NZP1RU-8	Panel 1RU with 8 D-shape housing cutouts
NZP1RU-12	Panel 1RU with 12 D-shape housing cutouts
SC*	Rubber sealing cap for female and male XLR receptacles
PUSH-ASYM	Asymmetric push for A/AA/B & Combo A Series
SCDP-*	D Size sealing gaskets, color coding (*: 0- black, 2- red, 4- yellow, 5- green, 6- blue, 9- white)
SCDR	Rear end protection cover for D size chassis connectors
SCDX	Hinged cover seals D-size chassis connectors, IP42 rated
SCCD-W	Spring-loaded cover to seals D size chassis connectors, IP65 rated
SFAV	Rubber frame for A / B Series to mount between front plate and rear vertical print
	<div><div><div> A Screw</div><div> B Screw</div><div> DBA</div><div> FDR1</div><div><div> MFD</div><div> Example</div></div></div></div>
	<div><div> NDF</div><div> NDM</div><div> SCF</div><div> SCM</div><div><div> PUSH-ASYM</div><div></div></div></div>
	<div><div> NZP1RU-12</div><div><div> SCDR      Example</div><div> SCDX</div><div><div> Example</div></div></div></div>
	<div><div> SCCD-W</div><div><div> SCDP-*</div><div> SFAV</div><div><div> Example</div></div></div></div>

Specification		A Series	AA Series	B Series	D Series	DL / DLX Series	DLX Crimp	DLX-HE Series
<b>Electrical</b>								
Number of contacts		3 - 5	3	3 - 5	3	3 - 7	3	3
Contact resistance	≤ 6 mΩ	●	●	●	●	●	●	●
Insulation resistance - initial:	> 10 GΩ	●	●	●	●	●	●	●
- after damp heat test:	> 1 GΩ	●	●	●	●	●	●	●
Dielectric strength	1.5 kV dc	●	●	●	●	●	●	●
Rated voltage	< 50 V ac	●	●	●	●	●	●	●
Rated current per contact								
3 pole:	6 A	●	●	●	●	16 A	1 A	16 A
4 pole:	6 A	●	-	●	-	10 A	-	-
5, 6 pole:	3 A	●	-	●	-	7.5 A	-	-
7 pole:	5 A	-	-	-	-	●	-	-
Combo XLR + Jack contact	7.5 A	-	-	-	-	-	-	-
Capacitance between contacts								
3 pole:	≤ 4 pF	●	●	●	-	≤ 4 pF	≤ 4 pF	≤ 4 pF
4, 5, 6 pole:	≤ 7 pF	●	-	●	-	●	-	-
7 pole:	≤ 9 pF	-	-	-	-	●	-	-
<b>Mechanical</b>								
Lifetime	> 1'000 mating cycles	●	●	●	●	●	●	●
Insertion / withdrawal force	≤ 20 N	●	●	●	●	●	●	●
Retention method								
- standard:	latch lock	●	●	●	●	●	●	●
- "0" Version:	≥ 20 N separating force	●	●	●	●	●	-	-
Crimp XX:	0.22 - 0.34 mm <sup>2</sup> / AWG 24 - 22	-	-	-	-	-	●	-
<b>Material</b>								
Insert	Polyamide PA 6.6 30% GR	●	●	●	●	●	●	PSS 40% GR
Shell	Zinc diecast ZnAl4Cu1	-	-	-	●	●	●	●
Shell plating	gal Ni or black Cr	-	-	●	●	●	●	velour Cr
Ring	Zinc diecast ZnAl4Cu1	-	-	●	-	-	-	-
Contacts	- female 3 pole: Bronze CuSn6	●	●	●	●	●	●	●
	4 - 5 pole: Bronze CuSn6	●	-	-	-	-	-	-
	4 - 7 pole: Brass CuZn39Pb3	-	-	-	-	●	-	-
	- male: Brass CuZn35Pb2	●	●	●	●	●	●	●
Contact surface	gal 0.2 µm AuCo over 2 µm NiP15 (Tribor®)	●	●	●	-	-	-	●
	gal 2 µm Ag or gal 0.2 µm Au hard alloy over 2 µm Ni	-	-	-	●	●	●	-
Latch lock & spring	Ck 67 steel, treated	●	●	●	●	●	●	●
<b>Environmental</b>								
Operating temperature	-30 °C to +80 °C	●	●	●	●	●	●	●
Protection class	IP 40	●	●	●	●	●	●	●
Flammability	UL 94 HB	●	●	-	●	●	●	-
	UL 94 V-0	3 pole	-	●	-	-	-	●
Solderability complies with	IEC 68-2-20	●	●	●	●	●	●	●
Mounting screw		A	A	1)	-	-	-	-
Color coding		ACR* 2)	-	ACR* 2)	DSS	DSS	DSS	DSS
(4 + 5 pole only)								
1): B Series 3 pole connectors > B-screw, 4 & 5 pole versions > A-screw								
2): 4 + 5 pole A series, 5 pole B series								

