

**TRUST  
THE  
ORIGINAL**

# Circular Connectors



**NEUTRIK®**

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**Circular Connectors**



## Introduction

The Neutrik® circular connector program is a range of metal, multi-pole connectors specifically designed for industrial applications. These 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 Neutrik® unique chuck type strain relief and a reinforced housing for robust dependability.

The Neutrik® industrial connector range also features a unique power connector for single phase applications up to 32 A.

The main areas of application are in the measurement, test and control, automotive and machine tool industry as well as medical technology.





New Ergonomic quick lock



Bushing with securing key and sealing



Rugged sealing cover



ENECE certified



**TRUE  
OUTDOOR  
PROTECTION**

**powerCON® TRUE1 TOP – Lockable 16 A single phase connector**



NAC3FX-W-TOP



NAC3MX-W-TOP



NAC3FPX-TOP  
with SCNAC-FPX



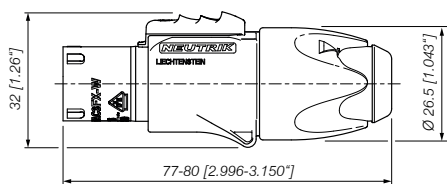
NAC3MPX-TOP  
with SCNAC-MPX



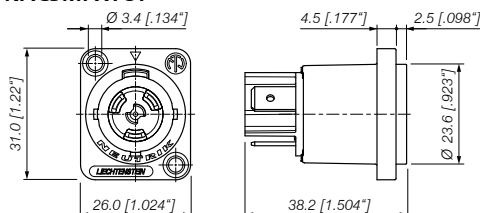
NAC3PX-TOP  
with SCNAC-PX

- True mains connector with breaking capacity (CBC)
- Designed to be engaged and disengaged in normal use when live or under load
- Lockable 16 A (acc. ENEC, VDE) / 20 A (acc. UL) connector
- Complete system with inlet and outlet connectors
- Outdoor protection acc. IP 65 and UL50E enclosure type 4
- Uses high impact, UV resistant materials per UL
- Certified according IEC 60320-1 and UL 498

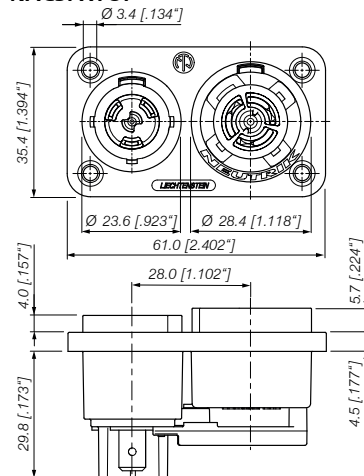
**NAC3FX-W-TOP**



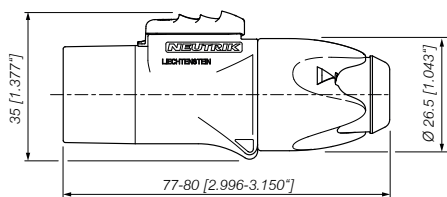
**NAC3MPXTOP**



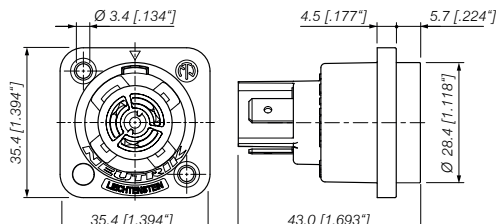
**NAC3PXTOP**



**NAC3MX-W-TOP**



**NAC3FPXTOP**



Ordering Information

Cable Connector

NAC3FX-W-TOP	Locking Power-In cable connector, female, screw terminals, IP 65
NAC3MX-W-TOP	Locking Power-Out cable connector, male, screw terminals, IP 65

Chassis Connector

NAC3FPX-TOP	Appliance outlet chassis connector, female, 1/4" flat tab terminals
NAC3FPX-ST-TOP	Appliance outlet chassis connector, female, screw terminals
NAC3FPX-WOT-TOP	Appliance outlet chassis connector, female, 1/4" flat tab terminals, without insulation divider
NAC3MPX-TOP	Appliance inlet chassis connector, male, 1/4" flat tab terminals
NAC3MPX-WOT-TOP	Appliance inlet chassis connector, male, 1/4" flat tab terminals, without insulation divider
NAC3PX-TOP	Appliance inlet-outlet chassis duplex, 1/4" flat tab terminals

Accessories



SCNAC-FPX



SCNAC-MPX



SCNAC-PX



HTAC

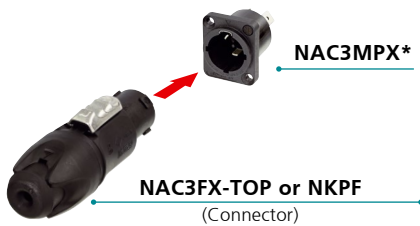


SCDP-\*

SCNAC-FPX	Rubber sealing cover for NAC3FPX-TOP chassis, IP65
SCNAC-MPX	Rubber sealing cover for NAC3MPX-TOP chassis, IP65
SCNAC-PX	Rubber sealing cover for NAC3PX-TOP chassis, IP65
HTAC	Hand tool to tighten the powerCON TRUE1 bushing
SCDP-*	D-Size sealing gaskets, colour coding (*: 0- black, 2- red, 4- yellow, 5- green, 6- blue, 9- white)

