



HIGGS

BY BARPA

Index



Click on the chapter that you want to explore.

Who are we?

barpa is a manufacturer of products for structured cabling, such as, copper cabling systems, fiber optic systems, racks, and cabinets.

barpa is a trademark of the company Argon. One of the major success factors is the quality of its products and without doubt its corporate culture.

The company culture is marked for being a family structure, the Araújo family. The team is highly motivated and we believe that this distinguish us and makes the difference.

Turngreen

We believe in the sustainability path, being this point very important in new products and new projects. To reduce our footprint, barpa is eliminating to the maximum the printed material, like catalogs, flyers, manuals, etc.



We want to make the
difference in the future
of Telecommunications.

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What is Higgs?

This is the ultimate business sector of barpa, where we **manufacture and deliver pre-assembled solutions of fiber optic.**

Our big goal is the **customization** and it's where we want to make a difference.

Manufactured in our headquarters, in Portugal.

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barpa in numbers

3

Sales Offices
Portugal, Spain and Peru

+2000

Products of Standard Stock

18

Export Countries

4

Manufacture Locations
Germany, China,
Slovakia, Portugal

100%

Functional tests in every production

5

Independent Labs with which we certify
our products
3P, Basec, Force Technology, UL, VDE

8

Years of ISO9001 Implementation

2016

Year of brand Launch

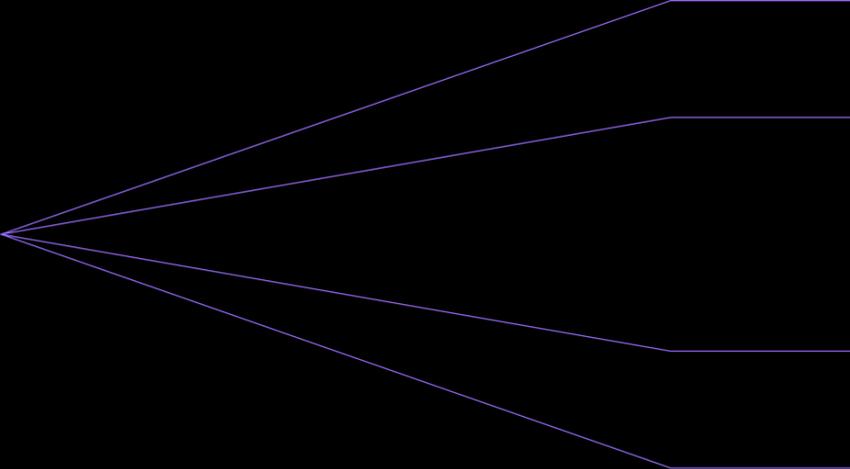
Certifications and Distinctions



RoHS
COMPLIANT



Reference Jobs



Bragalux



Fitnessup



Leroy Merlin



Leroy Merlin



Lipor



Pestana Churchill Bay



Torrestir



Verbo Divino

Available resources

Newsletter

Register to get the most recent news of barpa like events, Training, technical articles, inovations, new products, etc.

Website

In English and Spanish, there you can find all the relevant informations of the products.

CAD Drawings

Available at the website the CAD drawings of the cabinets.

BIM

Available at the website the BIM files of the cabinets for your projects.

barpa·space

Space for experience Exchange, events, training, etc. In online format or on-site.

The background features a light purple gradient with a central graphic of a lens or fiber optic cross-section. This graphic consists of multiple concentric, slightly irregular lines that converge at the left and right edges, creating a central focal point. The lines are thin and light purple, matching the overall color scheme.

Basic Ideas of Optical Fiber

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Advantages of Optical Communications

Low transmission losses;

High Bandwidth;

Immune to electromagnetic interference from other signals and noises;

Abundant raw material;

Higher transmission distances;

Greater security and reliability.

2.