## Specification

MPR-HD Series    P Series    Combo Series    A Combo

### Electrical

Number of contacts		3-5	3-7 (6*)	5-10	3/3
Contact resistance	XLR: $\leq 6 \text{ m}\Omega$	●	●	$\leq 10 \text{ m}\Omega$	$\leq 10 \text{ m}\Omega$
	1/4" & switching contacts**: $\leq 20 \text{ m}\Omega$	-	-	●	$\leq 10 \text{ m}\Omega$
Insulation resistance	- initial: $> 10 \text{ G}\Omega$	●	●	●	●
	- after damp heat test: $> 1 \text{ G}\Omega$	●	●	$> 500 \text{ m}\Omega$	●
Dielectric strength	1.5 kV dc	●	●	●	●
Rated voltage	50 V ac	●	●	●	●
Rated current per contact					
	3 pole: 6 A	16 A	16 A	-	3 A
	4 pole: 6 A	10 A	10 A	-	-
	5, 6 pole: 3 A	7.5 A	7.5 A	-	-
	7 pole: 5 A	-	●	-	-
Combo XLR + Jack contact	7.5 A	-	-	●	●
Capacitance between contacts					
	3 pole: $\leq 7 \text{ pF}$	$\leq 4 \text{ pF}$	$\leq 4 \text{ pF}$	$\leq 2 \text{ pF}$	$\leq 2 \text{ pF}$
	4, 5, 6 pole: $\leq 7 \text{ pF}$	●	●	-	-
	7 pole: $\leq 9 \text{ pF}$	-	●	-	-

### Mechanical

Lifetime	$> 1'000$ mating cycles	●	●	●	●
Insertion / withdrawal force	$\leq 20 \text{ N}$	●	●	25 N	●
Retention method					
	- standard: latch lock	●	●	● (XLR)	● (XLR)
	- "0" Version: $\geq 20 \text{ N}$ separating force	●	●	25 N	25 N

### Material

Insert	Polyamide	PA 6.6 30% GR	●	●	●	●
Shell	Zinc diecast	ZnAl4Cu1	●	●	-	-
Shell plating		gal Ni or black Cr	Ni	●	-	-
Ring	Zinc diecast	ZnAl4Cu1	-	-	-	-
Contacts	- female 3 pole:	Bronze CuSn6	-	●	●	●
	4 – 5 pole:	Bronze CuSn6	-	-	-	-
	4 – 7 pole:	Brass CuZn39Pb3	-	●	-	-
	- male:	Brass CuZn35Pb2	●	●	-	-
Contact surface	gal 0.2 $\mu\text{m}$ AuCo over 2 $\mu\text{m}$ NiP15 (Tribor®)		-	-	●	●
	gal 2 $\mu\text{m}$ Ag or gal 0.2 $\mu\text{m}$ Au hard alloy over 2 $\mu\text{m}$ Ni		Au	●	-	-
Latch lock & spring	Ck 67 steel, treated		-	●	●	●

### Environmental

Operating temperature	-30 °C to +80 °C	●	●	●	●
Protection class	IP 40	IP 65	●	●	●
Flammability	UL 94 HB	●	●	●	●
	UL 94 V-0	-	-	-	-
Solderability complies with	IEC 68-2-20	●	●	●	●
Mounting screw		-	-	A	A
Color coding		-	-	-	-

