



opticalCON DUO LOW VOLTAGE HYBRID

Cost effective fiber optic hybrid cable solution, great SMPTE cable alternative if only low voltage is required. Assembled ultra-flexible and lightweight (65 kg/km) low voltage camera / SM hybrid cable with 2 single-mode fibers and 2 AWG16 copper conductors, aramid yard cable retention. Optimized for camera link systems (e.g. for ENG / SNG¹), camera adapter systems, camera cranes and powered drop down converter boxes for broadcast applications where power <65V is required.

The opticalCON DUO cable connector accommodates a standard optical LC-Duplex connector in a ruggedized and durable all-metal housing. It features a spring loaded push-pull locking mechanism and an excellent cable retention utilizing aramid yarn. The optical connection is exceptional well protected against dirt and dust by an automatically operated sealing cover.

The cable connector comes pre-assembled and is not available as a single component. The cable is available in different lengths and is packed either in a case, on drum or airspool.

Features & Benefits

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none">• Eliminates need for awkward and costly SMPTE cables if only ELV2 (< 50 V ac) is required | <ul style="list-style-type: none">• Ruggedized and dirt protected fiber optic connection system |
| <ul style="list-style-type: none">• Waterproof acc. to IP65 safety standard in mated condition | <ul style="list-style-type: none">• Ultra-flexible, lightweight and cost effective fiber optic hybrid camera cable solution |
| <ul style="list-style-type: none">• Small drum up to 150 m cable (15 kg) | <ul style="list-style-type: none">• Accommodates standard optical LC-Duplex connectors |
| <ul style="list-style-type: none">• Cable connector features rugged all metal housing and heavy duty cable retention | <ul style="list-style-type: none">• Excellent dust and dirt protection due to automatic sealing shutter with silicone gasket |
| <ul style="list-style-type: none">• Reliable Push-Pull locking mechanism | <ul style="list-style-type: none">• Easy to clean, no special tools required |
| <ul style="list-style-type: none">• Available in different packaging versions | <ul style="list-style-type: none">• Lockable with opticalCON DUO Chassis NO2-4FDW-A / NO2-4FDW-1-A |
| <ul style="list-style-type: none">• The product is intended and designed only for use in combination with NEUTRIK brand connectors | |

1 = Electronic News Gathering / Satellite News Gathering

2 = Extra Low Voltage


Cable cross section

Cable O.D.: 7.5 mm




Comparison of Size and Weight

Comparison of Size and Weight



150 m opticalCON
Low Voltage Camera Cable
Ø 40 cm, 15 kg



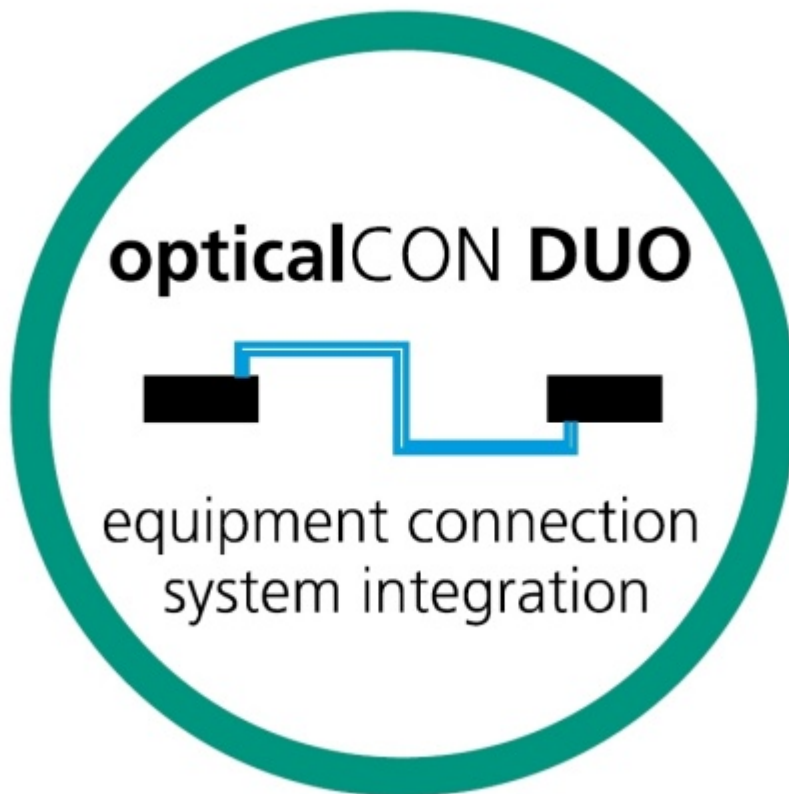
150 m conventional
SMPTE cable
Ø 60 cm, 32 kg