Fiber Optic Components

Core

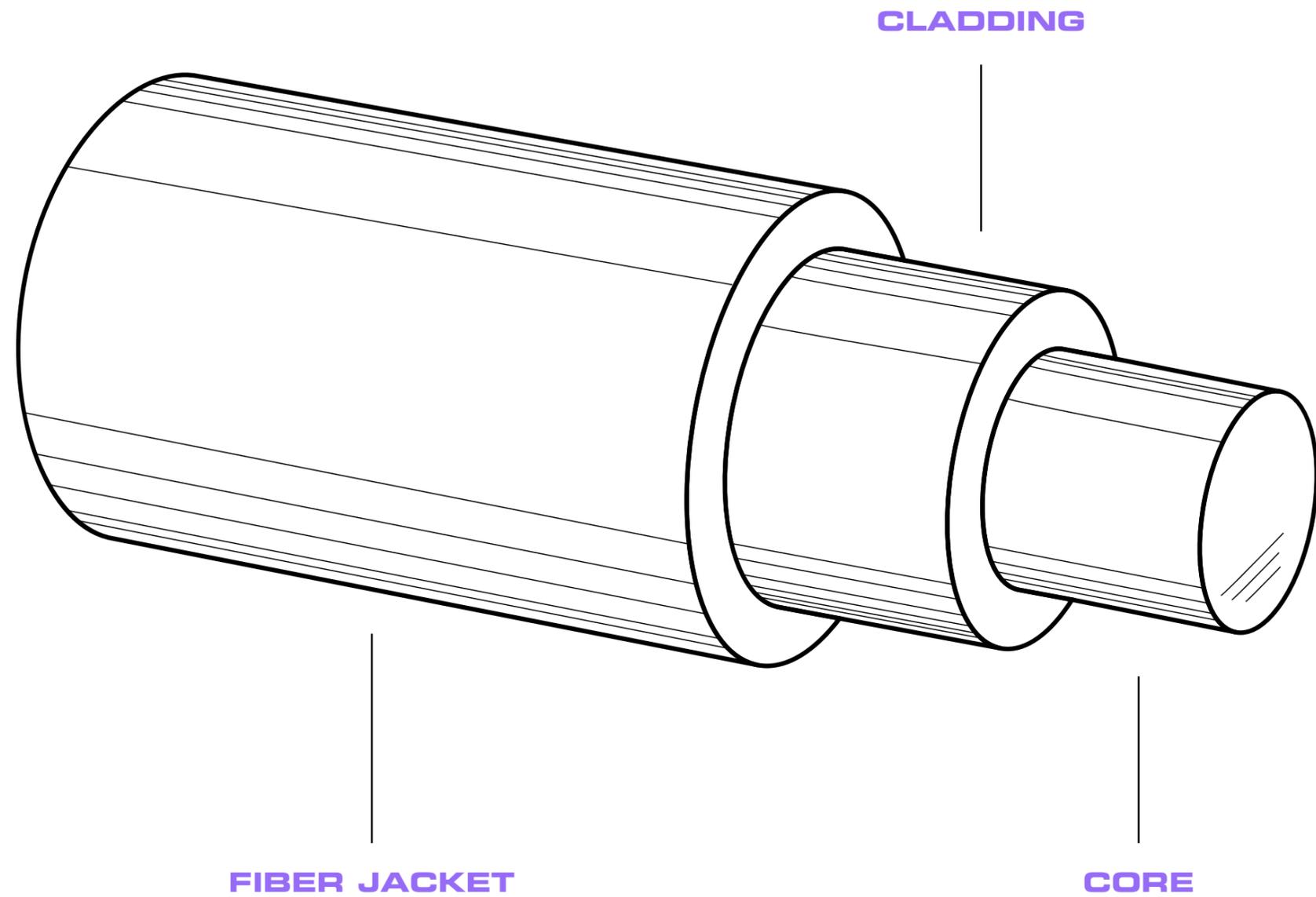
62,5 μ m or 50 μ m for multimode,
9 μ m for singlemode.

Cladding

125 μ m diameter.

Fiber Jacket

250 μ m diameter.

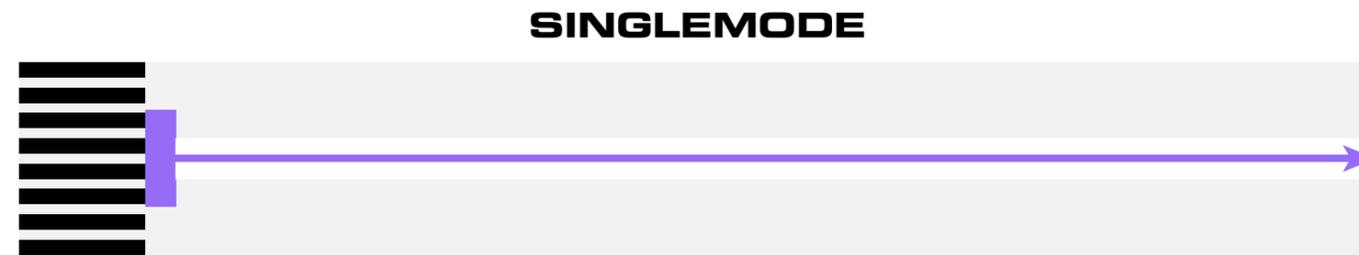
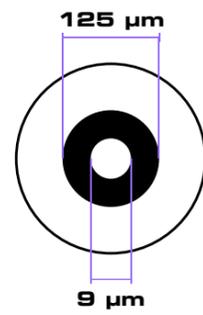
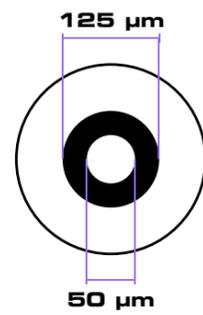
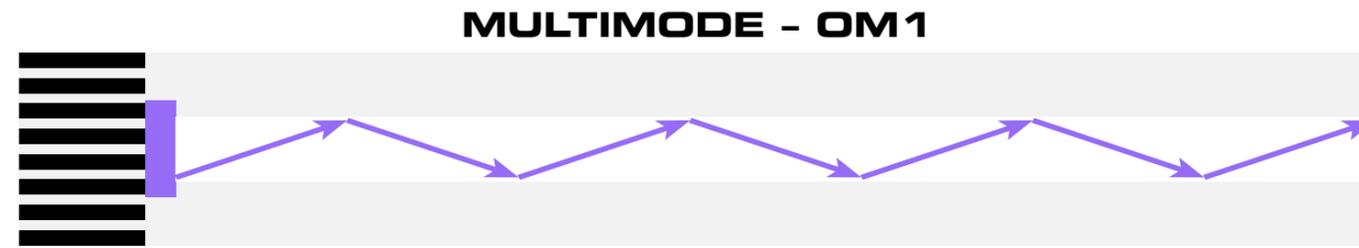
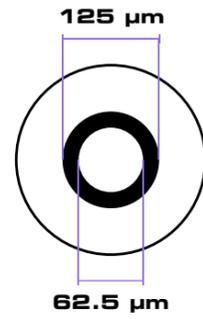