APPLIANCE INLET

POWER IN



APPLIANCE COMBINATION

INLET | OUTLET



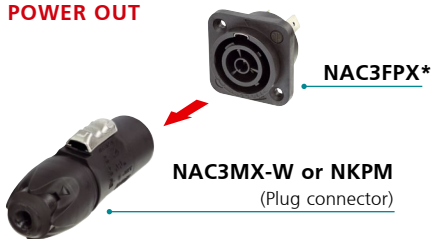
CABLE EXTENTION

NAC3FX-TOP or NKPF  
(Connector)



APPLIANCE OUTLET

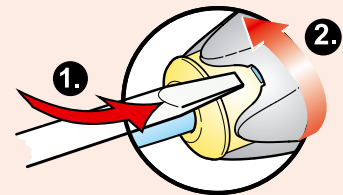
POWER OUT



FOR DISASSEMBLY - OPEN TWIST LOCK!



- 1 Press with screw driver to unlock
- 2 Turn bushing while still press the locking.



**Specification**

**READY-MADE POWER CORDS**

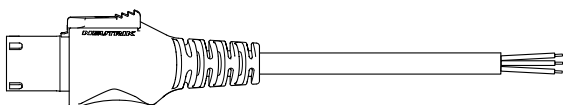
Ready-made overmolded power cord in protection class IP65. The cable utilizes standard duty cord with 3 conductors with cross section 1.5 mm<sup>2</sup> or AWG 12.

Cables are equipped with Neutrik powerCON TRUE1 NAC3FX-W and NAC3MX-W for extension cables, with an open end for termination of local connectors for "power in" supply cables or a right-angled Schuko plug. Other local connectors on request.

Cables are available in different lengths.

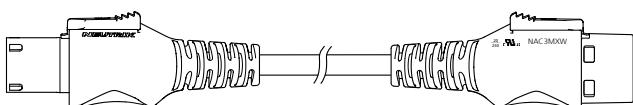
**International Cord**

**International Power Cord 16 A / 250 VAC**



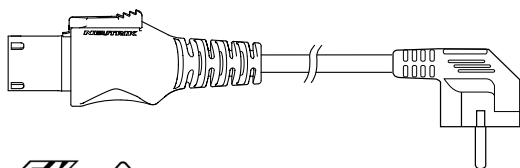
Plug / end termination	Neutrik NAC3FX-W / stripped open end
Approvals	ENEC, VDE
Standard length	1 m, 1.5 m, 2 m, 3 m, 5 m
Conductor size	3 x 1.5 mm <sup>2</sup>
Cable type / color / Nom. O.D.	H07RN-F3G1.5 / black / 9.6 mm
Part Number e.g.	NKPF-NC-A-3
Cable type / color / Nom. O.D.	H05VV-F3G1.5 / black / 8.3 mm
Part Number e.g.	NKPF-NC-B-1

**International Extension Cord 16 A / 250 VAC**



Plug / end termination	Neutrik NAC3FX-W / Neutrik NAC3MX-W
Approvals	ENEC, VDE
Standard length	0.5 m, 1 m, 1.5 m
Conductor size	3 x 1.5 mm <sup>2</sup>
Cable type / color / Nom. O.D.	H07RN-F3G1.5 / black / 9.6 mm
Part Number e.g.	NKPF-M-A-0.5
Cable type / color / Nom. O.D.	H05VV-F3G1.5 / black / 8.3 mm
Part Number e.g.	NKPF-M-B-1

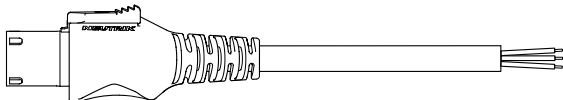
**International Power Cord 16 A / 250 VAC**



Plug / end termination	Neutrik NAC3FXW / SCHUKO RA Plug
Approvals	ENEC, VDE
Standard length	1 m, 1.5 m, 2 m, 3 m, 5 m, 10 m
Conductor size	3 x 1.5 mm <sup>2</sup>
Cable type / color / Nom. O.D.	H07RN-F3G1.5 / black / 9.6 mm
Part Number e.g.	NKPF-SR-A-1
Cable type / color / Nom. O.D.	H05VV-F3G1.5 / black / 8.3 mm
Part Number e.g.	NKPF-SR-B-1

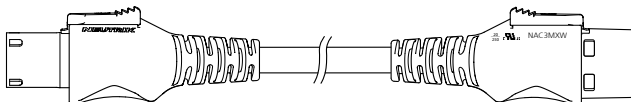
US Cord

US Power Cord 20 A / 250 VAC



Plug / end termination	Neutrik NAC3FXW / stripped open end
Approvals	UL, cUL
Standard length	1 m, 1.5 m, 2 m, 3 m, 5 m
Conductor size	3 x 12 AWG
Cable type / color / Nom. O.D.	SJTOW / black / 11.3 mm
Part Number e.g.	NKPF-NC-C-5
Cable type / color / Nom. O.D.	SJOOW / black / 11.3 mm
Part Number e.g.	NKPF-NC-D-3

US Extension Cord 20 A / 250 VAC



Plug / end termination	Neutrik NAC3FXW / Neutrik NAC3MXW
Approvals	UL, cUL
Standard length	0.5 m, 1 m, 1.5 m
Conductor size	3 x 12 AWG
Cable type / color / Nom. O.D.	SJTOW / black / 11.3 mm
Part Number e.g.	NKPF-M-C-1
Cable type / color / Nom. O.D.	SJOOW / black / 11.3 mm
Part Number e.g.	NKPF-M-D-1