Packaging options and max. cable length



| | 0 Airlpool | 1 opticalCON Case | 2 Drum Schill GT310 | 3 Drum Schill GT380 | 4 Drum Schill HT582 | 5 Drum Schill GT450 | 6 Drum Schill SK4812 |
|--------|---------------|----------------------|---------------------------------|------------------------|------------------------|------------------------|------------------------------------|
| Wide | - | 490 mm / 19.3" | ø 310 mm / 12.2" | ø 380 mm / 15.0" | ø 580 mm / 22.0" | ø 445 mm / 17.6" | 518 mm / 20.4" ø 460 mm / 18.1" |
| High | - | 340 mm / 13.4" | NOT AVAILABLE | 491 mm / 19.3" | 710 mm / 28.0" | 555 mm / 21.8" | 562 mm / 22.1" |
| Depth | - | 150 mm / 5.9" | 267 mm / 10.5" 230 mm / 9.1" | 303 mm / 11.9" | 271 mm / 10.6" | 312 mm / 12.2" | 422 mm / 16.6" |
| Weight | - | 1.5 kg | 2.2 kg | 4.7 kg | 13.9 kg | 5.4 kg | 16.7 kg |

opticalCON DUO logo



Technical Information

| Product | |
|---------|-----------------------------------|
| Title | opticalCON DUO LOW VOLTAGE HYBRID |
| Gender | male |

| Electrical | |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contact resistance | < 7 mΩ |
| Dielectric strength | 1,5 kVdc |
| Insulation resistance | > 10 GΩ (initial) |
| Mains | 65V AC / 50Hz |
| | 65V DC / 6A |
| | When operating outside the intended connection frequency, the electronic and electrical devices must be tuned to each other including the transmission path. The Neutrik Group accepts no liability in this case. |

| Mechanical | |
|------------------|--------------------|
| Cable retention | 500 N |
| Insertion force | < 45 N |
| Withdrawal force | < 45 N |
| Lifetime (typ.) | 5000 mating cycles |
| Wiresize | |
| Wiresize | 2 x 16 AWG |
| Locking device | Push-Pull |

| Material | |
|---------------|--------------------------------------------|
| Boot | Rubber (EPDM) |
| Bushing | Zinc diecast (ZnAl4Cu1) |
| Contacts | Brass (CuZn39Pb3) |
| Insert | Polyamide (PA 6, PBT 30 % GR, PBT 50 % GR) |
| Shell | Zinc diecast (ZnAl4Cu1) |
| Shell plating | Black chromium |
| Strain relief | Polyacetal (POM) (brass) |

| Environmental | |
|----------------------------|-----------------------------------------------------------------|
| Flammability | UL94 V-0 |
| Temperature range | Operating temperature -40 °C to +75 °C by relative humidity 93% |
| Certification according to | IEC 61984 :2008 |
| | UL 1977 :2016 |
| | CSA C22.2 No 182.3 :2016 |

| Optical | |
|-------------------|----------------------------|
| Insertion loss | < 0.4 dB / connection (PC) |
| Optical connector | LC-Duplex |
| Optical wiring | ISO / IEC 11801 |

| Mobile cable | |
|------------------------|--------------|
| Colour | black, matte |
| Core diameter | 9 µm |
| Cladding diameter | 125 µm |
| Comment | PUR |
| minimal bending radius | 7.3 cm |
| Number of fibers | 2 |
| Cable retention | Aramid yarn |
| Weigth | 65 kg/km |
| Overall diameter | 7.3 mm |