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3.

Different Types of Optical Fiber



3.1

Different Types of Optical Fiber

Differences between singlemode and multimode

Multimode

- Core 62,5 μm or 50 μm ;
- Maximum distances 550 meters used in local area networks (LAN);
- Less bandwidth;
- Greater attenuation (dB/km);
- Higher price than single-mode fiber;
- Lower cost transceiver cost compared to single-mode fiber solution;
- Low power transmission (LED);
- Higher lifetime of active equipment;
- Low eye hazard level (LED and non-LASER);
- Lower Power dissipation.

Singlemode

- Core 9 μm ;
- Used in long distance networks by operators (WAN), metropolitan (MAN) and campus (CAN);
- Higher bandwidth;
- Lower attenuation (dB/km);
- Price lower than multimode fiber;
- Higher cost transceiver cost compared to multimode fiber solution;
- Higher power transmission (LASER);
- Lower lifetime of active equipment;
- Higher Power dissipation.



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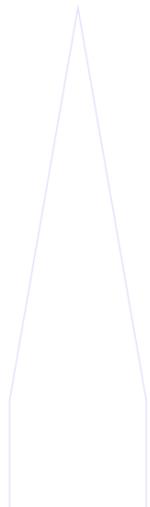
4.

Different Types of Fiber Optic Cables



Tight Buffer

Cables typically used for indoor installation, to install directly in panels. Cable without gel and fibers with 900 μm sheath.



Loose Tube

Cables typically used to interconnect buildings, indoor/outdoor. Gel-filled tubes. Fibers with 250 μm coating.



5.

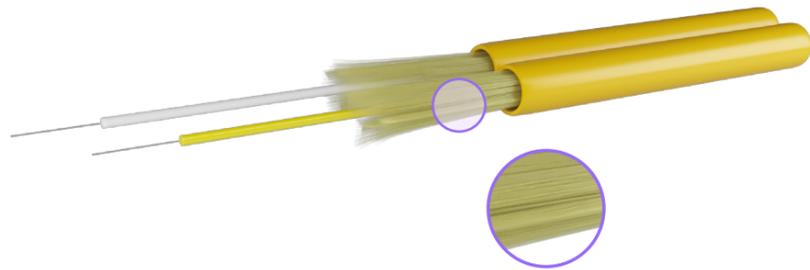
Different Types of Jackets of Fiber Optic Cables

OUTER JACKET	CABLE TYPE	OUTER JACKET COLOUR	APPLICATION	CHARACTERISTICS
PE	Loose Tube	Black	Outdoor applications (in conduits, cable tray, underground and aerial)	With UV protection and with a higher hardness.
LSZH	Tight Buffer/ Loose Tube	-	Indoor/outdoor applications	With Low Smoke and flame retardant. With several levels of CPR available.



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Different Types of Cable Protection

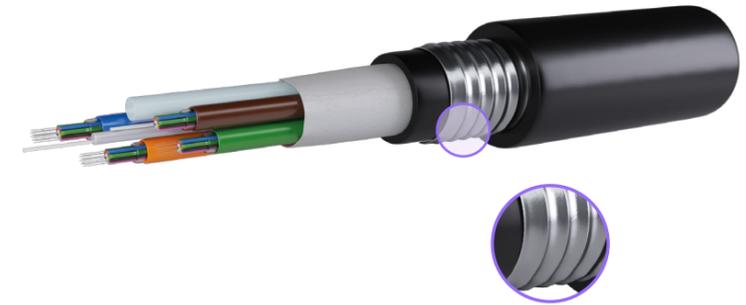


Aramid Yarns



Glass Yarns

It gives a anti rodent protection.



Corrugated Tape

It gives a higher anti rodent protection.



Different ITU standards

There are several ITU(International Telecommunications Union) standars that define the singlemode fibers that is important to explain:

ITU-T STANDARD	MINIMUM RADIUS OF CURVATURE	APPLICATION
G.652D	30 mm	For all applications, mainly for external plant.
G.657A2	7,5 mm	For cords in general and indoor installations.
G.G657B3	5 mm	For applications in small-length internal access cables that will be subject to user manipulation.