\*... P Series male 3 – 6 pole

\*\*... if existing

## Ordering Information for Receptacles

Female	Male	Shell	Contact	3 pole	4 pole	5 pole	Female	Male	Shell	Contact	3 pole
<b>A Series</b>							<b>AA Series</b>				
NC*FAH-D		Black Plastic	Gold	-	● <sup>1)</sup>	● <sup>1)</sup>	NC3FAAH	NC3MAAH	Black Plastic	Gold	●
	NC*MAH	Black Plastic	Gold	●	●	●	NC3FAAH-0		Black Plastic	Gold	●
NC*FAH-0		Black Plastic	Gold	●	● <sup>1)</sup>	● <sup>1)</sup>	NC3FAAH1	NC3MAAH-1	Black Plastic	Gold	●
	NC3MAH-0	Black Plastic	Gold	●	-	-	NC3FAAH1-0		Black Plastic	Gold	●
NC3FAHL-0		Black Plastic	Gold	●	-	-		NC3MAAH-0	Black Plastic	Gold	●
NC3FAHR-0		Black Plastic	Gold	●	-	-	NC3FAAH2		Black Plastic	Gold	●
NC3FAH1-D		Black Plastic	Gold	●	-	-	NC3AAH2-0		Black Plastic	Gold	●
NC3FAH1-0		Black Plastic	Gold	●	-	-	NC3FAAV	NC3MAAV	Black Plastic	Gold	●
NC3FAHL1-D		Black Plastic	Gold	●	-	-	NC3FAAV-0		Black Plastic	Gold	●
	NC3MAHL	Black Plastic	Gold	●	-	-	NC3FAAV1	NC3MAAV-1	Black Plastic	Gold	●
NC3FAHL1-0		Black Plastic	Gold	●	-	-	NC3FAAV1-0		Black Plastic	Gold	●
NC3FAHR1-D		Black Plastic	Gold	●	-	-		NC3MAAV-0	Black Plastic	Gold	●
	NC3MAHR	Black Plastic	Gold	●	-	-	NC3FAAV2		Black Plastic	Gold	●
NC3FAHR1-0		Black Plastic	Gold	●	-	-	NC3FAAV2-0		Black Plastic	Gold	●
NC3FAH2-D		Black Plastic	Gold	●	-	-					
NC3FAH2-0		Black Plastic	Gold	●	-	-					
NC3FAHR2-D		Black Plastic	Gold	●	-	-					
NC3FAHR2-0		Black Plastic	Gold	●	-	-					
NC*FAV-D		Black Plastic	Gold	-	● <sup>1)</sup>	● <sup>1)</sup>					
	NC*MAV	Black Plastic	Gold	●	●	●					
NC*FAV-0		Black Plastic	Gold	●	● <sup>1)</sup>	● <sup>1)</sup>					
	NC3MAV-0	Black Plastic	Gold	●	-	-					
NC3FAV1-D		Black Plastic	Gold	●	-	-					
NC3FAV1-0		Black Plastic	Gold	●	-	-					
NC3FAV2-D		Black Plastic	Gold	●	-	-					
NC3FAV2-0		Black Plastic	Gold	●	-	-					
NC5FAV-SW-D	NC5MAV-SW	Black Plastic	Gold	-	-	●					

A Series – D version come with disassembled Push latch, version with assembled latch omit -D.

AA Series comes with Push Latch assembled.

A / AA Series rear mount only, all PCB mount except Y version = IDC

-DA: with asymmetric push

<sup>1)</sup>: Grounding Option "2"

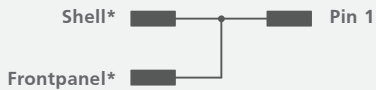
0: Retention Spring

## Grounding Options

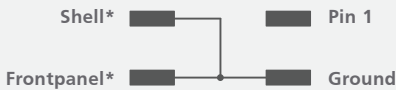
### A / AA Series and B Series

#### Female - 3 pole

"1"

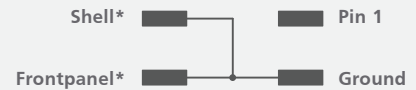


"2"



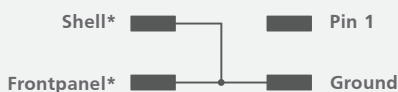
#### Female 4 & 5 pole

w/o number

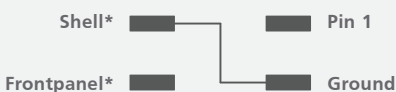


#### Male - 3, 4 & 5 pole

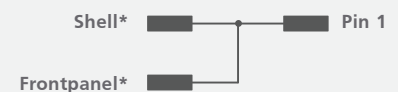
w/o number



"0" and L + R version



"1"



