Product Guide

Quality Thinking - Quality Design

NEUTRIK®

CONNECTING THE WORLD

About Neutrik®

Neutrik® is an international corporation with three decades of know-how and experience in the manufacture of innovative electrical and electronic interconnection products and systems.
We are the world leader in the design, manufacture and marketing of audio, coaxial, power and circular connectors. Our main priority is to be "one step ahead", i. e. to understand the future market needs before they become obvious and to accommodate demands before they occur.
From the beginning we have concentrated on the development of innovative audio connector products. Today Neutrik® leads the way in the professional audio market.
Our audio range includes XLR-connectors, plugs, jacks, speaker-connectors and patchbays. Many patents granted, numerous patents pending and the many license agreements since our beginning in 1975, evidence Neutrik's innovation and creative achievements. No doubt, our customers have the confidence in having high quality products at an unsurpassed cost/performance ratio whenever they come across Neutrik®.

Headquarters

Neutrik® Headquarters are located in the Principality of Liechtenstein in the heart of Europe and include the center of all operations such as management, R&D, logistics, manufacturing and finance.

Quality

For Neutrik®, quality is the utmost priority. Uncompromising selection of designs, materials and subcontractors as well as manufacturing technologies guarantee the highest level of quality. Neutrik® holds several approvals with manufacturing compliance organizations like UL, cUL, VDE, SEV, CSA. A sophisticated quality system is in place based on ISO 9001-2000 with full traceability of production runs and the supply chain.

Customer Service

It is the Neutrik® philosophy to be customer-orientated and to stay in close contact with our customers all over the world, using an international network of subsidiaries, associated companies and distributors, Neutrik® takes care of consultation, sales and after-sales-service.

Environmental – Compatibility

Neutrik's endeavour to meet the market's requests goes without saying. Protection of our environment at the same time is another challenge Neutrik® is willing to accept:

All production methods are based on environmentally sound handling and the abandonment of hazardous material. Some time before the amended EU Directive RoHS (Reduction of Hazardous Substances) will come into force on July 1st 2006, Neutrik® already complies with these requirements laid down therein and stopped using lead in the soldering process at the end of 2004. In addition Neutrik® conforms to the following EU Directives and regulations:

EU 76/769/EEC
EU 2000/53/EC
EU 2002/95/EC
Sony Technical Standard SS-00259 (Sony Green Partner)

Look for the Logo

Product Overview

t o i d e n t i f y t h e o r i g i n a l

Neutrik® Part Number Guide

NC3FAH1-0-X

Shell:	**B**	Black shell, gold contacts
	BAG	Black shell, silver contacts
Retention:	**w/o**	Latch Lock
	-0	Retention Spring
Grounding:	**0**	Separate ground contact connected to shell, male only
	1	Pin 1 & Panel & Shell connected, no separate ground contact
	2	Separate ground contact connected to shell & panel, separate Pin 1
	E	Additional ground contacts
	w/o number	No ground / Shell contact (except 4 / 5 pole), female only
Termination:	**H**	Horizontal PCB mount
	HL	Laterial left PCB mount
	HR	Laterial right PCB mount
	L	Solder Cups
	V	Verticale PCB mount
	Y	IDC for wires (no ground)
	M3	Mounting holes with M3 thread
	M25	Mounting holes with M2.5 thread
	-	Not applicable
Series:	**A, AA, B, BA, D, DL, MPR, P**	
Gender:	**F**	Female
	M	Male
Number of Contacts:	**3, 4, 5, 6, 7**	
	A	Adapter
	AC	PowerCon®
	B	BNC
	C	Connector
	E	RJ45
	F	RCA / CINCH
	J (MJ, RJ, SJ)	Jack
	K	Cable Assembles
	L	Loudspeaker
	M	Modules
	O	Fiber Connector
	P	Plugs
	PP	Patch Panel
	R	Circular Connector
	T	Transformer

XLR Connectors

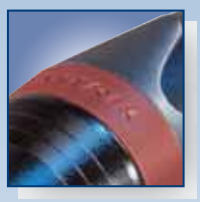
Content Page

Introduction

The XLR connector series is probably together with the Speakon® series Neutrik's most known product range and has due to the simple but striking concept been one of the most important keys to our great success.
We introduced the first version more than 25 years ago, meanwhile it became the worldwide-accepted standard.
XLR connectors are widely used in various applications of the professional audio world. Whether as microphone connector, on lighting applications or any kind of sound equipment, the XLR is all over the entertainment industry.

Keyfeatures are:
- Reliable and robust
- Easy to assemble, simple to use
- Excellent cable protection
- Colour coding
- Available in 3 to 7 pole

The reason for the outstanding success of the series is in accompany with these features a constant and peerless quality.

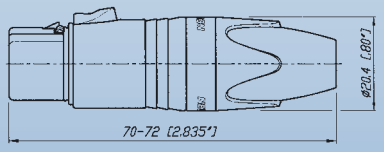
XX Series

NEW

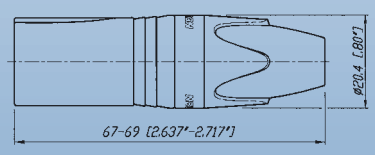

NC3FXX NC3MXX-B

- The next generation of the worldwide accepted standard.
- Unique cage type female contact - increases conductivity.
- Female contact with “solder stop” for ease soldering.
- Male connector without locking “window” - more strigent 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.

NC*FXX



NC*MXX



* ... 3 - 7 contacts

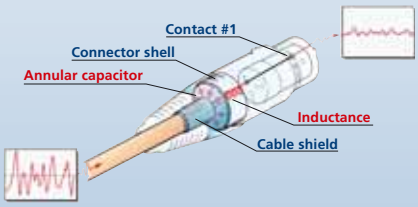
EMC-XLR Series

NEW

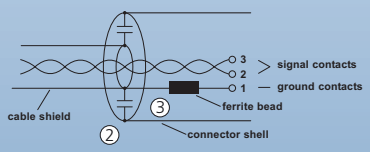

NC3FXX-EMC NC3MXX-EMC

- 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.
- Patent pending

①

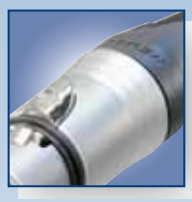


① Design guarantees a continuous RF-shield connection but avoids ground loops (no LF-shield connection)
② Circular capacitor enables low-inductive shield connection to connector housing
③ Cable shield - PIN 1 connection includes EMI suppression bead (blocks high frequencies)



- Quality Design

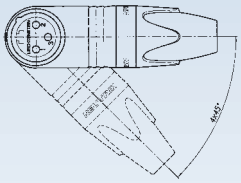





RX Series

NEW

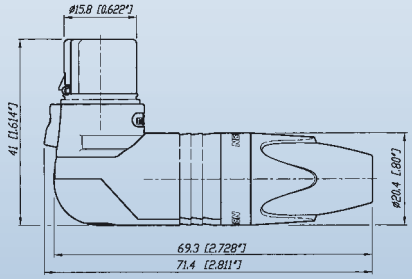
NC3FRX



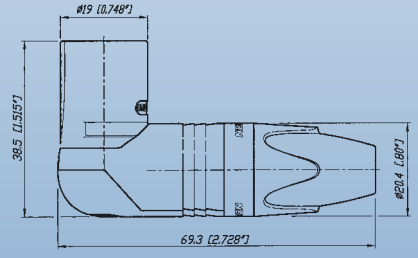
Outlet position

- Extra slim right-angle connector
- Neutrik chuck type strain relief
- 5 selectable cable outlet positions
- Only 20 mm wide

NC*FRX



NC*MRX



* ... 3 - 7 contacts

XX-HE Series

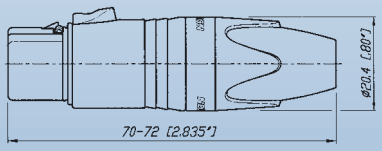
NEW

NC3FXX-HE

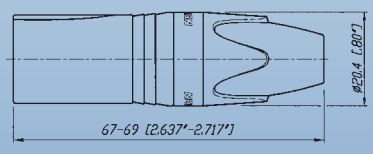
NC3MXX-HE

- Exclusive version of standard XX Series
- Valuable velour chromium plating
- Extra high temperature resistant insulator material
- Machined female contacts

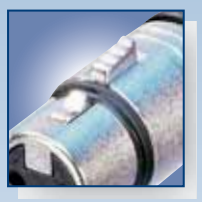
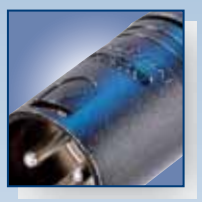
NC3FXX-HE

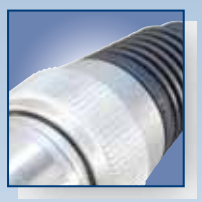


NC3MXX-HE



Look for the Logo

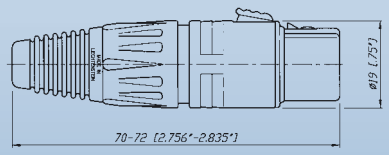


X Series

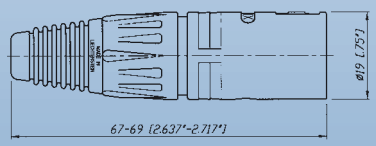

NC3FX NC3MX

- The worldwide accepted XLR connector standard
- Rugged diecast shell
- Compact design (shortest available XLR cable connector)
- Time saving assembly – 4 parts only, no screws
- Neutrik unique chuck type strain relief
- Gold or silver plated contacts
- UL Recognized components
- Available in 3 - 7 pin configuration

NC*FX



NC*MX



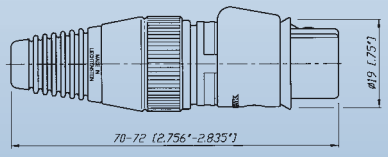
* ... 3 - 7 contacts

X-HD Series

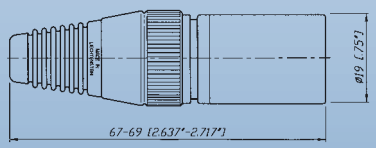

NC5FX-HD NC4MX-HD

- "Heavy duty" cable connectors for outdoor use
- All metal design, stainless steel
- NC*FX-HD mates with our new NC*MPR-HD chassis connector
- Dust and water protected according IP 65 in mated combination with NC*MPR-HD
- Available in 3 - 5 pin configuration

NC*FX-HD



NC*MX-HD



* ... 3 - 5 contacts

t o i d e n t i f y t h e o r i g i n a l

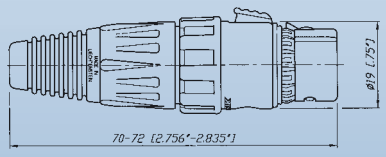


XCC Series

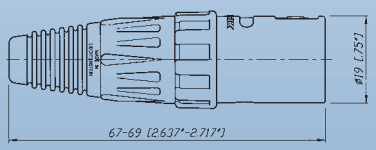
NC3FXCC

- 3 pole cable connector with a circumferential shield contact for best EMI protection.
- Featuring a coaxial ground spring and coaxial hex crimp ferrule at the cable entrance for proper and reliable transition of the cable shield to the shell.
- Zebra coding ring to indicate digital AES signals included.

NC3FXCC



NC3MXCC

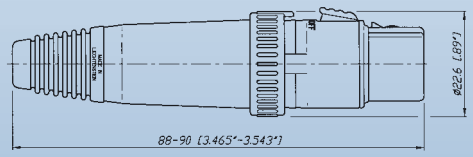


FXS Series

NC3FXS

- FX connector with noiseless ON-OFF switch short-circuiting contacts 2 + 3.
- For use on a microphone without switch.

NC3FXS

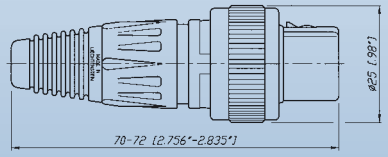


FX-SPEC Series

NC3FX-SPEC

- Solid female cable connector with locking ring for highest security of connection.
- Uninterrupted EMI protection.
- Protects against accidental disconnects.
- Thief-prove, grub screw secure connector onto microphone or gooseneck.
- Avoids movements and noises

NC3FX-SPEC



Specification		XX Series	EMC Series	X Series	XCC Series	X-HD Series	FXS Series	XX-HE Series	FX-SPEC Series	RX Series
Electrical										
Number of contacts		3 - 7	3	3 - 7	3	3 - 5	3	3	3	3 - 7
Contact resistance	≤ 3 mΩ	●	●	●	●	●	●	●	●	●
Insulation resistance - initial:	> 2 GΩ	●	●	●	●	●	●	●	●	●
- after damp heat test:	> 1 GΩ	●	●	●	●	●	●	●	●	●
Dielectric strength	1500 V dc	●	●	●	●	●	●	●	●	●
Cable shield-shell connection	choosable	●	-	●	-	●	-	●	●	●
	determined	-	capacitive	-	crimp	-	-	-	-	-
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	●	●	●	●	●	●	●
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	●	●	●	●	●	●	●	●	●
Mechanical										
Lifetime > 1`000 cycles		●	●	●	●	●	●	●	●	●
Insertion / withdrawal force ≤ 20 N		●	●	●	●	●	●	●	●	●
Cable O.D. range	3.5 - 8.0 mm	●	-	●	5.4 - 6.2 mm	●	●	●	●	●
Max. wire size 3 pole:	2.5 mm² / AWG 14	●	AWG 20	●	●	●	●	●	●	●
4 pole:	1.5 mm² / AWG 16	●	-	●	-	●	-	-	-	●
5, 6, 7 pole:	1.0 mm² / AWG 18	●	-	●	-	●	-	-	-	●
Crimp tool: 6.5 mm Hex die (size "E" acc. to IEC 60803)		-	-	-	●	-	-	-	-	-
Material										
Shell	Zinc diecast (ZnAl4Cu1)	●	●	●	●	-	●	●	●	●
	(gal Ni or black Cr)	●	gal Ni	●	●	black Cr	●	●	●	●
	Stainless steel	-	-	-	-	●	-	-	-	-
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	●	Au	●	●	Au	●	●	●	●
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	●	●	●	●	●	●	●	●	●
Circumferential ground spring	CuSn6, Ni plated	-	●	-	●	-	-	-	-	-
Crimp ferrule	CuZn39Pb3, Ni plated	-	-	-	●	-	-	-	-	-
Coding ring	PA 6 15% GR	-	-	-	●	-	-	-	-	-
Sealing jacket	EPDM	-	-	-	-	●	-	-	-	-
Securing ring	Brass (CuZn39Pb3)	-	-	-	-	-	-	-	●	-
Environmental										
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
XX Series								
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-**-D[1]	NC3MXX-**-D[1]	Nickel / Black Cr	Silver / Gold	●	-	-	-	-
XX-EMC Series								
NC3FXX-EMC	NC3MXX-EMC	Nickel	Gold	●	-	-	-	-
X Series								
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[1]	NC3MX-**-D[1]	Nickel / Black Cr	Silver / Gold	●	-	-	-	-
NC6FSX[2]	NC6MSX[2]	Nickel	Silver	-	-	-	●	-
NC6FSX-B[2]	NC6MSX-B[2]	Black Cr	Gold	-	-	-	●	-
NC6FSX-BAG[2]	NC6MSX-BAG[2]	Black Cr	Silver	-	-	-	●	-
RX Series								
NC*FRX	NC*MRX	Nickel	Silver	○	○	○	○	○
NC*FRX-B	NC*MRX-B	Black Cr	Gold	○	○	○	○	○
NC*FRX-BAG	NC*MRX-BAG	Black Cr	Silver	○	○	○	○	○
XX-HE Series								
NC3FXX-HE	NC3MXX-HE	Velour Chromium	Gold	●	-	-	-	-
FXS Series								
NC3FXS	-	Nickel	Gold	●	-	-	-	-
NC3FXS-B	-	Black Cr	Gold	●	-	-	-	-
FX-SPEC Series								
NC3FX-SPEC	-	Black Cr	Silver	●	-	-	-	-
XCC Series								
NC3FXCC	NC3MXCC	Nickel	Gold	●	-	-	-	-
X-HD Series								
NC*FX-HD	NC*MX-HD	Nickel	Gold	●	●	●	-	-
NC3FX-HD-B	NC3MX-HD-B	Metal Black	Gold	●	-	-	-	-

* ..... Number of Contacts
** ..... Nickel or Black
○ ..... Available Spring 2006
–D[1] .... Bulk packed, to be ordered in multiples of 100 pcs.
[2] ..... Switchcraft Equivalent




A Series


NC3FAH1 NC3MAHR

- Smallest XLR receptacles, highest packing density.
- Plastic housing, steel retention lug.
- Fork type female contacts.
- Polished contact areas and hard gold plating.
- Various grounding options.

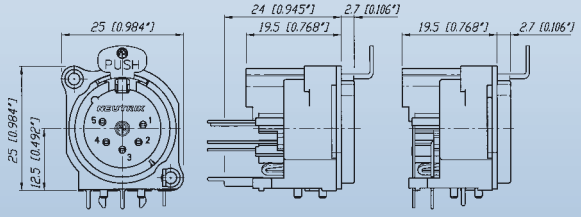
AA Series

NEW

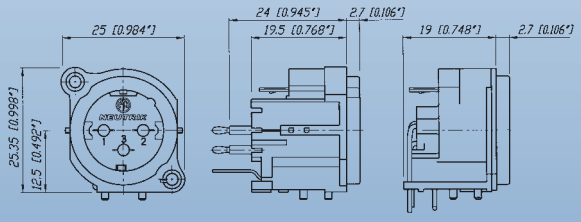

NC3FAAV2 NC3MAAH-1

- 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.

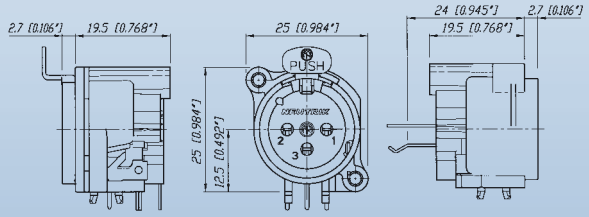
NC5FAV **NC5FAH**



NC3MAV-0 **NC5MAH**



NC3FAAH **NC3FAAV-0**



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

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)

to identify the original



B Series


NC3FBV NC3MBV

- Same as A Series but except of a metal mounting flange enabling continuous circumferential ground contact to chassis for best EMC and RF protection.
- Fastening of 3 pole version with B-screw, 4 / 5 pole use A-screw.

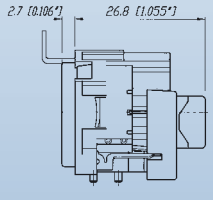
BA Series

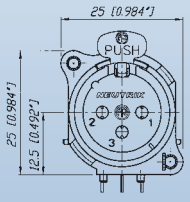
NEW


NC3FBAV2 NC3MBAH

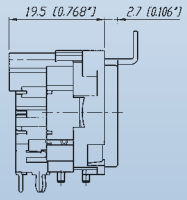
- More economical version of B Series with modified metal flange, similar to 4 / 5 pole.
- Fastening with A-screw.
- 3 pole version only.

NC3FBY

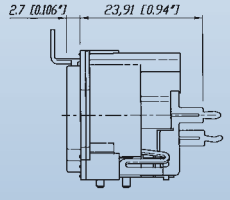


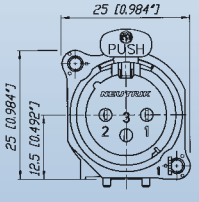


NC3FBH1

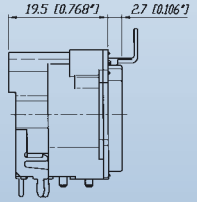


NC3FBA-V

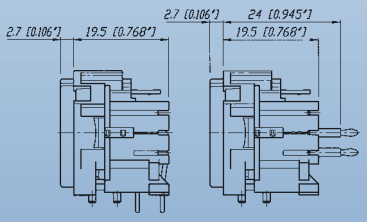




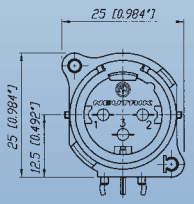
NC3FBA-H



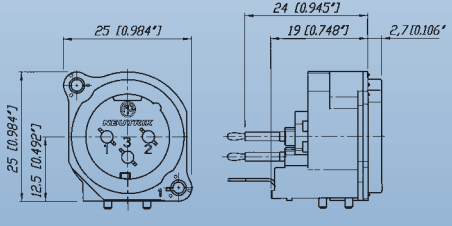
NC3MBH



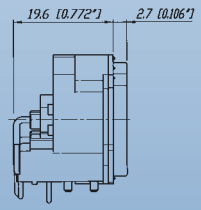
NC3MBV



NC3MBA-V



NC3MBA-H



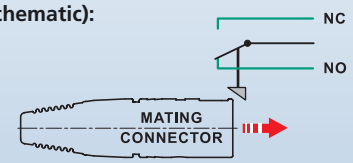



A/B Series 5-pole switch

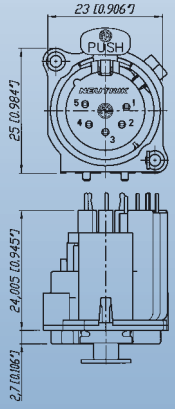

NC5FAV-SW NC5MAV-SW

- A and B-Series 5 pole connector with additional switch.
- Normally open, normally closed (NO - NC) contact.
- Switch activated by mating XLR cable connector.
- Available in 5 pole, 3 or 4 pole on request.

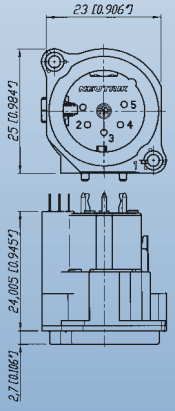
Inserting (Schematic):



NC5FAV-SW



NC5MBV-SW

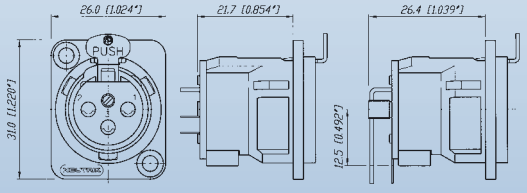


D Series

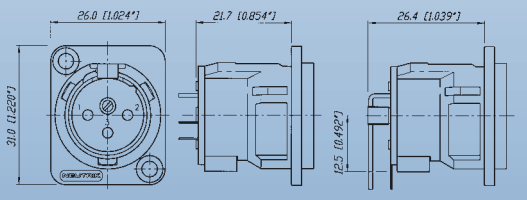

NC3FD-V NC3MDM3-V

- "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.

NC3FD-V / NC3FD-H



NC3MD-V / NC3MD-H



- Quality Design



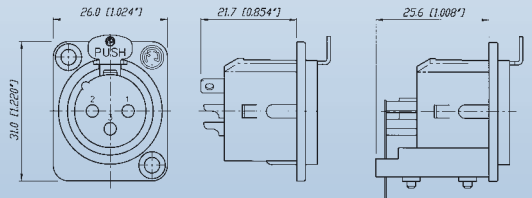
DL Series


NC3FD-L-1


NC4MDM3-H

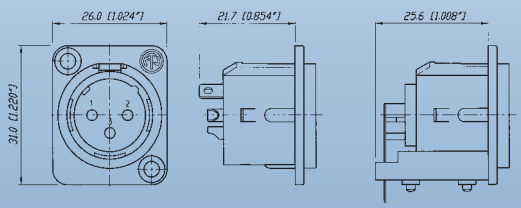
- Unifed "D" metal shell for female and male.
- Solder cups on 3 - 7 pole version.
- Additional PCB mount on 4 and 5 pole.
- Front and rear mountable.
- High End "-HE" version available with machined female contacts, temperature resistant insulator and valuable velour chromium plating.

NC3FD-L-1



NC*FDM3-H

NC3MD-L-1



NC*MDM3-H

MPR-HD Series

NC3MPR-HD

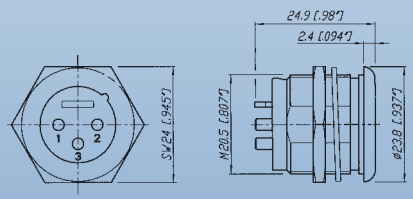

NC5MPR-HD

- 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

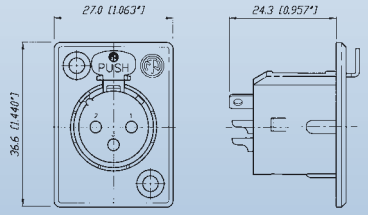



P Series

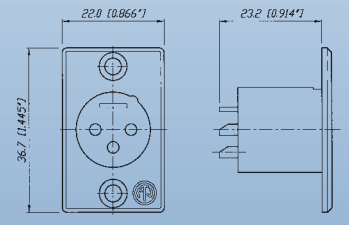

NC4FP-1 NC6MP-B

- Smallest available hard wiring receptacles with large solder cups.
- Short female receptacle.
- Compatible with Switchcraft DxM, DxF; Cannon XLRx31, XLRx32
- 6 pole version available with Switchcraft contact arrangement (NC6FSP-1, NC6MSP)

NC3FP-1



NC3MP

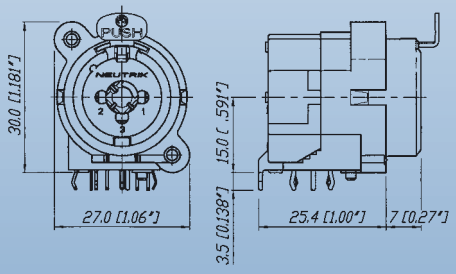


Combo Series


NCJ9FI-V NCJ10FI-S

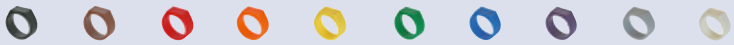
- Combined XLR receptacle and 1/4" phone jack
- New attractive "front end" design
- Saves rack space by combining 2 connectors in one housing
- Horizontal or vertical PCB mounting or hard wire soldering
- Fully normalled
- Stereo or mono version
- Very low conductor capacitance, therefore suitable for digital audio
- Fastening: Self-tapping PT® screws with thread 2.9 x 1.06 and tri-rondular configuration
- Front dimension: 30 x 27 mm

NCJ10FI-H



- Quality Design

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
XLR Cable Connectors											
BSX-*	Coloured bushing for X Series										
BXX-*	Coloured bushing for XX Series										
XCR-*	Coloured coding ring for X Series										
XXR-*	Coloured coding ring for XX Series										
XLR Chassis Connectors											
ACRF-*	Coloured ring for female 4 + 5 pole A Series and 3 pole BA Series										
ACRM-*	Coloured ring for male 4 + 5 pole A Series and 3 pole BA Series										
DSS-*	Lettering plate for D Series										

Accessories

XLR Cable Connectors		
XXCR	Translucent coding ring for XX Series	 Example
XCCR	Coding ring for X Serie digital signals	
XLR Chassis Connectors		
DBA	Dummy-plate for D Series panel cut outs	
SCD*	Rubber sealing cover for female and male D Series	 SCDF  SCDM
SC*	Rubber sealing cab for female and male D Series, Speakon®, USB & Firewire, BNC	 SCF  SCM
SFAV	Rubber frame for A / B Serie to mount between the front plate and rear verticale print	 SFAV  Example
A-Screw-1-8 B-Screw-1-8	Plastite screw 2.9 x 8* Taptite screw 2.5 x 8*	 A Screw  B Screw

* ... Minimum order quantity of 1000 pcs.