Cable Part Number Breakdown

N K P F - X - Y - 3

Neutrik Power Cord

F ..... NAC3FX-W  
M ..... NAC3MX-W

TERMINATION 2. END

M ..... NAC3MX-W  
NC ..... Stripped open end  
SR ..... Schuko right-angled

LENGTH in m

CABLE TYPE

A ..... H07RN-F3G1.5  
B ..... H05VV-F3G1.5  
C ..... SJTOW AWG 12  
D ..... SJOOW AWG 12





Quick lock



Neutrik bushing



3/16" flat tabs



Locking area on chassis connector



powerCON

powerCON – Locking 3 Pole Power Connectors



NAC3FCA



NAC3MPA-1



NAC3FCB



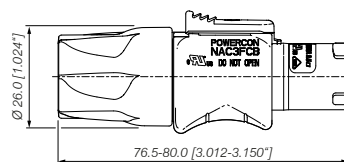
NAC3MPB-1



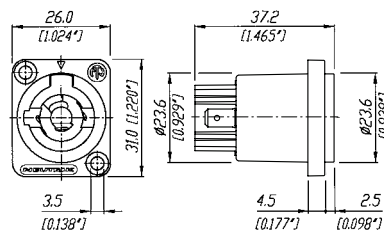
NAC3MM-1

- Lockable 3 pole single phase equipment (AC) connector
- High current capacity, rated at 20 A / 250 V ac
- Colour 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),
- New latch design for easier handling and secure locking
- Coupler for linking cables (couples NAC3FCA to NAC3FCB)

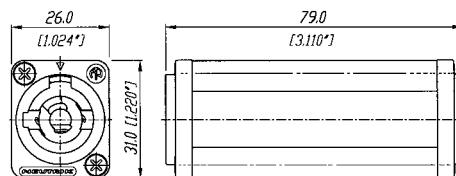
NAC3FCA(B)



NAC3MPA(B)-1



NAC3MM-1

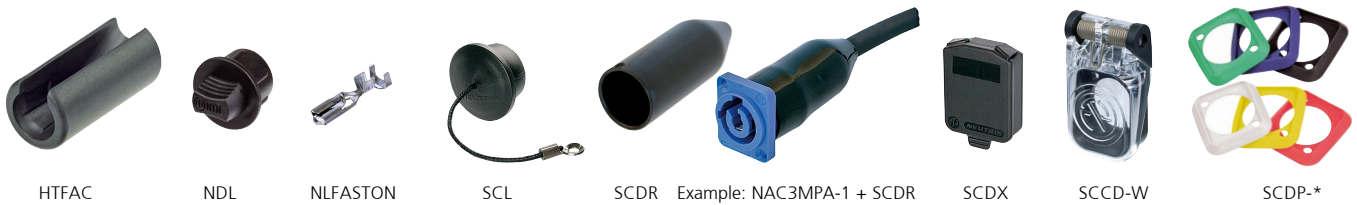




## Ordering Information

NAC3FCA	Cable connector, quick lock with securing lever, A-type for power inlet, screw terminals
NAC3MPA-1	Air tight chassis connector, A-type for power inlet, flat tab terminals, blue
NAC3MPA-1-WOT	Chassis connector, power-out, 3/16" flat tab terminals, blue, without insulation divider
NAC3FCB	Cable connector, quick lock with securing lever, B-type for power outlet, screw terminals
NAC3MPB-1	Air tight chassis connector, B-type for power outlet, flat tab terminals, grey
NAC3MPB-1-WOT	Chassis connector, power-out, 3/16" flat tab terminals, grey, without insulation divider
NAC3MM-1	Coupler for linking cables (couples NAC3FCA to NAC3FCB)

## Accessories



HTFAC	Hand tool to tighten the powerCON bushing
NDL	dummyPLUG for powerCON 20 A chassis connector
NLFASTON	FASTON® receptacle for tabs with "positive lock" for use with NL4MP, NL4MPR, NL8MPR, Pack of 100 pcs.
SCL	Plastic sealing cover to protect the connectors against dust and moisture
SCDR	Rear end protection cover for D-size chassis connector
SCDX	Hinged cover seals D-size chassis connectors, IP 42 rated
SCCD-W	Spring-loaded cover to seals D-size chassis connectors, IP65 rated
SCD-W	D-Size sealing cap, IP65 rated
SCDP-*	D-Size sealing gaskets, colour coding (*: 0- black, 2- red, 4- yellow, 5- green, 6- blue, 9- white)

## Connector Assignment

### Combination & Keyways:

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.



### ATTENTION

The technical data of the powerCON connectors refer to connectors without breaking capacity, meaning connecting devices not to be engaged and disengaged in normal use when live or under load.