Basic Ideas of Connectors

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Ferrule

The main difference between UPC and APC is the contact surface.

The UPC connector (Ultra Physical Contact Polishing) shows a contact surface polished without angle with convex format, allowing one good contact between two surfaces.

The APC connector (Angled Physical Contact Polishing) shows one angular contact surface of 8° , which allows a more accurate connection between the two surfaces.



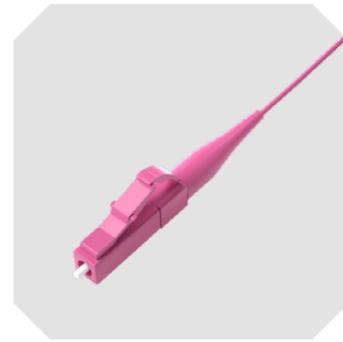
2.

Conectors



SC

Diameter of 2,5mm



LC

Diameter of 1,25mm



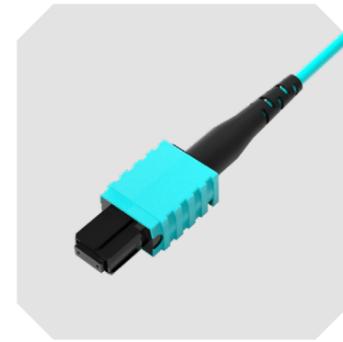
FC

Diameter of 2,5mm



ST

Diameter of 2,5mm



MTP/MPO

Conector mostly used in High Density.

In one conector you can support upto 24 fibers.

3.

Cleaning

The main cause of optic losses are directly associated to the ferrule contamination.

Cleaning is crucial for all the steps of the production process, just like in the installation site.

We advice that in every connections you perform cleaning and previous inspection, with the right materials and tools.





Higgs Solutions

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Solutions that you can find at HIGGS



 [Click on the solution you wish to explore](#)

Pre-terminated Cables (Tight Buffer or Loose Tube)

Order No.	Part No.	Color	Insertion Loss (dB)	Return Loss (dB)
000001	000001	A	0.04	78.00
000002	000002	B	0.09	76.00
000003	000003	A	0.05	78.00
000004	000004	B	0.12	76.00
000005	000005	A	0.08	78.00
000006	000006	B	0.15	76.00
000007	000007	A	0.06	78.00
000008	000008	B	0.13	76.00