Shell\* : Contact to shell of mating connector

Frontpanel\* : Connection to frontpanel by fastening screw



## Ordering Information for Receptacles

Female	Male	Flange	Contact	3 pole	4 pole	5 pole
B Series						
NC*FBH		Metal	Gold	-	●	●
	NC*MBH	Metal	Gold	●	●	●
NC5FBH-B	NC5MBH-B	Black Metal	Gold	-	-	●
	NC3MBH-B	Black Metal	Gold	●	-	-
	NC3MBH-0	Metal	Gold	●	-	-
NC3FBH1	NC3MBH-1	Metal	Gold	●	-	-
NC3FBH1-B		Black Metal	Gold	●	-	-
NC3FBHL1		Metal	Gold	●	-	-
	NC3MBHL	Metal	Gold	●	-	-
	NC3MBHL-B	Black Metal	Gold	●	-	-
NC3FBH2		Metal	Gold	●	-	-
NC3FBH2-B		Black Metal	Gold	●	-	-
	NC3MBHR	Metal	Gold	●	-	-
	NC3MBHR-B	Black Metal	Gold	●	-	-
NC3FBH1-E	NC3MBV-E	Metal	Gold	●	-	-
NC3FBH2-E		Metal	Gold	●	-	-
	NC3MBH-E	Metal	Gold	●	-	-
	NC*MBV	Metal	Gold	●	●	●
	NC3MBV-B	Black Metal	Gold	●	-	-
NC*FBV		Metal	Gold	-	●	●
NC5FBV-B	NC5MBV-B	Black Metal	Gold	-	-	●
NC3FBV1		Metal	Gold	●	-	-
NC3FBV1-B		Black Metal	Gold	●	-	-
NC3FBV2		Metal	Gold	●	-	-
NC3FBV2-B		Black Metal	Gold	●	-	-
	NC3MBV-0	Metal	Gold	●	-	-
	NC3MBV-1	Metal	Gold	●	-	-
NC3FBV2-SW	NC3MBV-SW	Metal	Gold	●	-	-
NC5FBV-SW	NC5MBV-SW	Metal	Gold	-	-	●

Female	Male	Shell	Contact	3	4	5	6	7
				pole	pole	pole	pole	pole
D Series								
NC3FD-V	NC3MD-V	Nickel	Silver	●	-	-	-	-
NC3FD-V-B	NC3MD-V-B	Black Cr	Gold	●	-	-	-	-
NC3FD-V-BAG	NC3MD-V-BAG	Black Cr	Silver	●	-	-	-	-
NC3FDM3-V	NC3MDM3-V	Nickel	Silver	●	-	-	-	-
NC3FDM3-V-B	NC3MDM3-V-B	Black Cr	Gold	●	-	-	-	-
NC3FD-H	NC3MD-H	Nickel	Silver	●	-	-	-	-
NC3FD-H-B	NC3MD-H-B	Black Cr	Gold	●	-	-	-	-
NC3FD-H-BAG	NC3MD-H-BAG	Black Cr	Silver	●	-	-	-	-
NC3FDM3-H	NC3MDM3-H	Nickel	Silver	●	-	-	-	-
NC3FDM3-H-B	NC3MDM3-H-B	Black Cr	Gold	●	-	-	-	-
NC3FDM3-H-BAG	NC3MDM3-H-BAG	Black Cr	Gold	●	-	-	-	-

## DLX Series

NC*FD-LX	NC*MD-LX	Nickel	Silver	●	●	●	●	●
NC*FD-LX-B	NC*MD-LX-B	Black Cr	Gold	●	●	●	●	●
NC*FD-LX-BAG	NC*MD-LX-BAG	Black Cr	Silver	●	●	●	●	-
NC*FD-LX-M3	NC*MD-LX-M3	Nickel	Silver	●	●	●	-	-
NC3FD-LX-HE	NC3MD-LX-HE	Velour Cr	Gold	●	-	-	-	-
NC3FD-LX-WT	NC3MD-LX-WT	White	Silver	●	-	-	-	-
NC6FSD-LX	NC6MSD-LX	Nickel	Silver	-	-	-	●	-