Robust metal housing



Big bushing for cable up to 20 mm



Locking key



Screw-type terminals



powerCON

## powerCON 32 A Connectors



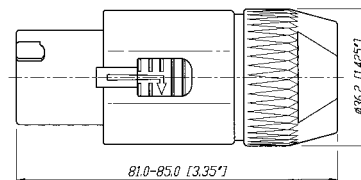
NAC3FC-HC



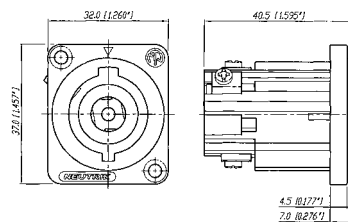
NAC3MP-HC

- Locking single phase AC appliance coupler
- High current capacity (32 A rated)
- Fast and easy locking system
- Excellent cable handling and protection
- Extremely robust and reliable
- 250 V ac, 32 A single-phase (for ambient temperatures up to 35 °C)
- Premating contact for protective earth
- Locking system to prevent unintentional disengagement
- Cable O.D. range: 8 – 20 mm
- Wiring with screw-type terminals for wires 2.5 to 6.0 mm<sup>2</sup> (AWG 14 – 10)

### NAC3FC-HC



### NAC3MP-HC



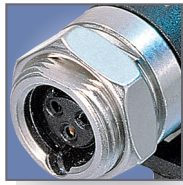
## Ordering Information

NAC3FC-HC	Cable connector, quick lock with securing lever, screw terminals
NAC3MP-HC	Fast and easy locking system, screw-type terminals

Specification		powerCON TRUE1 TOP	powerCON Series	32 A powerCON Series
<b>Electrical</b>				
Number of contacts	2 + PE	●	●	●
Rated current per contact		20 A rms <sup>1)</sup>	20 A rms	32 A rms
Rated voltage	250 V ac	●	●	●
Dielectric strength	4 kV dc / 2.8 kV ac	●	●	●
Contact resistance	≤ 3 mΩ	●	●	●
Insulation resistance after damp heat test (IEC 68-2-30)	> 0.1 GΩ	●	●	●
<b>Mechanical</b>				
Retention method	Quick lock	●	●	●
Cable O.D. range		6 – 12 mm	6 – 15 mm <sup>2)</sup>	8 – 20 mm
Wiring	Cable: screw type terminals	●	●	●
		1.0 - 2.5 mm <sup>2</sup> / AWG 12	2.5 mm <sup>2</sup> / AWG 14	2.5–6 mm <sup>2</sup> / AWG 14-10
	or soldering	●	●	●
	Chassis:			
	flat tabs for FASTON® (4.8 x 0.5 mm)	-	●	-
	(6.35 mm x 0.8 mm)	●	-	-
	or soldering	●	●	●
	screw type terminals	●	●	●
<b>Material</b>				
Housing cable connector		PA 6.6 30% GR	PA 6 30% GR	PA 6 30% GR
Housing receptacle		PA 6.6 30% GR	PA 6.66 25% GR	PA 6.6 25% GR
Insert		PA 6.6 30% GR	PA 6 30% GR	PA 6.6 25% GR
Contacts	Female:	CuSn0.2	CuZn39Pb3	CuZn39Pb3
	Male:	CuNi1Si0.2	CuNi1Si0.2	CuSn0.2
Contact surface		2 μm Ag plated	4 μm / 2 μm Ag plated	4 μm Ag
Chuck	POM	●	●	●
<b>Environmental</b>				
Flammability	UL 94 HB	-	●	● plug housing
	UL 94 V-0	●	●*	●*
Temperature range:	-30 °C to +80 °C	●	●	70 °C
Protection class (mated)		IP 65	IP 20	IP 2X unmated
Safety Requirements	EN / IEC61984	-	●	●
	IEC 60320	●	-	-
Solderability complies with	IEC 68-2-20	●	●	-
<sup>1)</sup> : Appliance coupler acc. IEC 60320 limited to 16 A ac <sup>2)</sup> : Cable O.D. range limited to 6 - 14 mm / acc. VDE * : Receptacle				
FASTON® is a trademark of AMP Inc.				



Connector locking



PCB receptacle



Panel mount receptacle

nanoCON

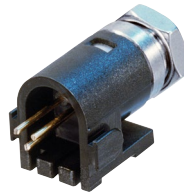
**nanoCON – 3 Pole Subminiature Connectors**