Pre-terminated Cables Solutions

Advantages

Plug N' Play Solution

A quicker and more reliable installation

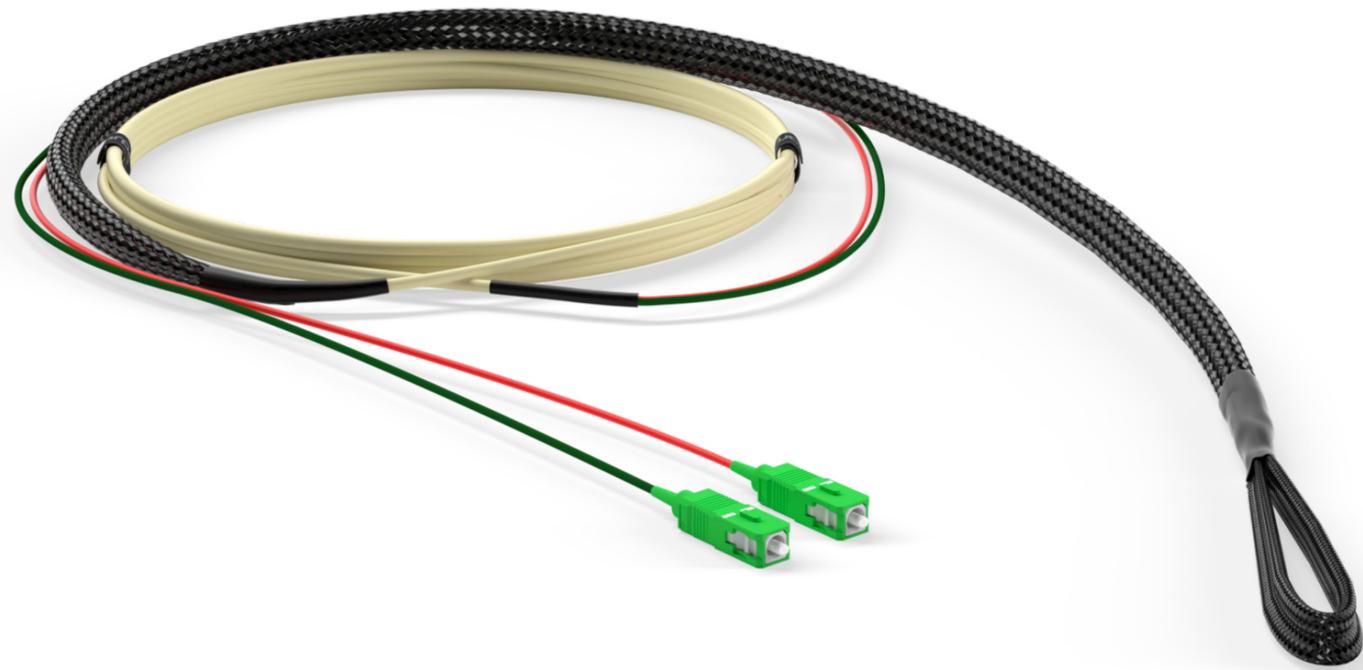
No need for tools or special machines

Production made in laboratory in a controlled environment

100% inspection, total traceability

Less cable wasted in the construction of a building

PRE-TERMINATED



Pre-terminated Cable Drop

1/2

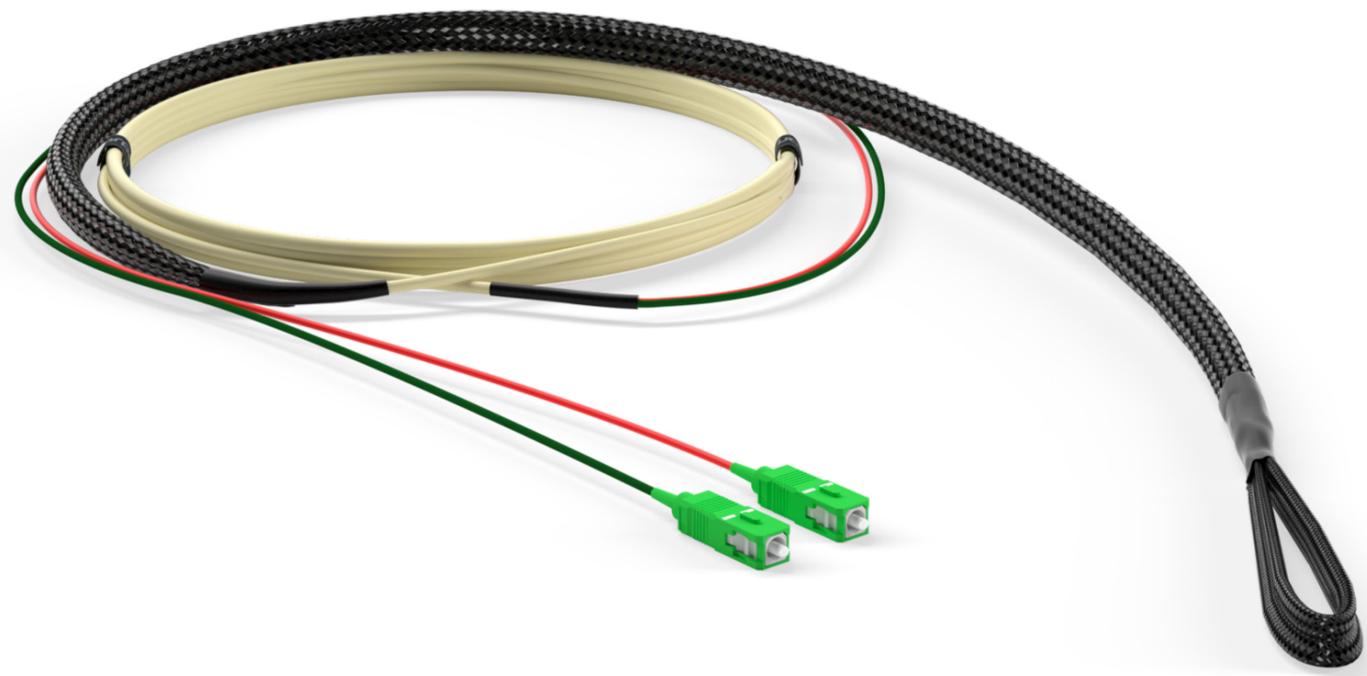
Drop Cable is easy to install and connect.

It has two adjusted 900 μ m fibers, each identified with a different color, green and red.

Is a singlemode with LSZH coating, making it suitable to indoor applications.

Can also be applied in cable trays.

PRE-TERMINATED



Pre-terminated Cable Drop

2/2

CONNECTORS SPECIFICATIONS

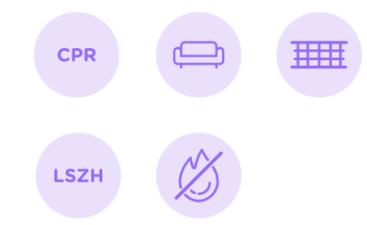
				
	SC	LC	SC/APC	LC/APC
Standards	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS
Ferrule Type	Zirconium Ceramic (ZrO ₂)			
Operating Temperature	-20°C to +70°C			
Durability	< 0.2dB typical change for > 500 matings			

	Average values	Standards
Insertion Loss	≤0,2dB	IEC 61300-3-34
Return Loss	≥60dB	IEC 61300-3-6

