

CAMERA CONNECTOR SYSTEM

# INNOVATIVE SOLUTIONS

DRAGONFLY

opticalCON®



**NEUTRIK®**



# DRAGONFLY

opticalCON®



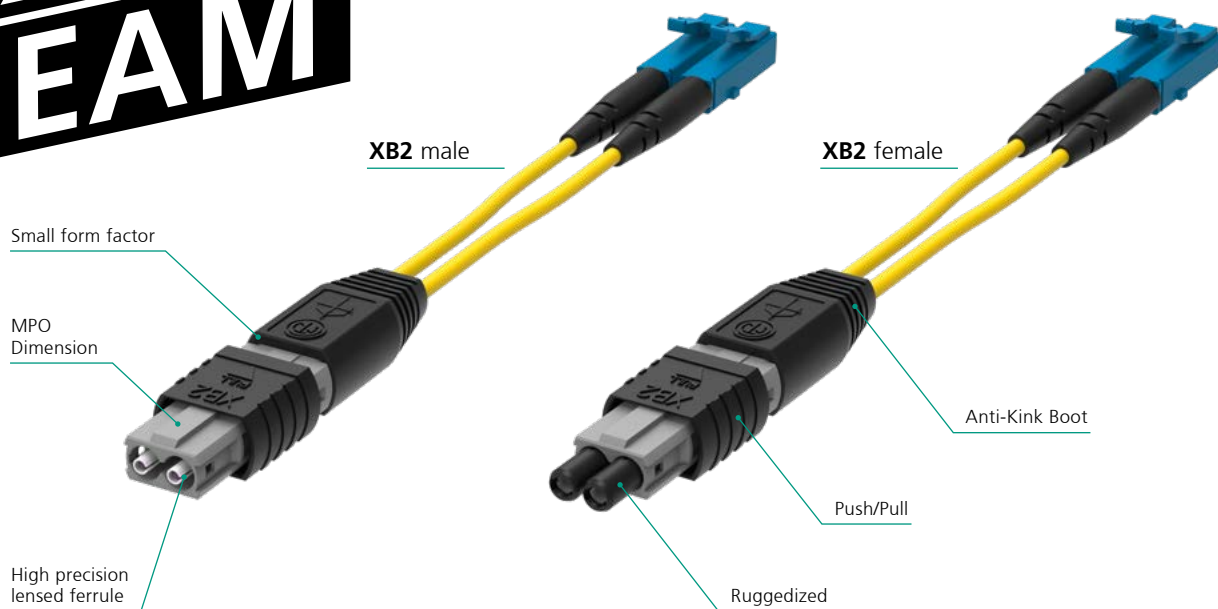


# CAMERA CONNECTOR

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.

# CORE TECHNOLOGY EXPANDED BEAM

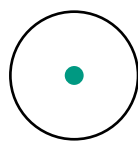


DRAGONFLY is based on the patented XB2-Technology. Its innovative fusion splice high-performance lens transmits UHD 4K and 8K signals with very low loss as the signal surface of the

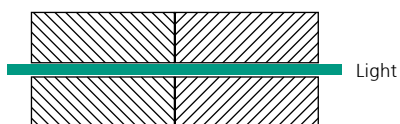
XB2 lens is 322 times bigger than physical contact surfaces. This further results in low insensitivity against dust and dirt.

## STANDARD PHYSICAL CONTACT

### Single Mode

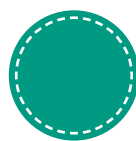


$\varnothing = 9 \mu\text{m}$   
 $A = 64 \mu\text{m}^2$   
 Factor A = 1



## XB2 LENSED SOLUTION

### Single Mode



$\varnothing = 162 \mu\text{m}$   
 $A = 20.612 \mu\text{m}^2$   
 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