Specification			A Series	AA Series	B Series	BA Series	D Series	DL Series	MPR-HD Series	P Series	Combo Series
Electrical											
Number of contacts			3 - 5	3	3 - 5	3	3	3 - 7	3 - 5	3 - 7 (6**)	5 - 10
Contact resistance		≤ 5 mΩ	●	≤ 8 mΩ	●	●	●	●	●	●	≤ 10 mΩ
Insulation resistance	- initial:	> 2 GΩ	●	●	●	●	●	●	●	●	●
	- after damp heat test:	> 1 GΩ	●	●	●	●	●	●	●	●	> 500 MΩ
Dielectric strength		1500 V dc	●	●	●	●	●	●	●	●	●
Rated voltage		50 V ac	●	●	●	●	●	●	●	●	●
Rated current per contact											
	3 pole:	6 A	●	●	●	●	●	16 A	16 A	16 A	-
	4 pole:	6 A	●	-	●	-	-	10 A	10 A	10 A	-
	5, 6 pole:	3 A	●	-	●	-	-	7.5 A	7.5 A	7.5 A	-
	7 pole:	5 A	-	-	-	-	-	●	-	●	-
Combo XLR + Jack contact		7.5 A	-	-	-	-	-	-	-	-	●
Capacitance between contacts											
	3 pole:	≤ 7 pF	●	●	●	●	-	≤ 4 pF	≤ 4 pF	≤ 4 pF	≤ 2 pF
	4, 5, 6 pole:	≤ 7 pF	●	-	●	-	-	●	●	●	-
	7 pole:	≤ 9 pF	-	-	-	-	-	●	-	●	-
Mechanical											
Lifetime > 1`000 mating cycles			●	●	●	●	●	●	●	●	●
Insertion / withdrawal force		≤ 20 N	●	●	●	●	●	●	●	●	● 25 N
Retention method											
	- standard:	latch lock	●	●	●	●	●	●	●	●	● (XLR)
	- "0" Version:	≥ 20 N separating force	●	●	●	●	●	●	●	●	● 25 N
Material											
Insert	Polyamide	PA 6.6 30% GR	●	●	●	●	●	●	●	●	●
Shell	Zinc diecast	(ZnAl4Cu1)	-	-	-	-	●	●	●	●	-
		(gal Ni or black Cr plated)	-	-	-	-	●	●	Ni plated	●	-
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		-	-	-	-	●	●	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	3 pole	-	3 pole	-	-	-	-	-	-
Solderability complies with IEC 68-2-20			●	●	●	●	●	●	●	●	●
Mounting screw			A	A	1)	A	-	-	-	-	A
Colour coding			ACR-* (4 + 5 pole only)	-	-	ACR-*	DSS	DSS	-	-	-

1) .... B Series 3 pole connectors > B-screw, 4 & 5 pole versions > A-screw

** .... P Series male 3 - 6 pole

Ordering Information for Receptacle

Female	Male	Shell	Contact	3 pole	4 pole	5 pole
A Series						
NC*FAH	NC*MAH	Black Plastic	Gold	●	●	●
NC*FAH-0		Black Plastic	Gold	●	●	●
	NC3MAH-0	Black Plastic	Gold	●	-	-
NC3FAHL-0		Black Plastic	Gold	●	-	-
NC3FAHR-0		Black Plastic	Gold	●	-	-
NC3FAH1	NC3MAH-1	Black Plastic	Gold	●	-	-
NC3FAH1-0		Black Plastic	Gold	●	-	-
NC3FAHL1		Black Plastic	Gold	●	-	-
	NC3MAHL	Black Plastic	Gold	●	-	-
NC3FAHL1-0		Black Plastic	Gold	●	-	-
NC3FAHR1		Black Plastic	Gold	●	-	-
	NC3MAHR	Black Plastic	Gold	●	-	-
NC3FAHR1-0		Black Plastic	Gold	●	-	-
NC3FAH2		Black Plastic	Gold	●	-	-
NC3FAH2-0		Black Plastic	Gold	●	-	-
NC3FAHR2		Black Plastic	Gold	●	-	-
NC3FAHR2-0		Black Plastic	Gold	●	-	-
NC*FAV	NC*MAV	Black Plastic	Gold	●	●	●
NC*FAV-0		Black Plastic	Gold	●	●	●
	NC3MAV-0	Black Plastic	Gold	●	-	-
NC3FAV1	NC3MAV-1	Black Plastic	Gold	●	-	-
NC3FAV1-0		Black Plastic	Gold	●	-	-
NC3FAV2		Black Plastic	Gold	●	-	-
NC3FAV2-0		Black Plastic	Gold	●	-	-
NC3FAY	NC3MAY	Black Plastic	Gold	●	-	-
NC3FAY-0		Black Plastic	Gold	●	-	-
NC5FAV-SW	NC5MAV-SW	Black Plastic	Gold	-	-	●

Female	Male	Shell	Contact	3 pole
AA Series				
NC3FAAH	NC3MAAH	Black Plastic	Gold	●
NC3FAAH-0		Black Plastic	Gold	●
NC3FAAH1	NC3MAAH-1	Black Plastic	Gold	●
NC3FAAH1-0		Black Plastic	Gold	●
	NC3MAAH-0	Black Plastic	Gold	●
NC3FAAH2		Black Plastic	Gold	●
NC3AAH2-0		Black Plastic	Gold	●
NC3FAAV	NC3MAAV	Black Plastic	Gold	●
NC3FAAV-0		Black Plastic	Gold	●
NC3FAAV1	NC3MAAV-1	Black Plastic	Gold	●
NC3AAV1-0		Black Plastic	Gold	●
	NC3MAAV-0	Black Plastic	Gold	●
NC3FAAV2		Black Plastic	Gold	●
NC3FAAV2-0		Black Plastic	Gold	●

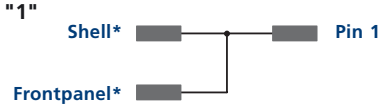
A / AA Series rear mount only, all PCB mount except Y version = IDC

Grounding Options

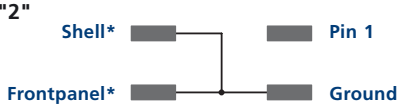
A / AA Series and B / BA Series

Female

"1"

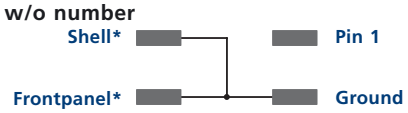


"2"



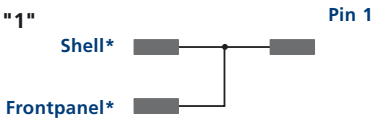
Male

w/o number



"0"

"1"



Shell* ... Contact to shell of mating connector

Frontpanel* ... Connection to frontpanel by fastening screw

Ordering Information for Receptacle

Female	Male	Flange	Contact	3 pole	4 pole	5 pole
B Series						
NC*FBH		Metal	Gold	-	●	●
	NC*MBH	Metal	Gold	●	●	●
NC*FBH-B		Black Metal	Gold	-	●	●
	NC*MBH-B	Black Metal	Gold	●	-	●
NC3FBH1		Metal	Gold	●	-	-
NC3FBH1-B		Black Metal	Gold	●	-	-
NC3FBHL1		Metal	Gold	●	-	-
	NC3MBHL	Metal	Gold	●	-	-
NC3FBHL1-B		Black Metal	Gold	●	-	-
	NC3MBHL-B	Black Metal	Gold	●	-	-
NC3FBHR1		Metal	Gold	●	-	-
NC3FBHR1-B		Black Metal	Gold	●	-	-
NC3FBH2		Metal	Gold	●	-	-
NC3FBH2-B		Black Metal	Gold	●	-	-
NC3FBHR2		Metal	Gold	●	-	-
	NC3MBHR	Metal	Gold	●	-	-
NC3FBHR2-B		Black Metal	Gold	●	-	-
	NC3MBHR-B	Black Metal	Gold	●	-	-
NC*FBV		Metal	Gold	-	●	●
	NC*MBV	Metal	Gold	●	●	●
NC*FBV-B		Black Metal	Gold	-	●	●
	NC*MBV-B	Black Metal	Gold	●	-	●
NC3FBV1		Metal	Gold	●	-	-
NC3FBV1-B		Black Metal	Gold	●	-	-
NC3FBV2		Metal	Gold	●	-	-
NC3FBV2-B		Black Metal	Gold	●	-	-
NC3FBY	NC3MBY	Metal	Gold	●	-	-
NC3FBY-B	NC3MBY-B	Black Metal	Gold	●	-	-
NC5FBV-SW	NC5MBV-SW	Metal	Gold	-	-	●
NC3FBH1-E	NC3MBV-E	Metal	Gold	●	-	-
NC3FBH2-E		Metal	Gold	●	-	-
NC3FBV1-E		Metal	Gold	●	-	-
	NC3MBH-E	Metal	Gold	●	-	-
BA Series						
NC3FBAH1		Metal	Gold	●	-	-
	NC3MBAH	Metal	Gold	●	-	-
NC3FBAH1-0		Metal	Gold	●	-	-
	NC3MBAH-0	Metal	Gold	●	-	-
NC3FBAH2		Metal	Gold	●	-	-
	NC3MBAH-1	Metal	Gold	●	-	-
NC3FBAH2-0		Metal	Gold	●	-	-
NC3FBAV1		Metal	Gold	●	-	-
	NC3MBAV	Metal	Gold	●	-	-
NC3FBAV1-0		Metal	Gold	●	-	-
	NC3MBAV-0	Metal	Gold	●	-	-
NC3FBAV2		Metal	Gold	●	-	-
	NC3MBAV-1	Metal	Gold	●	-	-
NC3FBAV2-0		Metal	Gold	●	-	-

Special version for 3 pole B-Series with M2.5 mounting holes (-M25) on request.

B / BA Series rear mount only, all PCB mount except Y version = IDC

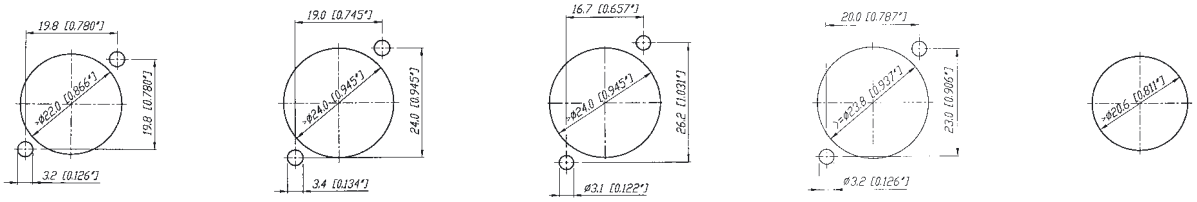
Female	Male	Shell	Contact	3 pole	4 pole	5 pole	6 pole	7 pole
D Series								
NC3FD-V	NC3MD-V	Nickel	Silver	●	-	-	-	-
NC3FD-V-B	NC3MD-V-B	Black Cr	Gold	●	-	-	-	-
NC3FD-V-BAG	NC3MD-V-BAG	Black Cr	Silver	●	-	-	-	-
NC3FDM3-V	NC3MDM3-V	Nickel	Silver	●	-	-	-	-
NC3FDM3-V-B	NC3MDM3-V-B	Black Cr	Gold	●	-	-	-	-
NC3FD-H	NC3MD-H	Nickel	Silver	●	-	-	-	-
NC3FD-H-B	NC3MD-H-B	Black Cr	Gold	●	-	-	-	-
NC3FD-H-BAG	NC3MD-H-BAG	Black Cr	Silver	●	-	-	-	-
NC*FDM3-H	NC*MDM3-H	Nickel	Silver	●	●	●	-	-
NC3FDM3-H-B	NC3MDM3-H-B	Black Cr	Gold	●	-	-	-	-
NC3FDM3-H-BAG	NC3MDM3-H-BAG	Black Cr	Gold	●	-	-	-	-
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	●	-	-	-	-
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	●	●	●	-	-

				5 pole	6 pole	9 pole	10 pole
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 / B Series | D Series | P Series | Combo | MPR Series



Assembly Tools

HTX Hand tool to tighten the X / XX-bushing

BTXX Assembly fixture to tightening the XX-bushing

HX-R-BNC Crimp tool for XCC Series

DIE-R-BNC-PT Crimp die for XCC Series (6.5 mm HEX)

Plugs & Jacks

Content **Page**

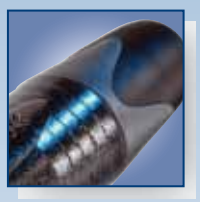
Introduction

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 includes also 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
- True 3.5 mm stereo plug
- Silent Plug for instrument (guitar) applications

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

Neutrik® offers also 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 saving, labor and material. For more information on the Combo products look in the XLR Guide or visit our website at www.neutrik.com.


1/4" Phone Plug - PX Serie

NP2X

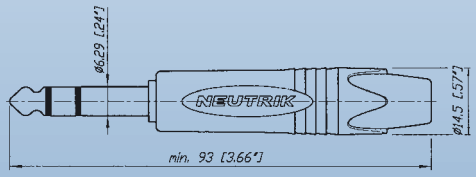
NP3X-B

NP3X + XXR-5

- 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 - serves highest packing density of 15.88 mm jack pitch
- Nickel or gold plugfinger in mono (TS) and stereo (TRS)

15.88 mm jack pitch:

NP3X



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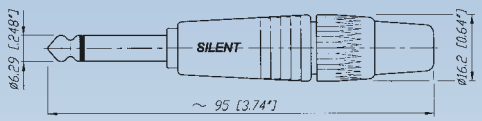


NP2C-AU-SILENT

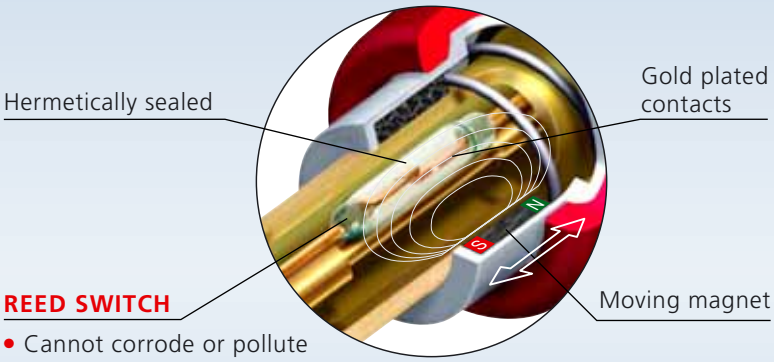
Attention!
Use only for instrument (guitar) applications. Connecting an amplifier output may blow your amp!

1/4" Phone Plug - Silent Plug

NP2C-AU-SILENT

- Avoid pops and squeals
- Hermetically sealed switching contacts
- Lifetime beyond 10.000 mating cycles

Detail Silent Switch:

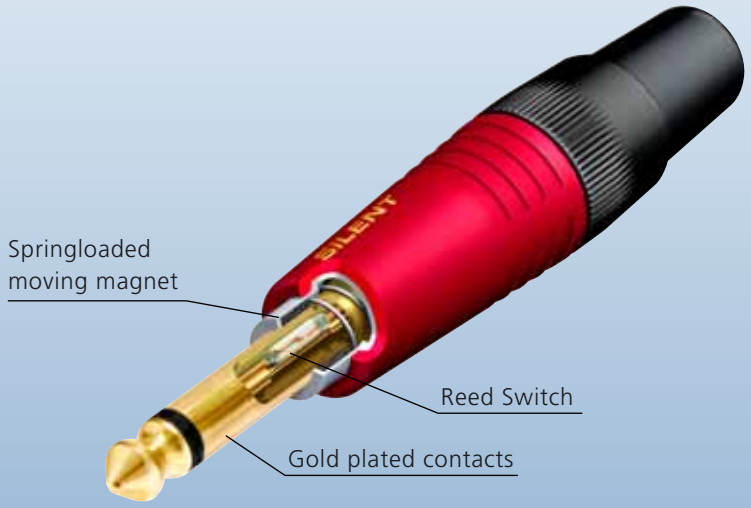


REED SWITCH

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

Design Criteria

The Silent Plug 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.






1/4" Professional Phone Plugs

NP2C NP2RCS

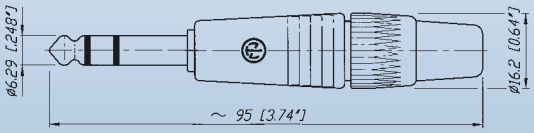
- Available in mono (TS) or stereo (TRS)
- Meets EIA / IEC standards
- Unique plug finger design without rivets
- Sturdy diecast metal shell
- Excellent Neutrik® chuck type strain relief

MIL/B-Gauge Type Phone Plugs

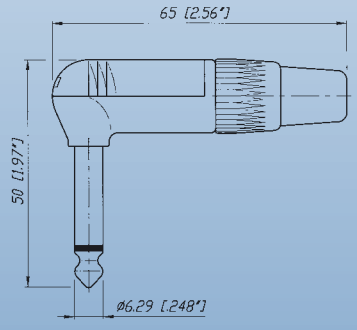
NP3TB-R NP3CM-B

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

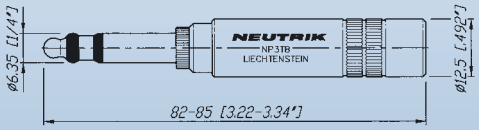
NP3C



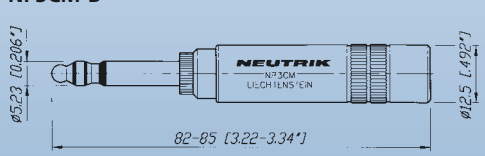
NP2RCS



NP3TB-B



NP3CM-B



- Quality Design




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 new single plug NP3TT-P and the new dual plug NP3TT-2 are made for assembling with a standard HEX crimping tool as used with coax cables

3.5 mm Right-Angle Stereo Plug

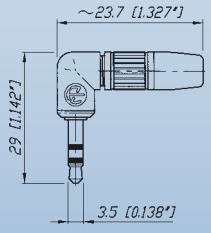
NTP3RC

- 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

NP3TT-1

NP3TT-P

NTP3RC



Specifications		1/4" Phone Plugs & SILENT Plug	MIL / B-gauge Type	0.173" Bantam Type	3.5 mm Stereo Plugs
Electrical					
Rated current:	depends on mating connector	●	●	●	●
Contact resistance:	depends on mating connector	●	●	●	●
Insulation resistance: - initial:	> 2 GΩ	●	●	●	●
- after damp heat test:	≥ 1 GΩ	●	●	●	●
Dielectric strength	1 kV dc	●	●	●	●
Mechanical					
Wiring: solder terminals		●	●	●	●
Wire size	mm^2	1	1 (NP3CM: 0.5)	0.25	0.22
	AWG	18	18 (NP3CM: 20)	24	24
Cable O.D.:	mm	4 - 7	4 - 7	4.8 max	2 - 4.5
Environmental					
Temperature range: -20 °C to +65 °C		●	●	●	●
Solderability: Complies with IEC 68-2-20		●	●	●	●
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)		●	●	● (Tip: CuSn6)	●
2 µm Ni (Su) or Au plated		● or Au	● or Brass	2 µm TRIBOR® (NiP-AuCo)	● or Au
Chuck:		POM	POM	-	POM
Bushing:		POM + PU	-	-	CuZn39Pb3 + PU (Ni or black Chrome)

Accessories

BSP-*

BPX-*

PXR-*

BSTT-*

BSTP-*

PCR-*

BSP-*	Coloured bushing for NP*C Series	BSTP-*	Coloured sleeves for NP3TT-P Series
BPX-*	Coloured bushing for NP*X Series	PXR-*	Coloured marking rings for NP*X Series
BSTT-*	Coloured sleeves for NP3TT Series	PCR-*	Coloured marking rings for NP*C Series

*: 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.

Assembly tool	
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)

Part Number	Shell	Contacts	Standards Compatibility	Remarks
1/4" Professional Phone Plugs - PX Series				
NP2X	Nickel	Nickel	IEC 60603-11 / EIA RS-453	Mono plug, black bushing, chuck type strain relief
NP2X-BAG	Black Cr	Nickel	•	Mono plug, black bushing, chuck type strain relief
NP2X-B	Black Cr	Gold	•	Mono plug, black bushing, chuck type strain relief
NP3X	Nickel	Nickel	•	Stereo plug, black bushing, chuck type strain relief
NP3X-BAG	Black Cr	Nickel	•	Stereo plug, black bushing, chuck type strain relief
NP3X-B	Black Cr	Gold	•	Stereo plug, black bushing, chuck type strain relief
*-D				Bulk packed to be ordered in multiples of 100
SILENT Guitar Plug				
NP2C-AU-SILENT	red coated	Gold	IEC 60603-11/EIA RS-453	Mono plug, chuck-type strain relief, silent switch
1/4" Professional Phone Plugs - PC Series				
NP2C	Nickel	Nickel	IEC 60603-11/EIA RS-453	Mono plug, black bushing, chuck type strain relief
NP3C	Nickel	Nickel	•	Stereo plug, black bushing, chuck type strain relief
NP2C-BAG	Black Cr	Nickel	•	Mono plug, black bushing, chuck type strain relief
NP3C-BAG	Black Cr	Nickel	•	Stereo plug, black bushing, chuck type strain relief
NP2C/B	Black Cr	Gold	•	Mono plug, black bushing and gold contacts, chuck type strain relief
NP3C/B	Black Cr	Gold	•	Stereo plug, black bushing and gold contacts, chuck type strain relief
NP2C-BAG-T-AU	Black Cr	Nickel + T: Gold	•	Mono plug, black bushing with gold tip, chuck type strain relief
NP2C-T10AA	Nickel	Nickel	•	Built-in 1:10 transformer to convert mic level to guitar inputs
NP2RCS	Nickel + black plastic	Nickel	•	Mono right-angle plug, black bushing, chuck type strain relief
NP3RCS	Nickel + black plastic	Nickel	•	Stereo right-angle plug, black bushing, chuck type strain relief
NP*C-D				Bulk packed to be ordered in multiples of 100
NP2C-T10AA	Nickel	Nickel	•	Mono plug, red bushing, with built-in transformer to convert microphone levels to guitar inputs, chuck type strain relief
MIL/B-gauge Type Phone Plugs				
NP3TB-B	Black	Nickel	B-GAUGE BP0316	1/4" B-Gauge plug, chuck type strain relief
NP3TB-R	Red	Nickel	•	1/4" B-Gauge plug, chuck type strain relief
NP3TM-B	Black	Nickel	MIL-P-642/2	1/4" MIL plug , chuck type strain relief
NP3TM-R	Red	Nickel	•	1/4" MIL plug , chuck type strain relief
NP2CM-B	Black	Brass	MIL-P-642/4	Mono 1/4" MIL plug, chuck type strain relief
NP2CM-R	Red	Brass	•	Mono 1/4" MIL plug, chuck type strain relief
NP3CM-B	Black	Brass	MIL-P642/5A	Stereo 5.23 mm (0.206") MIL plug, chuck type strain relief
NP3CM-R	Red	Brass	•	Stereo 5.23 mm (0.206") MIL plug, chuck type strain relief
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		3.5 mm audio plug with chuck and bushing
NTP3RC-B	Black Cr	Gold		3.5 mm audio plug with chuck and bushing

Locking 1/4" Cable Jacks

NJ3FC6 NJ3FC6-BAG

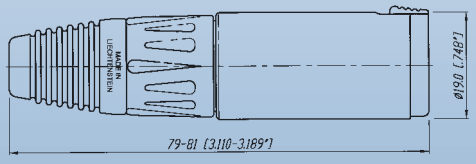
- Securely locking cable jack
- Mates with all mono or stereo plugs specified to EIA RS-453
- Extremely robust and reliable
- Excellent Neutrik® cable retention
- Colored boots available in 10 colours
- For cable O.D. up to 8 mm

Locking 1/4" Chassis Jacks

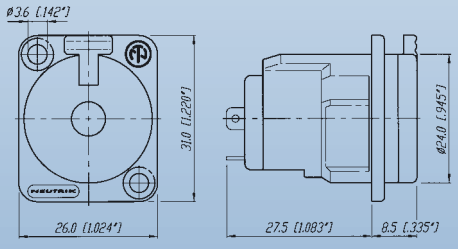
NJ3FP6C NJ3FP6C-BAG

- 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

NJ3FC6



NJ3FP6C



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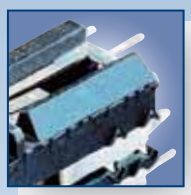
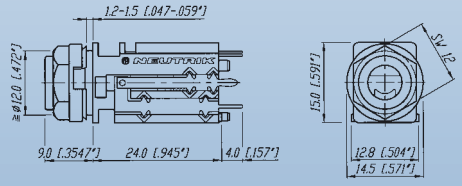


1/4" Vertical Jacks

NJ*FD-V

- Quick Cap Fixing System drastically reduces assembly time through snapping mounting cap
- The retention force is provided by a special spring element, independent from contacts
- All common circuits available
- Two versions for mating of plugs acc. to EIA RS-453 (NJ*FD-V) or B-gauge BP0316 (NJ*TB-V)

NJ*FD-V





M Jacks

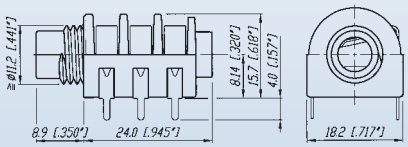
NMJ4HHD2

NMJ2HC-S

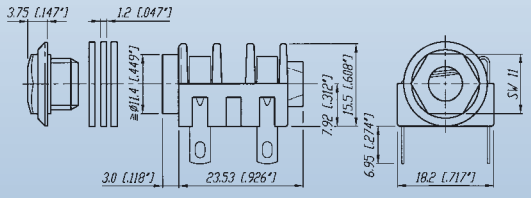
NMJ6HFD2-SAU

- Wide body and extremely durable contacts.
- Available in all common versions:
  - mono
  - stereo
  - switched
  - unswitched
- Either hardwire or PCB versions
- Nose type in
  - half threaded
  - fully threaded
  - chrome ferrule nose
- Full threaded and Chrome nose M Jacks are supplied with washer and fixing nut
- Fascia appearance can be in plastic or Chrome

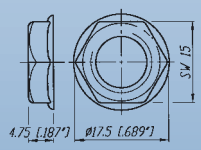
NMJ4HHD2



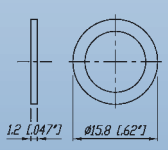
NMJ4HC-S



NRJ-NUT-B



NRJ-WB (washer)



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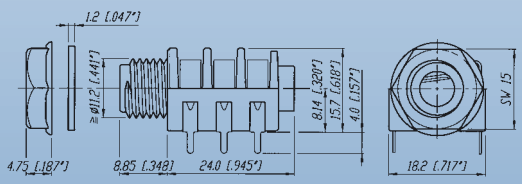
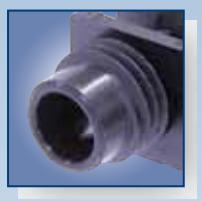




Slim Jacks



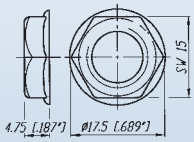




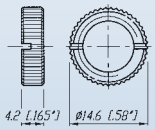
NRJ4HH-1 | NRJ6HF-1 | NRJ6HM-1-AU | NRJ-NUT-B | NRJ-NUT-MK | NRJ-NUT-MS | NRJ-NUT-MN (Metal Nose only)

- High board packing densities
- Nose type in
  - half thread
  - fully threaded
  - metal nose
- Meeting the requirements of EMC rules through efficient chassis grounding system
- A retention spring ensures optimum grip on inserted plugs, avoiding the chance of lost connection
- All Slim line jacks have PCB horizontal mount pins
- Mounting nuts in different versions

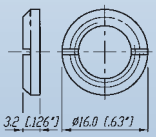
NRJ-NUT-B



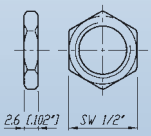
NRJ-NUT-MK



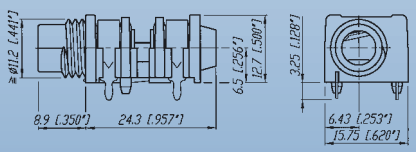
NRJ-NUT-MS



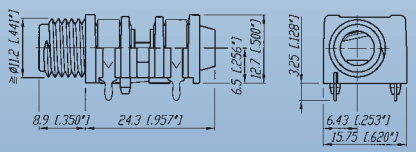
NRJ-NUT-MN
(Metal Nose only)



