

DiaLink Family

Setting new standards in fiber-optic cable connections

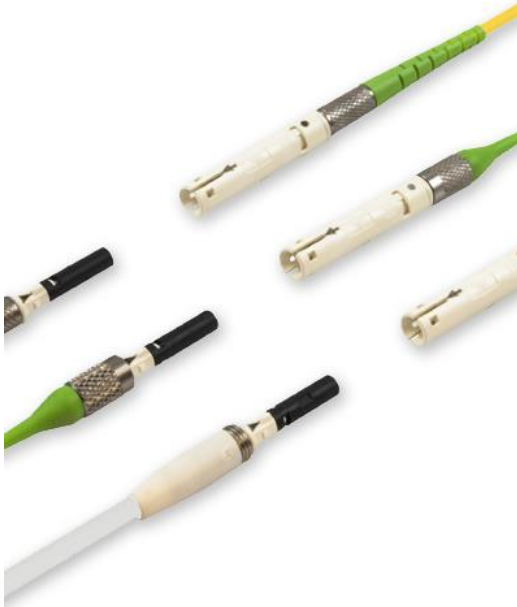


Outline



- What is DiaLink
- Properties and advantages
- The product → connectors, hybrid adapters and UGT's
- Areas of application

What is DiaLink?



A new connector type with a small circular design and a male and female side

It can be used where:

- a pre-assembled system is needed
- the installation time has to be reduced
- a slim connector design is required

For application such as:

- Communication cabling (LAN)
- Splice replacement inside instruments
- Rotating fiber links (Rotary joints)

Properties and advantages

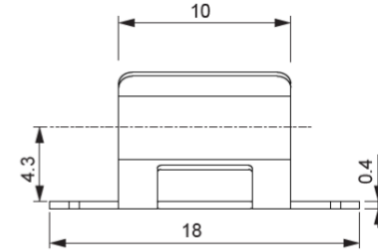
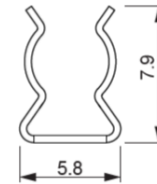
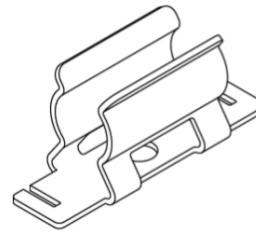
- Integrated mating adapter
- Connector diameter of 5 mm for use in confined conditions
- Permanently protected ferrules which make it resistant to contamination and damage
- Push-pull locking system for a very easy use
- Tensile force of up to 300 N thanks to the metal tractive cap
- Can be fed into installation pipes and cable channels
- Neutral weight distribution
- Suitable for applications with high rotation speed
- Available as non-magnetic version (on request)
- No corners or edges, which reduce the risk of breaching protective gloves (medical)
- Vacuum-packed in Clean room ISO class 7 (on request)
- Can be sterilised using EtO
- Suitable for use in medical facilities and clean-room environments

The connector

Male and female

- assembled with standard MM/SM G.652 900µm Fiber or \varnothing 1.6 mm – 2.1 mm cable
- assembled with G657 A2/B3 \varnothing 2.7 – 3.0 mm cable with reinforced jacket
- Ferrule material: Zirconia / metal insert
- Body material: Plastic
- Thread material (male): Metal

Mounting clip and P/N



P/N: 1073981

Caps for cable pulling through ducts



- Male version with thread
- Metallic protective/tractive cap (300N)
- \varnothing 6 mm



- Male version without thread
- Plastic protective/tractive cap (100N)
- \varnothing 5 mm

Connector specifications and standards

	MULTIMODE 0° PC	SINGLE MODE 0° PC	SINGLE MODE 8° APC	UN- IT	TEST CONDITIONS
Insertion loss (IL)	Typ. 0.15 max. 0.4	Typ. 0.2 max. 0.5	Typ. 0.2 max. 0.5	dB	IEC 61300-3-4; $\lambda = 1310/1550\text{nm}$
Return loss (RL)	Typ. 40	Min. 50	Min. 75*	dB	IEC 61300-3-6; $\lambda = 1310/1550\text{nm}$
Repeatability	max. $\pm 0,1$			dB	IEC 61300-2-2; $\lambda = 1310/1550\text{nm}$
Service life	500 connection cycles			-	IEC 61300-2-2
Operating temperature	-40/+85**			°C	

