

FIBER OPTIC CONNECTION SYSTEM

opticalCON®



NEUTRIK®

A brand of the Neutrik Group

PAGE

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THE APPLICATIONS FOR FIBER ARE EXTENSIVE

A few years ago, the use of fiber optic cabling in professional AV applications was limited to such special cases as HD broadcast cameras. Since then, the AV industry's adoption of fiber optics has increased immensely. Today, fiber optics are widely used for digital signal transmission in pro audio, professional broadcast, and the touring / rental industries.

As pro audio and broadcast equipment has evolved from analog to digital data transmission, the industry has attempted to adapt connectors originally designed for data communication (e.g. RJ45 connectors for electrical transmission). Today, that trend continues with fiber optic connectors. However, conventional data communication fiber optic connectors (ST, SC, LC, etc.) have a risk of failure when they are deployed in AV applications. These conventional data connectors are optimized for permanent, one-time connection.

They were never designed for mobile applications or to handle high mating cycles in harsh environments. Alternative connectors, originally developed for military applications, have not been cost effective and have been deficient either in regards to dust protection and maintenance and/or in their attenuation and return loss characteristics.

Neutrik understood these deficiencies and solved the various issues associated with mobile fiber optic connectivity when it launched its **optical**CON® fiber optic line in 2005. The **optical**CON® design is based on a unique concept which combines low maintenance, high mating cycles, and a safe connection in the field. As a result, **optical**CON® has gained wide acceptance in the pro audio and professional broadcast industries. Both well known equipment manufacturers and key industry users have put their trust in **optical**CON® for many years.

opticalCON® DESIGN CRITERIA

opticalCON® **ADVANCED DUO** is an LC-based fiber optic connection system which is typically used for equipment connections. With built-in, automatic dust shutters and a rugged housing, the fibers are always dust protected, and high mating cycles in harsh environments are achieved. Compatibility with conventional LC connectors at both the front and the rear of the chassis connectors offers users the choice of using either cost-effective, standard LC patch cables or else ruggedized opticalCON® cables.

Following on the success of opticalCON® ADVANCED DUO, the **optical**CON® **ADVANCED QUAD** series, also an LC-based connector system, doubles the fiber count to offer a rugged point-to-point connection. opticalCON® QUAD has been successfully deployed in applications such as data routing for touring / live rental, including especially OB (outdoor broadcast) applications.

opticalCON® **ADVANCED MTP**® increases the number of fibers in one connector up to 48 and is the ideal solution for point-to-point multi-fiber signal transmission. As an alternative to opticalCON® MTP's single 12-fiber connector, Neutrik offers a wide variety of SPLIT cable configurations. opticalCON® SPLIT offers an alternative for users of opticalCON® DUO or QUAD chassis connectors, providing advantages regarding field assembly and potential repair cost.

Finally, Neutrik's **optical**CON® **LITE** connectors offer a cost effective and lightweight solution. The unique design of opticalCON® LITE's tactical patch cable allows extreme bending without fiber breakage and absorbs high lateral forces. As a result, the opticalCON® LITE is an ideal choice for such permanent and semi-permanent installations as server rooms, patch fields, and indoor cabling.





opticalCON® CABLE CONNECTORS

opticalCON® CHASSIS CONNECTORS



opticalCON® DUO

2-channel fiber optic connection system



opticalCON® MTP® 12

12-channel fiber optic connection system



opticalCON® MTP® 24

24-channel fiber optic connection system



opticalCON® QUAD

4-channel fiber optic connection system



opticalCON® MTP® 16

16-channel fiber optic connection system



opticalCON® MTP® 48

48-channel fiber optic connection system





optical CON® MOBILE FIELD CABLE RANGE

ADVANCED CABLE 2M / 2S (A) opticalCON® DUO Rugged and lightweight 2-channel mobile field cable, excellent cable retention due to aramid yarn, black PUR outer jacket, available in multiand single mode (PC or APC), military approved. opticalCON® DUO X-TREME X2M / X2S (A) 2-channel X-TREME cable offering a cut-proof and rodent resistant double jacket glass yarn armoured cable construction, excellent cable retention due to aramid yarn, black PUR outer jacket. XX2M / XX2S (A) opticalCON® DUO ARMORED Extra rugged and lightweight stainless steel, jacket absorbs lateral forces up to 200 kg/cm². Ultra flexible due to the special spring shape construction, available in multi- and single mode (PC or APC). opticalCON® DUO HYBRID Extra rugged hybrid cable with 2 multimode channels and 4 x 0.75 mm2 copper conductors, GFK strengh member and aramid yarn as cable retention. opticalCON® DUO SMPTE S1/S7 (A) SMPTE cable with 2 single mode channels (PC or APC), 2 x AWG 24 and 4 x AWG 20 stranded copper conductors, overall copperbraided shield and stainless steel strength member, 120 kg/km. S5 (A) opticalCON® DUO LOW VOLTAGE HYBRID Ultra flexible, cost effective and lightweight (65 kg/km) low voltage hybrid cable with 2 single mode channels and 2 x AWG 16 copper conductors, aramid yarn cable retention. 4M / 4S (A) opticalCON® QUAD Rugged and lightweight 4-channel mobile field cable, excellent cable retention due to aramid yarn, black PUR outer jacket, available in multiand single mode (PC or APC). opticalCON® QUAD X-TREME X4M / X4S (A) 4-channel X-TREME cable offering a cut-proof and rodent resistant double jacket glass yarn armoured cable construction, excellent cable retention due to aramid yarn, black PUR outer jacket. XX4M / XX4S (A) opticalCON® QUAD ARMORED Extra rugged and lightweight stainless steel jacket absorbs lateral forces of 200 kg/cm2. Ultra flexible due to the special spring shape construc-

tion, available in multi- and single mode (PC or APC).

opticalCON® MTP® 12 & SPLIT

Rugged and lightweight 12-channel mobile field cable, excellent cable retention due to aramid yarn, black PUR outer jacket, available in multimode PC and singlemode APC.



16SA

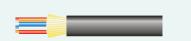
12M / 12SA



opticalCON® MTP® 16

Rugged and lightweight 16-channel mobile field cable, excellent cable retention due to aramid yarn, black PUR outer jacket, available in single-





opticalCON® MTP® 24

24-channel mobile field cable with excellent cable PUR outer jacket, available in multimode PC and singlemode APC.





opticalCON® MTP® 48

Rugged and lightweight 48-channel mobile field cable, excellent cable retention due to aramid yarn, black PUR outer jacket, available in multi-





opticalCON® MTP® 12 X-TREME & SPLIT

12-channel X-TREME cable offering a cut-proof and rodent resistant double jacket glass yarn armoured cable construction, excellent cable retention due to aramid yarn, black PUR outer jacket.





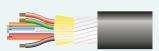




opticalCON® POWER-SPLIT 2.5

Extra rugged hybrid cable up to 12 single mode or multimode channels and 3 x 2.5 mm² copper conductors, 1 optical CON cable connector and 1 powerCON TRUE1 TOP cable connector.





LITE CABLE

opticalCON® DUO LITE

Rugged and lightweight 2-channel patch cable, excellent cable retention due to aramid yarn, black PVC outer jacket, available in multi- and singlemode (PC or APC), suitable for permanent and temporary instalation.





optical CON® QUAD LITE

Lightweight tactical patch cable, 4 x 900/125 micron fibers, rugged cable retention due to aramid yarn, black PVC outer jacket, available in multi- and singlemode (PC or APC), designed for permanent or semipermanent installations.







opticalCON® MTP® 12 LITE

Rugged tactical patch cable, 12x 250/125 micron fibers, aramid yarn for appropriate cable retention, black PVC outer jacket, available in multimode PC and singlemode (APC), suitable for permanent or semi-permanent installations.

12M-L / 12SA-L





opticalCON® MTP® 24 LITE

Rugged tactical patch cable, 24 x 250/125 micron fibers, aramid yarn for appropriate cable retention, black PVC outer jacket, available in multimode PC and singlemode (APC), suitable for permanent or semipermanent installations.