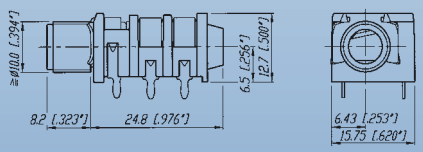
NRJ4HH-1



NRJ4HF-1



NRJ6HM-1






Stacking Jacks


NSJ8HC

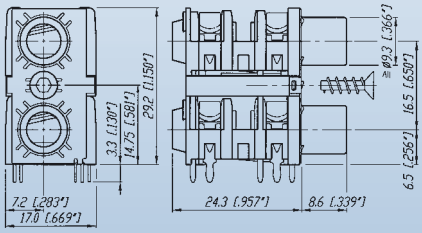

NSJ12HL


NSJ12HH-1

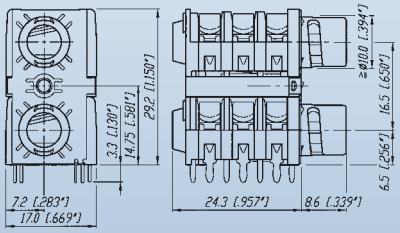

NSJ12HF-1

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

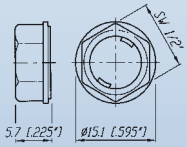
NSJ8HC



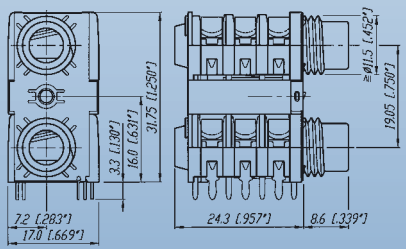
NSJ12HL



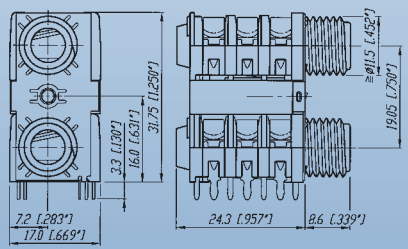
Quick fix nut



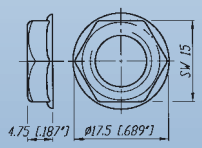
NSJ12HH-1



NSJ12HF-1



NRJ-NUT-B

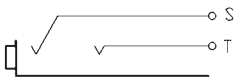


Specifications		Vertical Jack	Locking Cable & Chassis Jack	M Jack	Slim Jack	Stacking Jack
Electrical						
Contact resistance	- initial:	< 10 mΩ	< 6 mΩ	< 15 mΩ	< 10 mΩ	-
	- Top row:	-	-	-	-	< 15 mΩ
	- Bottom row:	-	-	-	-	< 10 mΩ
Switch contact resistance:	- for silver:	-	-	< 30 mΩ	< 25 mΩ	-
	- for gold:	< 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	N/A	0.5 A @ 50 V	0.5 A @ 50 V	0.5 A @ 50 V	
Mechanical						
Lifetime	> 10`000 cycles	●	●	●	●	●
Insertion / withdrawal force:	< 10 N / > 8 N	< 20 N / < 20N	< 20 N / > 10 N	< 20 N / > 10 N	< 20 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	-	-	-
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	-	-	-	-
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 Ni plated or black coated	PA 6.6 15% GR	PA 6.6 15% GR	PA 6 15% GR
	- FP6P:	-	PA 6.6 30% GR	-	-	-
Insulation:		-	PA 6.6 30% GR	-		
Contacts:		CuSn6	CuBe2/CuZn37 (ground)	Ni-Silver	CuSn6	CuSn6
Contact surface:		0.2 µm Au	2 µm Ag	-	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	-	-	-
Temperature range:	-25°C to +70°C	●	●	●	●	●

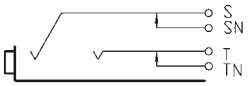
①... max. for soldering tag

Circuits:

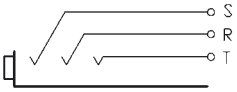
Mono unswitched



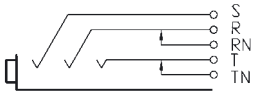
Mono switched



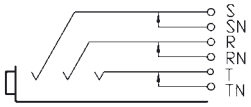
Stereo unswitched



2x switching (normalling) Stereo



3x switching (normalling) Stereo



Spec Drawings are available

Part Number	Shell	Contacts	Terminations	Standards Compatibility	Remarks
Slim Jack					
PCB Mount Sockets - Switched					
NRJ3HF-1	Black/Plastic	Silver	Horizontal PCB soldering	IEC 60603-11/EIA RS 453	Mono, 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	●	●	●	●	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					
NRJ4HM-1	Black/Plastic	Silver	Horizontal PCB soldering	IEC 60603-11/EIA RS 453	Mono, metal threaded nose
NRJ4HM-1-AU	●	Gold	●	●	Mono, metal threaded nose, gold plated contacts
NRJ6HM-1	●	Silver	●	●	Stereo, metal threaded nose
NRJ6HM-1-AU	●	Gold	●	●	Stereo, metal threaded nose, gold plated contacts
NRJ-NUT-MN	Metal				Hexogonal metal nut (for metal nose jack only)
Stacking Jack					
NSJ8HL	Polyamid PA 6.6 GR	Silver	Horizontal PCB soldering	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:

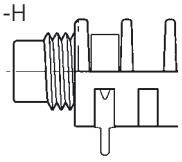
NRJ*H NEUTRIK Jack Horizontal

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

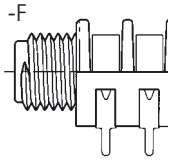
* number of contacts:

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

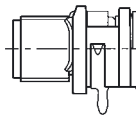
Nose: -H



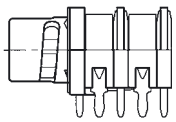
-F



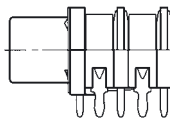
-M



-L



-C



Part Number	Shell	Contacts	Terminations	Standards Compatibility	Remarks
1/4" Locking Jack					
NJ3FC6-BAG	Black	Silver	Wire soldering	IEC 60603-11/EIA RS 453	Cable Jack
NJ3FP6C	Nickel	●	●	●	Chassis Jack
NJ3FP6C-B	Black	Gold	●	●	●
NJ3FP6C-BAG	Black	Silver	●	●	●
NJ3FP6F-P	Nickel	●	●	●	●
NJ3FP6P-BAG	Black/Plastic	●	●	●	Plastic Chassis
1/4" Vertical Jack					
NJ2FD-V	Black/Plastic	Gold	Vertical PCB soldering	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)
NJ5TB-V	●	●	●	B-Gauge BPO316 Mil-J-641/3	2 x switching (normalling) Stereo jack (T/TN/R/RN/S)
NJ6TB-V	●	●	●	●	3 x switching (normalling) Stereo jack (T/TN/R/RN/S/SN)
M Jack					
NMJ2HF-S	Black/Plastic	Silver	Horizontal PCB soldering	IEC 60603-11/EIA RS 453	Mono, unswitched, full threaded nose, solder tags
NMJ3HF-S	●	●	●	●	Mono, switched, 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, solder tags
NMJ6HHD2	●	●	●	●	Stereo, switched, half threaded nose, PCB mount, without nut and washer
NMJ6HFD2	●	●	●	●	Stereo, switched, full threaded nose, PCB mount
NMJ6HFD2-SAU	●	●	●	●	Stereo, switched, full threaded nose, PCB mount, gold plated sleeve contact
NMJ6HFD2-TAU	●	●	●	●	Stereo, switched, full threaded nose, PCB mount, gold plated tip contact
NMJ6HFD2-TRAU	●	●	●	●	Stereo, switched, full threaded nose, PCB mount, gold plated tip and ring contact
NMJ6HFD3	●	●	●	●	Stereo, switched, full threaded nose, offset PCB mount
NMJ6HCD3	●	●	●	●	Stereo, switched, Chrome ferrule, offset PCB mount
NMJ6HFD4	●	●	●	●	Stereo, switched, full threaded nose, offset PCB mount

Full threaded and Chrome nose M-Jacks are supplied with fixing nut and washers.
Special options are subject to minimum order quantities.

Ordering Key:

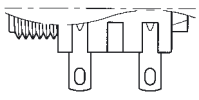
NMJ*H NEUTRIK M Jack Horizontal

- H half threaded nose
- F fully threaded nose
- C chrome nose
- -S solder tag
- D2 PCB pins 02
- D3 PCB pins 03
- D4 PCB pins 04

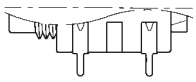
* number of contacts:

2 mono unswitched
3 stereo unswitched
4 mono switched
5 stereo switched (T/S)
6 stereo switched (T/R/S)

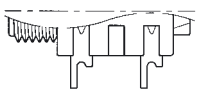
-S



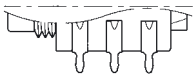
-D2



-D3



-D4



Speakon® Connectors

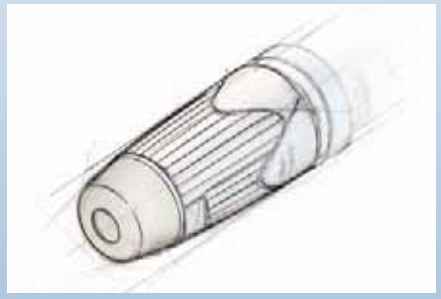
Content Page

Introduction

The Neutrik® Speakon® Series, also in the Pro Audio industry often called "The loudspeaker connector", became the state of the art for speaker and amplifier connections.
Invented by Neutrik® as a result of various customer requests, the first Speakon® had been introduced in 1987. The pro audio market realized very quickly the advantages of this completely new connection system. The design has been optimized for loudspeaker applications with an outstanding cost-performance ratio.
As market leader for speaker connections we are proud to offer an all-embracing product line for the specific needs of this market today. Latest designs as the STX series or the Speakon® Combo also meet the demands of niche applications or extremely rough conditions and complete the product range.

Integrated Design

Neutrik's aim to be distinctively recognizable is realized by the technological head start on the one hand as well as both patent and trademark protection on the other hand. To draw a clear line between Neutrik® and competition products we give our customer the possibility to easily identify the original. Therefore all of our new products as the SPX and the STX series are designed according the protected integrated design. (EU-Pat.: DM/057 379, US-Pat. Pending, CHINA-Pat.: 0230519 2.2/193.0/194.9/195.7)

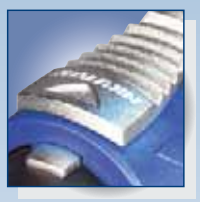


Features & Benefits

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 Amps current rating
- Only 3 parts with 1 piece strain relief design for even easier assembly
- Convertable right-angle version
- Weatherproof and extremely robust all metal designs
- Complete system, 4 pole female chassis and male cable connector

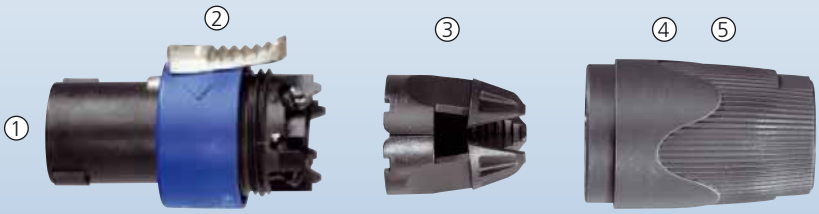

Speakon® SPX Series 4 Pole Cable Connector

NL4FX

NL4FRX

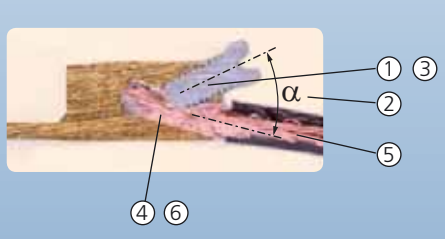
Features

- Up to 50 A rms current rating
- Only 3 parts, easy to assemble
- High Impact Materials

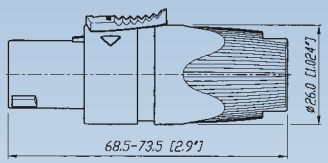


① Easy and extremely precise locking system "Quick Look"
② Improved grip on latch
③ 1 piece strain relief, chuck for 6 to 14.5 mm cable O.D.
④ Color coding possible
⑤ Integrated Design guaranties "Made by Neutrik®"

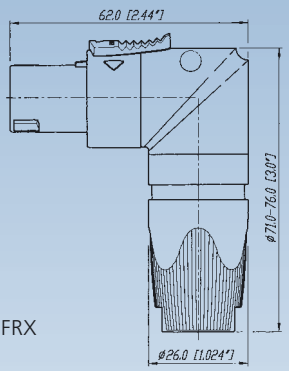
Improved SPX-Series screw contacts! (Wire position after assembly.)



① Progressive clamping as wire is pushed forward
② 3 Large combi drive - M4 screw
④ Wire size 1.5 - 4 mm² (AWG 12)
◯ for 6 mm² (AWG 10) remove screw & solder
5 Pullout force > 300 N @ 80 cNm
⑥ Gas tight connection
◯



NL4FX



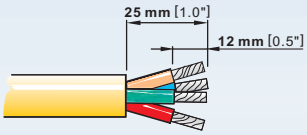
NL4FRX

Design Criteria

This second generation of Speakon® connectors features higher current rating for the operation of high power speakers and amplifiers carrying more than 1000 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.

Assembly

Prepare cable as shown.



HINT:

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

Ordering Information

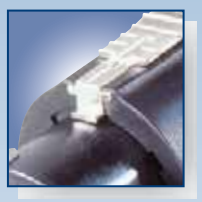
Cable Connector with chuck and bushing	NL4FX
Cable Connector with chuck and red bushing	NL4FX-2
Cable Connector with chuck and yellow bushing	NL4FX-4
Cable Connector with chuck and green bushing	NL4FX-5
Cable Connector with chuck and white bushing	NL4FX-9
Right-angle Cable Connector with chuck and bushing	NL4FRX

Accessories

LCR-*

LRX

Colored coding rings for SPX Series. Available in blue (Standard), white, red, green and yellow	LCR-*
Right-angle Speakon® Conversion Kit for changing the straight connector into a right-angel version without removing the cable from the insert.	LRX



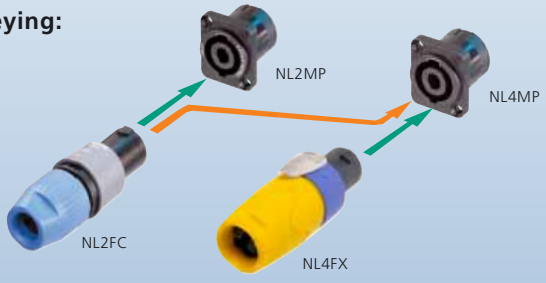
Speakon® FC Series, 2 and 8 Pole Cable Connector

NL2FC

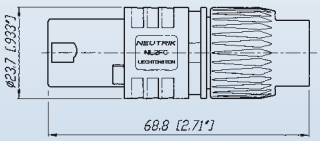
NL8FC

- Up to 40 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

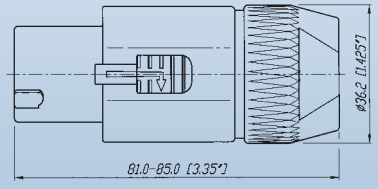
Keying:



NL2FC



NL8FC



Ordering Information

2 Pole Cable Connector with locking ring. Integrated cable clamp. Intermates with 4-pole chassis connector and makes contact with +1/-1.	NL2FC
8 Pole Cable Connector with latch lock.	NL8FC

t o i d e n t i f y t h e o r i g i n a l

Speakon® Adapter

NA4LJX

NL4MMX

NL8MM

NL4MMX:

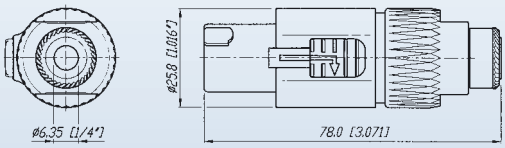
Features permanent secure connection on a Speakon® cable connector using 2nd lock.

Secure Lock!

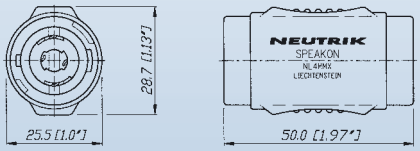
NL4MMX + NL4FX
(locked on the cable)

Changes gender to male when permanently locked on the cable.

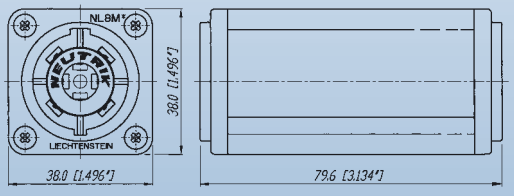
NA4LJ



NL4MMX



NL8MM



Ordering Information

Adapter from Speakon® Cable Connector to 2 pole 1/4" Jack. Wiring: +1 to TIP and -1 to SLEEVE.	NA4LJX
4 Pole lockable coupler to extend two 4-pole cables	NL4MMX
8 Pole coupler to extend two 8-pole cables	NL8MM




Speakon® Chassis Connector

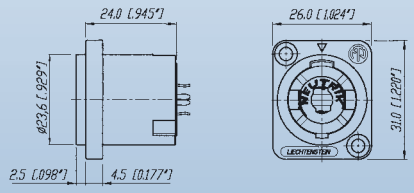




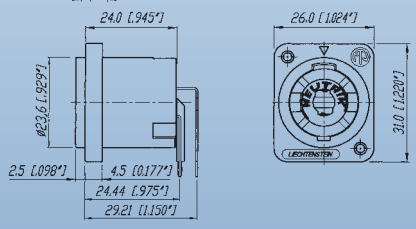
NL2MP | NL4MD-H-1 | NL4MD-H-3 | NL4MPR | NL8MPR

- Standard version up to 40 A rms, ultra hight current version up to 50 A rms
- 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

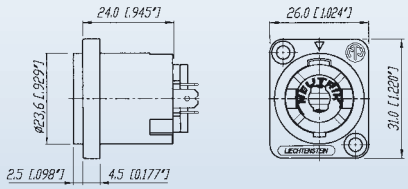
NL4MD-V



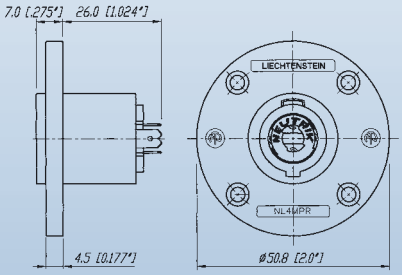
NL4MD-H



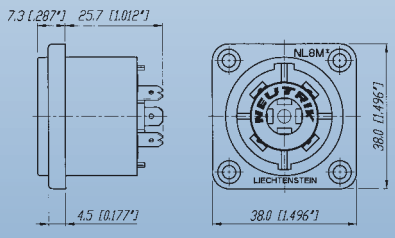
NL4MP



NL4MPR



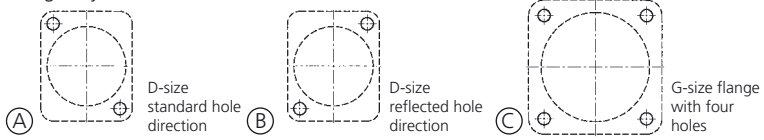
NL8MPR



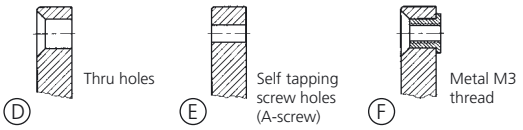
- Quality Design

Ordering Information

Flange layout:



Hole layout:



	Pole	Flange size	Flange layout	Hole layout	Color	Wiring	Remarks
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	black	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	
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 50 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*	

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

Accessories

NLFASTON

A-Screw-1-8

SCDF

Faston® receptacle for tabs with "positiv lock" for use with NL4MP, NL4MPR, NL8MPR. Pack of 100 pcs.	NLFASTON
Black self tapping Plastite® screw 2.9 x 8 for rear panel mount.	A-Screw-1-8
Rubber sealing covers for the Speakon® receptacles to protect the connectors against dust and moisture.	SCDF



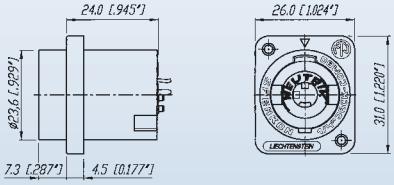
Speakon® Combo

NLJ2MD-V

Combines a Speakon®
and 1/4" Phone Jack - one for two

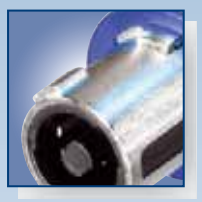
- D-size flange
- Compatible PCB layout and Panel mount to NL4MD-V-1 (NL4MD-H)
- Cost saving, combines to in one
- Mates with all 2, 4-pole Speakon® and 1/4" Phone Plugs
- Space saving and eliminates the need of a 1/4" phone jack.
- PA-wiring: 1+ is connected to TIP, 1- to the SLEEVE.

NLJ2MD-V



Ordering Information

2 Pole Chassis Connector, vertical PCB version	NLJ2MD-V
2 Pole Chassis Connector, horizontal PCB version	NLJ2MD-H
Accessories	
Black self tapping Plastite® screw 2.9 x 8 for rear panel mount.	A-Screw-1-8



Speakon® STX Series Cable Connector

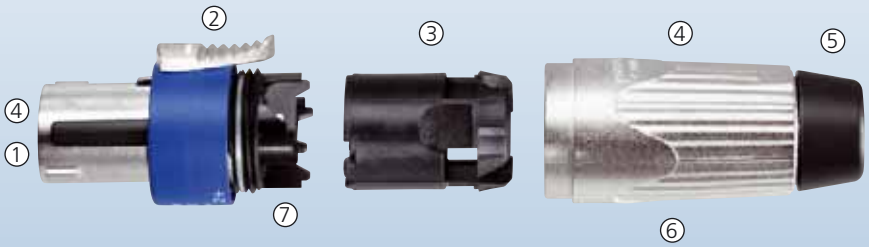
NLT4FX-BAG

NLT4MX

NLT8FX

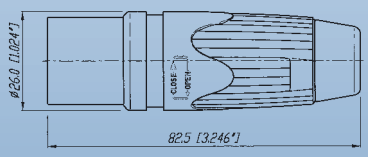
Features

- Up to 50 A rms current rating
- Only 3 parts, easy to assemble
- All metal housing
- IP 54 sealing gasket

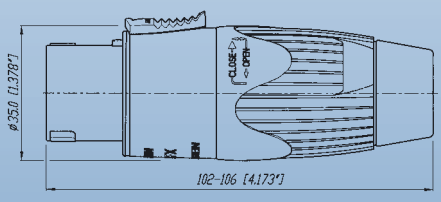


① Easy and extremely precise locking system "Quick Look", reinforced with metal
② Improved grip on latch
③ 1 piece strain relief, chuck for cable from 9 to 16 mm O.D.
④ Rugged Extreme "Touring Approved"
⑤ Rubber sealing boot
⑥ Integrated Design garanties "Made by Neutrik®"
⑦ X-large solder contacts for up to 6 mm² (AWG 10) wires

NLT4FX



NLT8FX



Look for the Logo

Speakon® STX Series Chassis Connector

NLT4FP-BAG

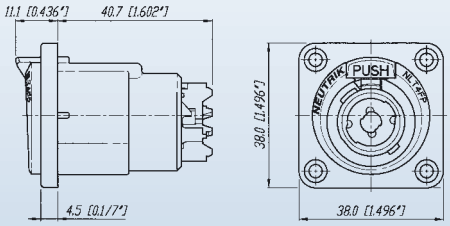
NLT4MP

NLT4MD-V

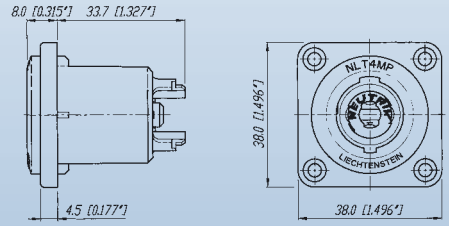
NLT8MP-BAG

- 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 Amps
- Uses precise "quick lock" system
- Mates with all currently available Speakon® products

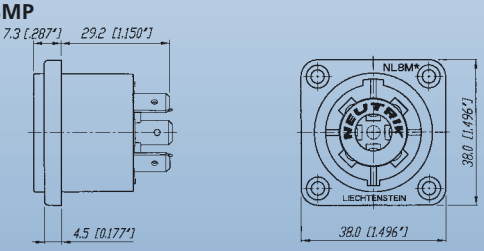
NLT4FP



NLT4MP



NLT8MP



to identify the original

Design Criteria

The new Speakon® STX Series is the next generation of 4 & 8 pole Speakon® connectors especially designed for loudspeaker - amplifier applications in harsh and demanding environment such as professional touring.
The STX Series features a metal housing which is extremely rugged and durable; built-in gaskets make it weatherproof. This new series offers beside the female cable connector and male receptacle now also a 4 pole male cable and female chassis connector.

Ordering Information

Cable Connector

4 Pole Female Cable Connector in nickel metal housing, chuck and bushing	NLT4FX
4 Pole Female Cable Connector in black-chrome metal housing, chuck and bushing	NLT4FX-BAG
4 Pole Male Cable Connector in nickel metal housing, chuck and bushing	NLT4MX
4 Pole Male Cable Connector in black-chrome metal housing, chuck and bushing	NLT4MX-BAG
8 Pole Female Cable Connector in nickel metal housing, chuck and bushing	NLT8FX
8 Pole Female Cable Connector in black-chrome metal housing, chuck and bushing	NLT8FX-BAG

Receptacle

4 Pole Female Chassis Connector in nickel metal housing, solder contacts	NLT4FP
4 Pole Female Chassis Connector in black-chrome metal housing, solder contacts	NLT4FP-BAG
4 Pole Male Chassis Connector in nickel metal housing, 1/4" flat tabs*	NLT4MP
4 Pole Male Chassis Connector in black-chrome metal housing, 1/4" flat tabs*	NLT4MP-BAG
4 Pole Male Chassis Connector in nickel metal housing, PCB contacts	NLT4MD-V
8 Pole Male Chassis Connector in nickel metal housing, 1/4" flat tabs*	NLT8MP
8 Pole Male Chassis Connector in black-chrome metal housing, 1/4" flat tabs*	NLT8MP-BAG

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

Accessories

SCNLT

Example: SCNLT + NL4MP

A-Screw-1-8

Gasket for NLT4MP.	SCNLT
(To make a cabinet with an Amphenol EP cutout airtight, the rubber scaling covers the entire hole.)	
Black self tapping Plastite® screw 2.9 x 8 for rear panel mount.	A-Screw-1-8

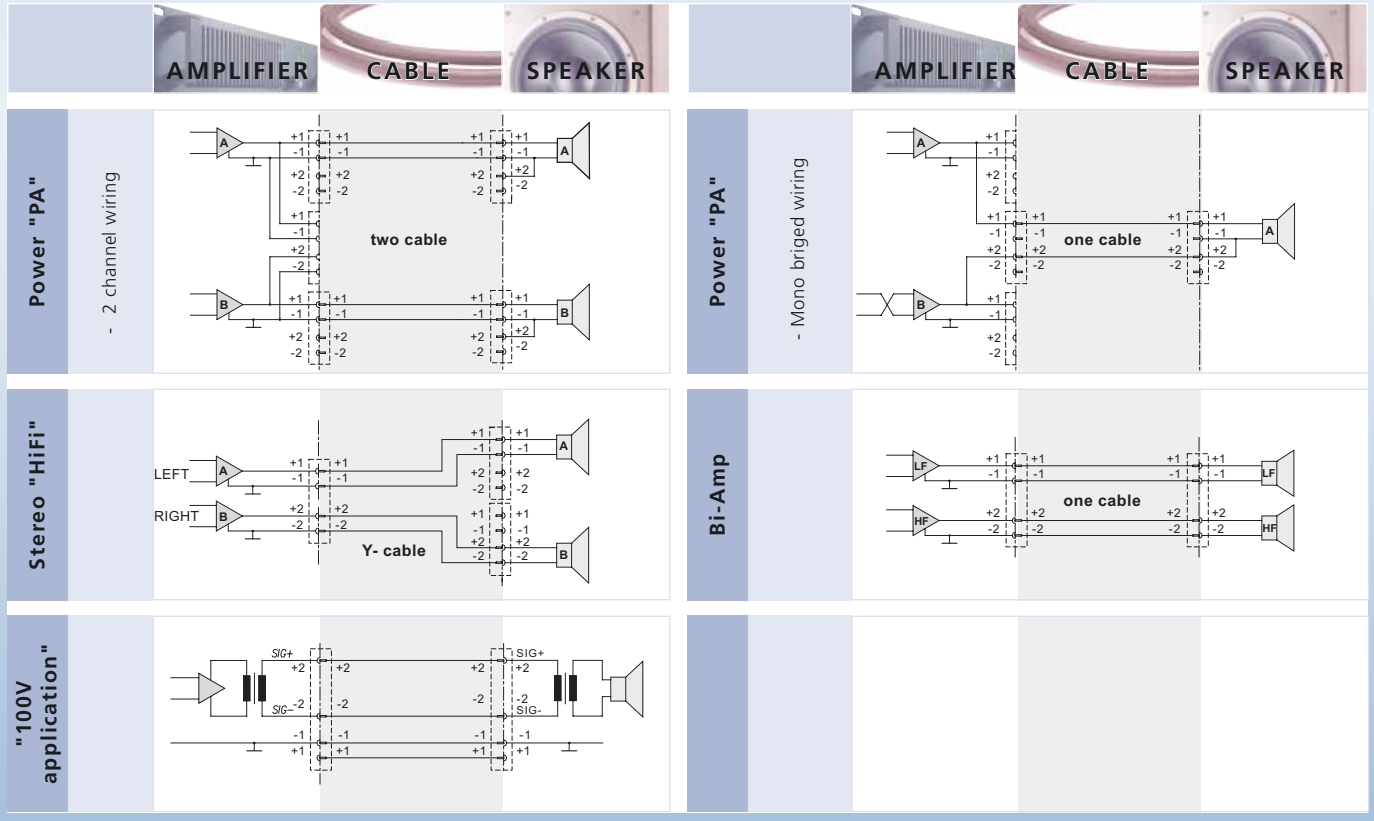
Specification		SPX Series Cable Con.	STX Series Cable Con.	Speakon® FC Cable Con	Speakon® Chassis + Combo	Adapter	STX Series Chassis
Electrical							
Number of contacts:		4	4 + 8	2 + 8	2, 4, 8	2, 4, 8	4 + 8
Rated current per contact:	40 A rms continuous	●	●	30 A	30 A	20 A	●
	50 A audiosignal, duty cycle 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 after dampheat:	> 1 GΩ	●	> 10 GΩ	●	●	●	> 10 GΩ
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	6 - 14.5	9 - 16	6 - 10 (2 Pole) 8 - 20 (8 Pole)	-	-	-
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*	●	●	●	-	-	-
Solderability:	complies with IEC 68-2-20	●	●	●	●	●	●
	*: subject to cable O.D. and material						
Material							
Housing:	Polyamide PA 6 30% GR	-	-	●	●	●	-
	PBTP 20% GR	●	-	-	-	-	-
	Zinc diecast (ZnAlCu1)	-	●	-	-	-	●
Insert:	Polyamide PA 6 30% GR	-	●	-	-	●	●
	PBTP 20% GR	●	-	●	-	-	-
Contacts:	Brass (CuZn39Pb3)	●	●	●	-	-	-
	Brass (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 52 (8-pole, mated cond.)	-	●	-	-	-	●
Flammability:	UL94HB	●	●	●	●	●	●
Safety Requirements:	EN/IEC 61984	●	●	●	●	●	●
Approvals:	UL-Recognized, CSA listed	●	●	●	●	●	●