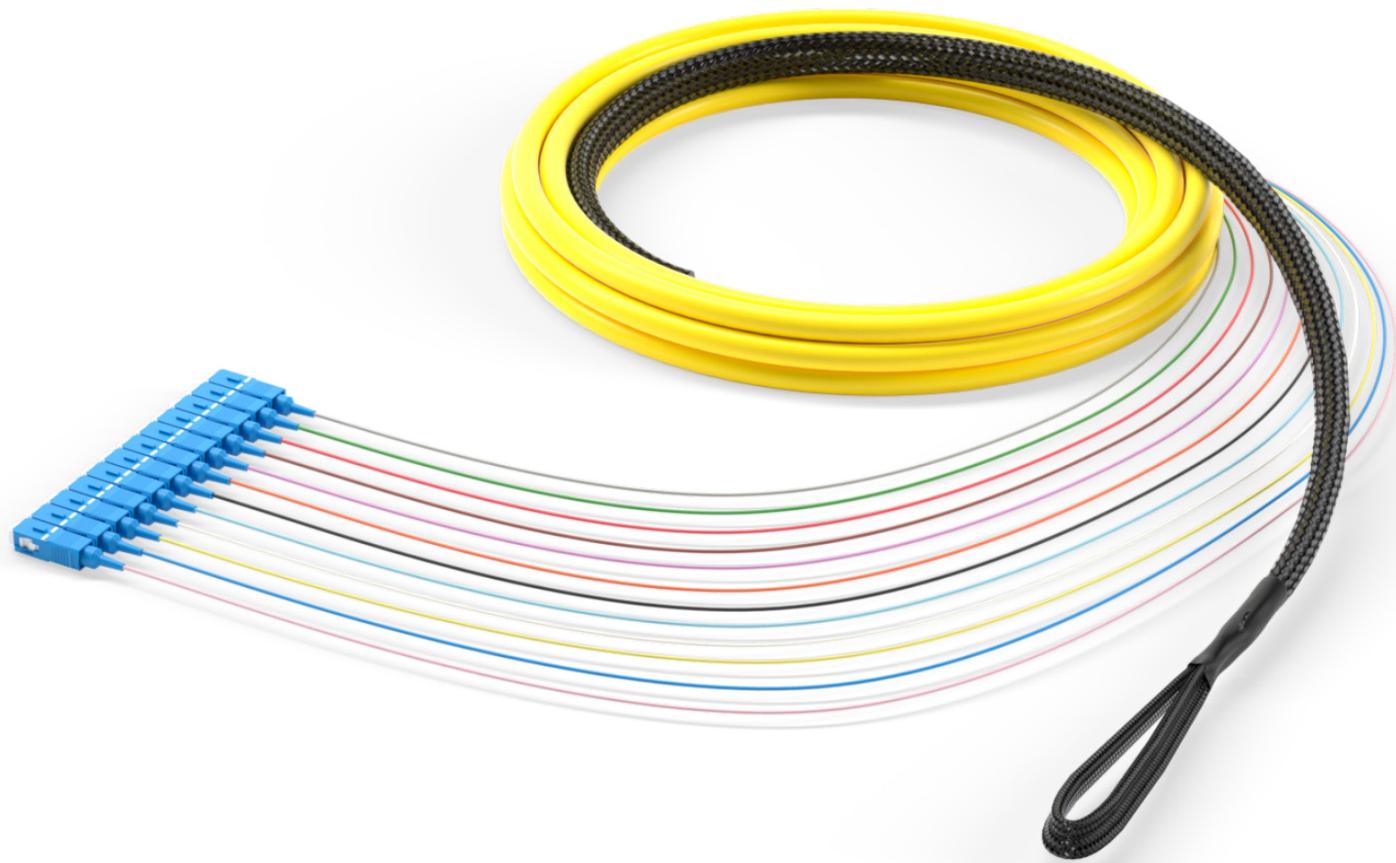
CABLES SPECIFICATIONS

Type	Drop Cable
Categories	OS2 G657A2
Coating	LSZH
CPR Class	Eca (Polyester) / Dca (Aramid)
Cable diametre	900µm
N° of fibers	2
Length	≥ 1m to 1000m (Tolerance ± 2%)
Packaging	Standard / Reel (>200m)

CHARACTERISTICS



PRE-TERMINATED



Pre-terminated Cable Distribution

1/3

The distribution cable is ideal for backbone applications and horizontal distribution.

Used in data centers, local networks, SANs and long distance backbones.

Can be applied in air conduits and cable trays. It is fire resistant.

PRE-TERMINATED



Pre-terminated Cable Distribution

2/3

CONNECTORS SPECIFICATIONS

										
	SC	LC	SC/APC	LC/APC	SC OM2	SC OM3	SC OM4	LC OM2	LC OM3	LC OM4
Standards	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS			IEC 61754-20 TIA 604-10-A RoHS		
Ferrule Type	Zirconium Ceramic (ZrO ₂)									
Operating Temperature	-20°C to +70°C									
Durability	< 0.2dB typical change for > 500 matings									
	Average values SM		Average values MM		Standards					
Insertion Loss	≤0,2dB		≤0,3dB		IEC 61300-3-34					
Return Loss	≥60dB		≥35dB		IEC 61300-3-6					