24M-L / 24SA-L

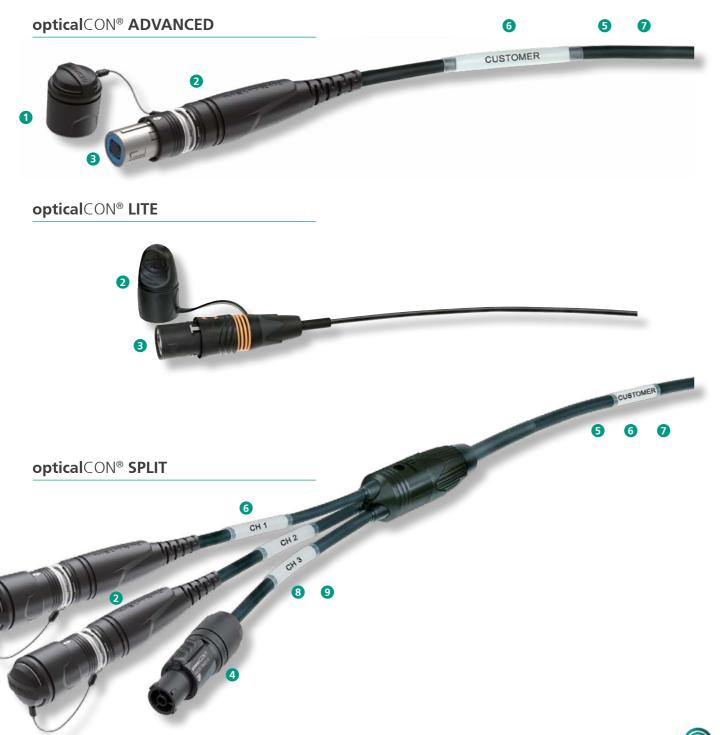


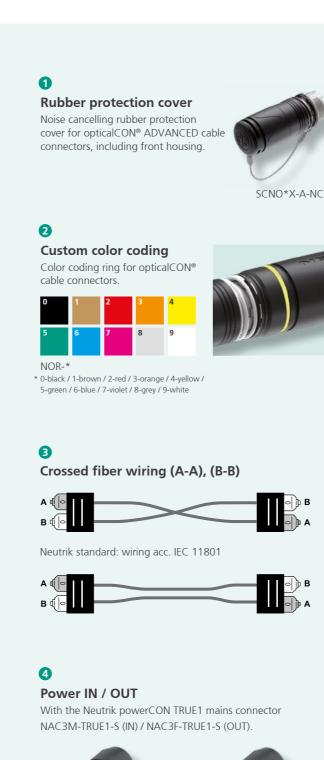






opticalCON® OPTIONS











CUSTOMER







Standard: length 1 m

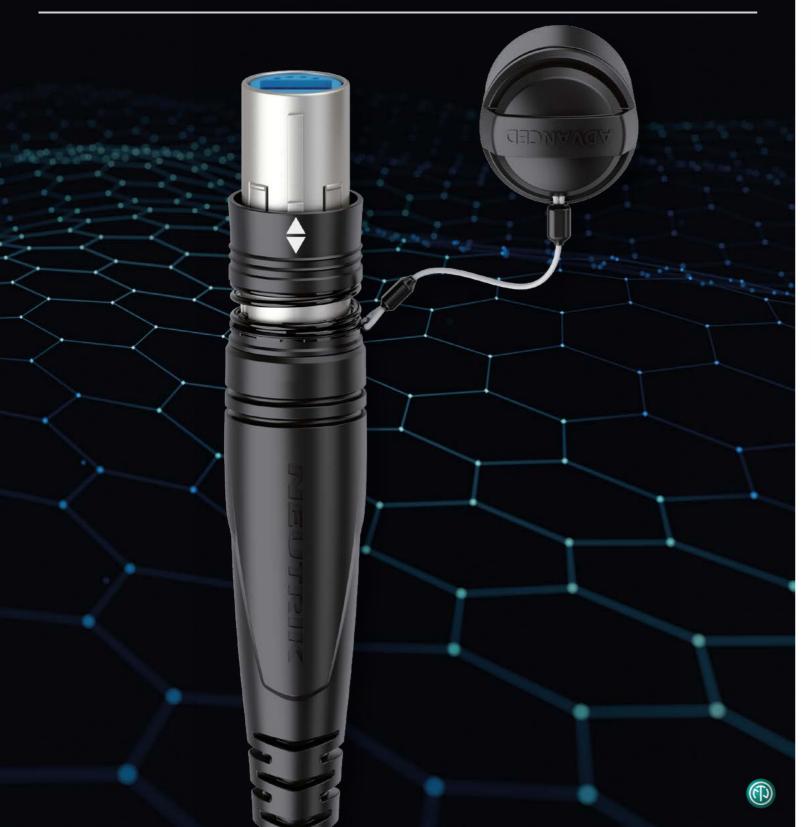








opticalCON® ADVANCED CABLE CONNECTORS



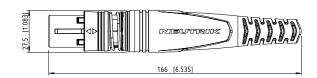


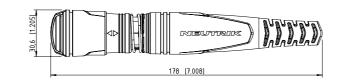


opticalCON® DUO ADVANCED CABLE CONNECTOR ASSEMBLY



- Ruggedized and dirt-protected 2-channel fiber optic connection system
- Cable connector features rugged metal housing and heavy-duty cable retention
- Automatic sealing shutter with silicone gasket to protect the LC's
- Dust and water resistant according to IP65 in mated condition
- Accommodates standard optical LC-Duplex connectors
- Field repairable
- Easy to clean, no special tools required
- Reliable Push-Pull locking mechanism
- Cable connector comes pre-assembled with a choice of mobile field cables
- Range of 3 hybrid cables for powered applications:
- SMPTE cable for indoor UHD camera routing applications¹
- Hybrid multimode cable
- Light weight low voltage camera / SM hybrid cable for ENG / SNG applications
- Available in multimode, single mode PC, and single mode APC
- 1 ... Not compatible to SMPTE 304M standard. Suitable for indoor (studio) camera links considering specific conditions acc. to IEC 60664-1 like pollution degree 1, overvoltage category 1 and rated voltage. For detailed information ask for the White Paper "opticalCON® @ SMPTE Indoor Applications".





TECHNICAL DATA

OPTICAL CABLE CONNECTOR

MECHANICAL		
Insertion / withdrawal force	< 45 N	•
Lifetime (mating cycles)	> 5′000	•
Cable retention force	Fiber only > 500 N	•
	Hybrid > 500 N	•
	SMPTE > 500 N	•

ELECTRICAL			
Number of electrical	contacts		4
Rated current	contact 1+ 4	6 A	NKO2M-H1
	contact 1+ 4	6 A	NKO2S(A)-S1/S7
Contact resistance		$< 7~\text{m}\Omega$	•
Insulation resistance	- initial:	> 10 GΩ	•
-	after damp heat test:	> 1 GΩ	•
Dielectric strength		1500 V dc	•
Rated voltage	Mains	65 V ac/dc	•1
	Sense	50 V ac/dc	● 1

MATERIAL		
Shell	Zinc diecast (ZnAl4Cu1),	•
	black chrome plating	
Insert / Insulation	Polyamid PA 6, PBT 30% GR,	•
	PBT 50% GR	
Insert color	MM: black, SM PC: blue,	•
	SM APC: green	
Contacts	- male: Brass (CuZn39Pb3)	•
Contact surface	Gold (gal 0.2 μm Au over 2 μm Ni)	•
Strain relief	Brass, Ni plated	•
Bushing	ZnAl4Cu1	•
Boot	EPDM, rubber boot	•

ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flammability	UL94 HB	•
Solderability	complies with IEC 68-2-20	•
Protection class	in mated condition IP65	•

^{1...} Not compatible to SMPTE 304M standard. Suitable for indoor (studio) camera links considering specific conditions acc. to IEC 60664-1 like pollution degree 1, overvoltage category 1 and rated voltage. For detailed information ask for the White Paper "optical/CNW" @ SMPTE Indoor Applications".

TECHNICAL DATA

CABLES

S1/1 S5	2
2M 2S (A) 2M-H1 2S(A) - S1/S7 2S (A) - S5 XZM XZM XZS (A) XZZS (A)	XX25 (A)
Max. number of fibers 2 2 2 2 2 2 2 2 2	2
Mode - Multimode PC • - • - • - •	-
- Single mode PC / APC - • - • - • -	•
Fiber - 50 / 125-OM3 • - • - • - •	-
- 9 / 125-G657A2 - • - • • - • •	•
Bend optimized fiber • • - • • • • Laser optimized fiber • N/A - N/A N/A • N/A •	N/A
Copper wires	IWA
- AWG 16 2x	_
- AWG 18 (0.75 mm²) 4x	_
- AWG 20 4x	-
- AWG 24 2x	-
Outer shield	
- Copper braid •	-
- Coated glass yarn • • -	-
- Stainless steel Jacket •	•
Strength member	
- GFK	-
- Stainless Steel •	-
Cable retention	-
Aramid yarn • • • - • • •	•
- Crimp type	- 10 5
Overall diameter (mm) 5.0 5.0 8.9 9.2 7.3 9.2 9.2 10.1 Jacket - PUR black matte	10.5
Optical connector	•
- LC-Duplex • • • • • •	•
- LC based	_
	10.5
Weight (kg / km) 21 23 78 120 65 79 79 131	133
Attenuation (dB / km) 881 889 889 889 889 889 889 889 889 889	0.5
@ 850 nm - 3.5	@ 1310 nm - 0.5 @ 1550 nm - 0.5
9 850 1310 1310 1550 1300 1310 1550 1300 1310 1300 130	1310
	0 0
Bandwidth (MHz-km) 005 005 005 005 005 005 005 005 005 00	
0 mm > 1 10 mm > 0 00 mm > 1 00 0 mm > 1 00 0 mm > 1	
@ 850 m @ 1310 @ 850 m @ 850 m @ 850 m	
	00 00
@ 850 nm - 1483 @ 850 nm - 1483 @ 850 nm - 1486 @ 850 nm - 1486 @ 1550 nm - 1486 @ 1550 nm - 1488 @ 850 nm - 1488 @ 850 nm - 1487 @ 850 nm - 1487 @ 850 nm - 1487	- 1.45
	0 nm
@ 850 mm - 1483 @ 1310 mm - 1483 @ 1310 mm - 1488 @ 1300 mm - 1478 @ 1310 mm - 1488 @ 1550 mm - 1488	@ 1310 nm - 1.458 @ 1550 nm - 1.458
Power solution 240V ac / 16A	-

ORDERING & PACKAGING OPTIONS

with max. cable length see on the opticalCON® Configurator – www.neutrik.com

















-3... Drum Schill GT380 -4... Drum Schill HT582 -5... Drum Schill GT450





opticalCON® QUAD ADVANCED CABLE CONNECTOR ASSEMBLY



- Ruggedized and dirt-protected 4-channel fiber optic connection system
- For point-to-point multichannel routing
- Cable connector features rugged all-metal housing and heavy-duty cable retention
- Innovative special shutter guarantees low maintenance
- Dust and water resistant according to IP65 in mated condition
- Easy to clean, no special tools required
- Reliable Push-Pull locking mechanism
- Cable connector comes pre-assembled with a choice of mobile field cables
- Field repairable

TECHNICAL DATA

OPTICAL CABLE CONNECTOR

Optical connector		PC
Fiber	Multimode, Singlemode PC / APC	•
Insertion loss	< 0.45 dB / connection	•
min. Return loss	MM PC > 25 dB	•
	SM PC > 50 dB	•
	SM APC > 60 dB	•

MECHANICAL		
Insertion / withdrawal force	< 45 N	•
Lifetime (mating cycles)	> 5′000	•
Cable retention force	Fiber only > 500 N	•

MATERIAL		
Shell	Zinc diecast (ZnAl4Cu1),	•
	black chrome plating	
Insert / Insulation	Polyamid PA 6, PBT 30% GR,	•
	PBT 50% GR	
Insert color	MM: black, SM PC: blue,	•
	SM APC: green	
Strain relief	Brass, Ni plated	•
Bushing	ZnAl4Cu1	•
Boot	EPDM, rubber boot	•

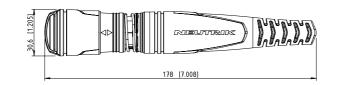
ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flammability	UL94 HB	•
Protection class	in mated condition IP65	•

TECHNICAL DATA

CABLES

					L	11:41	
		M4	4S (A)	X4M	X4S (A)	XX4M	XX4S (A)
Max. number of fibe	rs	4	4	4	4	4	4
Mode - Multimode	PC	•	-	•	-	•	-
- Single mod	de PC / APC	-	•	-	•	-	•
Fiber - 50 / 125-C)M3	•	-	•	-	•	-
- 9 / 125-G6	557A2	-	•	-	•	-	•
Bend optimized fiber		•	•	•	•	•	•
Laser optimized fiber		•	N/A	•	N/A	•	N/A
Outer shield							
- Copper bra	aid	-	-	-	-	-	-
- Coated gla	nss yarn	-	-	•	•	-	-
- Stainless st	teel Jacket	-	-	-	-	•	•
Strength member							
- GFK		-	-	-	-	-	-
- Stainless S	teel	-	-	-	-	-	-
Cable retention							
- Aramid yaı	rn	•	•	•	•	•	•
- Crimp type	2	-	-	-	-	-	-
Overall diameter	(mm)	5.8	5.8	9.2	9.2	10.5	10.5
Jacket - PUR black	matte	•	•	•	•	•	•
Optical connector							
- LC-Duplex		-	-	-	-	-	-
- LC based		•	•	•	•	•	•
Min. bending radius	(cm)	5.8	5.8	9.2	9.2	10.5	10.5
Weight	(kg / km)	31	31	88	88	141	141
Attenuation	(dB / km)	@ 850 nm - 2.5 @ 1300 nm - 0.5	@ 1310 nm - 0.35 @ 1550 nm - 0.21	@ 850 nm - 2.5 @ 1300 nm - 0.5	@ 1310 nm - 0.35 @ 1550 nm - 0.21	@ 850 nm - 2.5 @ 1300 nm - 0.5	@ 1310 nm - 0.35
Bandwidth	(MHz-km)	@ 850 nm≥ 1500 @ 1300 nm≥ 500		@ 850 nm≥ 1500 @ 1300 nm≥ 500		@ 850 nm ≥ 1500 @ 1300 nm ≥ 500	
Refraction index		@ 850 nm - 1.482 @ 1300 nm - 1.477	@ 1310 nm - 1.467 @ 1550 nm - 1.467	@ 850 nm - 1.482 @ 1300 nm - 1.477	@ 1310 nm - 1.467 @ 1550 nm - 1.467	@ 850 nm - 1.482 @ 1300 nm - 1.477	@ 1310 nm - 1.467 @ 1550 nm - 1.467

Total Control Control



ORDERING & PACKAGING OPTIONS

with max. cable length see on the opticalCON® Configurator – www.neutrik.com





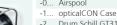












-1... opticalCON Case -2... Drum Schill GT310 -3... Drum Schill GT380

-3... Drum Schill GT380

6... Drum Schill SK4812



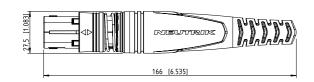
opticalCON® MTP® 12 ADVANCED CABLE CONNECTOR ASSEMBLY

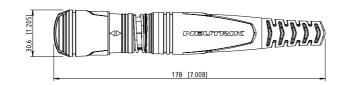


- Ruggedized and dirt-protected 12-channel fiber optic connection system
- For point-to-point multichannel routing based on MTP® technology
- Cable connector features rugged metal housing and heavy-duty cable retention
- Spherical shutter guarantees low maintenance
- Dust and water resistant according to IP65 in mated condition
- Easy to clean, no special tools required
- Reliable Push-Pull locking mechanism
- Cable connector comes pre-assembled with a choice of mobile field cables
- Wiring Type A
- Available in multimode and single mode APC

The MTP® is a multichannel fiber optic connector based on MPO ("Multifiber Push On") technology (IEC-61754-7). Breakout / Master cables to standard connectors as LC, SC, ST are available in various length.