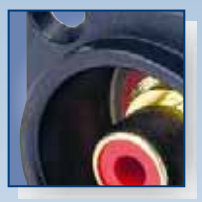
Wiring Suggestion

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

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

	AMPLIFIER	CABLE	SPEAKER
Stereo ("HiFi")	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 NL4FC on each end	one NL4MP per speaker left speaker pins 1+/1- right speaker pins 2+/2-
POWER ("PA") Standard	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 NL4FC on both ends	NL4MP pins 1+ to speaker coil "+" NL4MP pins 1- and 2+ to speaker coil "-"
Bridged mono	"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 NL4FC	NL4MP pin 1+ to speaker coil "+" NL4MP pins 1- and 2+ to speaker coil "-"
Bi-Amp	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 NL4FC	one NL4MP socket low frequency pins 1+/1- high frequency pins 2+/2-



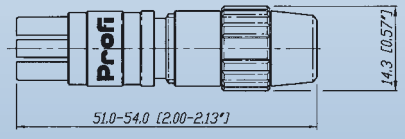


Profi® RCA Series

NF2C-B/2

- 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

NF2C



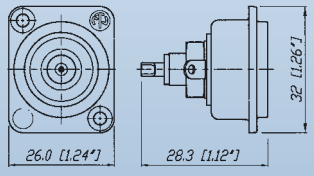
Phono Socket

NF2D-4

NF2D-B-6

- 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

NF2D-*



Specification		Profi®	Phono Socket
Electrical			
Rated current per contact:	16 A rms continuous	●	●
Rated insulation voltage:	50 V ac	●	●
Contact resistance:		> 100 GΩ	< 5 GΩ
Dielectric strength:		1500 V dc	500 V dc
Capacitance (pin to shell):		7 pf	-
Mechanical			
Life time (mating cycles):	> 5000	●	●
Cable O.D. range:	mm	3.0 - 7.3	-
Wiring:	soldering	●	●
Max. wire size :	2.5 m^2 / 14 AWG	●	-
Cable anchoring:	Neutrik® chuck type strain relief	●	-
Solderability:	complies with IEC 68-2-20	●	●
Material			
Housing:	Brass (CuZn39Pb3)	●	-
	Zinc diecast (ZnAlCu1)	-	●
Insert:	PBTP 20% GR	●	-
Contacts:	Brass (CuZn39Pb3)	●	●
Contact plating:	5 µm Au plated over 5 µm Ni	●	●
Chuck:	Polyacetal (POM)	●	-
Environment			
Temperature range:	-30°C to +80°C	●	●
Protection class:	IP 40	●	●
Flammability:	UL 94 HB	●	●

Ordering Information

Phono Profi®	
Professional "phono Plug" (RCA or CINCH type), two plugs with red and black coding, two strain relief chuck for a second cable diameter	NF2C-B-2
Phono (RCA) Socket	
Chassis Phono (RCA) socket in D Shape housing	NF2D-*
Chassis Phono (RCA) socket in black D Shape housing	NF2D-B-*

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

Data Connectors

Content **Page**

Introduction

Neutrik's data connector range copes with the increasing demand of digital connections in the professional audio and entertainment industry. Digitalization in the audio business for networking and computerized controls requires also reliable and rugged interconnection systems. Neutrik® early understood this trend and realized Pro Audio proof connector systems based on standard digital interconnection products like fiber optic, Ethernet, USB or Firewire. The Neutrik® data connector line fulfils the stringent requirements of the Pro Audio market and offers ruggedized and reliable optical and RJ45 cable and chassis connectors as well USB and Firewire panel mount connectors.

Example of EtherCon® RJ45 Data Connector.

Design Criteria

During the past few years signal digitalization found its way into the Pro Audio & Entertainment business, revolutionizing equipment and applications.
Nowadays one fiber optic cable can transmit hundreds of channels, is light and easy to pass, and avoids grounding problems or noise.

The weak spot has been again the connector. Fragile fiber optic network connectors like the ST, SC, LC etc. are optimized for a one time permanent connection but can not meet the rough requirements of the entertainment industry. Military extended beam lens coupling connectors are very expensive and have the disadvantage of an extensive attenuation increase.

Neutrik®, as Pro Audio & Video technology leader when it comes to cables and connectors, kept up with the time and developed a suitable fiber optic connection system - the OpticalCon®.

The system is based on a standardized optical LC-Duplex connection but eliminates its weakness and guarantees a safe and rugged connection.

Because of the compatibility with conventional LC connectors it offers the choice of using a cost effective LC connector as a permanent connection (e.g. patch cable) or our rugged OpticalCon® cable connector for mobile applications. The system enables a run of up to 4 copper wires for power supply or any data signal, a special SMPTE-version has been optimized for broadcast applications and offers an additional ground-shell contact. The chassis connector acts as "feed through" and guarantees a simple installation by simply connecting a conventional LC-Duplex connector (e.g. with a permanent installation cable) on the rear.

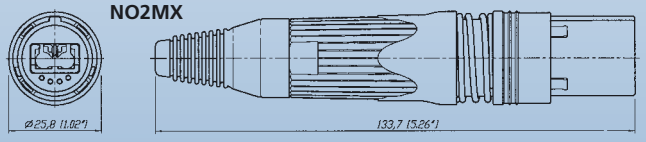
The cable connector comes pre-assembled onto a choice of mobile field cables, currently 3 types and their variations (Multimode, Singlemode, APC) can be offered in any length.

Cable Connector Assembly

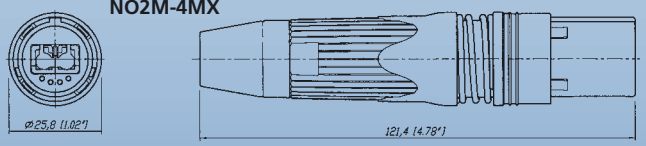
NKO2M-4S75

- Ruggedized and dirt protected fiber optic connection system
- Cable connector comes pre-assembled with a choice of three mobile field cables
- Accommodates standard optical LC-Duplex connectors
- Cable connector features rugged all metal housing and heavy duty cable retention
- Excellent dust and dirt protection due to automatic sealing shutter with silicone gasket
- Reliable Push-Pull locking mechanism
- Easy to clean, no tools required
- Range of cables include rugged hybrid (fiber + 4 copper wires), robust and lightweight mobile field cable with 2 multi- or singlemode fibers and a SMPTE type cable
- Cable packed in case, on drum or air spool

NO2MX



NO2M-4MX



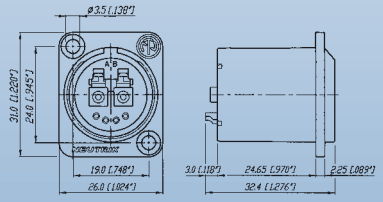


Chassis Connector


NO2-4FD-R NO2-4FD

- Designed as feedthrough with automatic sealing shutter
- Shutter with silcone gasket protects optical connection from dust and dirt
- Accommodates standard LC connectors on the rear for simple installation
- Connection on the front side either by rugged OpticalCon® or standard LC connector
- Colour coding to identify fiber mode:
  - Multimode – black
  - Singlemode PC – blue
  - Singlemode APC – green

NO2-4FD

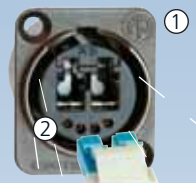


Coupler

NKO2M-4S75

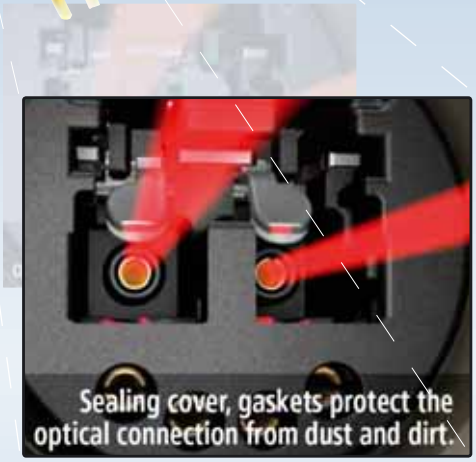
- OpticalCon® coupler (adapter) in „D" size housing for cable extensions
- Available in three versions - LC-Duplex multi and single mode all with 4 copper wires
- Colour coding to indicate fiber mode

Features and Benefits



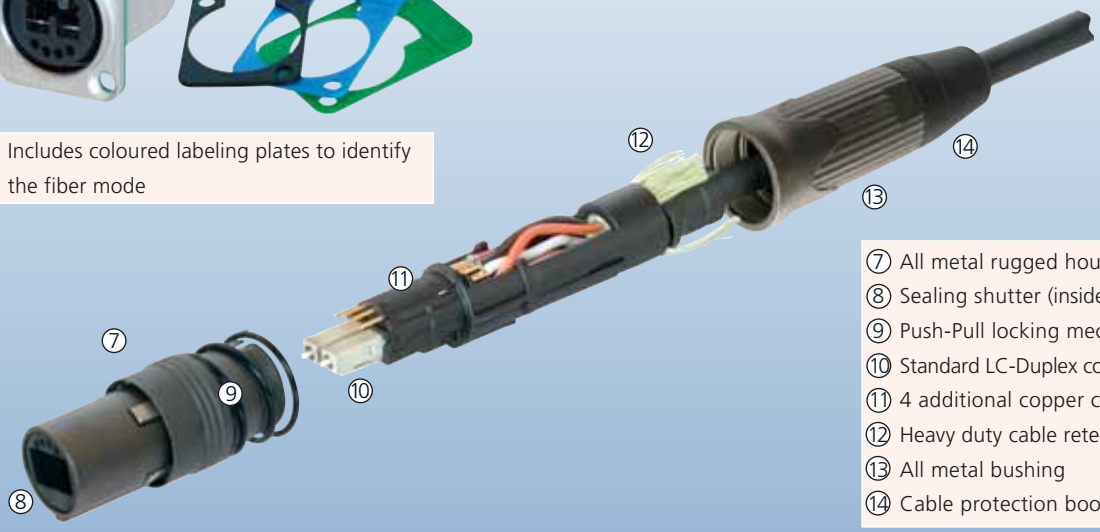
① D-housing
② 4 additional female copper contacts
③ Mates and locks also with standard LC-Duplex connectors

Wiring:
④ Big solder cups (AWG 18)
⑤ Mates with conventional LC-Duplex



⑥ Dirtprotection

⑮ Includes coloured labeling plates to identify the fiber mode



⑦ All metal rugged housing
⑧ Sealing shutter (inside)
⑨ Push-Pull locking mechanism
⑩ Standard LC-Duplex connectors, easy to clean
⑪ 4 additional copper contacts
⑫ Heavy duty cable retention
⑬ All metal bushing
⑭ Cable protection boot

t o i d e n t i f y t h e o r i g i n a l

Technical Data

Optical			Cable Connector	Chassis Connector
Optical connector			LC-Duplex	LC-Duplex Feedthrough
Fiber		Multimode, Singlemode PC, Singlemode APC	●	●
Insertion loss		< 0.5 dB / connection	●	●
Mechanical				
Insertion / withdrawal force		< 45 N	●	●
Lifetime		> 1`000 cycles	●	●
Cable retention force	2M-4S75	500 N	●	-
	2S/2M	500 N	●	-
	SMPTE	350 N	●	-
Electrical				
Number of electrical contacts			4	4 (5)
Rated current		6 A	NKO2M-4S75*	●
		10 A (contact 1+4)	NKO2S(A)-SMPTE*	●
Contact resistance		< 7 mΩ	●	●
Insulation resistance	- initial:	> 10 GΩ	●	●
	- after damp heat test:	> 1 GΩ	●	●
Dielectric strength		1500 V dc	●	●
Rated voltage		50 V ac	●[1]	●[1]
Material				
Shell	Zinc diecast (ZnAl4Cu1)	(hard Nickel or Ruthenium plating)	●	●
Insert / Insulation		Polyamid PA 6, PBT 30% GR, PBT 50% GR	●	●
Contacts	- male:	Brass (CuZn39Pb3)	●	-
	- female:	Bronze (CuSn6)	-	●
Contact surface		Gold (gal 0.2 µm Au over 2 µm Ni)	●	●
Strain relief		POM (brass)	●	-
Bushing		EPDM, ZnAl4Cu1, diecast rubber boot	●	-
Slit sleeve			-	ceramics
Environmental				
Operating temperature	-25°C to +75°C	flammability UL94 HB	●	●
Solderability complies with IEC 68-2-20			●	●

[1] ... Not compatible to the SMPTE standard, suitable for indoor studio applications acc. IEC 60664-1 (pollution degree 1, over voltage category 1)

Mobile Cables

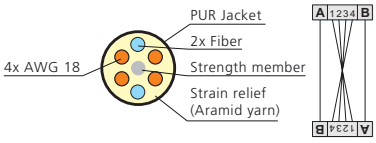
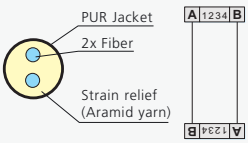
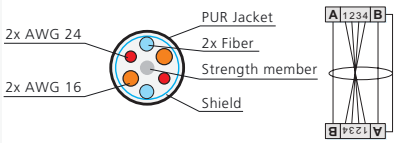
	2M-4S75	2M	2S	2SA	2S-SMPTE	2SA-SMPTE
Number of Fibers	2	2	2	2	2	2
Fiber type	Multimode	Multimode	Singlemode	Singlemode	Singlemode	Singlemode
Core diameter	50 µm	50 µm	9 µm	9 µm	9 µm	9 µm
Cladding diameter	125 µm	125 µm	125 µm	125 µm	125 µm	125 µm
Copper wires	4 x AWG 18 (0.75mm²)	-	-	-	2 x AWG 24 + AWG 16	2 x AWG 24 + AWG 16
Outer shield	-	-	-	-	Copperbraid-Tinned	Copperbraid-Tinned
Strength member	GFK	-	-	-	Stainless Steel	Stainless Steel
Cable retention	Aramid yarn	Aramid yarn	Aramid yarn	Aramid yarn	Crimp type	Crimp type
Overal diameter	8.9 mm	5 mm	5 mm	5 mm	9.2 mm	9.2 mm
Jacket	PUR	PUR	PUR	PUR	PVC	PVC
Optical connector	LC-Duplex	LC-Duplex	LC-Duplex	LC-Duplex	LC-Duplex	LC-Duplex
Type	Multimode	Multimode	Singlemode PC	Singlemode APC	Singlemode PC	Singlemode APC
Colour	black, matte	black, matte	black, matte	black, matte	black, matte	black, matte
Min. bending radius	10 cm	4 cm	4 cm	4 cm	10 cm	10 cm
Weight	78 kg/km	23 kg/km	23 kg/km	23 kg/km	118 kg/km	118 kg/km

Ordering Information

Coding of Mobile Cables

NKO 2M-4S75 - R - 1 - 150 (Example)

- Length [m]
- Packaging 0 to 5
- Plating: R ... Ruthenium, No suffix ... hard Nickel
- Cable (Assembled)
- Neutrik Optical Cable

Cable	Hybrid field cable	2 pole field cable	SMPTE cable
			
Multimode PC (black)	2M-4S75	2M	
Singlemode PC (blue)		2S	2S-SMPTE
Singlemode APC (green)		2SA	2SA-SMPTE

Packaging

0 ... Airspool

1 ... OpticalCon Case

2 ... Drum Schill GT310

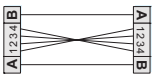
3 ... Drum Schill GT380

4 ... Drum Schill HT582

Chassis Connectors	Colour	Plating	Fiber	Solder contacts	Shell ground contact
NO2-4FD	*	hard Nickel	2 x	4 x	-
NO2-4FD-R	*	Ruthenium	2 x	4 x	-
NO2-4FD-1	*	hard Nickel	2 x	4 x	1 x
NO2-4FD-1-R	*	Ruthenium	2 x	4 x	1 x

* ... Coloured labeling plates to indicate the fiber mode included.

Coupler	Colour (fiber mode)	Plating	Fiber	Copper wire
NAO2M-4S75	black	black	LC-Duplex Multimode PC	4 x 0.75 mm²
NAO2S-4S75	blue	black	LC-Duplex Singlemode PC	4 x 0.75 mm²
NAO2SA-4S75	green	black	LC-Duplex Singlemode APC	4 x 0.75 mm²

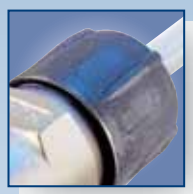


Ruggedized RJ45 Data Connector

Ethercon® provides solutions for data transfer in harsh and demanding applications. These connectors are especially applicable for Ethernet networking in audio, commercial, entertainment, live stage production, DMX lighting, industrial and outdoor internet access environments.

The Ethercon® series offers male cable carriers, assembled female receptacles, feedthrough jacks, cable coupler and new shielded versions with or without illumination possibilities by LEDs. The male cable end offers a rugged diecast metal shell as a carrier for pre-assembled RJ45 plugs, which does not require the re-termination of the cable assembly. Female chassis receptacles are based on the current Neutrik® "A & B" series as well the "D" series of XLR receptacles with secure latching system - a feature not found on other RJ45 receptacles. Terminations include horizontal and vertical PCB or IDC. Colour coding is available for both the cable carrier and the receptacles for ease of identification.

Neutrik® Ethercon® receptacles comply with CAT5e (IDC versions) or Class D (PCB versions) shielded or unshielded according to TIA / EIA 586B and ISO / EC 11801 standards.



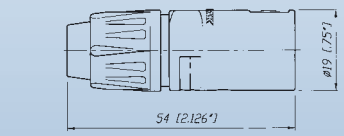
Cable Carrier

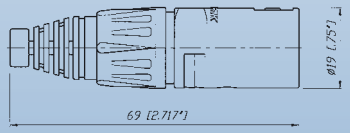
NE8MC

NE8MC-B-1

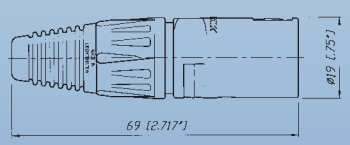
- The RJ45 system for harsh and demanding environment
- Cable connector carrier accepts the most common RJ45 plugs
- Cable carrier has rugged diecast shell and unique chuck type strain relief
- NE8MC-1 version with weatherproof Collinox plating and O-ring gasket
- Protects Ethernet connections in a variety of commercial type applications and is designed to prevent breakage of the fragile components of standard RJ45 connectors
- Cable carrier does not include RJ45 plug

NE8MC





NE8MC-1






Receptacle


NE8FAV


NE8FBH

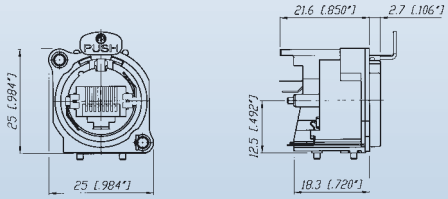

NE8FAV-YK


NE8FDV

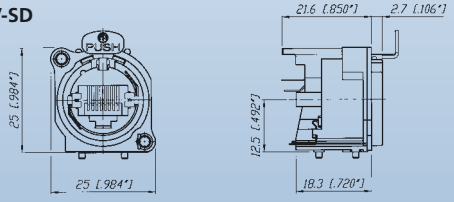

NE8FDV-Y110-B

- "A / B" and "D" sized receptacles available in vertical and horizontal PCB or IDC terminations
- Accommodates NE8MC carriers or any standard RJ45 Plug
- D-versions with unified metal flange equal to "D" series-XLR, Speakon®, PowerCon® and BNC Bulkhead
- Receptacles comply with Class D (PCB versions) or CAT 5e (IDC versions) according to TIA / EIA 568B and ISO / IEC 11801 standard
- D-version mountable from the front or rear of the panel
- Version with screw domes to fix connector onto PCB securely (NE8FAV-SD)

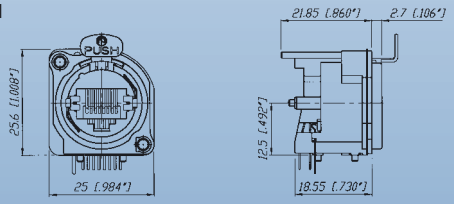
NE8FAV



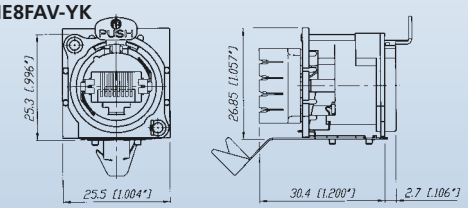
NE8FAV-SD



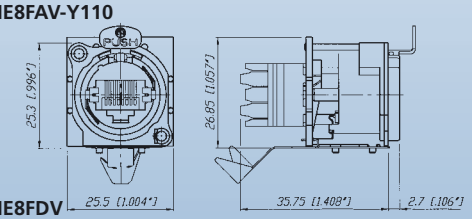
NE8FBH



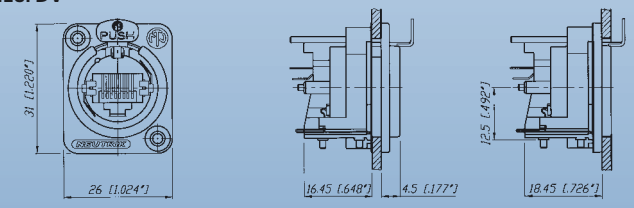
NE8FAV-YK



NE8FAV-Y110



NE8FDV



t o i d e n t i f y t h e o r i g i n a l



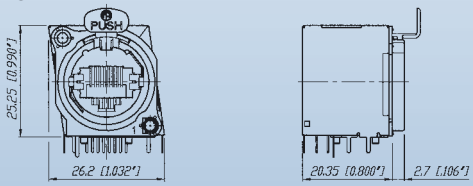

Shielded & Lighted


NE8FBH-S

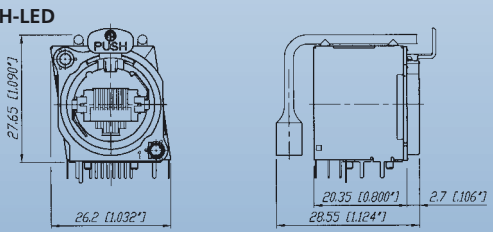

NE8FBH-LED

- Comprehensive shielding granted by completely closed metal housing
- Improves EMC performance of appliance even in unmated condition
- Lighted version offers in addition various illuminating indication possibilities by means of two separate light pipes
- Light pipes illuminated by standard 3 mm LEDs - to be mounted on PCB by customer

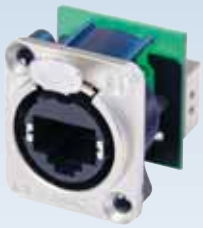
NE8FBH-S



NE8FBH-LED



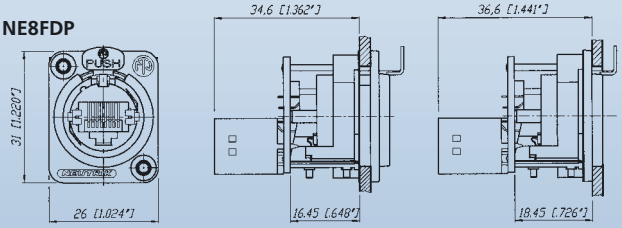
Feedthrough


NE8FDP

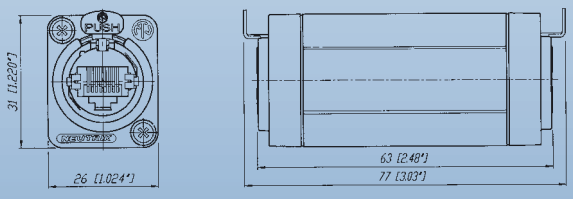

NE8FF

- Feedthrough as panel mount receptacle and as cable coupler
- NE8FDP feedthrough connector in D series housing for use in patchfields - rear side accommodates standard RJ45 plug
- NE8FF coupler (adapter) for cable to cable mating - use with NE8MC carriers or any standard RJ45 plugs

NE8FDP



NE8FF



Technical Data

Cable Connector		Receptacle	
Electrical			
Specs depend on type of RJ45 plugs used!		Frequency bandwidth:	1 - 100 MHz
Cable O.D. range :	max 8 mm / 0.315˝	Number of contacts:	8
		Rated current:	1.5 A
		Dielectric strength:	1000 V ac rms
		Contact resistance:	< 10 mΩ
		Insulation resistance:	> 500 MΩ
Mechanical			
Lifetime:	> 1`000 mating cycles	Retention method:	latch lock
		Panel thickness:	max. 3 mm / 0.12"
Materials			
Housing:	Zinc diecast (ZnAl4Cu1, gal Ni / bl Cr / Collinox)	Housing:	PBTP 15% GR
Strain relief clamp:	POM	D-flange:	Zinc diecast (ZnAl4Cu1, gal Ni / bl Cr)
Bushing:	Polyamide (PA 6 15% GR)	Strain relief clamp:	CuZn35Pb2, Tin plated
Boot:	Polyamide (PA 6)	Contacts:	Bronze (CuSn6)
		Contact surface:	Au (gal 0.2 µm over Ni plating)
Environmental			
Temperature range:	-30°C to +80°C	Temperature range:	-30°C to +80°C

Ordering Information

Cable Connector

Cable housing with chuck and bushing (two antikink boots, one up to 5 mm and one up to 8 mm cable O.D.) (standard bushing in black, 9 different coding colours on request)	NE8MC
Black chromium housing with chuck and bushing (two antikink boots, one for 5 mm and one for 8 mm cable O.D.) (standard bushing in black, 9 different coding colours on request)	NE8MC-B
Cable housing with chuck and X-series bushing, Collinox plating and O-ring gasket (perfect for waterproof applications) (standard bushing in black, 9 different coding colours on request)	NE8MC-1
Black chromium housing with chuck and X-series bushing (standard bushing in black, 9 different coding colours on request)	NE8MC-B-1
IMPORTANT: Cable connectors do not include RJ 45 plug. RJ 45 cable assembly must be provided by end-user!	

