Neutrik’s new fiber optic connector series offers advanced lens technology for the Broadcast and AV Market. DRAGONFLY is more robust, reliable and easier to maintain than common hybrid camera signal transmission systems. With technology based on fiber lenses and fusion splicing, Neutrik’s DRAGONFLY achieves an extremely robust signal with minimal loss. opticalCON DRAGONFLY combines all the advantages of lens technology and makes it competitive with physical contact connectivity.

The DRAGONFLY connector offers long life with very low maintenance. It can also withstand harsh and demanding environments and is dust and moisture insensitive. Additionally, DRAGONFLY is robust against vibration and therefore has low potential for damage. And if there ever is a problem, DRAGONFLY is field repairable. With this new technology, DRAGONFLY provides a complete solution for the Broadcast and AV Market.
DRAGONFLY is based on the patented XB2-Technology. Its innovative fusion splice high-performance lens transmits UHD 4K and 8K signals with very low loss as the signal surface of the XB2 lens is 322 times bigger than physical contact surfaces. This further results in low insensitivity against dust and dirt.

**STANDARD PHYSICAL CONTACT**

**Single Mode**

Ø = 9 µm  
A = 64 µm²  
Factor A = 1

**XB2 LENSED SOLUTION**

**Single Mode**

Ø = 162 µm  
A = 20.612 µm²  
Factor A = 322
DRAGONFLY is a ruggedized and low maintenance hybrid cable connector for indoor and outdoor use.

**INNOVATIVE AND FUTURE PROOF**
- fusion splice technology – field repairable
- High performance – low loss
- Consistent quality
- 100% reliable even at extreme temperature fluctuations
- Permanent connection

**SIMPLE AND EFFICIENT**
- hybrid connection – power and data over one connection
- Low maintenance interval
- Easy switching to DRAGONFLY – fits into standardized cutouts
- Easy cleaning with compressed air and water
- Competitive price

**ROBUST AND RELIABLE**
- Extremely robust system
- Reliable push/pull locking mechanism
- Dust and waterproof according to IP68
- Proven anti-kink boot design
- Long life – 10,000 mating cycles
Low maintenance and easy to clean

Dust and waterproof according to IP68 in mated condition

High performance – low loss

Reliable push/pull locking mechanism

Fusion splice technology – field repairable

Long life – 10,000 mating cycles

hybrid connection – power and data

Proven anti-kink boot design
**APPLICATION**
The opticalCON DRAGONFLY system is the perfect solution for live broadcast productions.

**OB CONFIGURATION**

**STUDIO CONFIGURATION**
CONCEPT AND DESIGN

CABLE CONNECTOR male
- Approved anti-kink boot
- Color Coding #2
- Improved Push/Pull
- Lockable Dirt Protection
- New ratch-lock System
- IP68 Approved in mated condition

CHASSIS female
- Improved Shielding
- Color Coding #1
- Easy to repair and to replace
- Standardized Cut-out
- IP68 Approved in mated condition
- Dirt Protection
**CABLE CONNECTOR** female

- Improved Shielding
- Dirt protection
- IP68 Approved in mated condition
- Approved anti-kink boot
- Color Coding #1
- Color Coding #2
- New ratch-lock System

**CHASSIS** male

- Improved Guiding Nose
- IP68 Approved in mated condition
- Unique Lensed XB2-Technology
- Easy to repair and to replace
- Lockable Dirt Protection
- Color Coding #1
### Optical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss</td>
<td>Typical 0.6 dB per connection / Maximum 1 dB per connection</td>
</tr>
<tr>
<td>Return Loss</td>
<td>Typical 45 dB / Minimum 40 dB</td>
</tr>
<tr>
<td>Wavelengths</td>
<td>SM: 1310 nm / 1550 nm</td>
</tr>
<tr>
<td>Compatible fiber types</td>
<td>SM: 9/125-G657A2</td>
</tr>
<tr>
<td>Operation Temperature</td>
<td>-40 °C to +75 °C</td>
</tr>
<tr>
<td>Termination</td>
<td>Fusion Splice</td>
</tr>
<tr>
<td>WDM Compatibility</td>
<td>Yes</td>
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</tbody>
</table>

### Mechanical Specifications – DRAGONFLY

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strain relief</td>
<td>&gt; 500 N</td>
</tr>
<tr>
<td>Insertion force</td>
<td>&lt; 45 N</td>
</tr>
<tr>
<td>Withdrawal force</td>
<td>&lt; 45 N</td>
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<tr>
<td>Locking device</td>
<td>Push / Pull</td>
</tr>
<tr>
<td>Locking force</td>
<td>&gt; 900 N</td>
</tr>
<tr>
<td>Lifetime</td>
<td>10,000 mating cycles</td>
</tr>
<tr>
<td>Anti-King protection</td>
<td>Identical like approved opticalCON ADVANCED</td>
</tr>
<tr>
<td>IP Rating</td>
<td>IP68 (with Sealing Kit SCXP-*) in mated condition</td>
</tr>
<tr>
<td>Wiresize</td>
<td>2 x 24AWG + 4 x 20AWG</td>
</tr>
<tr>
<td>Cable</td>
<td>Standard SMPTE 311 Cable ø 9.2 mm</td>
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</table>

### Electrical Specifications – DRAGONFLY

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Rated Current – power</td>
<td>10A</td>
</tr>
<tr>
<td>Rated Current – sense</td>
<td>1A</td>
</tr>
<tr>
<td>Rated Voltage – power</td>
<td>600 V</td>
</tr>
<tr>
<td>Rated Voltage – sense</td>
<td>42 V ac / 62 V dc</td>
</tr>
<tr>
<td>Contact resistance</td>
<td>&lt; 7 mΩ</td>
</tr>
<tr>
<td>Transfer resistance ground</td>
<td>&lt; 10 mΩ</td>
</tr>
<tr>
<td>Insulation Resistance</td>
<td>&gt; 10 GΩ</td>
</tr>
</tbody>
</table>