* ... MTP® is a trademark of US Conec (www.usconec.com)





TECHNICAL DATA

Lifetime (mating cycles)
Cable retention force

OPTICAL CABLE CONNECTOR

Optical connector			MTP® female		
Fiber	Multimode, Singlemode APC		•		
Insertion loss	< 0.9 dB / con	nection	•		
min. Return loss	MM PC > 25 d	dB	•		
	SM APC > 60 dB		•		
Wiring	Type A		•		
MECHANICAL					
Insertion / withdraw	al force	< 45 N	•		

MATERIAL		
Shell	Zinc diecast (ZnAl4Cu1),	•
	black chrome plating	
Insert / Insulation	PA 6	•
	POM, PC, PEI	
Insert color	MM: black,	•
	SM APC: green	
Strain relief	Brass, Ni plated	•
Bushing	ZnAl4Cu1	•
Boot	EPDM, rubber boot	•

ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flammability	UL94 HB	•
Protection class	in mated condition IP65	•

TECHNICAL DATA

CABLES

					[4342-62 9 07
		12M	125A	X12M	X125A
Max. number of fiber	S	12	12	12	12
Mode - Multimode	PC	•	-	•	-
- Single mod	e APC	-	•	-	•
Fiber - 50 / 125-0	M3	•	-	•	-
- 9 / 125-G6	57A2	-	•	-	•
Bend optimized fiber		•	•	•	•
Laser optimized fiber		•	N/A	•	N/A
Outer shield					
- Copper bra	id	-	-	-	-
- Coated glas	ss yarn	-	-	•	•
- Stainless ste	eel Jacket	-	-	-	-
Strength member					
- GFK		-	-	-	-
- Stainless St	eel	-	-	-	-
Cable retention					
- Aramid yarı	n	•	•	•	•
- Crimp type		-	-	-	-
Overall diameter	(mm)	8.2	8.2	10.9	10.9
Jacket - PUR black r	natte	•	•	•	•
Optical connector					
- LC-Duplex		-	-	•	•
- LC based		•	•	•	•
Min. bending radius	(cm)	8.2	8.2	10.9	10.9
Weight	(kg / km)	60	60	103	103
Attenuation	(dB / km)	@ 850 nm - 2.5 @ 1300 nm - 0.5	@ 1310 nm - 0.5 @ 1550 nm - 0.3	@ 850 nm - 2.5 @ 1300 nm - 0.5	@ 1310 nm - 0.5 @ 1550 nm - 0.3
Bandwidth	(MHz-km)	@ 850 nm≥ 1500 @ 1300 nm≥ 500		@ 850 nm ≥ 1500 @ 1300 nm ≥ 500	
Refraction index		@ 850 nm - 1.482 @ 1300 nm - 1.477	@ 1310 nm - 1.467	@ 850 nm - 1.482 @ 1300 nm - 1.477	@ 1310 nm - 1.467 @ 1550 nm - 1.467

ORDERING & PACKAGING OPTIONS

with max. cable length see on the opticalCON® Configurator – www.neutrik.com

















- -0... Airspool -1... opticalCON Case
- -1... opticalCON Case -2... Drum Schill GT310
- -3... Drum Schill GT380 -4... Drum Schill HT582
- 6... Drum Schill SK48



opticalCON® MTP® 16 ADVANCED CABLE CONNECTOR ASSEMBLY



- Ruggedized and dirt-protected 16-channel fiber optic connection system
- For point-to-point multichannel routing based on MTP® technology
- Cable connector features rugged metal housing and heavy-duty cable retention
- Spherical shutter guarantees low maintenance
- Dust and water resistant according to IP65 in mated condition
- Easy to clean, no special tools required
- Reliable Push-Pull locking mechanism
- Cable connector comes pre-assembled with a choice of mobile field cables
- Wiring Type A
- Available in single mode APC only
- * ... MTP® is a trademark of US Conec (www.usconec.com)

TECHNICAL DATA

OPTICAL CABLE CONNECTOR

Optical connector		MTP® female
Fiber	Singlemode APC	•
Insertion loss	< 0.9 dB / connection	•
min. Return loss	SM APC > 60 dB	•
Wiring	Type A	•

MECHANICAL		
Insertion / withdrawal force	< 45 N	•
Lifetime (mating cycles)	> 2′500	•
Cable retention force	Fiber only > 500 N	•

MATERIAL		
Shell	Zinc diecast (ZnAl4Cu1),	•
	black chrome plating	
Insert / Insulation	PA 6	•
	POM, PC, PEI	
Insert color	SM APC: green	•
Strain relief	Brass, Ni plated	•
Bushing	ZnAl4Cu1	•
Boot	EPDM, rubber boot	•

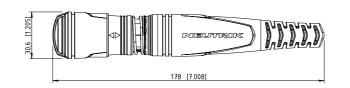
ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flammability	UL94 HB	•
Protection class	in mated condition IP65	•

TECHNICAL DATA

CABLES

			EDITOR ACCOUNT
		16SA	
		16	
Max. number of fiber	S	16	
Mode - Multimode	PC	-	
- Single mod	e APC	•	
Fiber - 50 / 125-0	M3	-	
- 9 / 125-G6	57A2	•	
Bend optimized fiber		•	
Laser optimized fiber		N/A	
Outer shield			
- Copper bra	nid	-	
- Coated gla	ss yarn	-	
- Stainless st	eel Jacket	-	
Strength member			
- GFK		-	
- Stainless St	eel	-	
Cable retention			
- Aramid yar	n	•	
- Crimp type		-	
Overall diameter	(mm)	7.0	
Jacket - PUR black	matte	•	
Optical connector			
- LC-Duplex		-	
- LC based		•	
Min. bending radius	(cm)	8.2	
Weight	(kg / km)	43	
Attenuation	(dB / km)	@ 1310 nm - 0.5	
		- E	
		1310	
		© ©	
Bandwidth	(MHz-km)		
Refraction index		.467	
		Ē Ē	
		@1310 nm - 1.467	
		0 0	

166 (6.535)



ORDERING & PACKAGING OPTIONS

with max. cable length see on the opticalCON® Configurator – www.neutrik.com



















2... Drum Schill GT310
3... Drum Schill GT380

.. Drum Schill GT



opticalCON® MTP® 24 ADVANCED CABLE CONNECTOR ASSEMBLY



- Ruggedized and dirt-protected 24-channel fiber optic connection system
- For point-to-point multichannel routing based on MTP® technology
- Cable connector features rugged metal housing and heavy-duty cable retention
- Spherical shutter guarantees low maintenance
- Dust and water resistant according to IP65 in mated condition
- Easy to clean, no special tools required
- Reliable Push-Pull locking mechanism
- Cable connector comes pre-assembled with a choice of mobile field cables
- Wiring Type A
- Available in multimode and single mode APC
- * ... MTP® is a trademark of US Conec (www.usconec.com)

TECHNICAL DATA

OPTICAL CABLE CONNECTOR

MECHANICAL		
Insertion / withdrawal force	< 45 N	•
Lifetime (mating cycles)	> 2′500	•
Cable retention force	Fiber only > 500 N	•

MATERIAL		
Shell	Zinc diecast (ZnAl4Cu1),	•
	black chrome plating	
Insert / Insulation	PA 6	•
	POM, PC, PEI	
Insert color	MM: black,	•
	SM APC: green	
Strain relief	Brass, Ni plated	•
Bushing	ZnAl4Cu1	•
Boot	EPDM, rubber boot	•

ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flammability	UL94 HB	•
Protection class	in mated condition IP65	•

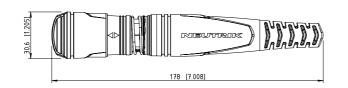
TECHNICAL DATA

CABLES

			—
		24M	24SA
Max. number of fibe	rs	24	24
Mode - Multimode	PC PC	•	-
- Single mod	de APC	-	•
Fiber - 50 / 125-0	M3	•	-
- 9 / 125-G6	557A2	-	•
Bend optimized fiber		•	•
Laser optimized fiber		•	N/A
Outer shield			
- Copper bra	aid	-	-
- Coated gla	iss yarn	-	-
- Stainless st	eel Jacket	-	-
Strength member			
- GFK		-	-
- Stainless S	teel	-	-
Cable retention			
- Aramid ya	'n	•	•
- Crimp type	2	-	-
Overall diameter	(mm)	7.0	7.0
Jacket - PUR black	matte	•	•
Optical connector			
- LC-Duplex		-	-
- LC based		•	•
Min. bending radius	(cm)	8.2	8.2
Weight	(kg / km)	43	43
Attenuation	(dB / km)	0.5	@ 1350 nm - 0.5 @ 1550 nm - 0.3
		@ 850 nm - 2.5 @ 1300 nm - 0.5	- E
		1300	1310
		(a) (b)	© ©
Bandwidth	(MHz-km)	200	
		1 × E	
		@ 850 nm ≥ 1500 @ 1300 nm ≥ 500	
		@ @ ~ —	
Refraction index		.482	.467
		E E	Ē € 1, 1,
		@ 850 nm - 1.482 @ 1300 nm - 1.477	@ 1310 nm - 1.467 @ 1550 nm - 1.467
		9 9	0 0

23

Total Constitution of the Constitution of the



ORDERING & PACKAGING OPTIONS

with max. cable length see on the optical CON® Configurator – www.neutrik.com



















-2... Drum Schill GT310 -3... Drum Schill GT380

-3... Drum Schill GT380 -4... Drum Schill HT582 -5... Drum Schill GT450





opticalCON® MTP® 48 ADVANCED CABLE CONNECTOR ASSEMBLY



- Ruggedized and dirt-protected 48-channel fiber optic connection system
- For point-to-point multichannel routing based on MTP® technology
- Cable connector features rugged metal housing and heavy-duty cable retention
- Spherical shutter guarantees low maintenance
- Dust and water resistant according to IP65 in mated condition
- Easy to clean, no special tools required
- Reliable Push-Pull locking mechanism
- Cable connector comes pre-assembled with a choice of mobile field cables
- Wiring Type A
- Available in multimode only
- * ... MTP® is a trademark of US Conec (www.usconec.com)