Receptacle	A-shape (all plastic)	B-shape (Nickel ring)	D-shape
Horizontal PCB	NE8FAH	NE8FBH	
Vertical PCB	NE8FAV	NE8FBV	NE8FDV
Vertical PCB with additional screw domes	NE8FAV-SD**		
IDC terminals	NE8FAV-YK**		NE8FDV-YK**
IDC 110 punch down terminals	NE8FAV-Y110**		NE8FDV-Y110**
Horizontal PCB with metal housing (shielded)		NE8FBH-S	
Horizontal PCB with metal housing and light pipe		NE8FBH-LED	

Feedthrough

Receptacle	NE8FDP**
Coupler	NE8FF

**: includes 2 mounting screws

Ordering Information

Accessories

A screw

E screw

E screw Nickel

ACRF-*

DSS-*

BSE-*

BSX-*

Mounting screw for A / B -shape (black self-tapping PLASTITE® screw 2.9 x 8, panhead)	A-Screw
Mounting screw for D-shape (black self-tapping PLASTITE® screw 2.9 x 12, countersunk)	E-Screw
Mounting screw for D-shape (Nickel self-tapping PLASTITE® screw 2.9 x 12, countersunk)	E-Screw-Ni
Coloured coding rings for A-shape receptacles (Box of 100 pcs.)	ACRF-*
Coloured boot for cable connector carrier (Box of 100 pcs.)	BSE-*
Coloured bushing for NE8MC-1 and NE8MC-B-1 cable connectors	BSX-*
Lettering plate for D series, coloured plastic	DSS-*

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

Waterproof kit for EtherCon® D-Series

Waterproof assembly kit - SE8FD

Waterproof kit, IP 54, consists of push, gasket, frontplate	SE8FD
Suitable for all NE8FD*, perfect in combination with NE8MC-1 (with Colinox plating and sealing gasket)	

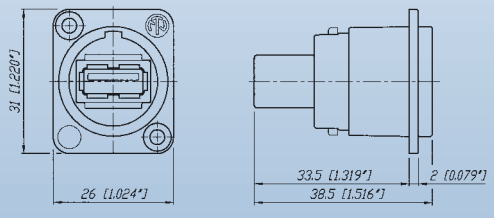



USB

NAUSB

- Ideal for audio networking and integration of computer-based equipment into audio systems
- USB gender changer type A-B (B-A)
- Reversible insert offerring type A or B on front or rear end
- Built in universally accepted standard D-shape housing

NAUSB

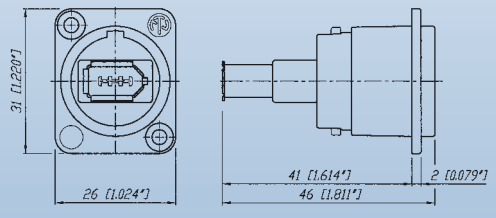


Firewire

NA1394-6-B

- Ideal for audio networking and integration of digital equipment into audio systems
- Firewire feedthrough with 6-pole IEEE 1394 receptacle at both ends
- Built in universally accepted standard D-shape housing

NA1394-6



Technical Data

Mechanical			USB	Firewire
Insertion / withdrawal force		< 35 N / > 10 N	●	●
Lifetime		> 1`500 cycles	●	●
Electrical				
Rated current		1.5 A	●	●
Contact resistance		< 30 mΩ (mated pair)	●	●
Insulation resistance			> 1 GΩ	> 100 MΩ
Dielectric withstanding voltage		500 V ac (1 min)	●	●
Rated voltage			< 30 V ac	< 40 V dc
Material				
Shell	Zinc diecast (ZnAl4Cu1)	Nickel or black Chrome	●	●
Insert / Insulation		Polyamid PA 6	●	●
Contacts		Brass (CuZn39Pb3)	●	-
Contact finish		Gold	●	●
Shell finish		Nickel	●	●
Environmental				
Operating temperature		0°C to +50°C	0°C to +50°C	+15°C to +85°C
Flammability		UL94 V-0	●	●

Ordering Information

USB

USB A – USB B Adapter (reversible), Nickel housing	NAUSB
USB A – USB B Adapter (reversible), black housing	NAUSB-B

Firewire

6-pole Firewire Adapter (IEEE 1394), Nickel housing	NA 1394-6
6-pole Firewire Adapter (IEEE 1394), black housing	NA 1394-6-B

Accessories

DSS-*

Lettering plate for D series, coloured plastic	DSS-*

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

75 Ohm BNC Connectors

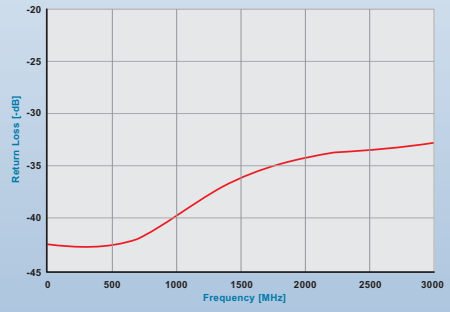
Content

NEUTRIK® 75Ω BNC Connectors

Neutrik® offers a variety of 75 Ω cable and chassis BNC connectors. The Push-Pull and RearTwist® cable connectors are easy to handle in high density applications such as video patchbays and switches, provide a tactile and fast assembly and offer color coding as a standard. All parts of our BNC series are precisely machined to our high quality standards.

True 75Ω HDTV Connectors

With the introduction of HD signals the impedance of BNC connectors become more important than ever. Every deviate impedance has a negative influence on the „return loss" / „VSWR" (Voltage Standing Wave Ratio) which are important measurements for reflected signals in a transmission line. Especially on high frequencies - as they occur when transmitting HD signals (typical transmission @ 2.25 GHz) - an impedance mismatch results in a lot of return loss.
Neutrik´s BNC connectors feature a true 75 Ω design that meets the stringent requirements of HDTV and sustain a consistent impedance at high frequencies up to 3 GHz. To achieve this result every Neutrik® BNC connector has been adapted to the measurements of a small group of cables, this guarantees the best possible performance and a little return loss.

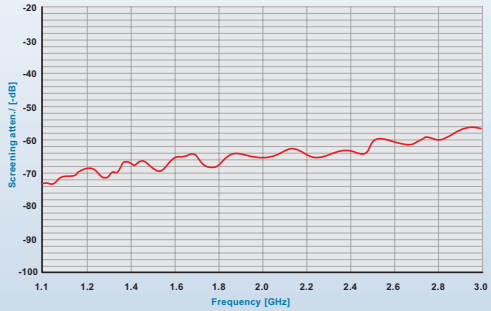


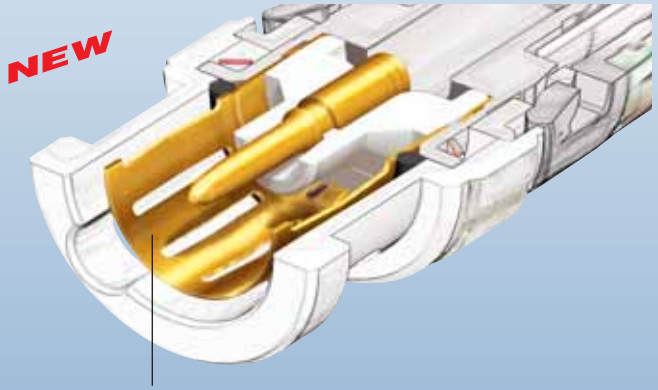
Frequ. [GHz]	RL [dB]
1	39.83
2	34.17
3	32.82

The higher the frequencies the more pronounced is the „skin effect", which means the energy moves to the outside of the conductor. Therefore the plating of outer and center contact is more important than on audio connectors with low frequencies - both contacts of our BNC connectors are gold plated.

NEW 2005 VERSION with enhanced high frequency shielding!

In times of rising frequencies the connector shielding becomes to an important value in order to avoid EMI problems and crosstalking. The lately introduced 2005 version takes this fact into account and has been equipped with an optimized ground contact design for maximum shielding effectiveness.





Gold plated ground contact with improved shielding effectiveness optimized for high frequency HDTV signal up to 3 GHz.

Look for the Logo




Rear Twist® (Standard, Large & Tiny) and Cable Jacks

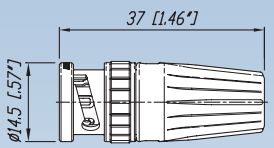

NBTC75BLI4


NBNC75BLP7


NBNB75GLP9


NBTB75CFI4

- "Rear Twist® Principle" locking/unlocking using the easily accessible soft touch boot (Patent DE 100 48507).
- Ideal for recessed bulkheads where access to the "head" of the connector might be an issue. These connectors turn from the back and not the front.
- True 75 Ω design meets the stringent HDTV / DVD requirements.
- Snug-fit center pin insert provides tactile feedback.
- Shield and jacket crimp technology prevents the problem of an exposed grounding braid on cable assemblies.
- Excellent cable protection and retention.
- Large version for cable RG 11 cables.
- Precise Swiss machined brass parts for outstanding durability.
- Accessories include color coded boots in 10 standard colours, crimp tool and dies.
- Sleek female cable jack e.g. for Y-cables.
- Mountable panel version of cable jack for fixed installations.

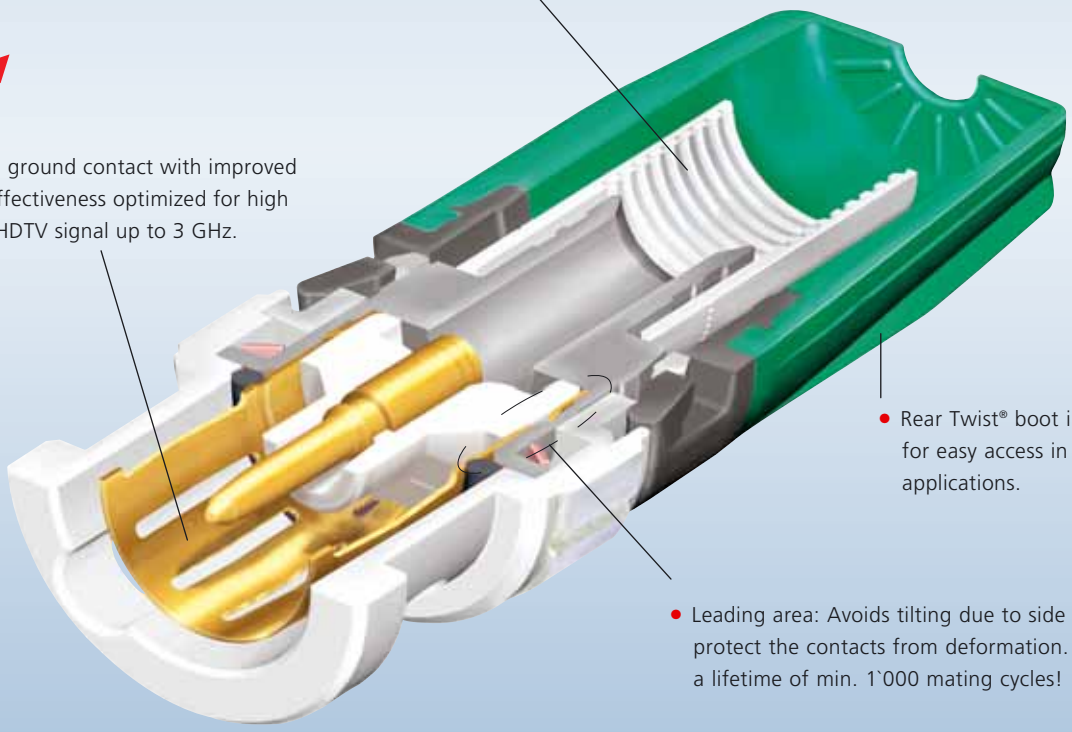


Features & Benefits

- Screen and cable jacket crimp instead of screen crimp only.
  Grooved inner surface holds the cable jacket to prevent tearing braids.

NEW

- Gold plated ground contact with improved shielding effectiveness optimized for high frequency HDTV signal up to 3 GHz.



- Rear Twist® boot in 10 colours for easy access in high density applications.

- Leading area: Avoids tilting due to side forces to protect the contacts from deformation. Guarantees a lifetime of min. 1`000 mating cycles!

For further technical information



Push Pull Cable Connectors


NBNC75PTS11

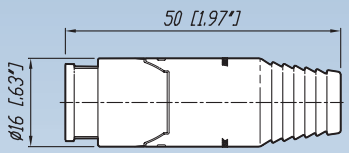

NBNC75PNS7


NBNC75PIE9


NBNC75PLS9

- Unique Push-Pull locking system is ideal for ultra high density applications, patching, etc.
- True 75 Ω design meets the stringent HDTV / DVD requirements.
- Excellent return loss / VSWR data.
- Precision machined parts.
- Assembly is fast and easy and requires only a standard center contact crimp after cable preparation.
- Reusable due to screw lock strain relief.
- Snug-fit center pin insert provides tactile feedback.
- Only pin crimp, this eliminates the need for different crimp dies and facilitates field repair.
- Innovative screw lock cable retention for easy assembly.
- Accessories include colour coded boots in 10 standard and 3 translucent colours.

please refer to www.neutrik.com

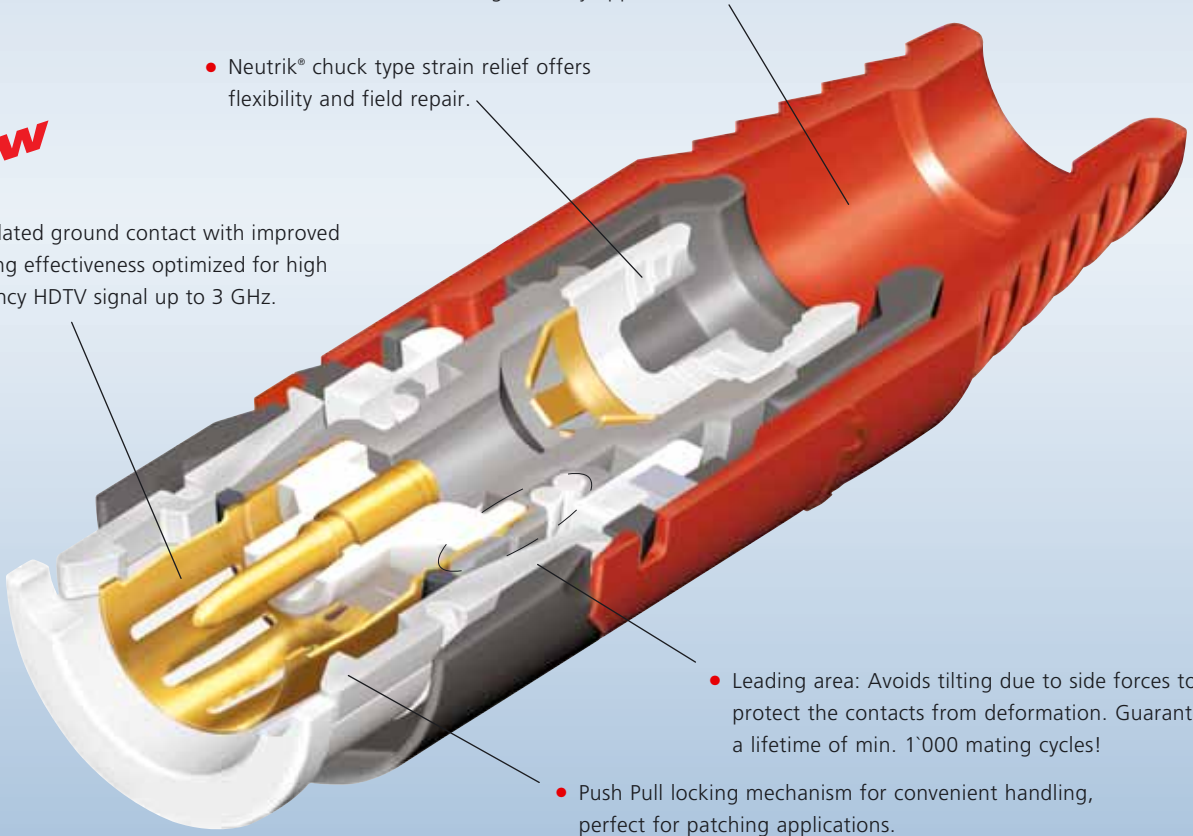


Features & Benefits

- Push Pull sleeve in various colours for easy access in high density applications.
- Neutrik® chuck type strain relief offers flexibility and field repair.

NEW

- Gold plated ground contact with improved shielding effectiveness optimized for high frequency HDTV signal up to 3 GHz.



- Leading area: Avoids tilting due to side forces to protect the contacts from deformation. Guarantees a lifetime of min. 1`000 mating cycles!
- Push Pull locking mechanism for convenient handling, perfect for patching applications.

Look for the Logo




Bulkhead Jacks


NBB75FI

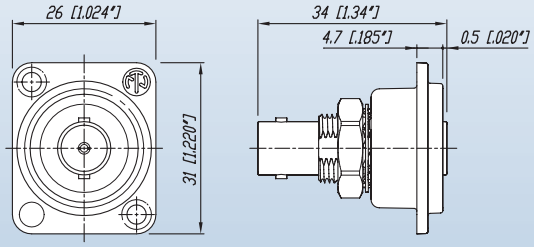

NBB75DFG


NBB75DFGB

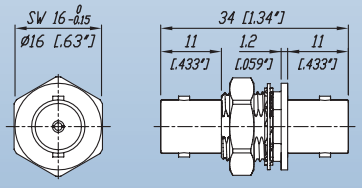

NBB75SI

- Gold plated center contact.
- "D" shaped housing or single feed through mountings.
- Excellent return loss / VSWR rating.
- Isolated or grounded versions.
- Metal threads available on isolated feed through jack for added strength.
- Based on a new production technology, the machined brass connector body provides an extremely rugged and non-abrasive connection over longterm use.
- When used in conjunction with Neutrik® 75 Ohm BNC Rear Twist® or Push-Pull cable connectors, they are the ideal combination for BNC applications.
- Recessed bulkhead jacks in the "D" size housing use the same hole cutout size as other Neutrik® "D" series sized connectors such as the Speakon® NL4MP and the XLR receptacles in the "D-L-1" series.
- "D" shaped housing provides flush mounting and protection of the jacks from damage.
- Isolated versions solve potential grounding problems and prevent common-mode influence with other connections conducted over the same panel ground potential.
- Isolated and grounded solder versions.

NBB75DFG



NBB75FI



to identify the original

BNC tool case equipped with
- HX-R-BNC
- PT-BNC: Plier tool
- CS-BNC: Stripping tool

CAS-BNC-T

Note: Dies have to be ordered separately.

Crimp tool, frame.

HX-R-BNC

Crimp tool die for pin and shield for HX-R-BNC.

DIE-R-BNC

Boots, tools, ...

BS-BNC

Boot for Push-Pull BNCs in black, 9 different colours available, as well as 3 translucent variants.

BST-BNC

Standard boot for the Rear Twist® BNCs in black, 9 different colours available.

HX-BNC

Crimp tool, frame. (heavy duty)

DIE-BNC

Crimp tool die for pin and shield for HX-BNC.

HT-BNC

Spanner tool for the Push-Pull BNCs.

DSS

Lettering plate for D Shape-bulkheads.

Crimp die assignment for HX-BNC

Crimp die	Hex crimp mm A	Hex crimp mm B	Hex crimp inch A	Hex crimp inch B	Center pin mm (square crimp)
DIE-BNC-CS	4.06	7.01	0.160	0.276	1.6
DIE-BNC-JD	5.41	4.53	0.213	0.178	1.6
DIE-BNC-PG	6.47	5.00	0.255	0.197	1.6
DIE-BNC-S	7.01	-	0.276	-	1.6
DIE-BNC-U	7.36	-	0.290	-	1.6
DIE-BNC-Y	8.23	-	0.324	-	1.6

Crimp die assignment for HX-R-BNC

Crimp die	Hex crimp mm A	Hex crimp mm B	Hex crimp mm C	Hex crimp inch A	Hex crimp inch B	Hex crimp inch C	Center pin mm (square crimp)
DIE-R-BNC-PDC	6.47	4.53	4.06	0.255	0.178	0.160	1.6
DIE-R-BNC-PG	6.47	5.00		0.255	0.197		1.6
DIE-R-BNC-PJ	6.47	5.41		0.255	0.213		1.6
DIE-R-BNC-PS	6.47	7.01		0.255	0.276		1.6
DIE-R-BNC-PU	6.47	7.36		0.255	0.290		1.6
DIE-R-BNC-PY	6.47	8.23		0.255	0.324		1.6
DIE-R-BNC-Z	9.73			0.383			1.75 (Hex crimp)

For further technical information

Specifications 75 Ohm Connectors		Rear Twist® & Rear Twist Large & Cable Jack Panel	Rear Twist® Tiny & Cable Jack Tiny	Push Pull	Bulkheads
Electrical					
Impedance	75 Ω	●	●	●	●
Rated voltage	500 V ac rms	●	250 V ac rms	●	●
Insulation resistance	> 5 GΩ	●	●	●	●
Dielectric withstanding voltage	1500 V ac rms	●	750 V ac rms	●	●
VSWR / Return Loss	≤ 1.050 / > 32 dB up to 1 GHz ≤ 1.065 / > 30 dB up to 2 GHz ≤ 1.100 / > 26 dB up to 3 GHz	● ● ●	≤ 1.10 / > 26 dB up to 1 GHz ≤ 1.14 / > 24 dB up to 2 GHz ≤ 1.22 / > 20 dB up to 3 GHz	● ● ●	≤ 1.03 / > 37 dB up to 1 GHz ≤ 1.05 / > 32 dB up to 2 GHz ≤ 1.08 / > 28 dB up to 3 GHz
Inner contact resistance	≤ 3 mΩ (initial)	●	●	●	●
Outer contact resistance	≤ 2 mΩ (initial)	●	●	●	●
Mechanical					
Cable anchoring	Jacket crimping	●	●	Neutrik® chuck principle	N / A
Cable O.D. range - Rear Twist Large	mm	4.0 - 7.7 10.3	2.5 - 3.8 -	4.0 - 8.0 -	N / A -
Center contact retention	> 30 N	●	●	●	-
Engagement force	< 25 N	●	●	< 20 N	●
Lifetime	1`000 mating cycles	●	●	●	●
Environmental					
Temperature range	-30°C to +85°C	●	●	-30°C to +40°C	●
Solderability	Complies with IEC 68-2-20	●	●	●	N / A
Contact crimpability	Complies with IEC 60803 and IEC 60352-2	●	●	●	N / A
Materials					
Shell: Brass (CuZn39Pb3), OPTALLOY coated		●	●	●	●
PA6 (Push Pull only)		N / A	N / A	X	N / A
D-Shape housing: Zinc diecast (ZnAl4Cu1) gal Ni or black Cr plating		N / A	N / A	N / A	●
Ground contact:					
Bronze (CuSn6), 0.2 µm AuCo over 2 µm NiP15		●	●	●	-
Brass (CuZn39Pb3), OPTALLOY coated		-	-	-	●
Center contact:					
Brass (CuZn35Pb2), 0.2 µm AuCo or		●	●	●	-
Brass (CuZn39Pb3), 0.2 µm AuCo		-	-	-	●
Insulator: Teflon PTFE		●	●	●	●
Chuck: Polyacetal POM		N / A	N / A	X	N / A
Insulation Shell: Polyacetal POM		N / A	N / A	N / A	●

Center Contact:

I.D. in mm	Materials	Plating	Coding Ring (# of rings on base of contact)
0.4	Brass (CuZn39Pb3)	2 µm AuCo	0
0.5	●	●	5
0.6	●	●	1
0.7	●	●	2
0.9	●	●	3
1.1	●	●	6
1.2	●	●	4
1.7	●	●	0

please refer to www.neutrik.com

	Push Pull	Rear Twist	Rear Twist Tiny	Cable Jack Tiny	Cable Jack Panel	Hex Crimp in mm
Belden						
1406B, 1407B, 1417B			NBTC75BVV5			5.00
1426A	NBNC75PLS9	NBNC75BLP9			NBNB75GLP9	6.47
1505A	NBNC75PLS9	NBNC75BLP9			NBNB75GLP9	6.47
1505F	NBNC75PLS9	NBNC75BJP9				6.47
1506A	NBNC75PIE9	NBNC75BIJ9				5.41
1520A, 1521A, 1522A, 179DT		NBTC75BFI4	NBTB75CFI4			4.06
1694A	NBNC75PTS11	NBNC75BTU11				7.36
1695A	NBNC75PQS11	NBNC75BQP11				6.47
1855A	NBNC75PDE6	NBNC75BDD6				4.53
1865A			NBTC75BXX6			5.00
1855ENH	NBNC75PFE7	NBNC75BFG7				5.00
7731A		NBLC75BVZ17				9.73
8218			NBTC75BXX5			5.00
8241	NBNC75PNS7	NBNC75BLP7				6.47
8241F	NBNC75PLS9	NBNC75BLP9			NBNB75GLP9	6.47
8281		NBNC75BXY9				8.23
8281F		NBNC75BYY9				8.23
9221			NBTC75BLI4			4.06
CANARE						
L-4CFB	NBNC75PLS9	NBNC75BLP9			NBNB75GLP9	6.47
L-5CFB		NBNC75BYY11				8.23
LV-61S	NBNC75PNS7	NBNC75BLP7				6.47
LV-77S		NBNC75BYY9				8.23
V(3-5)-3C	NBNC75PGE7	NBNC75BGG7				5.00
V(3-5)-4CFB	NBNC75PLE9	NBNC75BJJ9				5.41
V(3-5)-5C	NBNC75PVS9	NBNC75BRS9				7.01
V(3-5)-5CFB	NBNC75PVS11	NBNC75BWS11				7.01
L-1.5C2VS			NBTC75BLI4			4.06
COMMSCOPE						
2065V	NBNC75PIE9	NBNC75BIJ9				5.41
2279V	NBNC75PQS11	NBNC75BQP11				6.47
5563	NBNC75PNS7	NBNC75BLP7				6.47
5565	NBNC75PLS9	NBNC75BLP9			NBNB75GLP9	6.47
5765	NBNC75PTS11	NBNC75BTU11				7.36
7536 (03-05)			NBTC75BXX6			5.00
7538	NBNC75PDE6	NBNC75BDD6				4.53
CANFORD						
SDV	NBNC75PFE7	NBNC75BFG7				5.00
SDV-L	NBNC75PVS11	NBNC75BWS11				7.01
GEPCO						
VPM2000	NBNC75PLS9	NBNC75BLP9			NBNB75GLP9	6.47
VSD2001	NBNC75PTS11	NBNC75BTU11				7.36
DRAKA MULTIMEDIA CABLE						
0.31 / 1.45 AF, 753-1304(2), 755-1302			NBTC75BFI4	NBTB75CFI4		4.06
0.41 / 1.9 AF, 753-1104, 755-1103, 755-1101			NBTC75BNN5	NBTB75CNN5		4.53
0.51 / 2.3 Dz, 757-1001, VADN 7243		NBTC75BVX6				5.00
0.6 / 2.8 AF, 0.6 L / 2.8 AF	NBNC75PFE7	NBNC75BFG7				5.00
0.6 / 3.7, 0.6L / 3.7	NBNC75PNS7	NBNC75BLP7				6.47
0.6 / 3.7 Dz	NBNC75PNS7	NBNC75BLS7				6.47

	Push Pull	Rear Twist	Rear Twist Tiny	Cable Jack Tiny	Cable Jack Panel	Hex Crimp in mm
DRAKA MULTIMEDIA CABLE						
0.8 / 3.7 AF, 755-801(803, 804)	NBNC75PLS9	NBNC75BLP9			NBNB75GLP9	6.47
0.8 / 4.9 Dz		NBNC75BXY9				8.23
1.0/4.8 AF, 755-901/5, Image 1000	NBNB75PTS11	NBNC75BUU11			NBNB75GUU11	7.36
1.2L / 4.8Dz, 1.2L / 4.95AF		NBNC75BWU13				7.36
1.6 / 7.3AF		NBLC75BVZ17				9.73
SUHNER						
G02233			NBTC75BFI4	NBTB75CFI4		4.06
G04233D	NBNC75PNS7	NBNC75BLS7				7.01
S02223			NBTC75BLI4			4.06
S04233, S04263	NBNC75PLS9	NBNC75BLP9			NBNB75GLP9	6.47
S05133-07	NBNC75PTS11	NBNC75BTU11				7.36
S05163-02	NBNC75PTS11	NBNC75BTU11				7.36
OTHERS						
AT&T 735 COMM-TEC RGBHV			NBTC75BSS5			4.53
BBC PSF 1/3*	NBNC75PNS7	NBNC75BLS7				7.01
CAE MC75			NTBC75BLI5	NBTB75CLI5		4.06
CAE MC75.39			NBTC75BVX6			5.00
CAE KX6A	NBNC75PNS7	NBNC75BLP7				6.47
CAE VCB75	NBNC75PNS9	NBNC75BNP9				6.47
CAE VCB 100	NBNC75BXU13					7.36
Cordial CVI 3-7	NBNC75PFE7	NBNC75BFG7				4.53
Cordial CVI 06-28	NBNC75PFE7	NBNC75BFG7				5.00
Cordial CVI (CVM) 06-37	NBNC75PNS7	NBNC75BLP7				6.47
COVID CVD 1300-1500			NBTC75BLI5	NBTB75CLI5		4.06
ELF Inc. cable	NBNC75PTS11	NBNC75BWS11				7.01
Eupen 705 CRT 5V-HS/ELF Inc. Cable	NBNC75PTS11	NBNC75BTS11				7.36
Extron BNC-5HR			NBTC75BNN5	NBTB75CNN5		4.53
Extron BNC-5RC	NBNC75PGE7	NBNC75BFG7				5.00
Helix 734	NBNC75PNS9	NBNC75BNP9				6.47
Helix 735			NBTC75BSS5			4.53
Hirschmann KOKA 712Cu	NBNC75PTS9	NBNC75BTS9				6.47
Kansai 0.5M3C-2V	NBNC75PGE7					-
Kansai 3C-5S	NBNC75PFE6	NBNC75BFH6				5.00
KROSCHU (341 270, 341 280)			NBTC75BLI4			4.06
RG59B/U	NBNC75PNS7	NBNC75BLP7				6.47
RG 179 B/U			NBTC75BLI4			4.06
SOMMER						
600-0051 (M/L/S)	NBNC75PNS7	NBNC75BLP7				6.47
600-0054 (M/L/S)						
600-0101M	NBNC75PFE7	NBNC75BFG7				5.00
600-0104M						
600-162(F)	NBNC75PLS9	NBNC75BLP9				6.47
600-025* -03 (05)						
600-0701			NBTC75BLI5	NBTB75CLI5		4.06
600-020* -03 (05)						
600-0451	NBNC75PLS9	NBNC75BLP9			NBNB75GLP9	6.47
600-0751			NBTC75BVX6			5.00
Wisi MK 99A	NBNC75PVS12	NBNC75BWS12				7.01
ZNK CM14B			NBTC75BFI4	NBTB75CFI4		4.06

* Registered trademark of BBC

to identify the original

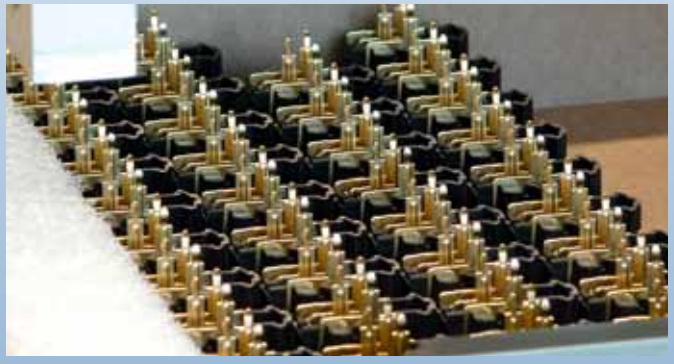
Production

The professional entertainment industry depends on reliable components - night in, night out. Neutrik - the world's leading manufacturer of professional connector systems - sets the standards in technical reliability, warranty and durability. Availability of products as well as technical support and excellent service are to be understood as priority objectives.