# FEATURES AND BENEFITS

Low maintenance and easy to clean

High performance – low loss



Fusion splice technology – field repairable

hybrid connection – power and data



Dust and waterproof according to IP68 in mated condition

Reliable push/pull locking mechanism



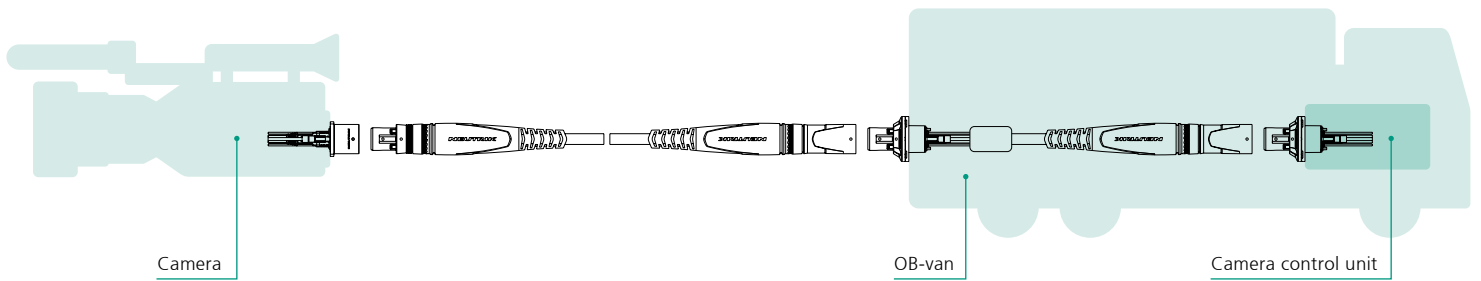
Long life – 10 000 mating cycles

Proven anti-kink boot design

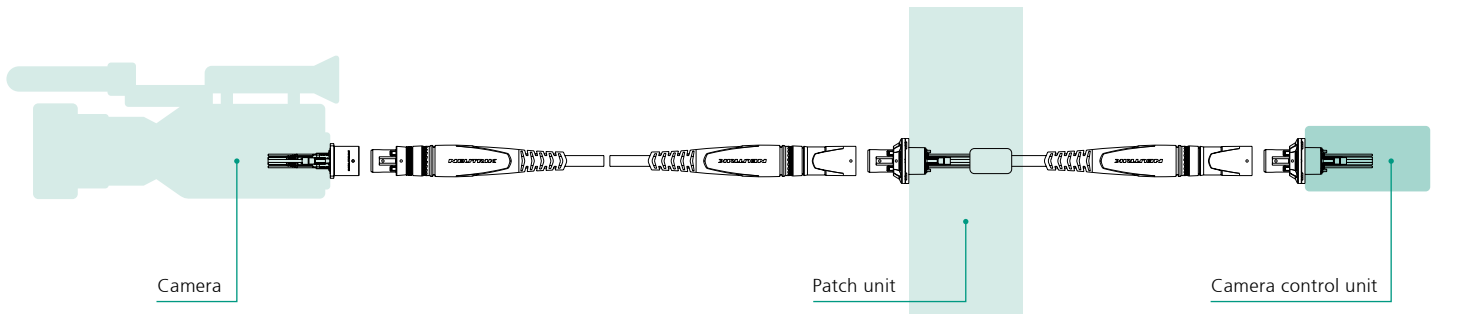
## APPLICATION

The opticalCON DRAGONFLY system is the perfect solution for live broadcast productions.