Ontical connector

TECHNICAL DATA

OPTICAL CABLE CONNECTOR

Optical connector		MTP® female
Fiber	Multimode	•
Insertion loss	< 0.9 dB / connection	•
min. Return loss	MM PC > 25 dB	•
Wiring	Type A	•

MECHANICAL		
Insertion / withdrawal force	< 45 N	•
Lifetime (mating cycles)	> 2′500	•
Cable retention force	Fiber only > 500 N	•

MATERIAL		
Shell	Zinc diecast (ZnAl4Cu1),	•
	black chrome plating	
Insert / Insulation	PA 6	•
	POM, PC, PEI	
Insert color	MM: black	•
Strain relief	Brass, Ni plated	•
Bushing	ZnAl4Cu1	•
Boot	EPDM, rubber boot	•

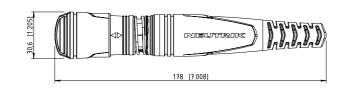
ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flammability	UL94 HB	•
Protection class	in mated condition IP65	•

TECHNICAL DATA

CABLES

				E-1. ************************************
			48M	
Max. nu	ımber of fiber	S	48	
Mode	- Multimode	PC	•	
	- Single mod	e APC	-	
Fiber	- 50 / 125-0	M3	•	
	- 9 / 125-G6	57A2	-	
Bend op	timized fiber		•	
Laser op	timized fiber		•	
Outer sh	nield			
	- Copper bra	id	-	
	- Coated gla	ss yarn	-	
	- Stainless st	eel Jacket	-	
Strength	n member			
	- GFK		-	
	- Stainless St	eel	-	
Cable re	etention			
	- Aramid yar	n	•	
	- Crimp type		-	
Overall	diameter	(mm)	8.1	
Jacket	- PUR black i	matte	•	
Optical	connector			
	- LC-Duplex		-	
	- LC based		•	
Min. be	nding radius	(cm)	12.1	
Weight		(kg / km)	48	
Attenua	tion	(dB / km)	2.5	
			@ 850 nm - 2.5	
			850	
			6 6	
Bandwi	dth	(MHz-km)	200	
			7 E	
			© 850 nm ≥ 1500	
			0 0	
Refracti	on index		482	
			1- E	
			@ 850 nm - 1,482 @ 1300 nm - 1,477	
			9 8	

166 [6.535]



ORDERING & PACKAGING OPTIONS

with max. cable length see on the optical CON® Configurator – www.neutrik.com



















-3... Drum Schill GT380 -4... Drum Schill HT582 -5. Drum Schill GT450





opticalCON® SPLIT & POWER-SPLIT CABLES



- opticalCON® multichannel solution based on opticalCON® DUO, QUAD or MTP® connectors
- Maximum flexibility, combining up to 12-channel
- Custom configurations available
- 1m SPLIT fanout
- Color coding for channel identification
- Field assembly possible
- XTREME version available



- 2-, 4-, 12- channel assembly available
- Custom made cable, optimized for ENG / SNG applications
- 3 electrical conductors 2.5mm² (cross section)
- Hybrid fiber / copper solution
- Custom configurations
- Up to 240V AC (16 A) power possible
- powerCON TRUE1 power connectors

TECHNICAL DATA

OPTICAL CABLE CONNECTOR

Optical connector		PC
Fiber	Multimode, Singlemode PC / APC	•
Insertion loss	< 0.45 dB / connection	•
min. Return loss	MM PC > 25 dB	•
	SM PC > 50 dB	•
	SM APC $> 60 \text{ dB}$	•

MECHANICAL		
Insertion / withdrawal force	< 45 N	•
Lifetime (mating cycles)	> 5′000	•
Cable retention force	Fiber only > 500 N	•

MATERIAL		
Shell	Zinc diecast (ZnAl4Cu1),	•
	black chrome plating	
Insert / Insulation	Polyamid PA 6, PBT 30% GR,	•
	PBT 50% GR	
Insert color	MM: black, SM PC: blue,	•
	SM APC: green	
Strain relief	Brass, Ni plated	•
Bushing	ZnAl4Cu1	•
Boot	EPDM, rubber boot	•

ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flammability	UL94 HB	•
Protection class	in mated condition IP65	•

TECHNICAL DATA

CABLES

					L	217117.5	
		12M	125 (A)	X12M	X125 (A)	P12M	P12S
Max. number of fibe	ers	12	12	12	12	12	12
Mode - Multimod	e PC	•	-	•	-	•	_
- Single mo	de PC / APC	-	•	-	•	-	•
Fiber - 50 / 125-		•	-	•	-	•	_
- 9 / 125-G	657A2	-	•	-	•	-	•
Bend optimized fibe	r	•	•	•	•	•	•
Laser optimized fibe	r	•	N/A	•	N/A	•	N/A
Copper wires							
- 3 x 1.5 m	m²	-	-	-	-	-	-
- 3 x 2.5 m	m ²	-	-	-	-	•	•
Outer shield							
- Copper b	raid	-	-	-	-	•	•
- Coated gl	ass yarn	-	-	•	•	-	-
- Stainless s	steel Jacket	-	-	-	-	-	-
Strength member							
- GFK		-	-	-	-	-	-
- Stainless S	Steel	-	-	-	-	-	-
Cable retention							
- Aramid ya	arn	•	•	•	•	•	•
- Crimp typ	e	-	-	-	-	-	-
Overall diameter	(mm)	8.2	8.2	10.9	10.9	13.2	13.2
Jacket - PUR black	matte	•	•	•	•	•	•
Optical connector							
- LC-Duple	X	-	-	•	•	•	•
- LC based		•	•	•	•	•	•
Min. bending radius	(cm)	8.2	8.2	10.9	10.9	19.8	19.8
Weight	(kg / km)	60	60	103	103	220	220
Attenuation	(dB / km)	@ 850 nm - 2.5 @ 1300 nm - 0.5	@ 1310 nm - 0.5 @ 1550 nm - 0.3	@ 850 nm - 2.5 @ 1300 nm - 0.5	@ 1310 nm - 0.5 @ 1550 nm - 0.3	@ 850 nm ≤ 2.3 @ 1300 nm ≤ 0.6	@ 1310 nm ≤ 0.33 @ 1550 nm ≤ 0.19
Bandwidth	(MHz-km)	@ 850 nm ≥ 1500 @ 1300 nm ≥ 500		@ 850 nm ≥ 1500 @ 1300 nm ≥ 500		@ 850 nm ≥ 1500 @ 1300 nm ≥ 500	
Refraction index		@ 850 nm - 1,482 @ 1300 nm - 1,477	@ 1310 nm - 1.467	@ 850 nm - 1.482 @ 1300 nm - 1.477	@ 1310 nm - 1.467 @ 1550 nm - 1.467	@ 850 nm - 1.482 @ 1300 nm - 1.477	@ 1310 nm - 1.467
Power solution 24	10V ac / 16A	-	-	-	-	•*	•*

^{*} Cable must be unreeled completely before use!

ORDERING & PACKAGING OPTIONS

with max. cable length see on the optical CON® Configurator – www.neutrik.com

















opticalCON Case Drum Schill GT310

-4... Drum Schill HT582



ORDERING INFORMATION LC & MTP® BREAKOUT/PATCH CABLES



- Low loss breakout cable
- Grade A premium ferrules
- Standard breakout connector: LC[PC]
- More breakout connector types available upon request
- High performance USCONEC Elite® Male MTP® ferrule
- Interferometer measurement to inspect ferrule geometry

High performance LC & MTP® breakout cable for permanent and temporary installations. Standard premium grade A LCs (single-mode PC; multimode PC) guarantee low insertion loss values. LC breakouts easily connect to any opticalCON® DUO or QUAD chassis.

Product Code	Description	From connector	To connector	Fibertype	Split-Length
NKOP1S-LC-0-1	LC Patch Cable SM	LC [PC]	LC [PC]	Singlemode	-
NKOP1M-LC-0-1	LC Patch Cable MM	LC [PC]	LC [PC]	Multimode	-
NKOB12M-A-0-*	MTP® 12 Breakout cable MM	MTP® 12 MM [PC] Male	12x LC [PC]	Multimode	61 cm
NKOB12SA-A-0-*	MTP® 12 Breakout cable SM	MTP® 12 SM [APC] Male	12x LC [PC]	Singlemode	61 cm
NKOB16SA-A-0-*	MTP® 16 Breakout cable SM	MTP® 16 SM [APC] Male	12x LC [PC]	Singlemode	100 cm
NKOB24M-A-0-*	MTP® 24 Breakout cable MM	MTP® 24 MM [PC] Male	24x LC [PC]	Multimode	100 cm
NKOB24SA-A-0-*	MTP® 24 Breakout cable SM	MTP® 24 SM [APC] Male	24x LC [PC]	Singlemode	100 cm
NKOB48M-A-0-*	MTP® 48 Breakout cable MM	MTP® 48 MM [PC] Male	48x LC [PC]	Multimode	100 cm
NKOP12M-A-0-*	MTP® 12 patch cable MM	MTP® 12 MM [PC] Male	MTP® 12 MM [PC] Male	Multimode	-
NKOP12SA-A-0-*	MTP® 12 patch cable SM	MTP® 12SM [APC] Male	MTP® 12 SM [APC] Male	Singlemode	-
NKOP16SA-A-0-*	MTP® 16 patch cable SM	MTP® 16SM [APC] Male	MTP® 16 SM [APC] Male	Singlemode	-
NKOP24M-A-0-*	MTP® 24 patch cable MM	MTP® 24 MM [PC] Male	MTP® 24 MM [PC] Male	Multimode	-
NKOP24SA-A-0-*	MTP® 24 patch cable SM	MTP® 24SM [APC] Male	MTP® 24 SM [APC] Male	Singlemode	-
NKOP48M-A-*	MTP® 48 patch cable MM	MTP® 48 MM [PC] Male	MTP® 48 MM [PC] Male	Multimode	-

Notice: The standard configuration contains LC [PC] breakout connectors. Other connectors type are available upon request.