Besides, cutting-edge precision, functionality and design make the difference and build the basis for our complex demand for high quality standards.

To realize our innovative product ideas and to meet the requirements of our customers we make use of all possibilities modern R&D and production technologies can offer. Neutrik has developed and proven its own automated manufacturing methods. The professional mechanics of the automation department work with state-of-the-art technologies like video control systems and robotics.

Together with the systematic quality control the high precision robotic production processes ensure continuous quality and efficient delivery of goods to the right place at the right time.



Circular Connectors

Content **Page**

Introduction

The Neutrik® circular connector program is a range of metal, multi-pole connectors specifically designed for industrial applications. This series provide a variety of male and female cable connectors and receptacles that can be terminated by soldering and crimping or to printed circuit boards. An easy to use and reliable quick-lock system ensures a perfect connection and cannot be released accidentally. The circular connectors offer the unique chuck type strain relief and reinforced housing for robust dependability.

The Neutrik® industrial connector range features also a unique power connector for single phase applications up to 20 Amps.

Further features are:
- Number of contacts is 1 to 12
- Self-locking system
- Robust all-metal housing
- Front or rear mounting
- Chuck and crimp type strain relief
- Gold plated contacts
- Solder or crimp termination
- Printed circuit board mounting
- Excellent shielding (crimp type strain relief)

The main area of applications are in the measurement, test and control, automotive and machine tool industry as well medical technique.


Locking 3 Pole Power Connectors


NAC3FCA

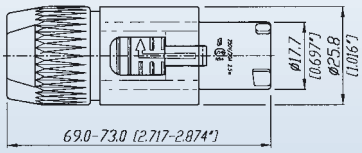

NAC3MPA


NAC3FCB

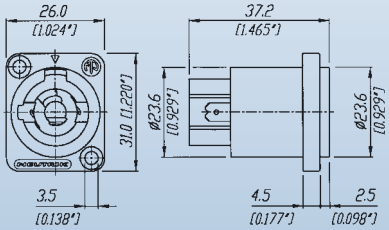

NAC3MPB

- Lockable 3 pole equipment (AC) connector with contacts for line, neutral and premating safety ground.
- High current capacity, rated at 20A / 250V ac.
  Color coded for easy identification, PowerCon® offers power-in (blue) and power-out (grey) versions with different keying to avoid the possibility of intermating.
- Fast and easy locking system.
- Extremely robust and reliable.
- Excellent cable retention.
- UL, cUl recognized components (file no. E 135070)
  VDE certified (Reg. No. 6360),
  SEV approved (No. 96.1 10096).

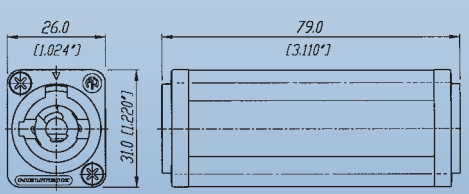
NAC3FCA(B)



NAC3MPA(B)



NAC3MM

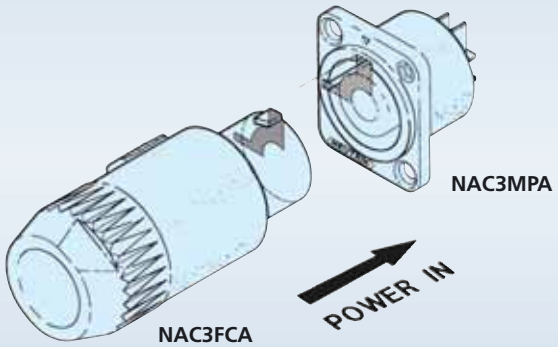


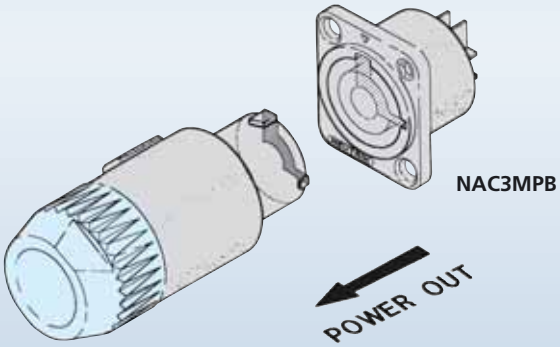
to identify the original

Ordering Information	
NAC3FCA	Cable connector, quick lock with securing lever, A-type for power inlet, screw terminals
NAC3MPA	Air tight chassis connector, A-type for power inlet, flat tab terminals
NAC3FCB	Cable connector, quick lock with securing lever, B-type for power outlet, screw terminals
NAC3MPB	Air tight chassis connector, B-type for power outlet, flat tab terminals
NAC3MM	Coupler for linking cables (couples NAC3FCA to NAC3FCB)
NLFASTON	Faston receptacle for flat tabs with "positive lock"

CODING

With the two non-interchangeable types of connectors (A type and B type) it is impossible to produce a short circuit. Mating connectors (combination) are identified by mechanical keyways and by color.





NAC3FCB

ATTENTION

The technical data of the PowerCon® connectors refer to connectors, meaning connecting devices not to be engaged and disengaged in normal use when live or under load.


3 Pole Subminiature Connectors

NP3F-H

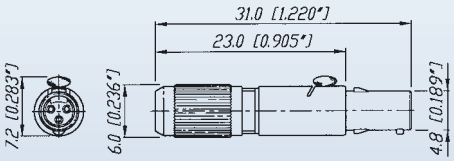
NSC3F

NR3M-S

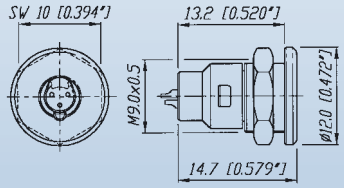
- World's smallest circular lockable multipole connector.
- Robust metal housing with gold plated contacts.
- Male and female receptacles for vertical or horizontal PCB mount or solder termination.
- Cable connector and receptacle with interchangeable male and female inserts.
- Reliable and versatile in applications like medical equipment, control systems, sensors or audio applications such as miniature and wireless microphones and portable mixers.
- Pre-mating contact 1.

M 1:1

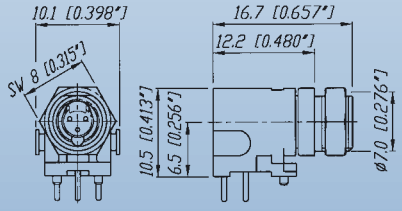
NSC3F(M)



NR3F(M)-S



NP3F(M)-H

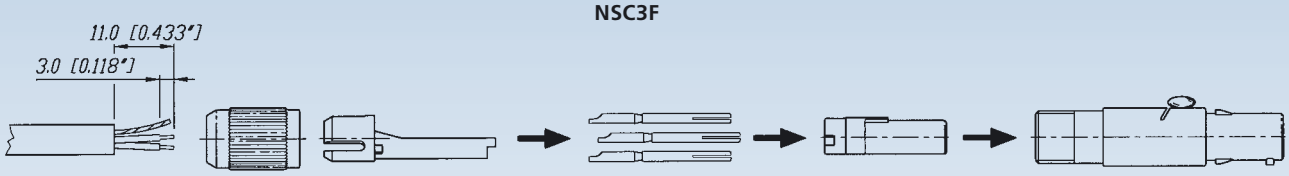


- Quality Design

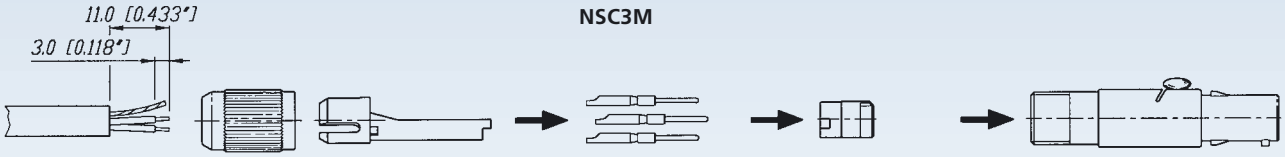
Ordering Information

Female		Male	
NSC3F	Cable connector, chuck principle, solder contacts	NSC3M	Cable connector, chuck principle, solder contacts
NR3F-S	Receptacle panel mount, solder contacts	NR3M-S	Receptacle panel mount, solder contacts
NP3F-H	Receptacle horizontal PCB mount	NP3M-H	Receptacle horizontal PCB mount
NP3F-V	Receptacle vertical PCB mount	NP3M-V	Receptacle vertical PCB mount

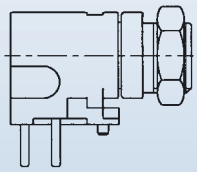
NSC3F



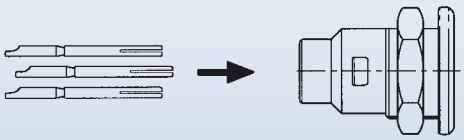
NSC3M



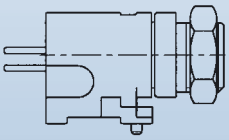
NP3F-H
NP3M-H



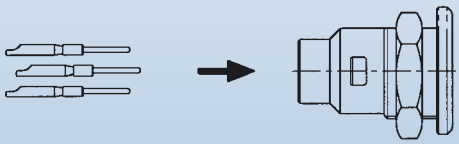
NR3F-S



NP3F-V
NP3M-V



NR3M-S



Contact Arrangement

male

female

12 Pole Miniature Connectors

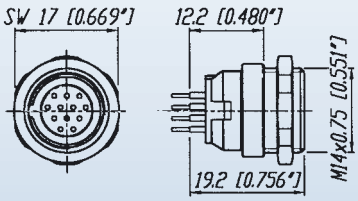
MSCM12

MRF12

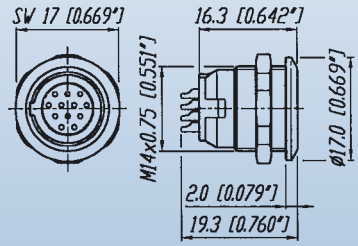
MMC* (no set)

- Up to 12 pole miniature connector.
- Complete set or modular system.
- Push-pull self-locking system.
- Precisely machined, rugged all metal design.
- Fully loaded male and female receptacles horizontal or vertical PCB mount.
- Gold plated contacts, crimp or solder.
- Special crimp type strain relief establishes an ideal coaxial connection of the cable shield to the connector shell for best EMC shielding.

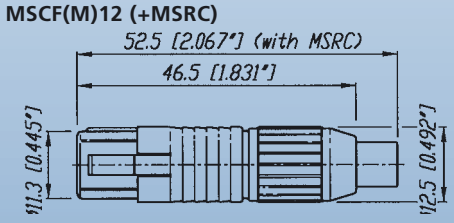
MPF(M)12-V



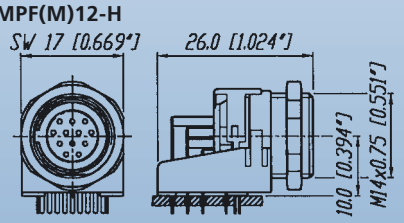
MRF(M)12



MSCF(M)12 (+MSRC)



MPF(M)12-H

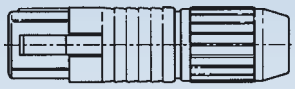


Ordering Information for complete MiniCon set

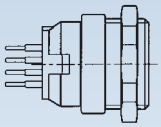
Complete set (consisting of housing, insert, 12 contacts and chuck for cable connector)

Female		Male	
MSCF12	Cable connector, chuck principle, solder contacts	MSCM12	Cable connector, chuck principle, solder contacts
MRF12	Receptacle panel mount, solder contacts	MRM12	Receptacle panel mount, solder contacts
MPF12-H	Receptacle horizontal PCB mount	MPM12-H	Receptacle horizontal PCB mount
MPF12-V	Receptacle vertical PCB mount	MPM12-V	Receptacle vertical PCB mount

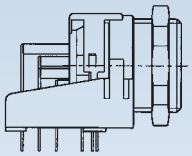
MSCF(M)12



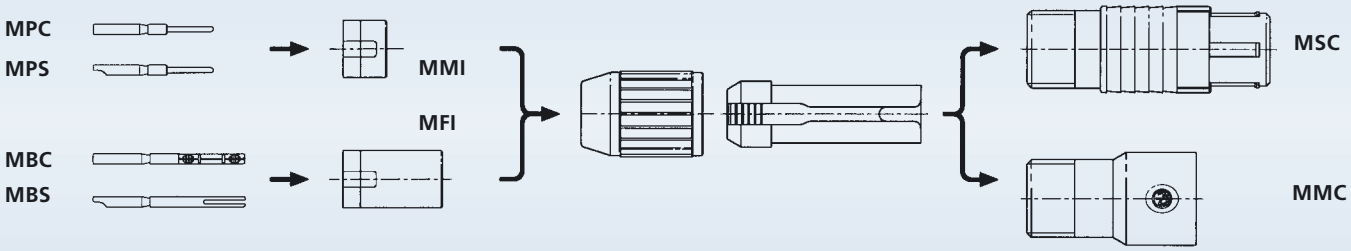
MPF(M)12-V

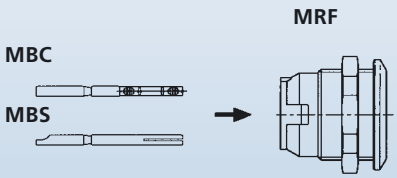


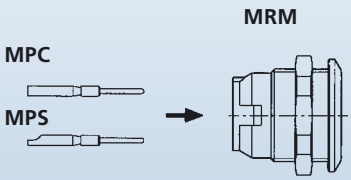
MPF(M)12-H

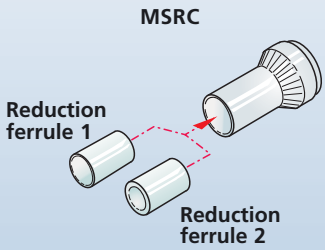


Ordering Information for modular MiniCon system







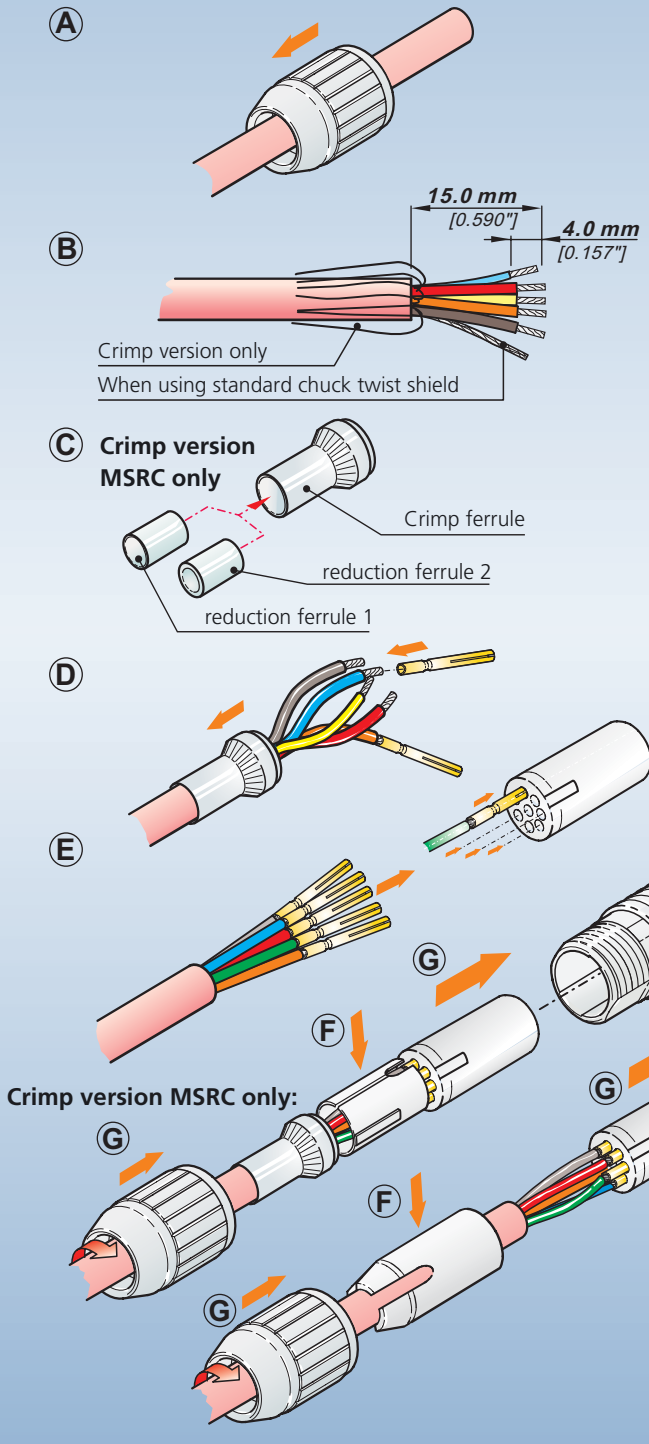


Housing and insert pre-assembled, contacts must be ordered separately.

Modular system

Female		Male	
MFI	Insert for cable connector	MMI	Insert for cable connector
MBC	Crimp contacts for cable connector and receptacle	MPC	Crimp contacts for cable connector and receptacle
MBS	Solder contacts for cable connector and receptacle	MPS	Solder contacts for cable connector and receptacle
MRF	Receptacle housing and insert pre-assembled	MRM	Receptacle housing and insert pre-assembled
MMC	Cable connector extension, incl. chuck (for male and female)		
MSC	Cable connector housing, incl. chuck (for male and female)		
MSRC	Set of strain relief crimp version (tools see page 15, crimp ferrule & reduction ferrule 1 + 2)		

Assembly Instructions MiniCon
Cable connector - standard and crimp version



Ⓐ Put bushing onto the cable.

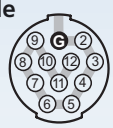
Ⓑ Prepare cable as shown.

Ⓒ Crimp version MSRC only:
Fold back the shield and slide crimp ferrule onto the cable.
- Use our HX-R-BNC crimptool with the appropriate die (see ordering information) to crimp the ferrule.
- Crimp ferrule only, for cable O.D. 4.5 - 6.0 mm
- Crimp ferrule + reduction ferrule 1, for cable O.D. 3.3 - 4.4 mm
- Crimp ferrule + reduction ferrule 2, for cable O.D. 2.5 - 3.2 mm

Ⓓ Wire contacts:
Solder standard contacts.
- For crimp contacts (MBC, MPC) use our HX-CONTACT crimp tool with the appropriate positioner (see ordering information)

Ⓔ Snap the contacts into the insert.
Contact arrangement:

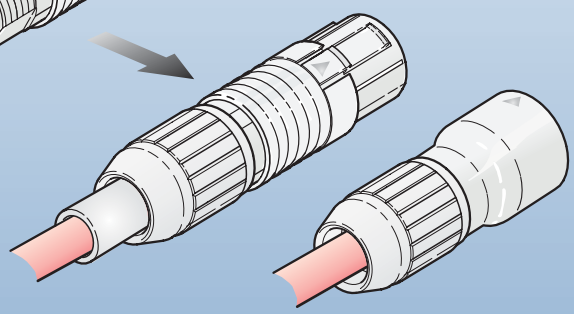
Male



Female

Ⓕ Press the distance sleeve / chuck onto the cable.

Ⓖ Slide insert and chuck into the housing and fasten the bushing.



Same procedure for MSC & MMC housing with female or male inserts!

Versatile Circular Connectors

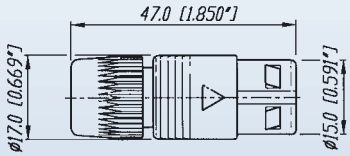
ORP8F-Ni

OSC8F

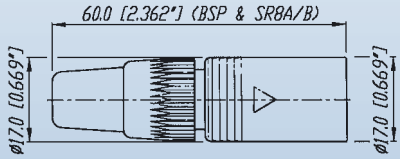
ORP8M

- Complete set or modular system for any desirable configuration.
- Contact configuration can be selected from 1 to 8 contacts.
- Special crimp type strain relief establishes an ideal circumferential connection of the cable shield to the connector shell as required by best EMC working practice.
- Precise and robust all metal housing absorbs vibration forces and protects contact inserts.
- Easy, fast and screwless assembly.
- Push-pull self-locking system.

OSC8F / OSC8M



MODULAR SYSTEM

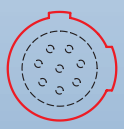


MC8 + SR8A/B + insert

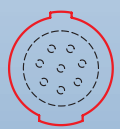
Polarization

Housing: Two variants of metal polarizing guides (90° and 180°).

Coding 90°

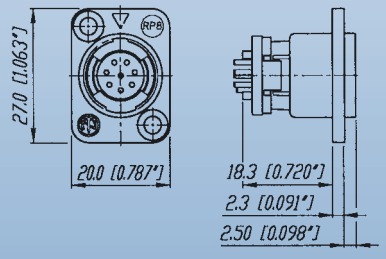


Coding 180°



Insert: The male and female insert can be assembled in all three housings.