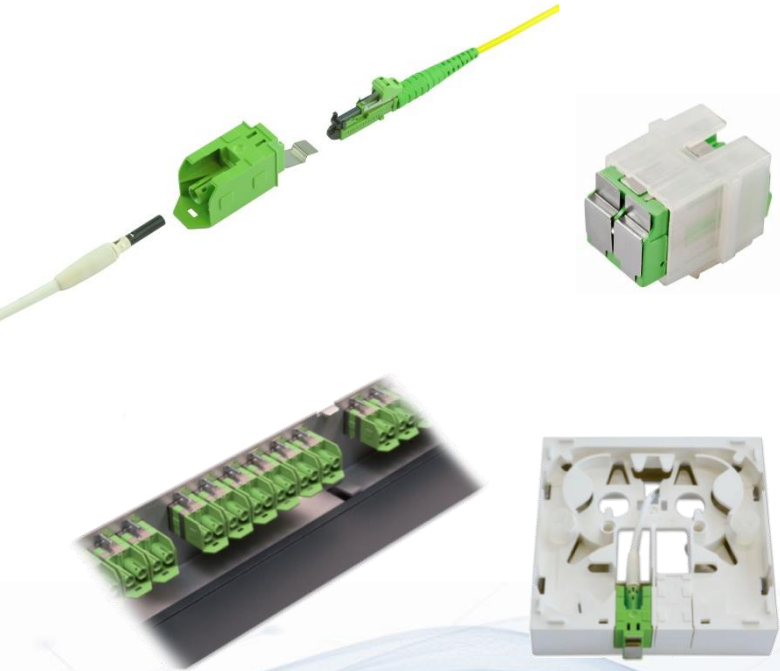
* Measured with the precision reflectometer

** The temperature range of the cable used may limit the connector specification

Standards

- IEC 61754-32 Fibre optic connector interfaces - Part 32: Type DiaLink connector family

DiaLink - F-3000® hybrid adapters



- Available as simplex and duplex
- Suitable to be mounted on Diamond keystone module, for higher flexibility
- Can be integrated in:
 - FlexPatch
 - OTO
 - Domestic and industrial distributors

Optical transition adapter (UGT) and sacrificial interface (SI)



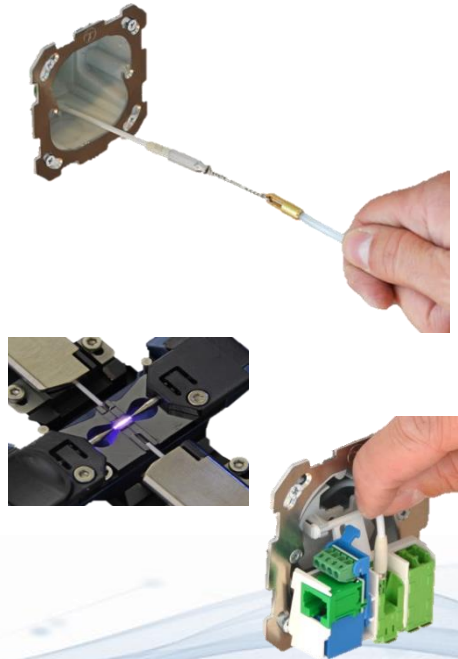
- UGT (male/female) are mainly deployed to connect different connector geometries, (eg. from 0° PC to 8° APC connectors or the reverse).
- They can also be used as Sacrificial Interface (SI) and will protect the connector end face against damage and dirt during the continuous mating cycles. (PC/PC or APC/APC)

SPECIFICATIONS

	SM	MM	UNIT	TEST CONDITIONS
Insertion loss (IL)*	max. 0,7 dB	max. 0,5 dB	dB	IEC 61300-3-4; $\lambda = 1310/1550\text{nm}$
Return loss (RL)	PC min. 45 / APC min. 70**	min. 35 dB	dB	IEC 61300-3-6; $\lambda = 1310/1550\text{nm}$
IL repeatability	max. $\pm 0,1$		dB	IEC 61300-2-2; $\lambda = 1310/1550\text{nm}$
Service life	500 connection cycles		-	
Operating temperature	-40/+85		°C	



Areas of application



In house installation cabling as Pigtail or pre-assembled

- FTTD
- FTTO
- FTTH
- FTTX

Advantages

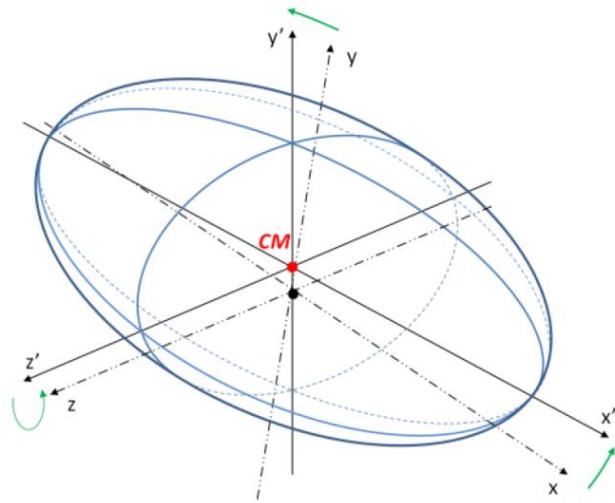
Reduction of installation time:

- Connect 1 DiaLink in a FlexPatch: 0.5 – 1 min
- Splice of 1 fiber in a FlexPatch: 4 - 5 min

Reduction of faults:

- Splice errors or swapped fiber-lines 1-2% of all fibers
- Investigating line mistakes is very time consuming !
- Incorrectly inserted DiaLink plug 0.1% of all fibers
- Easy to fix !

DiaLink for high-speed rotating fiber links



Properties and advantages

- Perfectly cylindrical structure
- Highly homogeneous mass distribution around the rotation axis
- Tiny mass of the assembly

All this yields to a substantial reduction of the inertia of the full assemblies compared to competing connectors without affecting the optical performance.



www.diamond-fo.com