ACCESSORIES

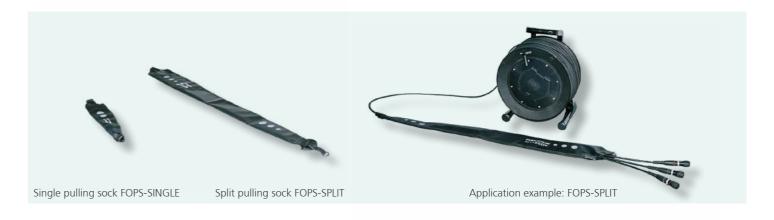
FOR CABLE CONNECTOR



SCNO*X-A	Pubbar costed protection cover for ontical CON® cable connectors, including black chrome front housing					
3CNO"X-A	Rubber coated protection cover for opticalCON® cable connectors, including black chrome front housing					
SCNO*X-A-NC	Light weight noise cancelling rubber protection cover for opticalCON® cable connectors, including front housing					
NAO4ML-A	opticalCON® QUAD LOOP connector, multimode					
NAO4SL-A	opticalCON® QUAD LOOP connector, singlemode					
NOR-*	Color coding ring for cable connector chassis					
	0 1 2 3 4 NOR-*					
1) : find part numbers on www.neutrik.com	5 6 7 8 9 * 0-black / 1-brown / 2-red / 3-orange / 4-yellow / 5-green / 6-blue / 7-violet / 8-grey / 9-white					

$\mathbf{optical}\mathsf{CON}^{\texttt{®}}$

PULLING SOLUTIONS



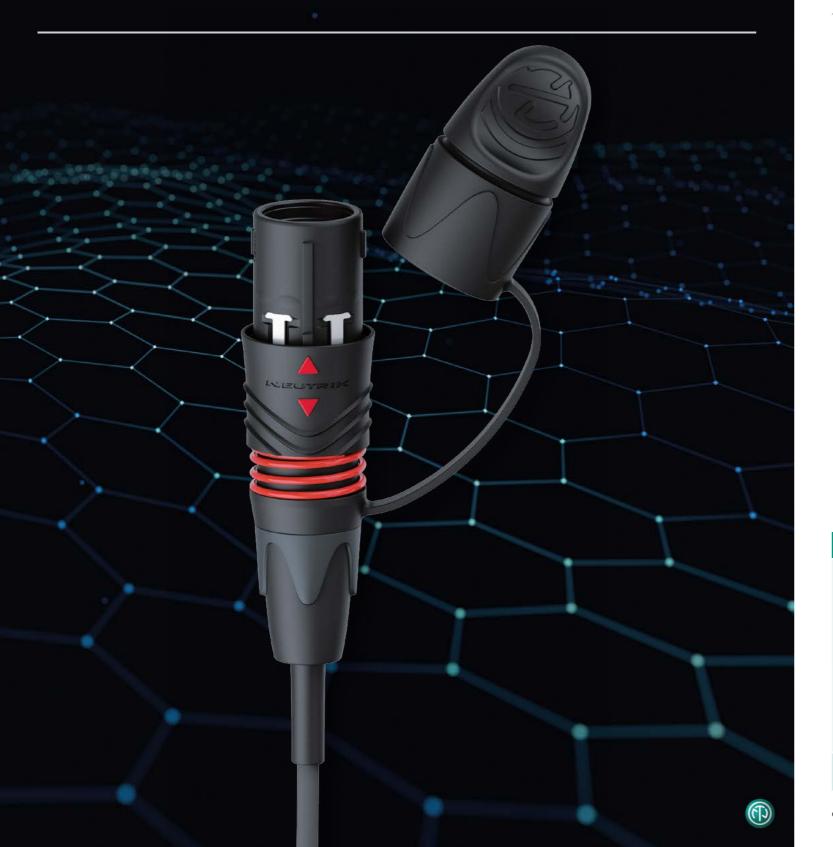
- Pulling sock simplifies installation
- Pulling force > 100 kg
- Protects connectors in mated / unmated condition

FOPS-SPLIT	Split cable pulling sock
FOPS-SINGLE	Single cable pulling sock for DUO / QUAD or MTP® cables.





opticalCON® LITE CABLE CONNECTORS



FEATURES AND BENEFITS







SMALL FORM FACTOR

TACTICAL PATCH CABLE

SAFE CONNECTION

COST EFFECTIVE



opticalCON® DUO LITE CABLE CONNECTOR ASSEMBLY

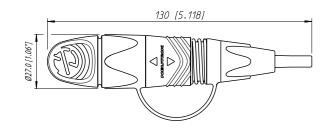


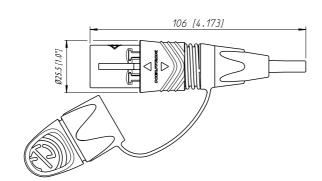
- 2-channel fiber optic connection system
- Cost optimized fiber connection for semi and permanent installations
- Waterproof acc. to IP65 safety standard in mated condition
- Small form factor
- Push-Pull locking mechanism for safe connection
- Easy to clean, no special tools required
- Compatible with standard opticalCON® DUO chassis NO2-4FDW-A*

RUGGED PATCH CABLE

Conventional patch cables are sensitive to excessively tight bending and lateral pressure. Neutrik's rugged opticalCON® LITE patch cables solve these problems via a unique design featuring a protection buffer which allows for tight bending along with increased maximum lateral pressure. These cables are ideal for permanent or semi-permanent applications.







TECHNICAL DATA

OPTICAL CABLE CONNECTOR

Optical connector		LC-Duplex
Fiber	Multimode, Singlemode PC / APC	•
Insertion loss	< 0.45 dB / connection	•
min. Return loss	MM PC > 25 dB	•
	SM PC > 50 dB	•
	SM APC > 60 dB	•

MECHANICAL		
Insertion / withdrawal force	< 45 N	•
Lifetime (mating cycles)	> 2′500	•
Cable retention force	> 250 N	•

MATERIAL		
Shell	PBT	•
Insert / Insulation	PBT	•
Strain relief	Brass, Ni plated	•
Bushing	PA6	•
Boot	EPDM, rubber boot	•
Split sleeve	Ceramics	•

ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flammability	UL94 HB	•
Protection class	in mated condition IP65	•

TECHNICAL DATA

CABLES

		2M	2S(A)
Max. number of fiber	S	2	2
Mode - Multimode	PC	•	-
- Single mod	e PC / APC	-	•
Fiber - 50 / 125-0	M3	•	-
- 9 / 125-G6	57A2	-	•
Bend optimized fiber		•	•
Laser optimized fiber		•	-
Cable retention			
- Aramid yar	n	•	•
- Crimp type		-	-
Overall diameter	(mm)	3.0	3.0
Jacket - PUR black r	natte	•	•
Optical connector			
- LC-Duplex		-	-
- LC based		•	•
Min. bending radius	(cm)	3.0	3.0
Weight	(kg / km)	9	9
Attenuation	(dB/km)	@ 850 nm ≤ 3.0 @ 1300 nm ≤ 1.0	@ 1310 nm ≤ 0.35 @ 1550 nm ≤ 0.21
Bandwidth	(MHz-km)	@ 850 nm ≥ 1500 @ 1300 nm ≥ 500	@ 850 nm ≥ 1500 @ 1300 nm ≥ 500
Refraction index		@ 850 nm - 1.481 @ 1300 nm - 1.476	@ 1310 nm - 1.467 @ 1550 nm - 1.468

ACCESSORIES

FOR CABLE CONNECTOR



SCIVI	∖O-L			cable connector (spare part)		
NOR-	*		Co	Color coding ring for cable connector chassis		
0	1	2	3	4	NOR-*	
5	6	7	8	9	* 0-black / 1-brown / 2-red / 3-orange / 4-yellow / 5-green / 6-blue / 7-violet / 8-grey / 9-white	

PACKAGING OPTIONS

with max. cable length see on the optical CON® Configurator – www.neutrik.com





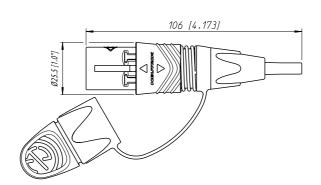


opticalCON® QUAD LITE CABLE CONNECTOR ASSEMBLY



- 4-channel fiber optic connection system
- Waterproof acc. to IP65 safety standard in mated condition
- Push-pull locking mechanism
- Recommended for point-to-point connection
- Easy to clean, no special tools required
- Rugged patch cable
- Compatible with standard optical CON® ADVANCED NO4FDW-A chassis

130 [5.118]



TECHNICAL DATA

OPTICAL CABLE CONNECTOR

TECHNICAL DATA

CABLES

Optical connector		PC
Fiber	Multimode, Singlemode PC / APC	•
Insertion loss	< 0.45 dB / connection	•
min. Return loss	MM PC > 25 dB	•
	SM PC > 50 dB	•
	SM APC > 60 dB	•

MECHANICAL		
Insertion / withdrawal force	< 45 N	•
Lifetime (mating cycles)	> 2′500	•
Cable retention force	> 250 N	•

MATERIAL		
Shell	PBT	•
Insert / Insulation	PBT	•
Strain relief	Brass, Ni plated	•
Bushing	PA6	•
Boot	EPDM, rubber boot	•
Split sleeve	Ceramics	•

ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flammability	UL94 HB	•
Protection class	in mated condition IP65	•

		M4	45(A)
Max. number of fiber	S	4	4
Mode - Multimode	PC	•	-
- Single mod	e PC / APC	-	•
Fiber - 50 / 125-0	M3	•	-
- 9 / 125-G6	57A2	-	•
Bend optimized fiber		•	•
Laser optimized fiber		•	-
Cable retention			
- Aramid yar	n	•	•
- Crimp type		-	-
Overall diameter	(mm)	3.5	3.5
Jacket - PUR black	matte	•	•
Optical connector			
- LC-Duplex		-	-
- LC based		•	•
Min. bending radius	(cm)	3.5	3.5
Weight	(kg / km)	14	12
Attenuation	(dB/km)	@ 850 nm ≤ 3.0 @ 1300 nm ≤ 1.0	@ 1310 nm ≤ 3.0 @ 1550 nm ≤ 1.0
Bandwidth	(MHz-km)	@ 850 nm ≥ 1500 @ 1300 nm ≥ 500	@ 850 nm ≥ 1500 @ 1300 nm ≥ 500
Refraction index		@ 850 nm - 1,481 @ 1300 nm - 1,476	@ 850 nm - 1.481 @ 1300 nm - 1.476

ACCESSORIES

FOR CABLE CONNECTOR



SCNI	(O-L			Rubber dirt protection for opticalCON® LITE cable connector (spare part)				
NOR-	*		Co	Color coding ring for cable connector chassis				
0	1	2	3	4	NOR-*			
5	6	7	8	9	* 0-black / 1-brown / 2-red / 3-orange / 4-yellow / 5-green / 6-blue / 7-violet / 8-grey / 9-white			

PACKAGING OPTIONS

with max. cable length see on the opticalCON® Configurator – www.neutrik.com



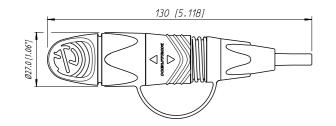


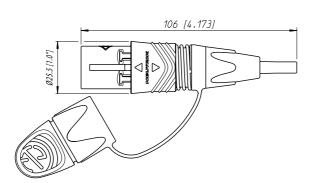


opticalCON® MTP® 12 LITE CABLE CONNECTOR ASSEMBLY



- 12-channel MTP® based fiber optic connection system
- Waterproof acc. to IP65 safety standard in mated condition
- Recommended for multi-signal transmission
- Push-pull locking mechanism
- Custom color coding
- Rugged housing
- Rubber protection cap
- Compatible with standard opticalCON® ADVANCED NO12FDW-A chassis





TECHNICAL DATA

OPTICAL CABLE CONNECTOR

TECHNICAL DATA

CABLES

Optical connector		MTP® ELITE
		female
Fiber	Multimode, Singlemode APC	•
Insertion loss	< 0.9 dB / connection	•
min. Return loss	MM PC > 25 dB	•
	SM APC > 60 dB	•

MECHANICAL		
Insertion / withdrawal force	< 45 N	•
Lifetime (mating cycles)	> 1′500	•
Cable retention force	> 250 N	•