NSC3F



NP3F-H



NP3M-V



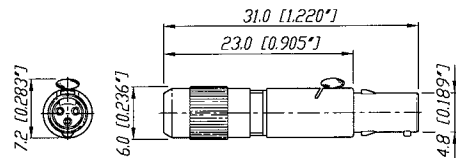
NR3M-S



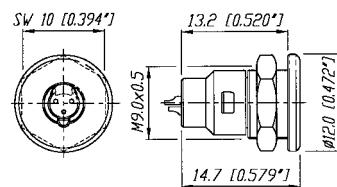
NR3F-S

- 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

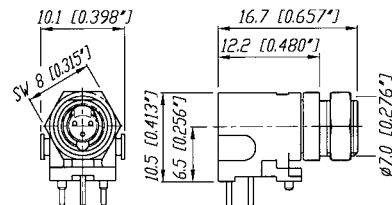
**NSC3F(M)**



**NR3F(M)-S**



**NP3F(M)-H**



**M 1:1**

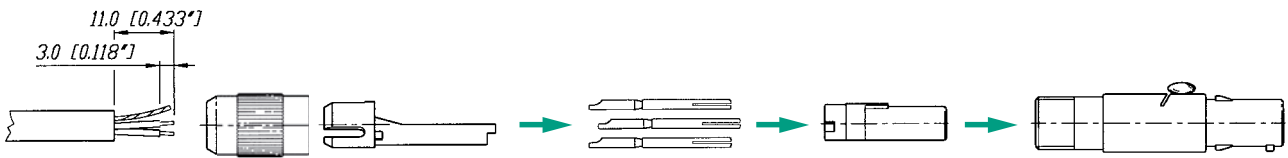


**Ordering Information**

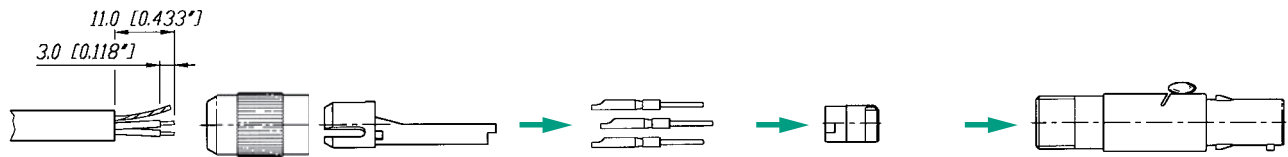
Female		Male	
NSC3F	Cable connector, chuck principle, solder contacts	NSC3M	Cable connector, chuck principle, solder contacts
NR3F-S	Chassis connector panel mount, solder contacts	NR3M-S	Chassis connector panel mount, solder contacts
NP3F-H	Chassis connector horizontal PCB mount	NP3M-H	Chassis connector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

**Ordering Information**

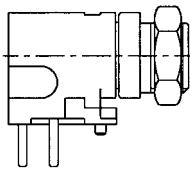
**NSC3F**



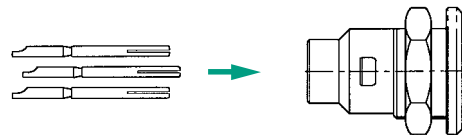
**NSC3M**



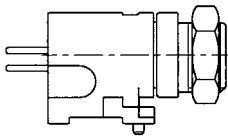
**NP3F-H**  
**NP3M-H**



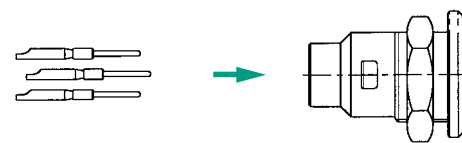
**NR3F-S**



**NP3F-V**  
**NP3M-V**



**NR3M-S**



**Contact Arrangement**

**Male**



**Female**

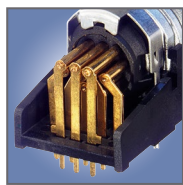




Push Pull locking



Gold solder contacts



Horizontal PCB mount

miniCON

## miniCON – 12 Pole Miniature Connectors



MSCM12



MMC\* (modulares System)



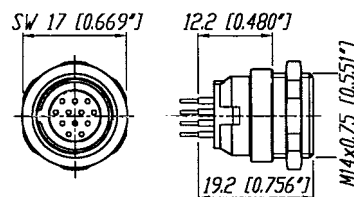
MRF12



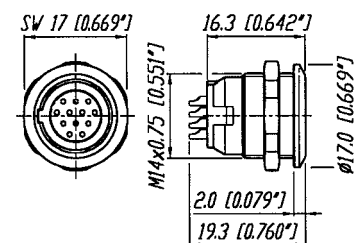
MPF12-H

- 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 for horizontal or vertical PCB mount
- Gold plated contacts, crimp or solder, velour chromium housing
- Special crimp type strain relief establishes an ideal coaxial connection of the cable shield to the connector shell for best EMC shielding
- Easy assembly: contact soldering in disassembled condition avoids awkward wiring of high density contacts
- Interchangeable insert (male-female)

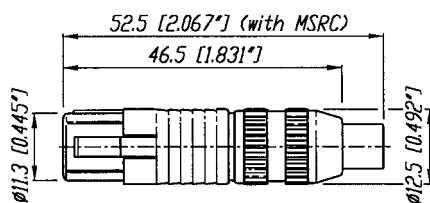
### MPF(M)12-V



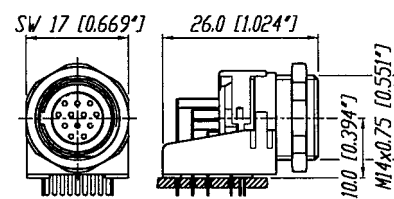
### MRF(M)12



### MSCF(M)12 (+MSRC)



### MPF(M)12-H

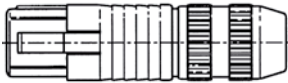


## Ordering Information for complete miniCON set

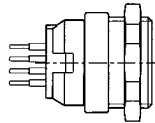
Complete set (consisting of housing, insert, 12 contacts and chuck for cable connector)