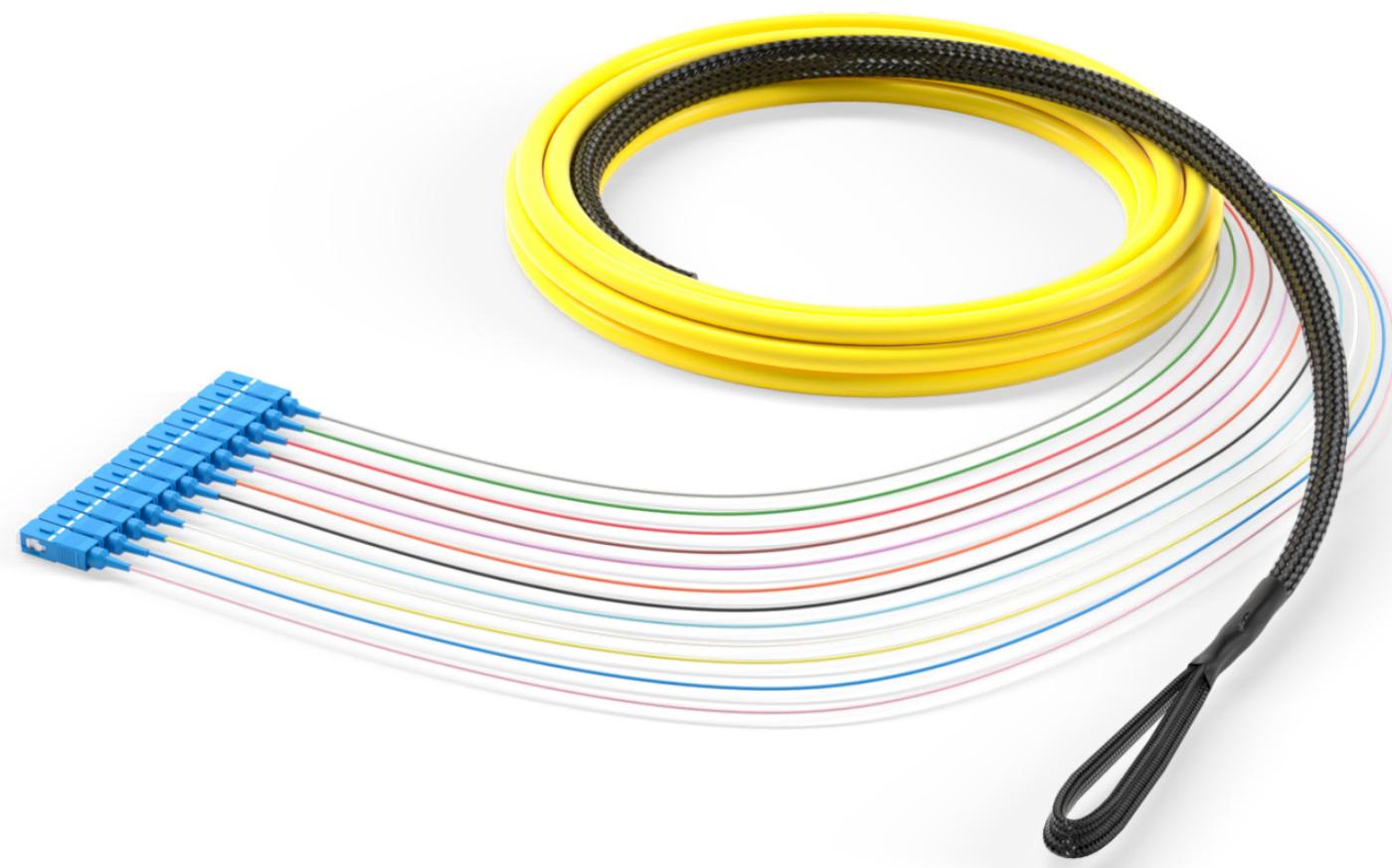
CABLES SPECIFICATIONS

Type	Distribution Cable (Adjusted Fiber)
Categories	OS2 G652D / OS2 G657A2 / OM2 / OM3 / OM4
Coating	LSZH
CPR Class	Eca / Dca / Cca
Cable diametre	900µm
N°of fibers	2 / 4 / 8 / 12 / 24
Length	≥ 1m to 1000m (Tolerance ± 2%)
Packaging	Standard / Reel (>150m)