Shell	PBT	•
Insert / Insulation	PC, PEI	•
Strain relief	Brass, Ni plated	•
Bushing	PA6	•
Boot	•	
ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flammability	UL94 HB	•
Protection class	in mated condition IP65	•

			T
		12M	125A
Max. number of fiber	S	12	12
Mode - Multimode	PC	•	-
- Single mod		-	•
Fiber - 50 / 125-0		•	-
- 9 / 125-G6	57A2	-	•
Bend optimized fiber		•	•
Laser optimized fiber		•	-
Cable retention			
- Aramid yar		•	•
- Crimp type		-	-
Overall diameter	(mm)	3.5	3.5
Jacket - PUR black I	matte	•	•
Optical connector			
- LC-Duplex - LC based		-	•
Min. bending radius	(cm)	3.5	3.5
Weight	(kg / km)	12.0	12.0
Attenuation	(dB / km)		
Attendation	(UD / KIII)	@ 850 nm ≤ 3.0 @ 1300 nm ≤ 1.0	@ 1310 nm ≤ 3.0
		350 n	310 n 550 n
		9 9	@ @
Bandwidth	(MHz-km)	1500	1500
		. ≤ mr €	2 mu 5
		@ 850 nm ≥ 1500 @ 1300 nm ≥ 500	@ 850 nm ≥ 1500 @ 1300 nm ≥ 500
Refraction index			
Nerraction muex		@ 850 nm - 1.481 @ 1550 nm - 1.476	@ 1310 nm - 1.481 @ 1550 nm - 1.476
		ш о О	ши о Фи
		@ 155	@ 131

ACCESSORIES

MATERIAL

FOR CABLE CONNECTOR



SCNk	(O-L			Rubber dirt protection for opticalCON® LITE cable connector (spare part)				
NOR-	*		Co	Color coding ring for cable connector chassis				
0	1	2	3	4	NOR-*			
5	6	7	8	9	* 0-black / 1-brown / 2-red / 3-orange / 4-yellow / 5-green / 6-blue / 7-violet / 8-grey / 9-white			

PACKAGING OPTIONS

with max. cable length see on the optical CON® Configurator – www.neutrik.com





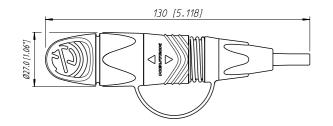


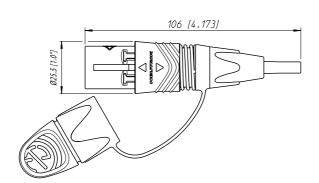
^{* ...} MTP® is a trademark of US Conec (www.usconec.com)

opticalCON® MTP® 24 LITE CABLE CONNECTOR ASSEMBLY



- 24-channel MTP® based fiber optic connection system
- Waterproof acc. to IP65 safety standard in mated condition
- Recommended for multi-signal transmission
- Push-pull locking mechanism
- Custom color coding
- Rugged housing
- Rubber protection cap
- Compatible with standard opticalCON® ADVANCED NO24FDW-A chassis





TECHNICAL DATA

OPTICAL CABLE CONNECTOR

TECHNICAL DATA

CABLES

Optical connector		MTP® ELITE
		female
Fiber	Multimode, Singlemode APC	•
Insertion loss	< 0.9 dB / connection	•
min. Return loss	MM PC > 25 dB	•
	SM APC > 60 dB	•

MECHANICAL		
Insertion / withdrawal force	< 45 N	•
Lifetime (mating cycles)	> 1′500	•
Cable retention force	> 250 N	•

WAILINAL		
Shell	PBT	•
Insert / Insulation	PC, PEI	•
Strain relief	Brass, Ni plated	•
Bushing	PA6	•
Boot	EPDM, rubber boot	•
ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flammability	UL94 HB	•

in mated condition IP65

		24M	245A
Max. number of fiber	'S	24	24
Mode - Multimode	PC	•	-
- Single mod	le APC	-	•
Fiber - 50 / 125-0	M3	•	-
- 9 / 125-G6	57A2	-	•
Bend optimized fiber		•	•
Laser optimized fiber		•	-
Cable retention			
- Aramid yar	n	•	•
- Crimp type		-	-
Overall diameter	(mm)	3.5	3.5
Jacket - PUR black	matte	•	•
Optical connector			
- LC-Duplex		-	-
- LC based		•	•
Min. bending radius	(cm)	3.5	3.5
Weight (kg/km)	12.0	12.0	
Attenuation	(dB / km)	@ 850 nm ≤ 3.0 Ø 1300 nm ≤ 1.0	@ 1310 nm ≤ 3.0
Bandwidth	(MHz-km)	@ 850 nm ≥ 1500 @ 1300 nm ≥ 500	@ 850 nm ≥ 1500 @ 1300 nm ≥ 500
Refraction index		@ 850 nm - 1,481 @ 1550 nm - 1,476	@ 1310 nm - 1,481 @ 1550 nm - 1,476

ACCESSORIES

Protection class

FOR CABLE CONNECTOR



SCNI	KO-L			Rubber dirt protection for opticalCON® LITE cable connector (spare part)			
NOR	-*		Co	Color coding ring for cable connector chassis			
0	1	2	3	4	NOR-*		
5	6	7	8	9	* 0-black / 1-brown / 2-red / 3-orange / 4-yellow / 5-green / 6-blue / 7-violet / 8-grey / 9-white		

PACKAGING OPTIONS

with max. cable length see on the optical CON® Configurator – www.neutrik.com







^{* ...} $\mathsf{MTP}^{\texttt{@}}$ is a trademark of US Conec (www.usconec.com)

opticalCON® ADVANCED CHASSIS CONNECTORS



FEATURES AND BENEFITS





SMALL FORM FACTOR

AUTOMATIC SEALING SHUTTER

SIMPLE INTEGRATION



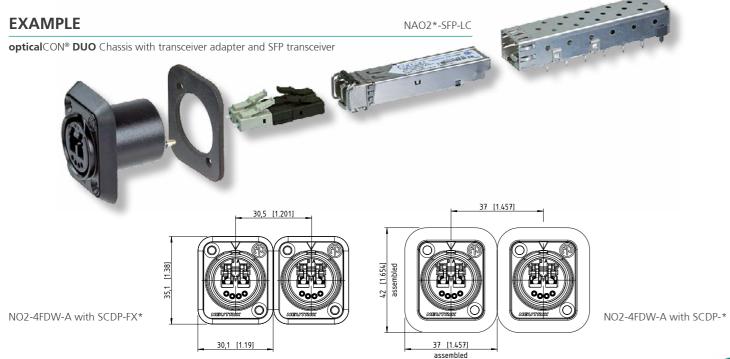




opticalCON® DUO ADVANCED CHASSIS CONNECTOR



- Ruggedized and dirt-protected 2-channel fiber optic connection system
- Shutter with silicon gasket protects optical connection from dust and dirt
- Suggested OEM equipment connectors due to LC front compatibility
- Accommodates standard LC connectors on the rear for simple installation
- IP65 ingress protection in mated condition with SCDP-*
- Connection on the front side either by rugged opticalCON® or standard LC connector



TECHNICAL DATA

OPTICAL CHASSIS CONNECTOR



Optical connector		LC-Duplex	æ
		Feedthrough	
Fiber	Multimode, Singlemode PC / APC	•	
Insertion loss	< 0.45 dB / connection	•	
min. Return loss	MM PC $> 25 \text{ dB}$	•	
	SM PC > 50 dB	•	
	SM APC > 60 dB	•	

MECHANICAL			
Insertion / withdrawal force	< 45 N	•	
Lifetime (mating cycles)	> 5′000	•	

ELECTRICAL			
Number of electrical contac	cts	4 (5)2	•
Rated current	Mains	6 A (contact 1+4)	•
	Sense	3 A	•
Contact resistance		< 7 mΩ	•
Insulation resistance	- initial:	> 10 GΩ	•
- after da	amp heat test:	> 1 GΩ	•
Dielectric strength		1500 V dc	•
Rated voltage	Mains	65 V ac/dc	• 1.
	Sense	50 V ac/dc	● 1

MATERIAL		
Shell	Zinc diecast (ZnAl4Cu1), black chrome plating	•
Insert / Insulation	Polyamid PA 6, PBT 30% GR	•
Contacts	female: Brass (CuZn39Pb3)	•
Contact surface	Gold (gal 0.2 μm Au over 2 μm Ni)	•
Split sleeve	Ceramics	•

ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flamability	UL94 V-0	•
Solderability	complies with IEC 68-2-20	•
Protection class	IP65 in mated condition in combination with SCDP-*	•

^{1...} Not compatible to SMPTE 304M standard. Suitable for indoor (studio) camera links considering specific conditions acc. to IEC 60664-1 like pollution degree 1, overvoltage category 1 and rated voltage For detailed information ask for the White Paper "opticalCON® @ SMPTE Indoor Applications".

TECHNICAL DATA

opticalCON® DUO CHASSIS

	Туре	Plating	Fiber	Solder contacts	Shell ground contact
NO2-4FD	W-A Chassis	Black Chrome	2	4	-
NO2-4FD	W-1-A Chassis	Black Chrome	2	4	1





^{2 ...} Shell ground contacts

opticalCON® QUAD ADVANCED CHASSIS CONNECTOR



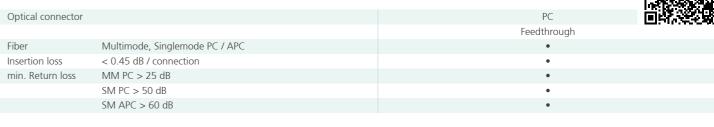
- Ruggedized and dirt-protected 4-channel fiber optic connection system
- For point-to-point multichannel routing

NO4FDW-A with SCDP-FX*

- Laser protective metal shutter seals dust proof with two-component rubber gasket
- IP65 ingress protection in mated condition with SCDP-*
- Accommodates standard LC connectors on the rear for simple installation

TECHNICAL DATA

OPTICAL CHASSIS CONNECTOR



MECHANICAL			
Insertion / withdrawal force	< 45 N	•	
Lifetime (mating cycles)	> 5′000	•	

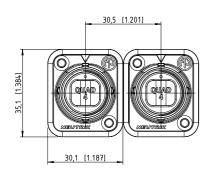
MATERIAL	MATERIAL		
Shell	Zinc diecast (ZnAl4Cu1), black chrome plating	•	
Insert / Insulation	Polyamid PA 6, PBT	•	
Split sleeve	Ceramics	•	

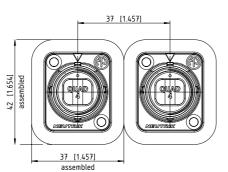
ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flamability	UL94 V-0	•
Protection class	IP65 in mated condition in combination with SCDP-*	•

TECHNICAL DATA

opticalCON® QUAD CHASSIS

	Type	Plating	Fiber	Solder contacts	Shell ground contact
NO4FDW-A	Chassis	Black Chrome	4	-	-





NO4FDW-A with SCDP-*





opticalCON® MTP® 12 ADVANCED CHASSIS CONNECTOR



- Ruggedized and dirt-protected 12-channel fiber optic connection system
- For point-to-point multichannel routing
- Laser protective metal shutter seals dust proof with two-component rubber gasket
- IP65 ingress protection in mated condition with SCDP-*
- Accommodates standard MTP® ELITE MALE connectors on the rear for simple installation*