ORP8F / ORP8M

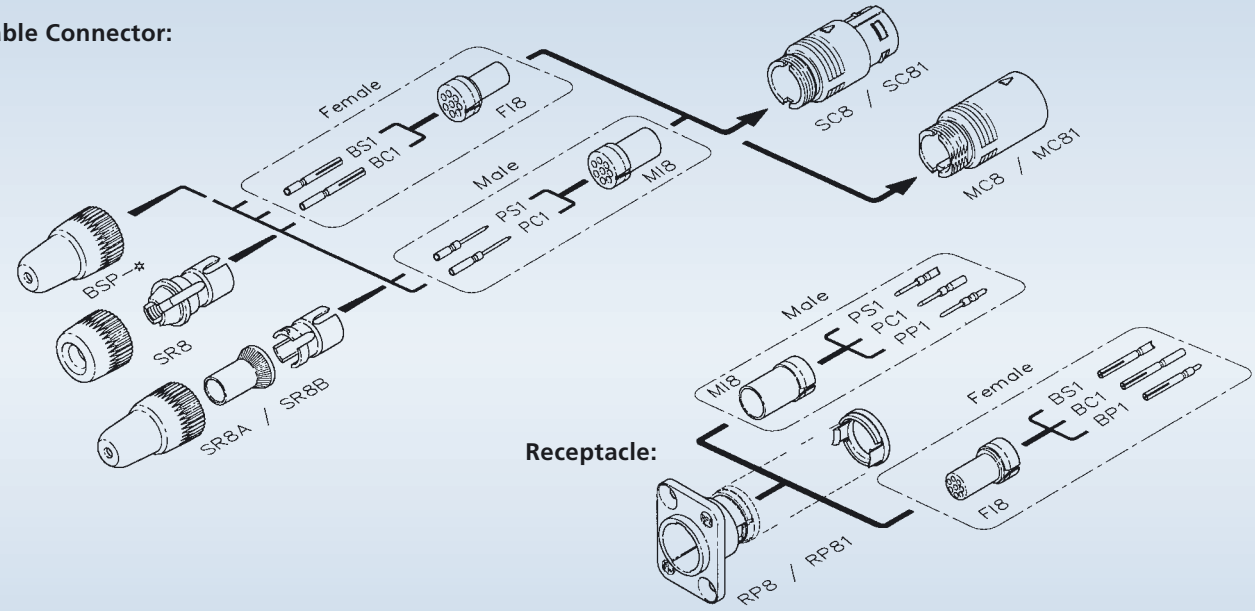


Ordering Information for complete Neutricon set

Complete set (consisting of housing, insert, 8 contacts and chuck for cable connector)	
OSC8F	Female cable connector, chuck principle, black housing, solder contacts
OSC8F-Ni	Female cable connector, chuck principle, nickel housing, solder contacts
OSC8M	Male cable connector, chuck principle, black housing, solder contacts
OSC8M-Ni	Male cable connector, chuck principle, nickel housing, solder contacts
ORP8F	Female panel mount receptacle, black housing, solder contacts
ORP8F-Ni	Female panel mount receptacle, nickel housing, solder contacts
ORP8M	Male panel mount receptacle, black housing, solder contacts
ORP8M-Ni	Male panel mount receptacle, nickel housing, solder contacts

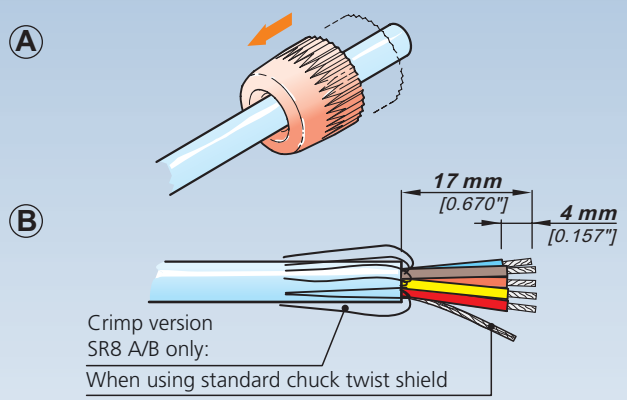
Ordering Information for modular Neutricon system

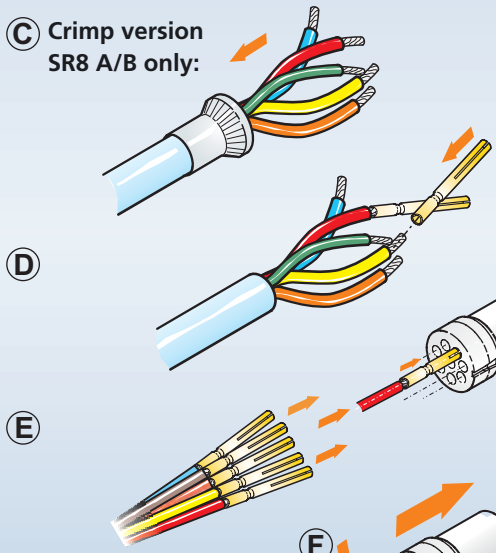
Cable Connector:

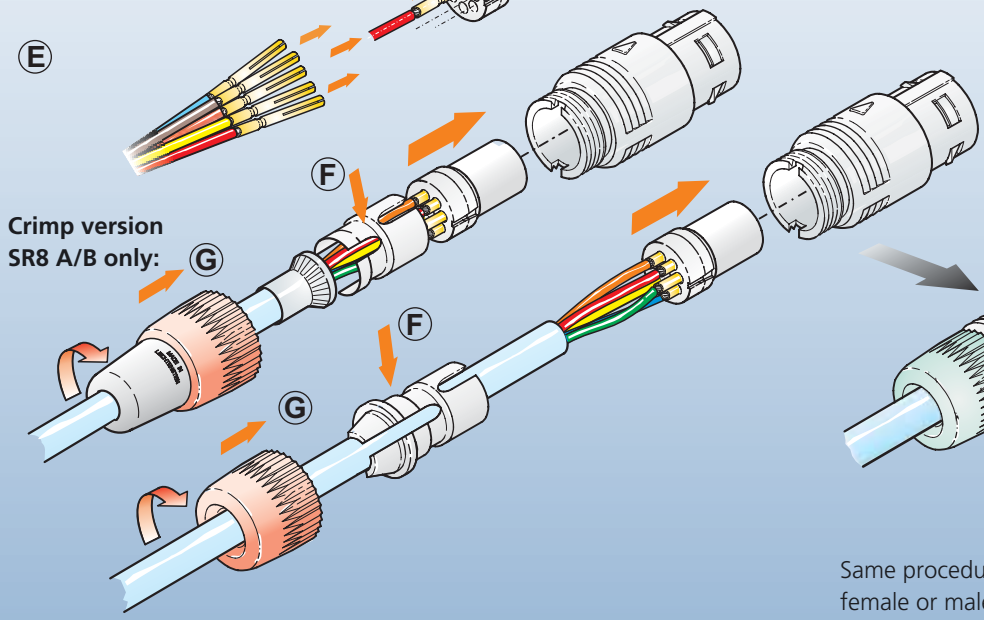


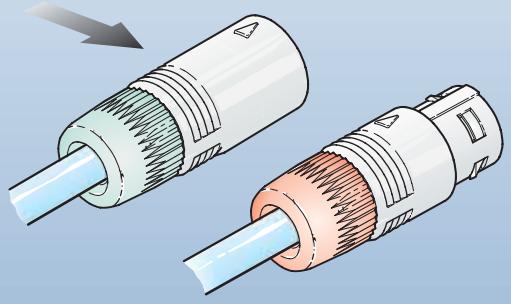
Modular system			
Female		Male	
FI8	Insert for cable connector and receptacle	MI8	Insert for cable connector and receptacle
BS1	Solder contact	PS1	Solder contact
BC1	Crimp contact	PC1	Crimp contact
BP1	PCB contact	PP1	PCB contact
SC8	Cable housing, black coated, 180° coding	MC8	Mating cable housing, black coated, 180° coding
SC8-Ni	Cable housing, nickel coated, 180° coding	MC8-Ni	Mating cable housing, nickel coated, 180° coding
SC81	Cable housing, black coated, 90° coding	MC81	Mating cable housing, black coated, 90° coding
SC81-Ni	Cable housing, nickel coated, 90° coding	MC81-Ni	Mating cable housing, nickel coated, 90° coding
RP8	Receptacle, black coated, 180° coding		
RP8-Ni	Receptacle, nickel coated, 180° coding		
RP81	Receptacle, black coated, 90° coding		
RP81-Ni	Receptacle, nickel coated, 90° coding		
SR8	Bushing and chuck type strain relief (standard)		
SR8A	Crimp type strain relief for cable O.D. 3 - 3.8 mm (Hex crimp 5.41 mm acc. IEC 803, see also page 15)		
SR8B	Crimp type strain relief for cable O.D. 6 - 7 mm (Hex crimp 7.01 mm acc. IEC 803, see also page 15)		
BSP-(1-10)	Colored boots, available in 10 resistor colors		

Assembly Instructions Neutricon
Cable connector - standard and crimp version SR8 A/B









Same procedure for MC & SC housing with female or male inserts!

(A) Put the bushing onto the cable.

(B) Prepare cable as shown.

(C) Crimp version SR8 A/B only:
Fold back the shield.
Slide crimp ferrule onto the cable.
- Use our HX-R-BNC crimptool with the appropriate die (see ordering information) to crimp the ferrule.
- Crimp ferrule SR8 A for cable O.D. 3.0 - 3.8 mm
- Crimp ferrule SR8 B for cable O.D. 6.0 - 7.0 mm

(D) Wire contacts:
Solder standard contacts.
- For crimp contacts (BC1, PC1) use our HX-CONTACT crimp tool with the appropriate positioner (see ordering information).

(E) Snap contacts into insert.

Contact arrangement:

Male

Female

(F) Press distance sleeve / chuck onto cable.

(G) Slide insert and chuck into the housing and fasten the bushing.

Specifications	PowerCon® Series	NanoCon® Series	MiniCon Series	Neutricon® Series
Electrical				
Number of contacts	2 + PE	3	12 (1-12 modular system)	8 (1-8 modular system)
Rated current per contact	20 A rms	2 A	3 A	7.5 A (solder), 5 A (crimp)
Rated voltage	250 V ac	50 V ac	50 V ac	50 V ac
Dielectric strength	4000 V dc	1000 V dc	1000 V dc	1500 Vdc
Contact resistance	≤ 3 mΩ	≤ 12 mΩ	≤ 8 mΩ	≤ 5 mΩ
Insulation resistance after damp heat test (IEC 68-2-30)	> 100 MΩ	> 1 GΩ	> 500 MΩ	> 500 MΩ
Mechanical				
Retention method	Quicklock with securing lever	latch	Push-pull	Push-pull
Cable O.D. range	5 - 15 mm	3.4 mm max.	3 - 5 mm (grey chuck) 5 - 7 mm (white chuck) 2.5 - 6 mm (crimp version MSRC)	3 - 7 mm 3 - 3.8 mm (SR8A) 6 - 7 mm (SR8B)
Wiring	Cable: screw type terminals or soldering 2.5 mm² / 14 AWG Chassis: flat tabs for FASTON® 4.8 x 0.5 mm or soldering	0.2 mm² / 24 AWG for solid wire 0.14 mm² / 26 AWG for stranded wire	0.5 mm² / 20 AWG for solder 0.22 mm² / 24 AWG for crimp	1.0 mm² / 18 AWG for solder 0.14 - 0.34 mm² / 22-26 AWG for crimp
Solderability complies with IEC 68-2-20	•	•	•	•
Materials				
Housing cable connector	PA 6 30% GR	CuSn4Pb4Zn4	ZnAl4Cu1 / CuZn39Pb3	ZnAl4Cu1 gal Ni or black chrome
Housing receptacle	PA 6 30% GR	CuZn39Pb2	ZnAl4Cu1	ZnAl4Cu1, gal Ni or black chrome
Insert	PA 6 30% GR	PETP	PA 6.6	PBTP 15% GR
Contacts	CuZn39Pb3 / CuSn6	CuZn35Pb2	CuZn35Pb2 (solder) CuZn39Pb3 (crimp) CuSn6	CuZn35Pb2 (solder) CuZn39Pb3 (crimp)
Contact surface	4 µm / 20 µm Ag plated	0.5 µm Au	0.2 µm AuCo	0.3 µm Au hard alloy over 2 µm Ni
Chuck POM	•	•	•	•
Environmental				
Flammability UL 94 HB	•	UL 94 V-0	UL 94 V-0	•
Temperature range -30°C to +80°C	•	•	•	•
Protection class (mated)	IP 20	IP 40	IP 5X	IP5X
Safety Requirements EN/IC61984	•	-	-	-

FASTON® is a trademark of AMP Inc.

Crimptool HX-CONTACT

DMC crimptool AFM8
acc. M22520/2-01

+

MPOS-*

Modified DMC positioner (K155)
Contact positioner holds contact in position when crimping.

Contact and connector assembly

Crimptool HX-R-BNC

Neutrik HEX crimptool

+

DIE-R-BNC-*

Neutrik DIE's for various HEX sizes.

Neutricon - Ordering Information Assembly Tools

		Cable O.D. / Wire	Crimptool	Die/Positioner	HEX-Size/Standard
SR8A	Strain relief	3 - 3.8 mm	HX-R-BNC	DIE-R-BNC-PJ	5.41 mm / IEC 803
SR8B	Strain relief	6 - 7 mm	HX-R-BNC	DIE-R-BNC-PS	7.01 mm / IEC 803
BC1	Female crimp contact	AWG 22 -26	HX-CONTACT	MPOS-BC1	No. 5 / M22520/2-01
PC1	Male crimp contact	AWG 22 -26	HX-CONTACT	MPOS-PC1	No. 5 / M22520/2-01

MiniCon - Ordering Information Assembly Tools

		Cable O.D. / Wire	Crimptool	Die/Positioner	HEX-Size/Standard
MSRC	Crimp ferrule only	4.5 - 6 mm	HX-R-BNC	DIE-R-BNC-PDC*	6.47 mm / IEC 803
MSRC	Crimp ferrule & reduction ferrule 1	3.3 - 4.4 mm	HX-R-BNC	DIE-R-BNC-PDC*	6.47 mm / IEC 803
MSRC	Crimp ferrule & reduction ferrule 2	2.5 - 3.2 mm	HX-R-BNC	DIE-R-BNC-PDC*	6.47 mm / IEC 803
MBC	Female crimp contact	24 AWG/0.22 mm^2	HX-CONTACT	MPOS-MBC	No. 5 / M22520/2-01
MPC	Male crimp contact	24 AWG/0.22 mm^2	HX-CONTACT	MPOS-MPC	No. 5 / M22520/2-01

* DIE-R-BNC-PJ or PS also possible

Accessories

Content **Page**

NEUTRIK® ACCESSORIES

Various connector standards in the professional and semi-professional audio and video world lead constantly to interconnection problems.
Neutrik® made it as a rule to serve our customers' needs in all connector belongings and offer therefore a variety of problem solvers.
With our adapter series we have a solution for the most known interconnection difficulties and on top of this we offer modules of the most common connector types to fulfill specific needs beyond that.
Miniature balancing adapters are the answer to known noise and grounding problems and for customized designs we recommend our proven audio transformers in combination with our modules.

All our adapters and conectors are soldered with lead free ROHS compliant solder.

Neutrik is proud of being ROHS compliant with all our products and on top of this we became „Sony Green Partner" already in the year 2003.




Circular Adapters


NA2FP

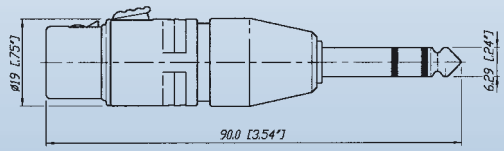

NA2MPMM


NA3FJ

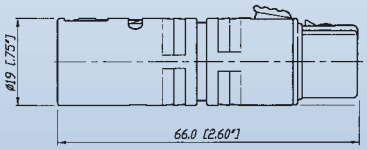

NA4FC-F

- Versatile, pre-wired and ready to use adapters to reliably interlock various connector systems
- Professional look and compact space saving design, based on the X Series (XLR worldwide accepted standard)
- Rugged diecast shell for best reliability

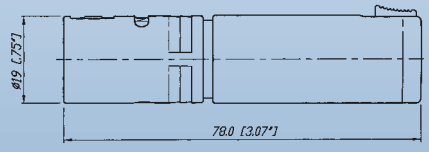
NA3FP



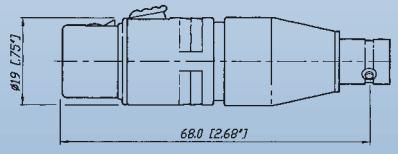
NA3FM



NA3MJ



NA3FBNC



Example drawing. Find more info on www.neutrik.com

t o i d e n t i f y t h e o r i g i n a l




D Shape Adapters


NA2BBNC-D9B


NA2M-D2B-TX


NA4MP-J


NA4MP-MX

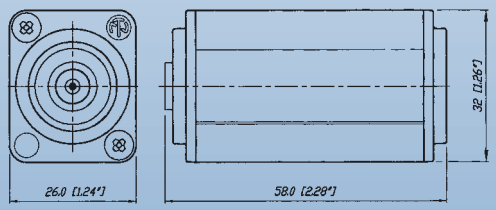
- Problem solvers for various intermating problems for professional and semi-professional applications
- Rugged aluminium extrusion housings for best reliability
- Colour coding on all RCA types

Miniature transformer balancing adapters NA2*-TX

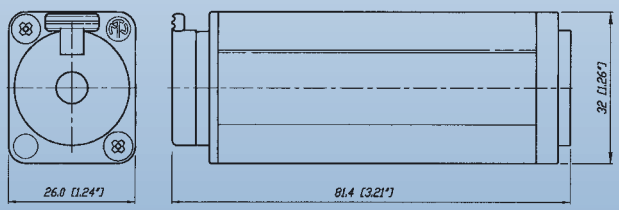
- 1:1 transformer 200 Ω : 200 Ω
- Low cost solution for unbalanced/balanced line conversion and passive DI applications, where no earth or gain switching is required.
- MAX INPUT LEVEL FOR 1% THD
  +4dBu @ 60Hz (SOURCE=200OHM/LOAD=200OHM)
  –6dBu @ 60Hz (SOURCE=200OHM/LOAD=10KOHM)


NA2F-D0B-TX

NA2BBNC-D9B



NA2MP-J



Example drawing. Find more info on www.neutrik.com

Circular Adapters

Part No.	Port 1	Port 2	Comments
NA2FBNC	3 pole XLR female	BNC socket	1)
NA2FP	3 pole XLR female	TS 2),1/4" plug	1)
NA2FPMF	3 pole XLR female	RCA / phono socket	1)
NA2FPMM	3 pole XLR female	RCA / phono plug	1)
NA2MBNC	3 pole XLR male	BNC socket	1)
NA2MP	3 pole XLR male	TS 2),1/4" plug	1)
NA2MPMF	3 pole XLR male	RCA / phono socket	1)
NA2MPMM	3 pole XLR male	RCA / phono plug	1)
NA3FF	3 pole XLR female	3 pole XLR female	gender conversion adapter
NA3FF-B	3 pole XLR female	3 pole XLR female	gender conversion, black plating
NA3FJ	3 pole XLR female	TRS 2),1/4" jack	locking jack
NA3FM	3 pole XLR female	3 pole XLR male	extention adapter
NA3FMX	3 pole XLR female	3 pole XLR male	contacts 2 - 3 inverted
NA3FP	3 pole XLR female	TRS 2), 1/4" plug	
NA3JJ	stereo 1/4" jack	TRS 2), 1/4" jack	extension adapter, locking jack
NA3MJ	3 pole XLR male	TRS 2), 1/4" jack	locking jack
NA3MM	3 pole XLR male	3 pole XLR male	gender conversion adapter
NA3MM-B	3 pole XLR male	3 pole XLR male	gender conversion, black plating
NA3MP	3 pole XLR male	TRS 2),1/4" plug	
NA4FC-F	Speakon® NL4FC	3 pole XLR female	speaker adapter 3)
NA4FC-M	Speakon® NL4FC	3 pole XLR male	speaker adapter 3)
NA4LJX	Speakon® NL4FX	TS 2), 1/4" jack	speaker adapter 3)
NA4MP-F	Speakon® NL4MP	3 pole XLR female	speaker adapter 3)
NA4MP-J	Speakon® NL4MP	TS 2), 1/4" jack	speaker adapter 3)
NA4MP-M	Speakon® NL4MP	3 pole XLR male	speaker adapter 3)
NA4MP-M-X	Speakon® NL4MP	Speakon® NL4MP	speaker adapter 1+ / 1- inverted 3)
NA5FF-B	5 pole XLR female	5 pole XLR female	gender conversion adapter, black plating
NA5MM-B	5 pole XLR male	5 pole XLR male	gender conversion adapter, black plating

D Shape Adapters

NA2BBNC-D4B	BNC socket	RCA / phono socket	colour coded yellow
NA2BBNC-D9B	BNC socket	RCA / phono socket	colour coded white
NA2F-D0B-TX	3 pole XLR female	RCA / phono socket	colour coded black, 4)
NA2F-D2B-TX	3 pole XLR female	RCA / phono socket	colour coded red, 4)
NA2F-J-TX	3 pole XLR female	1/4" jack	ground lifted
NA2M-D0B-TX	3 pole XLR male	RCA / phono socket	colour coded black, 4)
NA2M-D2B-TX	3 pole XLR male	RCA / phono socket	colour coded red, 4)
NA2M-J-TX	3 pole XLR male	1/4" jack	ground lifted, 4)
NE8FF	EtherCon®	EtherCon®	RJ45 coupler
NL4MMX	4 pole Speakon®	4 pole Speakon®	lockable coupler
NL8MM	8 pole Speakon®	8 pole Speakon®	lockable coupler

1) ... Wired according to IEC 268-12: pin 2 = signal, pin 1 and 3: connected to ground
2) ... TRS-Tip, Ring, Sleeve contact (stereo); TS-Tip, Sleeve contact (mono)
3) ... Detailed wiring info on www.neutrik.com
4) ... Unbalanced / balanced line conversion, 1:1 transformer 200 Ω : 200 Ω



AES / EBU Digital Impedance Transformer Adapters

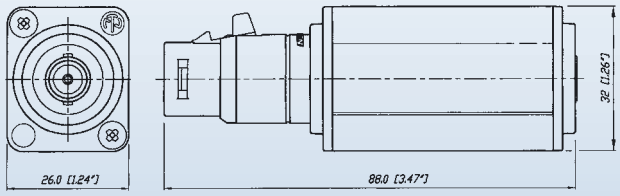
NADITBNC-F

NADITBNC-FX

NADITBNC-MX

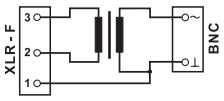
- Allow long cable runs for digital audio signals via low attenuation coax lines
- Matche balanced to coaxial lines
- Matche impedances 110 Ω to 75 Ω
- Simple use, passive units

NADITBNC-FX

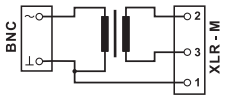


Technical Data

Maximum voltage / Max. power:	5 Vp-p / 250mW
Frequency band:	0.1 MHz to 6 MHz
Insertion loss:	< 0.3 dB @ 0.1 MHz to 10 MHz
VSWR / Return loss:	< 1.1 / > 26.4 dB



NADITBNC-F



NADITBNC-M

Ordering Information

Part No.	Port 1	Port 2	Comments
	Input	Output	
NADITBNC-F	3 pole XLR female chassis	female BNC chassis	110 Ω XLR input and 75 Ω BNC output
NADITBNC-M	3 pole XLR male chassis	female BNC chassis	75 Ω BNC input and 110 Ω XLR output
NADITBNC-FX	3 pole XLR female cable con.	female BNC chassis	110 Ω XLR input and 75 Ω BNC output
NADITBNC-MX	3 pole XLR male cable con.	female BNC chassis	75 Ω BNC input and 110 Ω XLR output

DMX Adapters

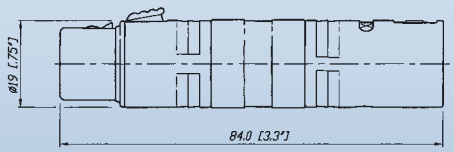
NA3F5M

NA3F5M

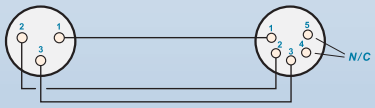
NA3M5F

- Compact XLR 3 to 5 pole adapter for lighting (DMX) applications
- Solve interconnection problems of the old (3-pole) and new (5-pole) DMX standard
- Enables usage of standard 3-pole microphone cable for DMX applications
- Based on the worldwide accepted standard XLR connectors
- Reliable and rugged diecast shell

NA3F5M



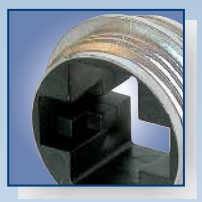
3-pole **5-pole**



Ordering Information

Part No.	Port 1	Port 2	Comments
NA3F5M	3 pole XLR female	5 pole XLR male	for DMX lighting applications
NA3M5F	3 pole XLR male	5 pole XLR female	for DMX lighting applications





Modules & Audio Transformers


NM3FXI


NM3P


KMX

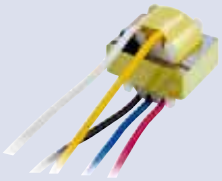

SM2/2

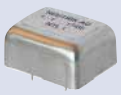

NM3FD-B

- Multifunctional modules allow to design of customized adapters to suit specific needs
- Based on the X Series connector system
- NTE transformers and switch can be built in
- Professional look, rugged diecast shell

Audio Transformer

- Professional audio transformers for multiple applications, as e.g. microphone or line inputs
- Very low distortion, excellent frequency response
- Cost effective cable version for free wiring
- Fully permalloy-shielded studio versions

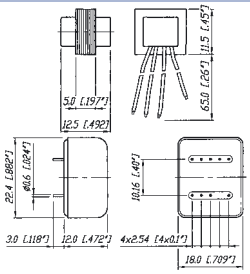

NTE10-3


NTL1

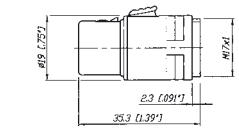
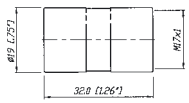
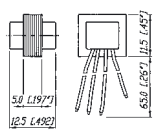
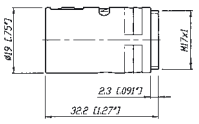
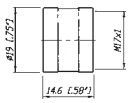
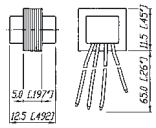
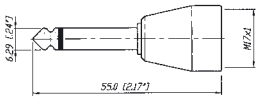
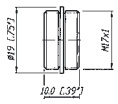
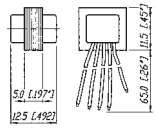
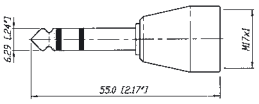
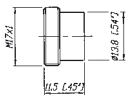
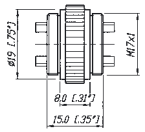
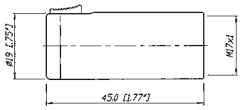
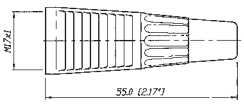
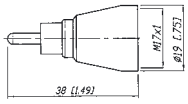
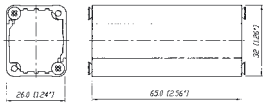
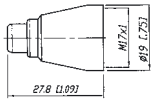
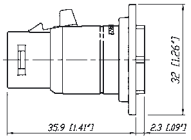
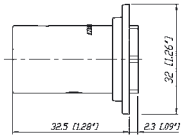
Audio Transormer Ton Guide

Part No.	Source / load impedance in Ω	Turns Ratio (prim : sec)	Max. Input Voltage	Applications	Wiring
			1% THD @ 60 Hz		
NTE1	200 / 200	1 : 1	1.2 V rms	Mic input	free wires
NTE4	200 / 3 K	1 : 4	0.4 V rms	Mic input	free wires
NTE10/3	200 / 2 K / 20 K	1 : 3 : 10	0.5 V rms	Mic input	free wires
			1% THD @ 30 Hz		
NTL1	600 / 600	1 : 1	6 V rms	Studio line	PCB mount, shielded
NTM1	200 / 200	1 : 1	1.5 V rms	Studio line	PCB mount, shielded
NTM4	200 / 3 K	1 : 4	1.2 V rms	Microphone input	PCB mount, shielded

Find detailed specifications on www.neutrik.com

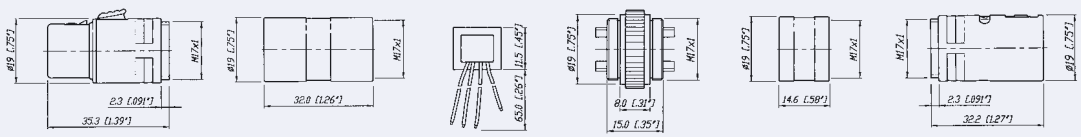


Module Selection Guide

Connector module		Coupler / housing		Transformer / switch	
NM3FXI XLR female M17x1 outside		KM M 17x1 inside		NTE1 1:1	
NM3MXI XLR male M17x1 outside		KMX M 17x1 inside		NTE4 1:4	
NM2P mono 1/4" plug M17x1 inside		VM M 17x1 outside		NTE10/3 1:3:10	
NM3P stereo 1/4" plug M17x1 inside		VMX M 17x1 outside		SM2/2 2x2 switch M17x1 outside	
NM3J stereo 1/4" jack M17x1 inside		CM cable outlet M 17x1 inside			
NMPMM RCA male M17x1 inside		NA-Housing black plated screws included 1)			
NMPMF RCA female M17x1 inside					
NM3FD-B black plated					
NM3MD-B black plated					

1) ... Combinations possible with all D Shape connectors like e.g. NC3FD-L-1, NF2D, NBB75DSI, etc.

Example:



NM3FXI KM NTE1 SM2/2 KMX NM3MXI



Goosenecks


GNS18


GN36


GNS50

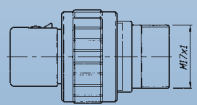
- For flexible and secure mounting of microphones, lamps etc.
- Versatile, modular system, allows varions combinations
- Durable stainless steel spiral, no rust, no noise, non-reflective black finish
- Theft proof microphone connection on GNS version (securing ring and fixing screw)

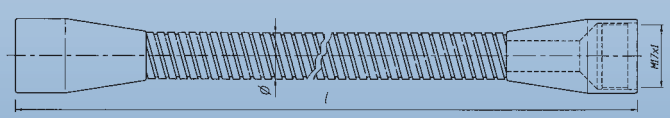
Ordering Information

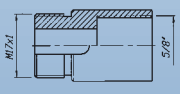
Part No.	Description	
GN18	M17x1 inside thread at both ends	(Ø 12 mm, 230 mm length)
GN36	M17x1 inside thread at both ends	(Ø 13 mm, 360 mm length)
GN50	M17x1 inside thread at both ends	(Ø 15 mm, 500 mm length)
Gosseneck sets:		
GNS18	Gooseneck set GN18, NC3FX-Spec., cable outlet, NAM5 adapter, M17x1 bolt thread	
GNS36	Gooseneck set GN16, NC3FX-Spec., cable outlet, NAM5 adapter, M17x1 bolt thread	
GNS50	Gooseneck set GN50, NC3FX-Spec., cable outlet, NAM5 adapter, M17x1 bolt thread	
Accessories:		
NAM4	M17x1 outside thread, 5/8" 27 UNS inside thread [1)]	
NAM5	3/8" inside thread, 5/8" 27 UNS outside thread [1)]	
GF1	Panel-mounting kit: Flange Ø 63.5 mm including mounting bolt M17x1, 30 mm length [1)]	
MSG	Mounting bolt M17x1, 30 mm lenght [1)]	

[1)] ... Find detailed specifications on www.neutrik.com

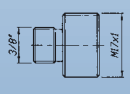
GNS Set consisting of:


NC3FX-Spec


GN


Cable outlet


NAM5


M17x1 bolt

Patch Panels

Content **Page**

Introduction

Patch Panels are central switching gears between audio equipments. They are used to switch and route analog and digital audio signals from and to equipments in recording or broadcast studios, OB vans, churches, theatres, stadiums, arenas, etc.
Neutrik® Patch Panels are available in a varity of jack types, wiring and grounding possibilities. Common versions accommodating Bantam TT, 1/4" A-gauge and longframe B-gauge jacks on the front rows. The mechanical size is designed to fit into 1U 19" standard racks. All Neutrik Patch Panels offer various normalling possibilities between top and bottom row as well multiple grounding and termination options.