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

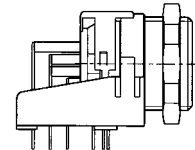
MSCF(M)12



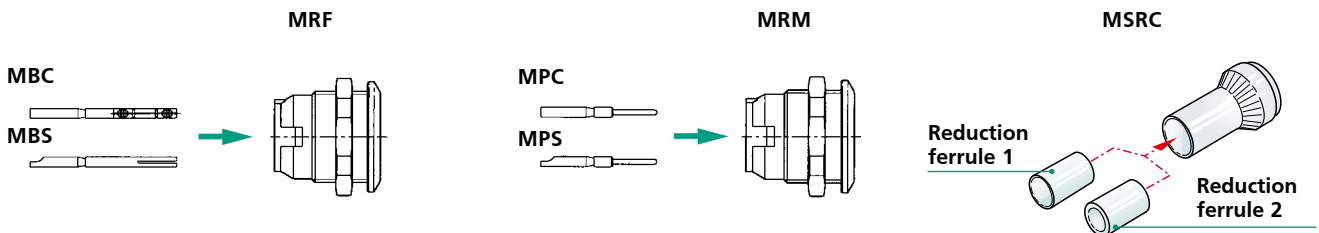
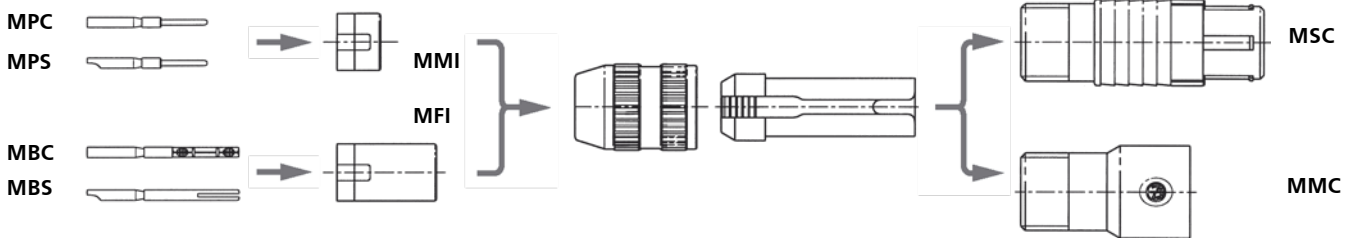
MPF(M)12-V



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 (consisting of crimp ferrule & reduction ferrule 1 + 2, tools see page 130)		



Push Pull locking



All metal housing



Colored bushing available

neutriCON

neutriCON – Versatile Circular Connectors



OSC8F



OSC8M-Ni



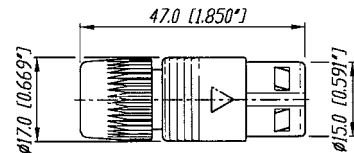
ORP8F-Ni



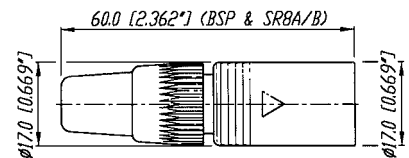
ORP8M

- 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 coaxial connection of the cable shield to the connector shell for best EMC shielding
- 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

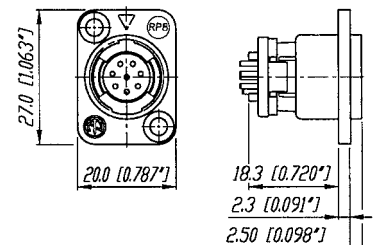


MODULAR SYSTEM



MC8 + SR8A/B + insert

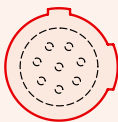
ORP8F / ORP8M



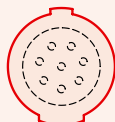
Polarization

**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.

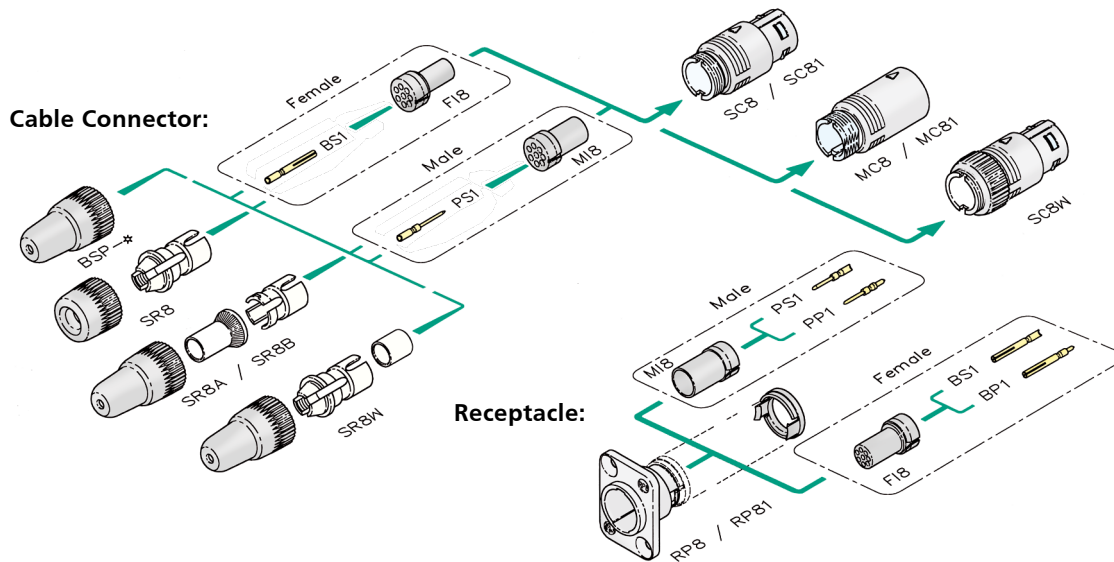


Ordering Information for complete neutriCON set

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



Modular system

Female		Male	
F18	Insert for cable connector and receptacle	M18	Insert for cable connector and receptacle
BS1	Solder contact	PS1	Solder 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
SC8W	Cable housing, black coated, 180° coding, waterproof multipin connector according IP54		
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 132)		
SR8B	Crimp type strain relief for cable O.D. 6 – 7 mm (Hex crimp 7.01 mm acc. IEC 803, see also page 132)		
SR8W	Bushing and chuck type strain relief for waterproof solution IP 54		
BSP-*	Coloured boot, available in 10 resistor colours		

