NC3FXX-EMC

3 pole female EMC-XLR cable connector

The EMC-XLR Series is a specifically designed version of the XX series to give enhanced RF screening for critical applications in live performance and recording where there are particular problems with radio transmission or mobile phones. The design guarantees a continuous RF shield connection from the cable to the chassis connector housing via a circular capacitor around the cable shield. The circular capacitors act as high-pass filter with a cut-off frequency around 10 MHz. An EMI suppression ferrite bead with 24 Ohm at 1 MHz between pin 1 and the cable screen provides a low-pass filter for improved RF rejection.

Features & Benefits

- 3 pole male and female XLR cable connector with integrated capacitive shield to shell connection
- Circular capacitor around the cable shield enables low-inductive shield connection to connector housing
- Female connector with circumferential ground spring providing an accurate connection to the mating shell
- Cable shield - Pin 1 connection includes EMI suppression bead to block high frequencies
- Avoid ground loops as there is no LF-shield connection to ground
- Rugged zinc diecast shell, long lasting and durable
- Chuck type strain relief system for secure clamping of cables
- Boot with rubber gland gives high protection against bending stresses

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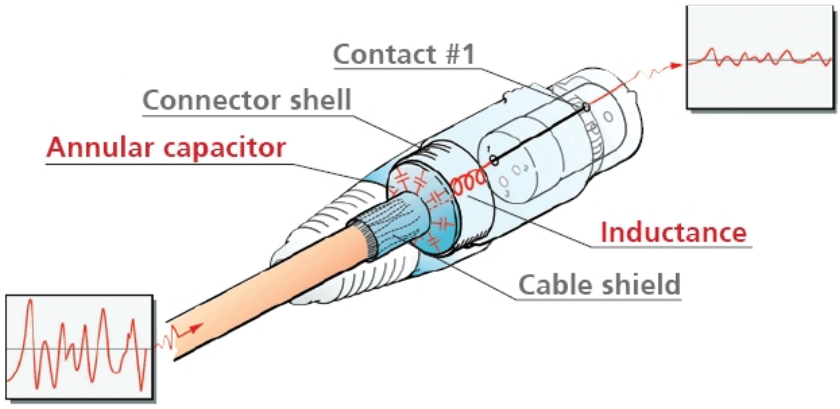
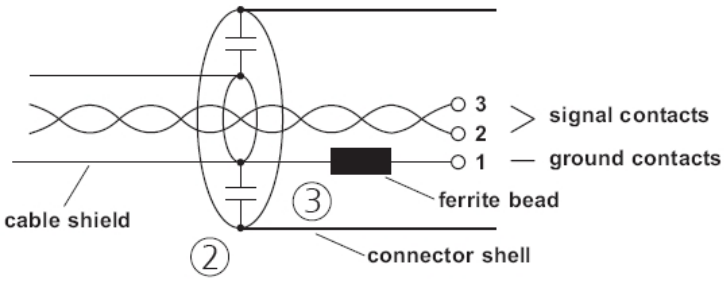
EMC Explanation

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)



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Technical Information

Product	
Title	NC3FXX-EMC
Connection Type	XLR
Gender	female

Electrical	
Capacitance between contacts	≤ 4 pF
Contact resistance	≤ 3 mΩ
Dielectric strength	1,5 kVdc
Insulation resistance	> 10 GΩ (initial)
Rated current per contact	5 A
Rated voltage	< 50 V

Mechanical	
Cable O.D.	3.5 - 8.0 mm
Insertion force	< 50 N
Withdrawal force	< 20 N
Lifetime	> 1000 mating cycles
Wiresize	max. 0.75 mm²
Wiresize	max. 20 AWG
Wiring	Solder contacts
Locking device	Latch lock

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Material

Boot	Polyurethan
Contact plating	0.2 µm Au hard alloy over 2 µm Ni
Contacts	Bronze (CuSn8)
Insert	Polyamide (PA 6.6 30 % GR)
Locking element	Zinc diecast (ZnAl4Cu1) / Ck 67 (spring)
Shell	Zinc diecast (ZnAl4Cu1)
Shell plating	Nickel
Strain relief	Polyacetal (POM)
Circumferential ground spring	Bronze (CuSn6), Ni plated

Environmental

Flammability	UL 94 HB
Standard compliance	IEC 61076-2-103
Protection class	IP 40
Solderability	Complies with IEC 68-2-20
Temperature range	-30 °C to +80 °C

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