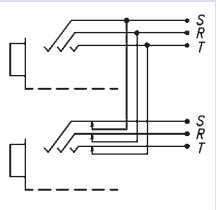
All Neutrik® Patch Panels are able to handle digital audio signales acc. AES3, 48kHz sampling rate.

Audio Normalling

Audio Normalling is usually used with audio patch panels and is a wiring pattern in which a circuit path is established from one piece of audio equipment to another without the use of a patch cord. This pattern is then considered to be the „normal" circuit path that is desired most of the time. If a patch cord is inserted, the normal circuit path is interrupted and rerouted to a different circuit path.
Normalled patch panels are most commonly found in vertical jack pairs: the top jack is designated as the source and the bottom jack is the destination.

Normalling example: HALF NORMALLED BOTTOM ROW

It is the most common configuration, very often called HALF NORMALLED. In this configuration internal normalling contacts connect the top jack contact with the corresponding bottom jack contact. Inserting a plug in the bottom jack will interrupt this internal normalling connection, while inserting a patch cord into the top jack doesn't interrupt the circuit. (Can be used to monitor the normalling circuit.)



Other versions of normalling are Half Normalled Top, Full Normalled, Parallel and Isolated.



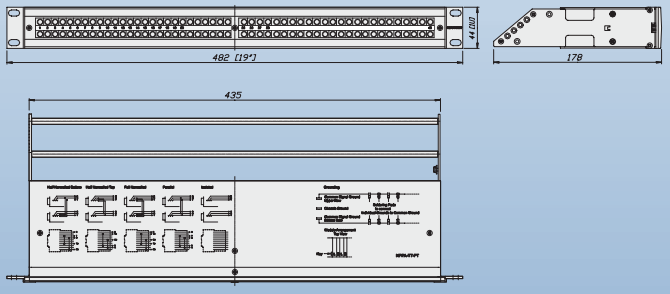



NPPA-Series – 96 Bantam (TT) Jacks

NPPA-TT-PT

- Innovative and compact patching system (just 1U high) for 19“ rack mounting
- Robustly housed in a black coated steel shell
- New high quality long life gold plated Neutrik® prewired double jacks with drastically improved contact integrity
- Available in all common normalling configurations (default HNB)
- Qualified for analog and digital signals acc. AES3, 48 kHz sampling frequency
- Different choices of wiring

Dimensional Drawing



Design Criteria

All panels are fitted with high quality, long life Neutrik® NJ3TTA gold plated double contact jacks (2x48), featuring drastically improved contact integrity and are available with a wide choice of wiring terminations. The unit is finished off with a built in cable bar and two large channel ident strips for perfect management of the system.

The new generation of the Neutrik® "Easy-Patch" is easily programmable for any one of five configurations (standard is half normalled bottom row) and for the grounding system of your choice. Each individual pair of jacks can be changed or reconfigured quickly and without fuss even while the panel is "on air". The NJ3TTA jacks offer also two contact points per terminal (TRS) with a special designed mechanism for the normalling contact. Simply remove the front panel to reveal the easy access jack. Remove, replace or reconfigure the jack and refix the panel.

The "Easy-Patch" is an innovative and compact patching system (just 1U high) for 19" rack mounting. Robustly housed in a black coated steel shell and featuring precision aluminium fittings it is built to last.

Configuration

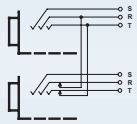
The standard version of the NPPA Panel is delivered bottom row half normalled for each jack pair by default. Further patch versions are available with fully loaded jack-pairs as:

- Full Normalled
- Half Normalled Top Row
- Isolated
- Parallel

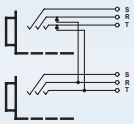
For individual normalling single pre-configured jack-pairs are offered.

Note: Take care when handling digital signals. Do not use parallel configuration and avoid other parallel paths when using half normalled configurations. Parallel paths may lead to mismatching.

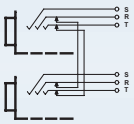
Half Normalled Bottom



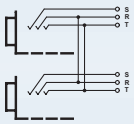
Half Normalled Top



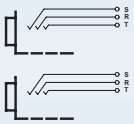
Full Normalled



Parallel



Isolated



Grounding

The flexible grounding system provides the following versions:

- Individual: Each channel is individually grounded by its corresponding cable shield (default configuration).
- Group: Selected channel grounds are connected via the ground bus on the PCB using solder bridges and track cuts to form a group that is connected to one common cable shield.
- Central: All channel grounds (individual top and bottom row) are connected via the ground bus on the PCB using solder bridges and wired with only one cable shield.
- Chassis-Common: The same as central grounding but with the addition of the common ground bus (top and / or bottom rows) connected to the patch panel chassis by means of jumpers

Wiring Terminations

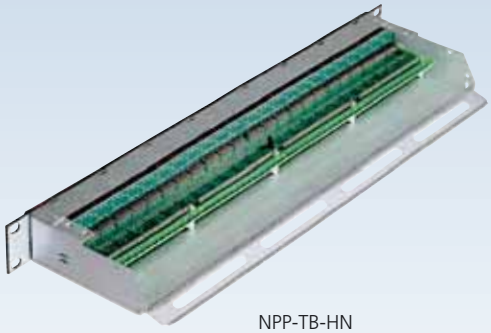
TT Patch Panels offer different choices of wiring:

- Spring loaded push terminals
- 56 pin Elco/Edac male connectors
- 90 pin Elco/Edac connectors
- 50 pin D-subminiature connectors
- IDC-Krone terminals
- Solder lugs

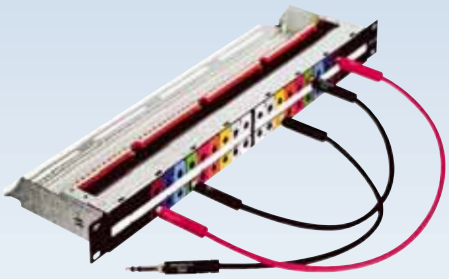
The spring loaded terminal blocks enable fast and easy wiring. No soldering and screwing necessary. Simply insert the stripped wire after pressing down the white key. Terminals accommodate stranded wires up to AWG 20 (0.5 mm^2) and solid wires up to AWG 18 (0.75 mm^2). Push terminals are gas tight connections.

For Pin assignment of ELCO / EDAC and D-Sub connectors please refer to website.

NPP-TB-Series – 48 B-Gauge Jacks



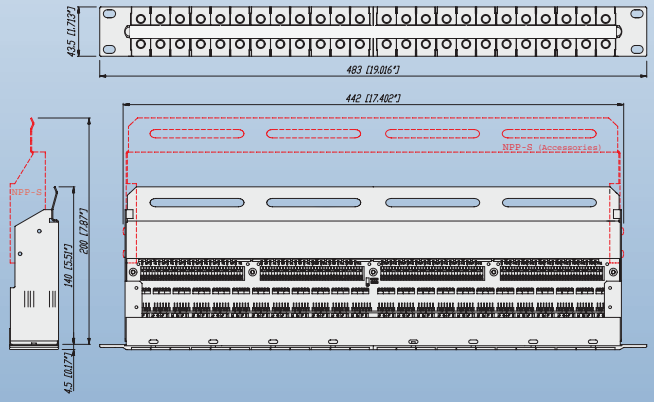
NPP-TB-HN



NPP-TB

- Features 2x24 Neutrik® NJ6TB-V long frame 1/4" TRS jacks to BPO 316 / MIL-P-641/3
- Very robust and compact galvanized metal housing
- Eye catching channel identification through colored snap-on coding tabs
- Six easily programmable switching configurations
- Qualified for analog and digital signals acc. AES3, 48 kHz sampling frequency
- With high quality long life gold plated Neutrik® jacks

Dimensional Drawing



Design Criteria

The TB Patch Panel is a very robust and compactly designed Patch Panel for 19" rack mount (19" x 1U) with galvanized metal housing, a built-in cable bar on the rear for securing wires. There is a rear extention bar (NPP-S) available as an option for some panel types. On the front side we have an attractive additional lettering facility for each channel pair with a marking strip and individual snap-on colour coding plates.

The NPP is easily programmable for six switching configurations and for changing the flexible grounding system. All panels have the high quality long life gold plated Neutrik® NJ6TB-V Jack for the BPO / MIL style plugs. We have two variants of rear connection. The standard is equipped with spring loaded terminals strips and an optional version offers solder lugs.

Configuration

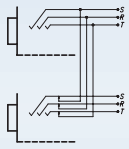
Due to the jumper blocks capability provided, the switching configurations available per jack channel are:

- Full Normalled
- Isolated
- Half Normalled Bottom Row
- Parallel
- Half Normalled Bottom Row
- Half Normalled Bottom Row

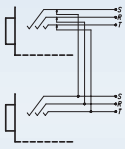
The TB Panel is delivered in a full normalled configuration for each jack channel. A non-configurable half normalled ("-HN") bottom row version with solder lugs is also available.

NOTE: Take care when handling digital signals. Do not use Parallel configuration and avoid other parallel paths with Half / Double Normalled configurations. Parallel paths may lead to mismatching.

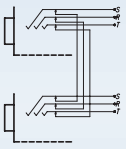
Half Normalled Bottom



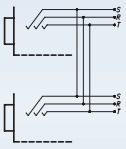
Half Normalled Top



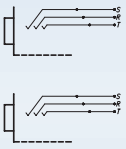
Full Normalled



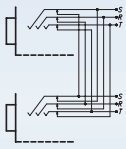
Parallel



Isolated



Double Normalled



Grounding

The flexible grounding system allows four possibilities to fit your needs:

- Individual: Each channel ground is separately connected with the corresponding cable shield (default configuration).
- Group: Some channel grounds are PCB connected by making soldering joints on the PCB and by cutting tracks respectively to form a group that is connected to one common cable shield.
- Central: All channel grounds are PCB connected by making soldering joints and wired with only one cable shield.
- Chassis-Common: Same as central grounding with additional connection of the common ground to the Patch Panel chassis by means of a jumper.

Wiring Terminations

TB Patch Panels are available with:

- Spring loaded push terminals (NPP-TB)
- Solder lugs (NPP-TB-HN)

The spring loaded terminal blocks are fast and easy to connect and disconnect the wires.
No soldering and screwing necessary. Simply insert the stripped wire after pressing down the white key.
Accommodates stranded wires up to AWG 20 (0.5 mm^2) and solid wires up to AWG 18 (0.75 mm^2).

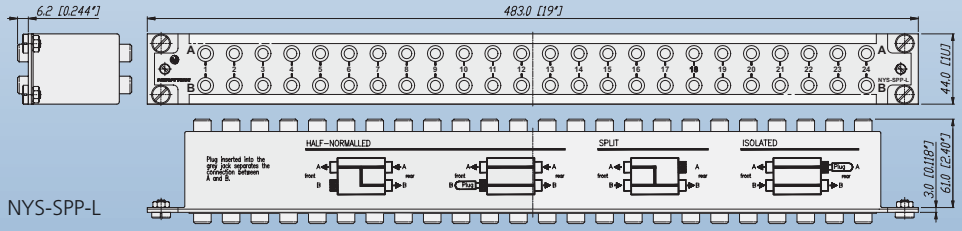
Module
NYS-SPCR

Patch Box
NYS-SSR8

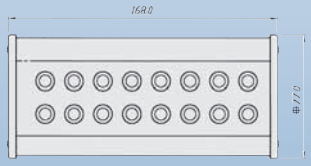
1/4" Patch Panel

- Economic and versatile designed 1/4" modular Patch Panel with 2 rows of jack sockets
- 48 balanced channels with fully PCB wired jack (24 vertical PC boards), 24 front pairs and corresponding 24 rear pairs
- Jack PC card contains 4 balanced 1/4" jacks with non-tarnishing contacts, is held securely in place without the use of nuts - no little pieces to drop, break or lose
- Easy to change configuration by just flipping individual PC board
- Normalling jack is coloured grey for easy identification
- 4 designation strip included for front and rear panel
- Patch Box with 8 Send / Return modules

Dimensional Drawing



NYS-SPP-L



NYS-SSR-8

Design Criteria

The Patch Panel shows 2 rows of 1/4" A-Gauge jacks, 24 front pairs (top A and bottom B row) and corresponding 24 rear pairs. Principally the corresponding front and rear jacks are connected straight through.

The configuration determines the link between bottom and top row.

With conventional 1/4" patchbays the individual jacks are fixed to the panel with nuts. Thus two disadvantages occur: flipping of channel PCBs is complicated, PCBs are not well fixed. The NYS-SPP with its metal brekets to hold the boards securely in place makes flipping brackets the boards also quite simple.

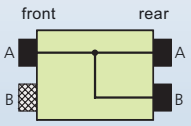
If the grey jack („N-jack") is located at the front, the channel is in a Half-Normalled configuration (as seen from the front side). This is how the unit is delivered.

If no plug is inserted into the grey jack, Afront is connected to Arear and Brear. With plug inserted into the grey N-jack, the link between A and B jacks is opened and the upper and lower signal paths are isolated against each other.

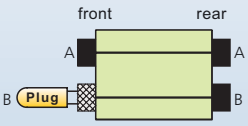
You can now turn each of the 24 channel PCBs separately by 180°. Thus the configuration as seen from the front changes to Split or Isolated depending upon the rear side installation, i.e. N-jack unplugged or plugged.

Configuration

Half Normalled

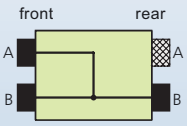


Front jack A for "listen in"



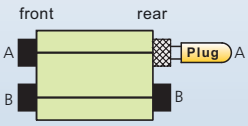
Grey B jack for signal insertion

Split



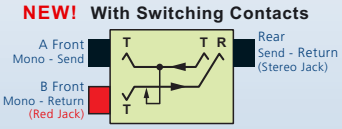
Allows 1 output to feed 2 inputs

Isolated



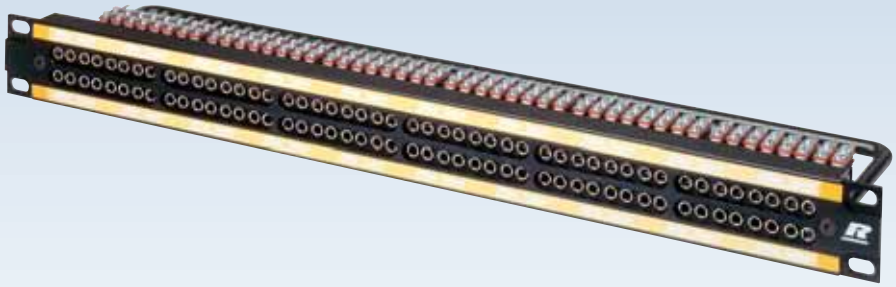
Upper (A) and lower (B) channel separated

Split Print

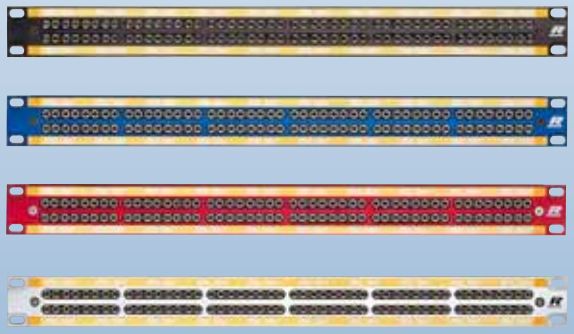


NYS-SPCR Solution for insert jack of mixing consoles Split print by-passes the use of a specially wired Y-cable.

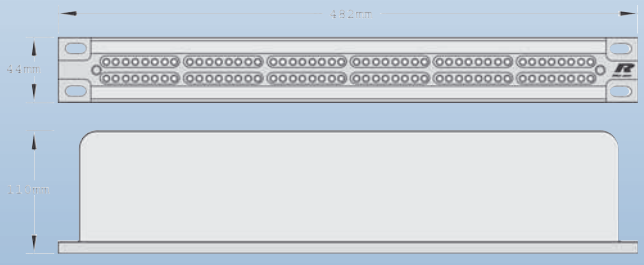
MA 96 and XPM 96 Bantam Patchbays



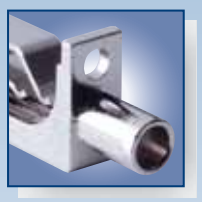
- Robust designed patchbay to accept standard Bantam jack connectors
- Fitted with 96 Rean die-cast jack sockets
- Constructed from rigid aluminium extrusion which includes 2 integral slots for designation strips
- 96 channels grouped in two row 12 x 8 stereo jacks
- XPM96 features traditional 2 row, 4 x 24 stereo jacks
- Available in 4 colours: black, silver, red or blue
- Suitable for audio, broadcast, data and industrial applications XPM96



Dimensional Drawing



tch Panel

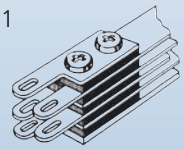


MAJ 500 Bantam Jack Socket

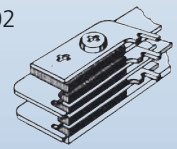
- 5-point Bantam jack socket (Tip, Ring, Sleeve, Tip Normal, Ring Normal)
- 5 terminal variants including solder terminals and 4 PCB versions
- Rigid nickel plated die-cast frame, featuring considerable frame strength eliminating physical distortion when plug is inserted
- Nickel-silver spring contacts, palladium plated switch contacts
- Tinned tags for easy soldering

Terminal Variants

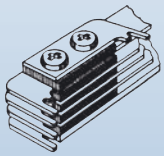
01



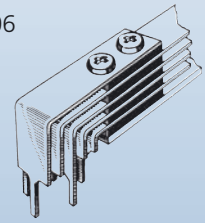
02



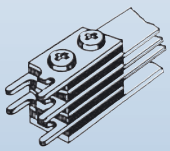
04



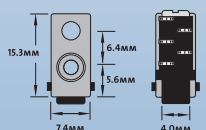
06



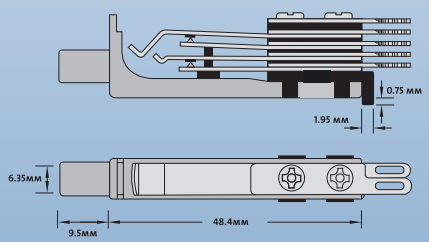
08



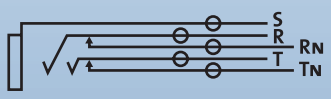
End Elevations



Plan Elevations

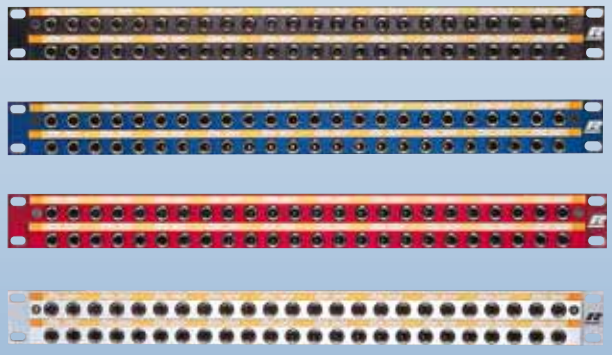


Circuit Detail

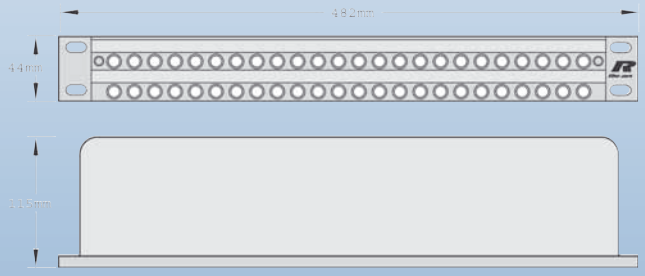


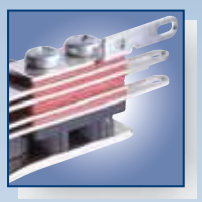
LF 48 B-Gauge Patchbays

- 48 way Longframe B-Gauge patchbay
- Accepts both European BPO 316 and US MIL-P-642/2 style phono plugs
- 2 rows of 24 LF501 jack connectors
- Jack designed from rigid nickel-plated die-cast aluminium with nickel-silver spring contacts
- Available in 4 colours: black, silver, red or blue
- Reliable support for connecting looms by steel lacing bar



Dimensional Drawing

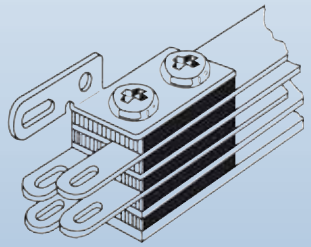




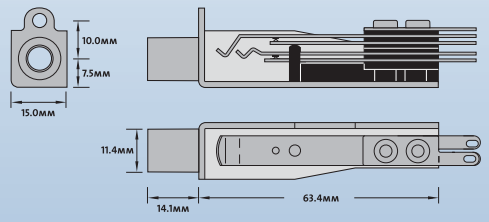
LFJ 500 B-Gauge Jack Socket

- 5-point B-Gauge jack socket
- Nickel-silver spring contacts
- Palladium plated switch contacts
- Durable die-cast body with bright nickel plated nose
- Termination solder lugs

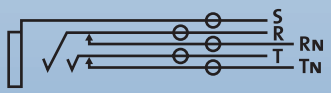
LFJ 501



Plan Elevations



Circuit Detail



Specifications		NPPA Series	NPP-TB Series	NYS Series	MA 96 and XPM 96	LF 48 Series
Electrical						
Contact resistance:		< 20 mΩ	< 10 mΩ	< 10 mΩ	< 24 mΩ	< 20 mΩ
Switch contact resistance:		< 25 mΩ	< 15 mΩ	< 10 mΩ	< 26 mΩ	< 15 mΩ
Insulation resistance:	> 1 GΩ @ 500 V dc	●	●	●	●	●
Dielectric strength:	> 500 V ac	●	●	●	●	●
	> 1`000 V dc	●	●	●	-	-
Frequency range:	DC to > 50 MHz	●	●	●	●	●
Channel separation:	> 100 dB @ 10 kHz, 600 Ω terminated	●	●	●	●	●
	> 40 dB @ 6 MHz, 110 Ω terminated	●	●	●	●	●
AES / EBU Signals (digital) suitable:		●	●	●	●	●
Handles Phantom Power:		●	●	●	●	●
Mechanical						
Life time:	> 20`000 cycles	-	-	-	●	●
	> 10`000 cycles	-	-	●	-	-
	> 5`000 cycles	●	●	-	-	-
Insertion force:	< 25 N -	-	-	●	●	
	< 20 N -	-	●	-	-	
	< 10 N	●	●	-	-	-
Withdrawal force:	> 10 N	●	●	●	●	●
	> 8 N	●	●	-	-	-
Dimensions:	482 x 44 mm (19" x 1U)	●	●	●	●	●
Depth:		178 mm (7")	140 mm (5.5")	61 mm (2.4")	110 mm (4.33")	115 mm (4.53")
Dimension Patch Box:	168 x 77 x 77 mm (6.0 x 3 x 3")					
Temperature range:	- 30°C to + 80°C	●	●	●	●	●
Mating plug:		4.4 mm (0.173") Bantam plug	B-Gauge 1/4" plug	A-Gauge 1/4" plug acc. EIA RS-453	4.4 mm (0.173") Bantam plug	Longframe B-Gauge plug
	according	MIL-P-642/13	BPO316/MIL-P-642/2	TEC60603-11	MIL-P-642/13	BPO316/MIL-P-642/2
Materials						
Housing:		Steel	Steel	Steel	anodised Al	anodised Al
Front panel:		anodised Al	Pocan B 3225	Steel	anodised Al	anodised Al
Lacing bar:		Brass	Steel	N / A	coated steel	coated steel
Jack housing:		PA 66 blend	PA 6.6 30% GR	ABS	diecast alloy	diecast Al
Jack contacts:		CuSn6	CuSn6	CuSn6	Ni-Silver	Ni-Silver
		Tribor® plated	Au plated	tin plated	(CuNi18Zn20)	(CuNi18Zn20)
Switch contacts:		Au plated	Au plated	Bronze, tin plated	Palladium plated	Palladium plated

Operating Accessories

Labeling software:

Patchlabel is a program to Label Patch Panel designation strips.
Free Download of Patch Label Program (ZIP - 347 KB) on the Web "www.neutrik.com" section "Products".

Part Number	Description			
NPPA Series		Configuration*	Wiring	Grounding
NPPA-TT-PT*	2 x 48 jacks	half normalled bottom	288 push terminals	individual
NPPA-TT-IDC*	2 x 48 jacks	half normalled bottom	288 IDC terminals (KRONE-Type)	individual
NPPA-TT-S*	2 x 48 jacks	half normalled bottom	288 solder terminals	individual
NPPA-TT-PT-PH	2 x 48 jacks	half normalled bottom	288 Phoenix push terminals	individual
NPPA-TT-SD50*	2 x 48 jacks	half normalled bottom	4 x 50 pole D-Sub	groups of 12 channels
NPPA-TT-E56*	2 x 48 jacks	half normalled bottom	6 x 56 pole ELCO male connectors	individual
NPPA-TT48-E5*6	2 x 24 jacks	half normalled bottom	3 x 56 pole ELCO male connectors	individual
NPPA-TT-E90*	2 x 48 jacks	half normalled bottom	4 x 90 pole ELCO male connectors	individual
* ... no soffix default configuration HNB, suffix -HNT, -FN, -P, -I on request				
Pre-configured Jack-Pairs				
NJ3TTA-4-HNB	blocks of 2 channels	half normalled bottom row		cover ident color: clear
NJ3TTA-4-HNT	blocks of 2 channels	half normalled top row		cover ident color: yellow
NJ3TTA-4-FN	blocks of 2 channels	full normalled		cover ident color: green
NJ3TTA-4-P	blocks of 2 channels	parallel		cover ident color: red
NJ3TTA-4-I	blocks of 2 channels	isolated		cover ident color: orange
Accessories				
NPPA-S	Strain Relief bar			
NKTT0x	Patch cords with NP3TT-1 plugs. Available in black, blue, green, red and yellow. Lenght: 30, 40, 60, 90, 120 cm			

NPPA-TB Series		Configuration	Wiring
NPP-TB	2 x 24 TB (BP0316/MIL-P-642/2) jacks	programmable for all commonly used configurations	push terminals
NPP-TB-HN	2 x 24 TB (BP0316/MIL-P-642/2) jacks	half Normalled Bottom Row	solder tags
Accessories			
NPP-LB-*	Channel identification and status plates, pack of 100 per color, 9 different colors		
NPP-C	Metal dust cover		
NPP-S	A second rear extention bar for fix the very large cables.		
NKTB0x	Patch cord with NP3TB plugs. Available in black and red. Lenght: 30, 40, 60, 90 cm		

NYS Series	
NYS-SPP-L	1/4" Patch Panel, 2 x 24 channels, configurations half normalled, isolated, split (Delivered in HNB)
NYS-SSR-8	1/4" Patch Box, 8 Send / Return modules (Split Print)
NYS-SPCR	Send / Return module (Split Print)

Re'an Bantam Patchbays	
MA96-1A	96 way, Red front panel - grouped 12 x 8
MA96-1D	96 way, Blue front panel - grouped 12 x 8
MA96-1O	96 way, Black front panel -grouped 12 x 8
MA96-1S	96 way, Silver front panel - grouped 12 x 8
XPM-96SS	96 way, Silver front panel - grouped 4 x 24
XPM-96SO	96 way, Black front panel - grouped 4 x 24
Bantam Jack Socket	
MAJ 5 01	Standard Solder Tag
MAJ 5 02	PCB Mount
MAJ 5 04	PCB Mount
MAJ 5 06	PCB Mount 90°
MAJ 5 08	PCB Straight

Part Number	Description
Re'an Longframe B-Gauge Patchbays	
LF48-1A	48 way, Red front panel
LF48-1D	48 way, Blue front panel
LF48-1O	48 way, Black front panel
LF48-1S	48 way, Silver front panel
LFJ-501	Longframe B-Gauge jack socket, standard solder tag