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



## Crimptool



**Crimping tool HX-CONTACT** DMC crimping tool AFM8  
acc. M22520/2-01



**MPOS-\***

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

## Contact and connector assembly



**Crimptool HX-R-BNC** Neutrik® HEX crimping tool



**DIE-R-BNC-\***

Neutrik® dies 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

## 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	AWG 24/0.22 mm <sup>2</sup>	HX-CONTACT	MPOS-MBC	No. 5 / M22520/2-01
MPC	Male crimp contact	AWG 24/0.22 mm <sup>2</sup>	HX-CONTACT	MPOS-MPC	No. 5 / M22520/2-01

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

Specification	nanoCON Series	miniCON Series	neutriCON Series
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## Electrical

Number of contacts	3	12 (1-12 modular system)	8 (1-8 modular system)
Rated current per contact	2 A	3 A	7.5 A (solder), 5 A (crimp)
Rated voltage	50 V ac	50 V ac	50 V ac
Dielectric strength	1000 V dc	1000 V dc	1500 Vdc
Contact resistance	≤ 12 mΩ	≤ 8 mΩ	≤ 5 mΩ
Insulation resistance after damp heat test (IEC 68-2-30)	> 1 GΩ	> 500 MΩ	> 500 MΩ

## Mechanical

Retention method	latch	Push-pull	Push-pull
Cable O.D. range	max. 3.4 mm	3 – 5 mm (grey chuck)	3 – 7 mm
	-	5 – 7 mm (white chuck)	3 – 3.8 mm (SR8A)
	-	2.5 – 6 mm	6 – 7 mm (SR8B)
	-	(crimp version MSRC)	
Wiring	0.2 mm <sup>2</sup> / 24 AWG	0.5 mm <sup>2</sup> / 20 AWG	1.0 mm <sup>2</sup> / 18 AWG
	for solid wire	for solder	for solder
	0.14 mm <sup>2</sup>	0.22 mm <sup>2</sup>	-
	26 AWG	24 AWG	-
	for stranded wire	for crimp	-
Solderability complies with IEC 68-2-20	●	●	●

## Material

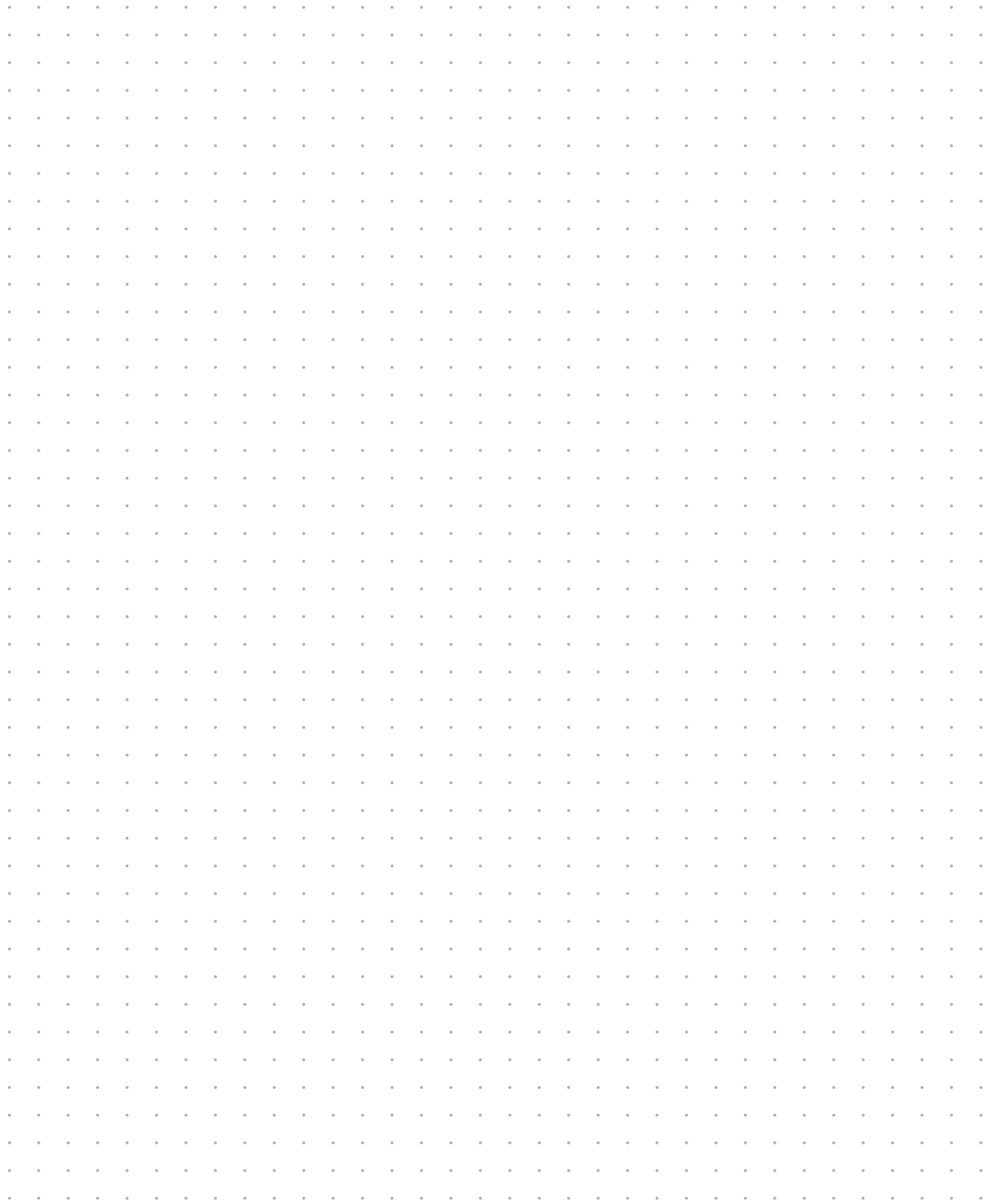
Housing cable connector	CuSn4Pb4Zn4	ZnAl4Cu1 / CuZn39Pb3	ZnAl4Cu1 gal Ni or black chrome
Housing receptacle	CuZn39Pb2	ZnAl4Cu1	ZnAl4Cu1, gal Ni or black chrome
Insert	PETP	PA 6.6	PBTP 15% GR
Contacts	CuZn35Pb2	CuZn35Pb2 (solder)	CuZn35Pb2 (solder)
		CuZn39Pb3 (crimp)	
		CuSn6	
Contact surface	0.5 μm Au	0.2 μm AuCo	0.3 μm Au hard alloy over 2 μm Ni
Chuck POM	●	●	●