TECHNICAL DATA

OPTICAL CHASSIS CONNECTOR



Optical connector		MTP® ELITE female	
		Feedthrough	
Fiber	Multimode, Singlemode APC	•	
Insertion loss	< 0.9 dB / connection	•	
min. Return loss	MM PC > 25 dB	•	
	SM APC $> 60 \text{ dB}$	•	

MECHANICAL		
Insertion / withdrawal force	< 45 N	•
Lifetime (mating cycles)	> 2′500	•

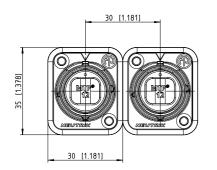
MATERIAL		
Shell	Zinc diecast (ZnAl4Cu1), black chrome plating	•
Insert / Insulation	Polyamid PA 6, PBT	•

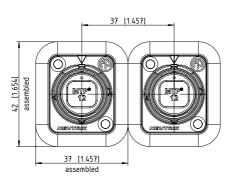
ENVIRONMENTAL				
Operating temp.	-40°C to +75°C	•		
Flamability	UL94 V-0	•		
Protection class	IP65 in mated condition in combination with SCDP-*	•		

TECHNICAL DATA

opticalCON® MTP® 12 CHASSIS

	Type	Plating	Fiber	Solder contacts	Shell ground contact
NO12FDW-A	Chassis	Black Chrome	12	-	-





NO12FDW-A with SCDP-*





^{* ...} MTP® is a trademark of US Conec (www.usconec.com)

opticalCON® MTP® 16 ADVANCED CHASSIS CONNECTOR



- Ruggedized and dirt-protected 16-channel fiber optic connection system
- For point-to-point multichannel routing
- Laser protective metal shutter seals dust proof with two-component rubber gasket
- IP65 ingress protection in mated condition with SCDP-*
- Accommodates standard MTP® ELITE MALE connectors on the rear for simple installation*

TECHNICAL DATA

OPTICAL CHASSIS CONNECTOR



Optical connector		MTP® ELITE female	
		Feedthrough	
Fiber	Singlemode APC	•	
Insertion loss	< 0.9 dB / connection	•	
min. Return loss	SM APC > 60 dB	•	

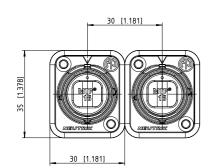
MECHANICAL		
Insertion / withdrawal force	< 45 N	•
Lifetime (mating cycles)	> 2′500	•

MATERIAL		
Shell	Zinc diecast (ZnAl4Cu1), black chrome plating	•
Insert / Insulation	Polyamid PA 6, PBT	•
ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flamability	UL94 V-0	•
Protection class	IP65 in mated condition in combination with SCDP-*	•

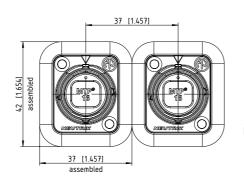
TECHNICAL DATA

opticalCON® MTP® 16 CHASSIS

	Туре	Plating	Fiber	Solder contacts	Shell ground contact
NO16FDW-A	Chassis	Black Chrome	16	-	-



NO16FDW-A with SCDP-FX*



NO16FDW-A with SCDP-*





^{* ...} MTP® is a trademark of US Conec (www.usconec.com)

opticalCON® MTP® 24 ADVANCED CHASSIS CONNECTOR



- Ruggedized and dirt-protected 24-channel fiber optic connection system
- For point-to-point multichannel routing
- Laser protective metal shutter seals dust proof with two-component rubber gasket
- IP65 ingress protection in mated condition with SCDP-*
- Accommodates standard MTP® ELITE MALE connectors on the rear for simple installation*

TECHNICAL DATA

OPTICAL CHASSIS CONNECTOR



Optical connector		MTP® ELITE female	
		Feedthrough	
Fiber	Multimode, Singlemode APC	•	
Insertion loss	< 0.9 dB / connection	•	
min. Return loss	MM PC > 25 dB	•	
	SM APC > 60 dB	•	

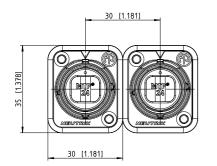
MECHANICAL				
Insertion / withdrawal force	< 45 N		•	
Lifetime (mating cycles)	> 2′500		•	

Stiell	Zinc diecast (ZnAi4CuT), black chrome plating	•
Insert / Insulation	Polyamid PA 6, PBT	•
ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flamability	UL94 V-0	•
Protection class	IP65 in mated condition in combination with SCDP-*	•

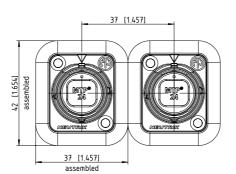
TECHNICAL DATA

opticalCON® MTP® 24 CHASSIS

	Туре	Plating	Fiber	Solder contacts	Shell ground contact
NO24FDW-A	Chassis	Black Chrome	24	-	-



NO24FDW-A with SCDP-FX*



NO24FDW-A with SCDP-*





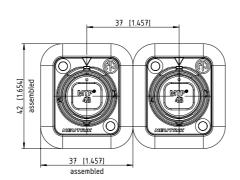
^{* ...} MTP® is a trademark of US Conec (www.usconec.com)

opticalCON® MTP® 48 ADVANCED CHASSIS CONNECTOR



- Ruggedized and dirt-protected 48-channel fiber optic connection system
- For point-to-point multichannel routing
- Laser protective metal shutter seals dust proof with two-component rubber gasket
- IP65 ingress protection in mated condition with SCDP-*
- Accommodates standard MTP® ELITE MALE connectors on the rear for simple installation*

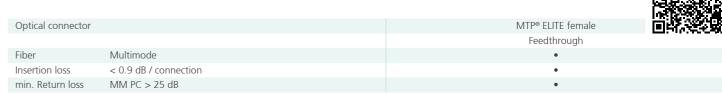
NO48FDW-A with SCDP-FX*



NO48FDW-A with SCDP-*

TECHNICAL DATA

OPTICAL CHASSIS CONNECTOR



MECHANICAL		
Insertion / withdrawal force	< 45 N	•
Lifetime (mating cycles)	> 2′500	•

MATERIAL		
Shell	Zinc diecast (ZnAl4Cu1), black chrome plating	•
Insert / Insulation	Polyamid PA 6, PBT	•
ENVIRONMENTAL		
Operating temp.	-40°C to +75°C	•
Flamability	UL94 V-0	•
Protection class	IP65 in mated condition in combination with SCDP-*	•

TECHNICAL DATA

opticalCON® MTP® 48 CHASSIS

I	lype	Plating	Fiber	Solder contacts	Shell ground contact
NO48FDW-A	Chassis	Black Chrome	48	-	-





^{* ...} MTP® is a trademark of US Conec (www.usconec.com)

ORDERING INFORMATION



ACCESSORIES

FOR CHASSIS



SEALING COVER	
SCNO-FDW-A	Rugged sealing cover for opticalCON chassis connectors
SCD-NC	Rubber sealing cover for optical CON chassis connectors
SCCD-W	Spring-loaded cover to seals D-size chassis connectors, IP65 rated



SEALING GASKETS	
SCDP-*	D-Size sealing gaskets for chassis, color coding according to ANSI/TIA-568-3-D Standard
SCDP-FX-*	D-Size sealing gaskets for chassis, color coding according to ANSI/TIA-568-3-D Standard



COUPLER

WEATHERPROOF **optical**CON® coupler (adapter) for cable extensions.

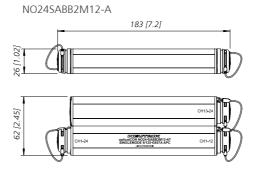


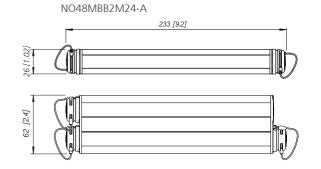
	Туре	Colour	Plating	Fiber	Solder contacts	Shell ground contact	Wiring
NAO2M-H1W-A	Coupler	black	black	2 x LC-Duplex Multimode PC	4 x 0.75 mm ²	•	ISO/IEC 11801
NAO2S-H1W-A	Coupler	blue	black	2 x LC-Duplex Singlemode PC	4 x 0.75 mm ²	•	ISO/IEC 11801
NAO2SA-H1W-A	Coupler	green	black	2 x LC-Duplex Singlemode APC	4 x 0.75 mm ²	•	ISO/IEC 11801
NAO2SA-H1W-AX	Coupler	green	black	2 x LC-Duplex Singlemode APC	4 x 0.75 mm ²	•	crossed
NAO4MW-A	Coupler	black	black	4 x Multimode PC	-	-	ISO/IEC 11801
NAO4MW-AX	Coupler	black	black	4 x Multimode PC	-	-	crossed
NAO4SW-A	Coupler	blue	black	4 x Singlemode PC	-	-	ISO/IEC 11801
NAO4SW-AX	Coupler	blue	black	4 x Singlemode PC	-	-	crossed
NAO4SAW-A	Coupler	green	black	4 x Singlemode APC	-	-	ISO/IEC 11801
NAO4SAW-AX	Coupler	green	black	4 x Singlemode APC	-	-	crossed
NAO4SW-A-X	Coupler	red	black	4 x Singlemode PC	-	-	ISO/IEC 11801
NAO12MW-A	Coupler	black	black	12 x Multimode PC	-	-	Type A
NAO12SAW-A	Coupler	green	black	12 x Singlemode APC	-	-	Type A
NAO16SAW-A	Coupler	green	black	16 x Singlemode APC	-	-	Type A
NAO24MW-A	Coupler	black	black	24 x Multimode PC	-	-	Type A
NAO24SAW-A	Coupler	green	black	24 x Singlemode APC	-	-	Type A
NAO48MW-A	Coupler	black	black	48 x Multimode PC	-	-	Type A

COUPLER

INDOOR **optical**CON® coupler (adapter) for cable extensions (not weatherproof).

	Type	Colour	Plating	Fiber
NO24SABB2M12-A	Coupler	black	black	1 x NO24FDW-A to 2 x NO12FDW-A, Singlemode APC
NO24MBB2M12-A	Coupler	black	black	1 x NO24FDW-A to 2 x NO12FDW-A, Multimode PC
NO48MBB2M24-A	Coupler	black	black	1 x NO48FDW-A to 2 x NO24FDW-A, Multimode PC









ACCESSORIES

FOR TRANSCEIVER ADAPTER













MM Transceiver Adapter grey

SM Transceiver Adapter blue

SM APC Tranceiver Adapter green

The optical CON® Transceiver Adapter connects an optical CON® chassis (NO2-4FDW*) and a LC SFP transceiver. NAO2*-SFP-LC consists of two LC-SFP adapters, 2 flat gaskets (1 mm and 2 mm) and one NO2-4FDW-A without copper contacts.