## OB CONFIGURATION



## STUDIO CONFIGURATION

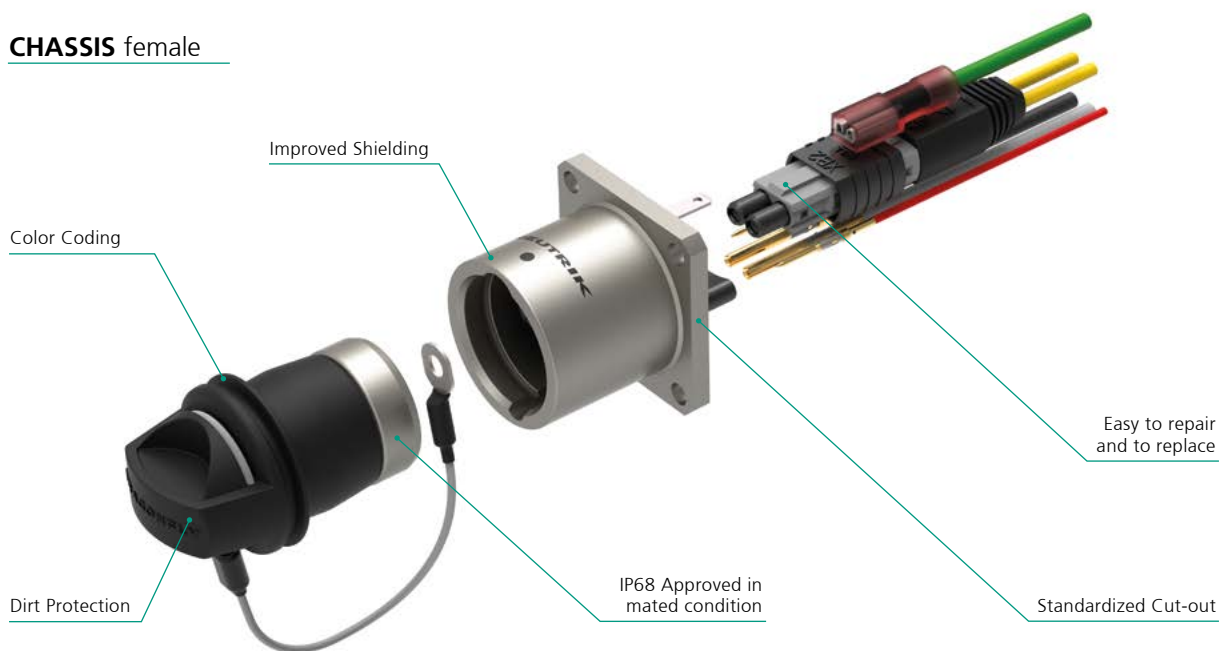


# CONCEPT AND DESIGN

## CABLE CONNECTOR male



## CHASSIS female

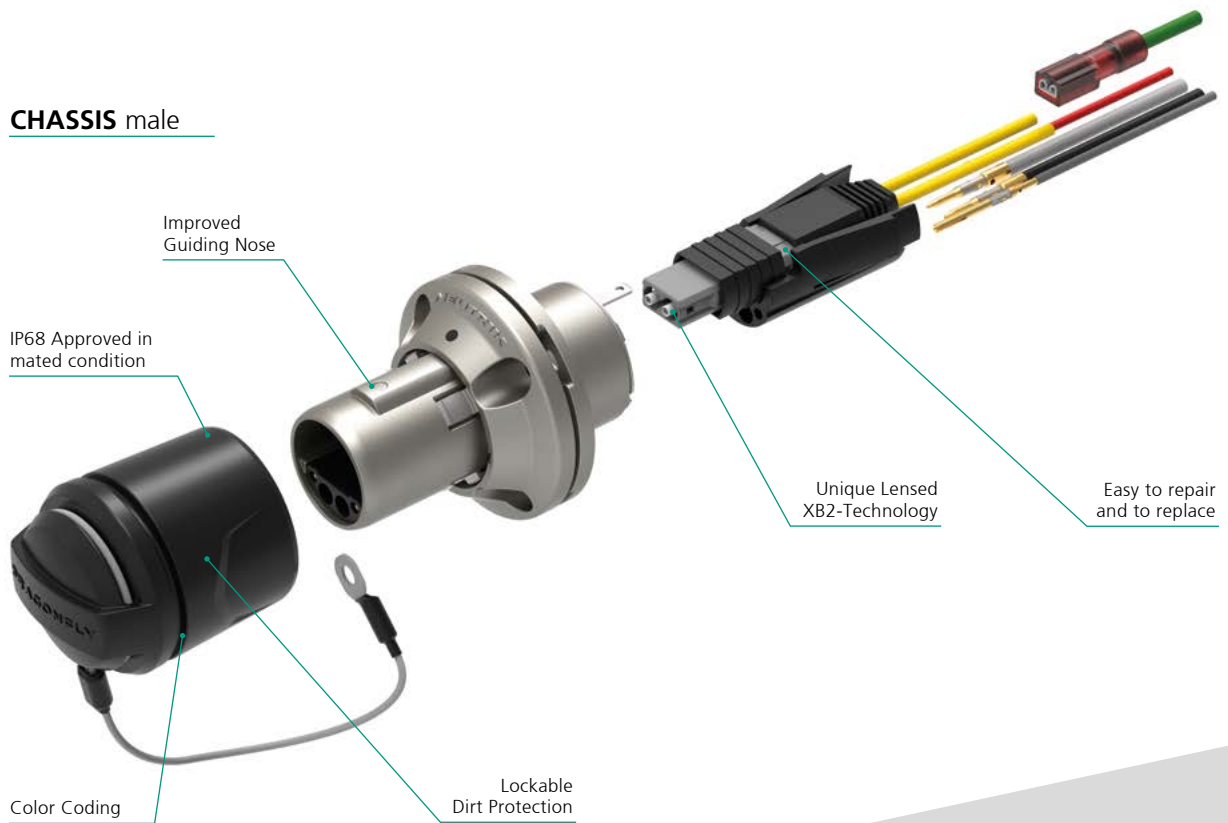




### CABLE CONNECTOR female



### CHASSIS male



# TECHNICAL DATA

## OPTICAL SPECIFICATIONS

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

## MECHANICAL SPECIFICATIONS – DRAGONFLY

Strain relief	> 500 N
Insertion force	< 45 N
Withdrawal force	< 45 N
Locking device	Push / Pull
Locking force	> 900 N
Lifetime	10.000 mating cycles
Anti-Kink protection	Identical to proven opticalCON ADVANCED
Wiresize	2 x 24 AWG + 4 x 20 AWG
Cable	Standard SMPTE 311 Cable ø 9.2 mm

## ELECTRICAL SPECIFICATIONS – DRAGONFLY

Mains	240 V ac / 10 A / 50 Hz
	120 V ac / 10 A / 60 HZ
	300 V dc / 7A
Sense	42 V ac peak / 1-3 A / ≤ 1 kHz
	60 V dc / 1-3 A
Contact resistance	< 7 mΩ
Transfer resistance ground	< 10 mΩ
Insulation Resistance	> 10 GΩ

## ENVIRONMENTAL

Flammability	UL94 V-0
Protection Class	IP68 (with sealing Kit SCXP-*) in mated condition
Certification according to	IEC 62368-1 :2014
	IEC 60529
	UL 1977 :2019
	CSA C22.2 No. 182.3 :2016
	UL50E Type 4



# DRAGONFLY

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