## DL Series

NC*FD-L-1	NC*MD-L-1	Nickel	Silver	●	●	●	●	●
NC*FD-L-B-1	NC*MD-L-B-1	Black Cr	Gold	●	●	●	●	●
NC*FD-L-BAG-1	NC*MD-L-BAG-1	Black Cr	Silver	●	●	●	●	-
NC*FDM3-L-1	NC*MDM3-L-1	Nickel	Silver	●	●	●	-	-
NC3FDM3LBAG-1	NC3MDM3LBAG-1	Black Cr	Silver	●	-	-	-	-
NC3FD-L-1-HE	NC3MD-L-1-HE	Velour Cr	Gold	●	-	-	-	-
NC*FDM3-H	NC*MDM3-H	Nickel	Silver	-	●	●	●	-
NC*FDM3-H-B	NC*MDM3-H-B	Nickel	Silver	-	●	●	-	-
NC*FDM3-H-BAG	NC*MDM3-H-BAG	Black Cr	Silver	-	●	●	-	-
NC3FD-S-1-B	NC3MD-S-1-B	Black Cr	Silver	●	-	-	-	-

## DLX Crimp Series

NC3FD-LX-HA	NC3MD-LX-HA	Nickel	Silver	●	-	-	-	-
NC3FD-LX-HA-BAG	NC3MD-LX-HA-BAG	Black Cr	Silver	●	-	-	-	-

-DA: with asymmetric push

D: version come with disassembled Push latch, version with assembled latch omit -D.

B: Series rear mount only

0: Retention spring on request

## Ordering Information for Receptacles

Female Male Shell Contact 3 4 5 6 7  
pole pole pole pole pole

### EMC XLR

NC3FDX-EMC-SPEC Black Cr Gold • - - - -

### Accessories

FDR-1 Black round panel mounting flange with screws for larger panel cut-outs

### P Series

NC*FP-1		Nickel	Silver	• • • • •
	NC*MP	Nickel	Silver	• • • • •
NC*FP-B-1		Black Cr	Gold	• • • • •
	NC*MP-B	Black Cr	Gold	• • • • •
NC*FP-BAG-1	NC*MP-BAG	Black Cr	Silver	• • • • •

### MPR-HD Series

- NC\*MPR-HD Nickel Gold • • • • -

Shell Contact 5 6 9 10  
pole pole pole pole

### Combo A Series

NCJ6FA-H	Black plastic	Gold	- • - -
NCJ6FA-H-0	Black plastic	Gold	- • - -
NCJ6FA-H-DA	Black plastic	Gold	- • - -
NCJ6FA-V	Black plastic	Gold	- • - -
NCJ6FA-V-0	Black plastic	Gold	- • - -
NCJ6FA-V-DA	Black plastic	Gold	- • - -

### Combo Series

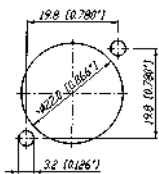
NCJ*FI-H	Black plastic	Gold	• • • • •
NCJ*FI-H-0	Black plastic	Gold	• • • • •
NCJ*FI-S	Black plastic	Gold	• • • • •
NCJ*FI-S-0	Black plastic	Gold	• • • • •
NCJ*FI-V	Black plastic	Gold	• • • • •
NCJ*FI-V-0	Black plastic	Gold	• • • • •

### Contact #

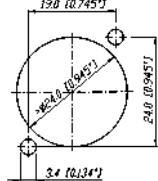
	1	2	3	T	R	S	TN	RN	SN	G	GN
NCJ5FI-*	x	x	x	x		x				x	
NCJ6FI-*	x	x	x	x	x	x				x	
NCJ9FI-*	x	x	x	x	x	x	x	x	x	x	
NCJ10FI-*	x	x	x	x	x	x	x	x	x	x	x

## Panel Cutouts

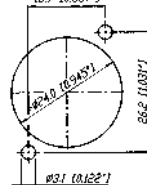
A/AA/B Series



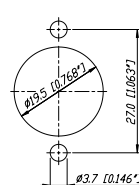
D/DL/DLX Series



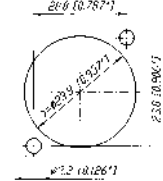
P Series Female



P Series Male



Combo



MPR Series



## Assembly Tools



HTXP

**NEW**



BTXX



HX-R-BNC



DIE-R-BNC-PT

HTXP	Hand tool to tighten the XX and PX-bushing
HTXX-14	Hand tool to tighten the XX-14 and 8 + 2 pole bushing
BTXX	Speed boot assembly tool to press the XX boot onto shell
HX-R-BNC	Crimp tool for XCC Series
DIE-R-BNC-PT	Crimp die for XCC Series (6.5 mm HEX)
DIE-R-HA-1	Crimp die for XX-HA Series

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