



NC3FXX-EMC

3 pole female EMC-XLR cable connector

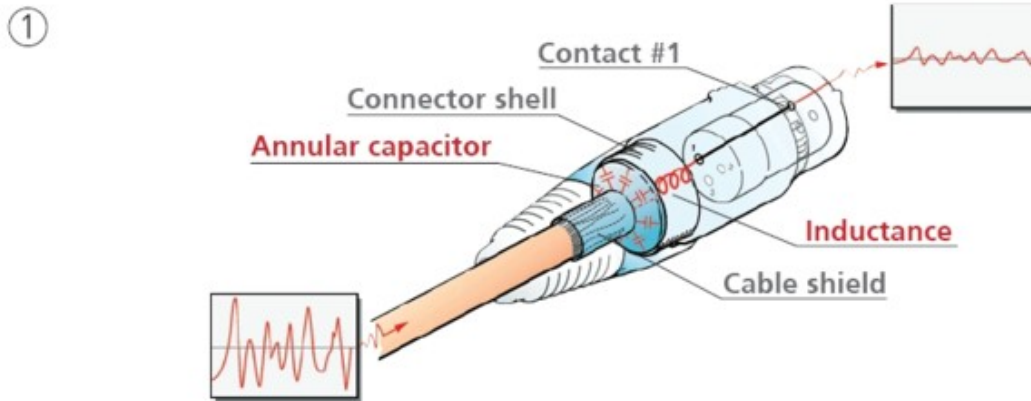
The EMC-XLR Series is a specifically designed version of the XX series to give enhanced RF screening for critical applications in live performance and recording where there are particular problems with radio transmission or mobile phones. The design guarantees a continuous RF shield connection from the 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

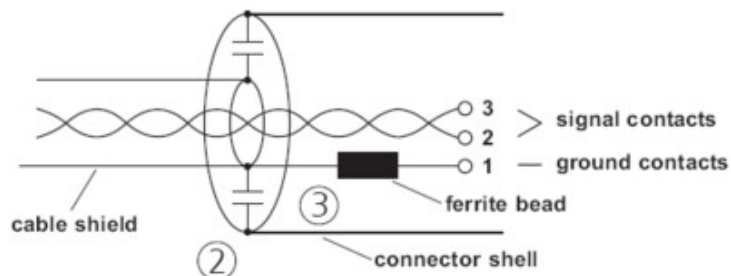
- ✓ 3 pole male and female XLR cable connector with integrated capacitive shield to shell connection
- ✓ Circular capacitor around the cable shield enables low-inductive shield connection to connector housing
- ✓ Female connector with circumferential ground spring providing an accurate connection to 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

EMC Explanation



- 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)



Technical Information

| Product | |
|-----------------|------------|
| Title | NC3FXX-EMC |
| Connection Type | XLR |
| Gender | female |

| Electrical | |
|------------------------------|----------------------------------|
| Capacitance between contacts | $\leq 4 \text{ pF}$ |
| Contact resistance | $\leq 3 \text{ m}\Omega$ |
| Dielectric strength | 1,5 kVdc |
| Insulation resistance | $> 10 \text{ G}\Omega$ (initial) |
| Rated current per contact | 5 A |
| Rated voltage | $< 50 \text{ V}$ |

| Mechanical | |
|------------------|--------------------------|
| Cable O.D. | 3.5 - 8.0 mm |
| Insertion force | $< 50 \text{ N}$ |
| Withdrawal force | $< 20 \text{ N}$ |
| Lifetime | > 1000 mating cycles |
| Wiresize | max. 0.75 mm^2 |
| Wiresize | max. 20 AWG |
| Wiring | Solder contacts |
| Locking device | Latch lock |

| 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) |
| Locking element plating | Nickel |
| 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 |