## Environmental

Flammability	UL 94 HB	-	-	●
Flammability	UL 94 V-0	●	●	-
Temperature range	-30 °C to +80 °C	●	●	●
Protection class (mated)	IP 40*	IP 5X	IP 5X	IP 5X
Safety Requirements EN/IC61984	-	-	-	-

\*: Receptacle

FASTON® is a trademark of AMP Inc.



## Definitions, Abbreviations & Useful Information

### ELEMENTS

<b>Ag</b>	Silver
<b>Al</b>	Aluminium
<b>Au</b>	Gold
<b>Co</b>	Cobalt
<b>Cr</b>	Chromium
<b>Cu</b>	Copper
<b>Ni</b>	Nickel
<b>P</b>	Phosphorus
<b>Pb</b>	Lead
<b>Pd</b>	Palladium
<b>Sn</b>	Tin
<b>Zn</b>	Zinc
<b>SS</b>	Stainless Steel

### ALLOYS, PLASTICS, POLYMERS

<b>Brass (Alloy)</b>	CuZn39Pb3
<b>Bronze (Alloy)</b>	CuSn6
<b>Ck 67</b>	Carbon Steel
<b>EPDM</b>	Ethylene Propylene
<b>GR</b>	Glass Reinforced
<b>PA</b>	Polyamide
<b>PBTP</b>	Polybutylene Terephthalate
<b>POM</b>	Polyacetal
<b>PTFE</b>	PolyTetraFluoroEthylene (TEFLON)
<b>PUR</b>	Polyurethane

### MEASUREMENT LEGEND

<b>N</b>	Newton
<b>Ω</b>	Ohm
<b>μ</b>	Micro
<b>OD</b>	Outside Diameter
<b>m</b>	Meter(s)
<b>k</b>	Kilo

### ENGLISH TO METRIC CONVERSIONS



<b>1/8 inch</b>	3.175	millimeters (mm)
<b>1/4 inch</b>	6.35	millimeters (mm)
<b>1 inch</b>	25.4	millimeters (mm)
	2.54 cm	1 inch
<b>1 foot</b>	30.48	centimeters (cm)
	0.305	meter (m)
<b>6 foot</b>	1.828	meters (m)
<b>50 foot</b>	15.24	meters (m)
<b>100 foot</b>	30.48	meters (m)
<b>1000 foot</b>	304.8	meters (m)

### METRIC TO ENGLISH CONVERSIONS

<b>1 centimeter</b>	0.3937	inches
<b>1 meter</b>	39.37	inches
<b>3.281 meter</b>	10	feet
<b>10 meters</b>	32.808	feet
<b>50 meters</b>	164.041	feet
<b>100 meters</b>	328.084	feet

### OTHER ABBREVIATIONS

<b>UL®</b>	Underwriters Laboratories
<b>IP Rating</b>	Ingress Protection rating for objects and water ACC IEC529/EN60529
<b>IEC</b>	International Electrotechnical Commission is the international standards and conformity assessment body for all fields of electrotechnology
<b>UL</b>	UL Recognized Component Mark

	<b>ENEC</b> – European norms electrical certification, demonstrates compliance with European safety standards.
	<b>VDE</b> Association for Electrical, Electronic and Information Technologies e.V.
<b>AWG</b>	American Wire Gauge

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

## Neutrik® Part Number Guide

### NC3FAH1-B-0-D

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

Definitions, abbreviations & useful information see page 21.

# Neutrik® Product Line

<p><b>XLR Connectors</b></p>	<p><b>Plugs &amp; Jacks</b></p>	<p><b>SpeakON® Connectors</b></p>	<p><b>Data Connectors</b></p>	<p><b>Circular Connectors</b></p>	<p><b>powerCON® Connectors</b></p>	<p><b>Patch Panels</b></p>	<p><b>Accessories</b></p>	<p><b>Digital Audio Network</b></p>
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# NEUTRIK®

The premium brand of the Neutrik Group

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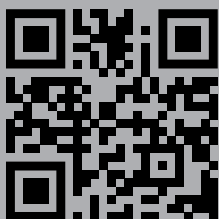
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