- Eases design integration of the opticalCON® chassis connectors (NO2-4FDW*) in combination with SFP transceivers
- Compatible with all LC SFP transceivers
- Automatic sealing shutter of the opticalCON® avoids transceiver soiling
- Enables use of rugged opticalCON® or conventional LC connectors
- Avoids vandalism, opticalCON® "protects" the transceiver

NAO2M-SFP-LC	grey	MM Transceiver Adapter + opticalCON® chassis (NO2-4FDW-A) without copper contacts
NAO2S-SFP-LC	blue	SM Transceiver Adapter + opticalCON® chassis (NO2-4FDW-A) without copper contacts
NAO2SA-SFP-LC	areen	SM APC Transceiver Adapter + opticalCON® chassis (NO2-4FDW-A) without copper contacts

NAOBO

BREAKOUT ADAPTER



NAOBO is a flexible chassis mounting and adaption solution with cable strain relief to meet any kind of standard fiber connector (e.g. LC, SC, ST, MTP®). It can be fixed to a rack with a cable tie. The breakout adapter can be mounted straight or angled.

- Flexible chassis mounting solution
- Adaption solution to meetexisting non-opticalCON fiber installation
- NAOBO can be equipped with any D-size chassis connector

NAOBO	Breakout Adapter Kit consisting of:
	1 NAOBO plastic housing, 1 counter nut, 1 90° rear shell, 1 PG-gland, 1 cable tie and 2 screws



opticalCON® BREAKOUT BOXES





- Breakout boxes are used to split multichannel connections such as opticalCON® QUAD and MTP® to either dual or single channels
- Dust and waterproof according to IP65 in mated condition
- Dust and waterproof according to IP67 when closed for transport

NO4SBB2D-A	1 x NO4FDW-A to 2 x NO2-4FDW-A, Singlemode PC	<u>B</u>
NO4SABB2D-A	1 x NO4FDW-A to 2 x NO2-4FDW-A, Singlemode APC	<u>а</u>
NO4MBB2D-A	1 x NO4FDW-A to 2 x NO2-4FDW-A, Multimode PC	⋖
NO4SBB4D-A	1 x NO4FDW-A to 4 x NO2-4FDW-A, Singlemode PC	B
NO4SABB4D-A	1 x NO4FDW-A to 4 x NO2-4FDW-A, Singlemode APC	<u>a</u>
NO4MBB4D-A	1 x NO4FDW-A to 4 x NO2-4FDW-A, Multimode PC	⋖
		ABABABAB.
NO12SAABB6D-A	1 x NO12FDW-A to 6 x NO2-4FDW-A, Singlemode APC to APC	\ \ \ \ \ \ \
NO12SABB6D-A	1 x NO12FDW-A to 6 x NO2-4FDW-A, Singlemode APC to PC	
NO12MBB6D-A	1 x NO12FDW-A to 6 x NO2-4FDW-A, Multimode PC	
NO12SAABB3Q-A	1 x NO12FDW-A to 3 x NO4FDW-A, Singlemode APC to APC	A a b B A a b B
NO12SABB3Q-A	1 x NO12FDW-A to 3 x NO4FDW-A, Singlemode APC to PC	X/X/
NO12MBB3Q-A	1 x NO12FDW-A to 3 x NO4FDW-A, Multimode PC	<u> </u>

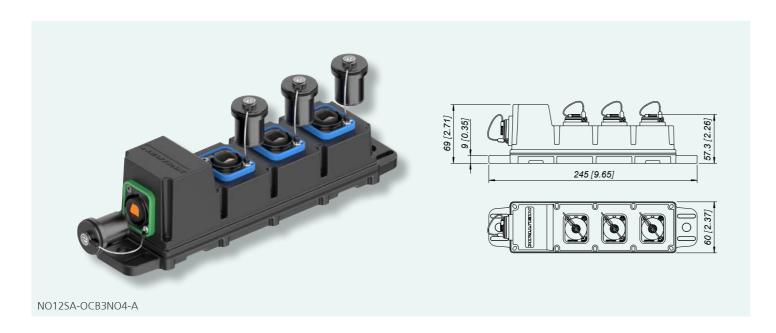




opticalCON® opticalBAR



PANEL SOLUTIONS 19" D-SHAPE Z-PANELS & PLATES



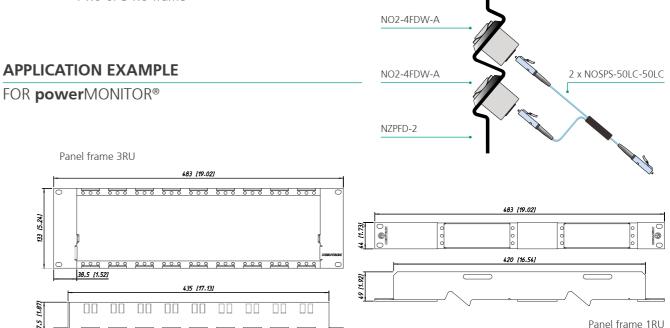
A compact, rugged fiber breakout solution designed for professional applications where flexibility, reliability, and durability matter. With an IP65 rating when mated, the opticalBAR enables smart fiber distribution in the most demanding environments. Fully compatible with the opticalCON® ADVANCED series, the opticalBAR is available in the following core variants:

- Flexible mounting options: Mounting holes for screws, Velcro straps and pegs; Truss clips (available soon)
- Outdoor Ready: IP65 rated in mated conditions
- Full compatibility with our optical CON® ADVANCED products

PRODUCT		ENVIRONMENTAL	
Title	opticalBAR	Temperature range	-25 °C to + 70 °C
Connector Type	Breakout Adapter	Protection class	IP65 (in mated condition)
Gender	female		
MECHANICAL		OPTICAL	
Insertion force	< 45 N	Insertion loss	LC < 0.4 dB per connection
Withdrawal force	< 45 N		MTP® < 0.9 dB per connection
Lifetime (typ.)	1000 mating cycles	Optical connector	LC or MTP®
Locking device	Push-Pull		
Product Code	From chassis	To chassis	Fibertype
NO4M-OC-B2NO2-A	1x opticalCON® QUAD MM	2x opticalCON® DUO MM	Multimode
NO4S-OCB2NO2-A	1x opticalCON® QUAD SM [PC]	2x opticalCON® DUO SM [PC]	Singlemode
NO4SA-OCB2NO2-A	1x opticalCON® QUAD SM [APC]	2x opticalCON® DUO SM [APC]	Singlemode
NO12M-OCB3NO4-A	1x opticalCON® MTP®12 MM	3x opticalCON® QUAD MM	Multimode
NO12SA-OCB3NO4-A	1x opticalCON® MTP®12 SM [APC]	3x opticalCON® QUAD SM [PC]	Singlemode



- Space saving design, ideal for cramped rack applications such as OB truck I/O panels
- Frame plate can be loaded with opticalCON® DUO or QUAD plus E2000 or ST or SC connectors
- Frames can be equipped with frame plates (D-shape) or blind plates
- Ideal cable bend protection
- 1 RU or 3 RU frame







NZPF3RU

Z-PANELS

NZPF1RU

PANEL FRAME

1 NZPF1RU

PANEL FRAME 3RU PANEL FRAME 3RU e.g. opticalCON Chassis NO4FDW-A with sealing gasket SCDP-5 e.g. NO2-4FDW-A with SCDP-4



ANGLED RACK PANEL

SPLITTER



Panel frame 1RU for opticalCON® panel frames

2 NZPF3RU	Panel frame 3RU for opticalCON® panel frames
3 NZP1RU-8	Panel 1RU, 30° forward-turned and offers 8 x D-shape cutouts with M3 threaded fastening holes
3 NZP1RU-12	Panel 1RU, 30° forward-turned and offers 12 x D-shape cutouts with M3 threaded fastening holes
PANEL PLATE	
4 NZPFBP	Panel frame blind plate
5 NZPFD	Panel frame plate for opticalCON® chassis connector
6 NZPFD-2	Panel frame plate 2 x D-shape cutouts (works only on NZPF3RU Panel)
7 NZPFD-4E	Panel frame plate 1 x D-shape cutout, 2 E2000 compact chassis cutouts
8 NZPFD-4SC	Panel frame plate 1 x D-shape cutout, 2 SC compact chassis cutouts
9 NZPFD-4ST	Panel frame plate 1 x D-shape cutout, 4 ST chassis cutouts
NZPFD-4SC-S	Panel frame plate 1 x D-shape cutout, 4 SC simplex cutouts

SPLITTER	
10 NOSPM-LC50-LC50	Multimode 1 x 2 splitter LC*s
1 NOSPS-LC50-LC50	Singlemode PC 1 x 2 splitter LC*
	* other connectors (SC, ST, E200) on request

ORDERING INFORMATION

FIBER OPTIC

MEASUREMENT & CLEANING KIT



CAS-FOCD-ADV	Fiber Optic Cleaning Devices – CASE contains hand microscope, opticalCON measurement adapter, cleaning set		
	FOCD-CF 1)	Cleaning Fluid	
	FOCD-DC125 1)	DRY Cleaner 1.25 mm	
	FOCD-DC250 1)	DRY Cleaner 2.5 mm	
	FOCD-DCM	DRY Cleaner MTP®, cleaning brush for guidance holes	
	FOMD-TC-SM1550	Transceiver 1550 nm singlemode	
	1) refill consumable, i	in CAS-FOCD included	





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CABLE CONNECTOR

CLEANING ACCESSORIES



- Enhanced inspection and cleaning procedure
- Lockable with opticalCON® cable connector
- Compatible with conventional cleaning and inspection equipment

FOCD-STD	Service tool for opticalCON® DUO
FOCD-STQ	Service tool for opticalCON® QUAD
FOCD-STM	Service tool for opticalCON® MTP®

CHASSIS CONNECTOR

CLEANING ACCESSORIES



FOCD-STC	Service tool for opticalCON® DUO chassis connector NO2-4FDW-*A / opticalCON® MTP® chassis connector
	NO12FDW-A, NO16FDW-A, NO24FDW-A and NO48FDW-A
FOID-STQC	Service tool for opticalCON® QUAD chassis connector NO4FDW-A

ORDERING INFORMATION



opticalCON®

CONNECTOR FIELD ASSEMBLY



- Neutrik opticalCON® field assembly kit
- Based on Corning UniCam pre-polished LC connectors
- No additional tooling required
- Requires completion of a certified Neutrik opticalCON® field assembly training
- Find more details on www.neutrik.com





Neutrik Group Companies

LIECHTENSTEIN (Headquarters) Neutrik AG Im alten Riet 143, 9494 Schaan

Europe, the Middle East and Africa Neutrik EMEA GmbH Marie-Curie-Strasse 2, 85221 Dachau, Germany

North America, Central America, South America and the Caribbean Neutrik Americas Inc.

4115 Taggart Creek Road, Charlotte, NC 28208-5479, United States of America

JAPAN Neutrik Limited

Yusen-Higashinihonbashi-Ekimae Bldg., 3-7-19, Higashinihonbashi, Chuo-ku, Tokyo 103-0004, Japan

Asia-Pacific Neutrik Hong Kong Ltd. Suite18, 7/ F, Shatin Galleria,18-24 Shan Mei Street, Fotan, Shatin, Hong Kong SAR China

Neutrik Technology (Ningbo) Co., Ltd. No.1456 Yinxian Avenue West, Haishu District, Ningbo 315153, Zhejiang Province, China

Other Neutrik Group Companies

HUNGARY Neutrik Hungary Kft. Liszt Ferenc utca 35. l. em.1., 9022 Györ

SWITZERLAND Contrik AG

Steinackerstrasse 35, 8902 Urdorf

GERMANY CONNEX GmbH Elbestraße 12, 26135 Oldenburg

Major Custom Cable Inc. 281 Lotus Drive, Jackson, Missouri, 63755

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