CHARACTERISTICS

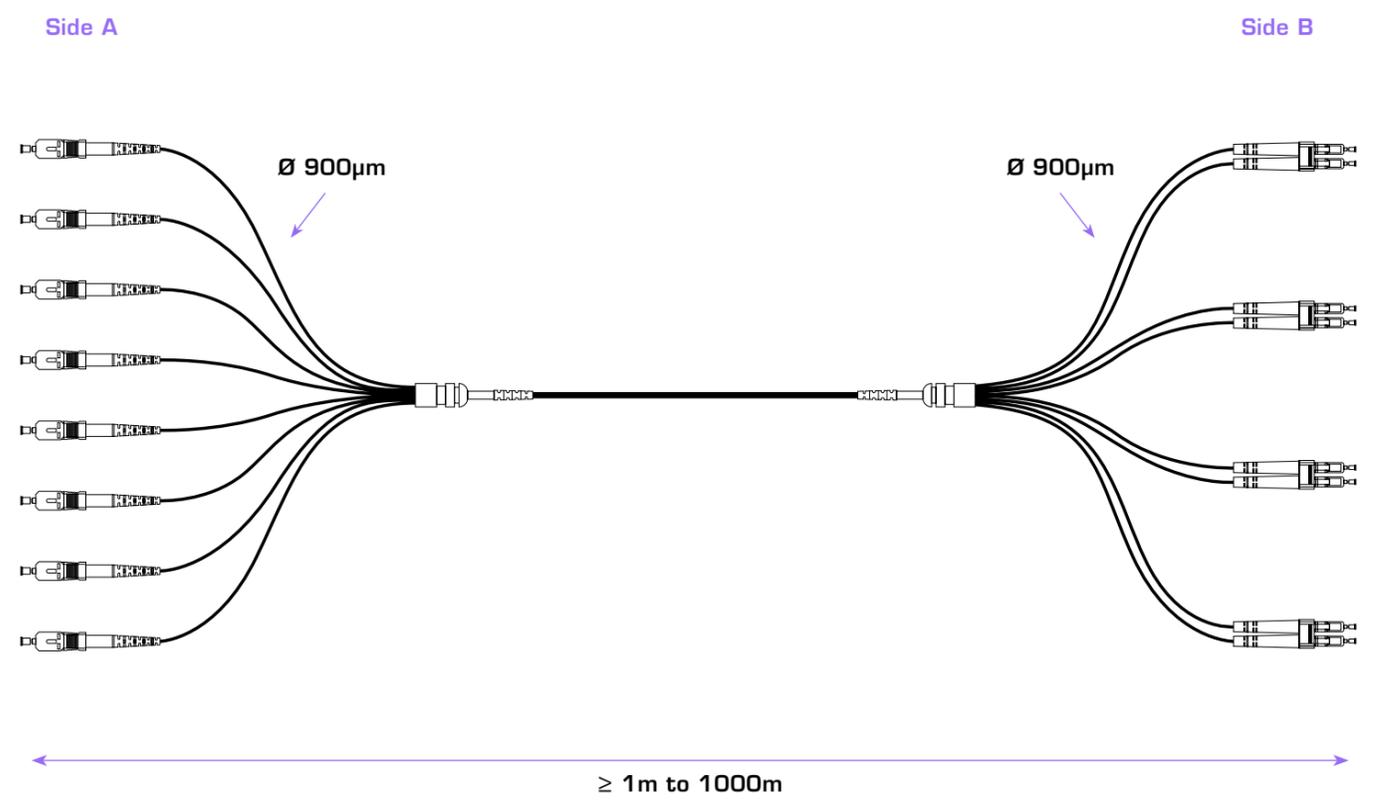


PRE-TERMINATED



Pre-terminated Cable Distribution

SCHEME



PRE-TERMINATED



Pre-terminated Cable

Unitube Loose Tube LSZH

1/3

Suitable for indoor and outdoor applications.

Unitube LSZH Loose Tube is mostly used for campus backbone applications.

Even though it doesn't have corrugated steel it still has protection against rodents..

Can also be applied in conduits, cable trays and underground.
It is fire resistant.

PRE-TERMINATED



Pre-terminated Cable Unitube Loose Tube LSZH

2/3

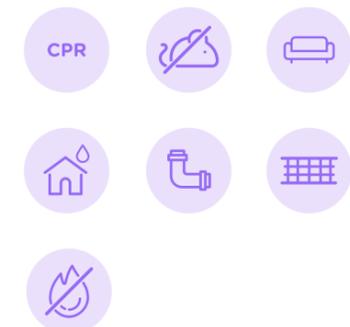
CONNECTORS SPECIFICATIONS

										
	SC	LC	SC/APC	LC/APC	SC OM2	SC OM3	SC OM4	LC OM2	LC OM3	LC OM4
Standards	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS			IEC 61754-20 TIA 604-10-A RoHS		
Ferrule Type	Zirconium Ceramic (ZrO ₂)									
Operating Temperature	-20°C to +70°C									
Durability	< 0.2dB typical change for > 500 matings									
	Average values SM		Average values MM		Standards					
Insertion Loss	≤0,2dB		≤0,3dB		IEC 61300-3-34					
Return Loss	≥60dB		≥35dB		IEC 61300-3-6					

CABLES SPECIFICATIONS

Type	Unitube LSZH Loose Tube
Categories	OS2 G652D / OS2 G657A2 / OM2 / OM3 / OM4
Coating	LSZH
CPR Class	Eca / Dca
Cable diametre	900µm / 2mm / 3mm
N° of fibers	2 / 4 / 8 / 12 / 24
Length	≥ 3m to 2000m (Tolerance ± 2%)
Packaging	Standard / Reel (>150m)

CHARACTERISTICS



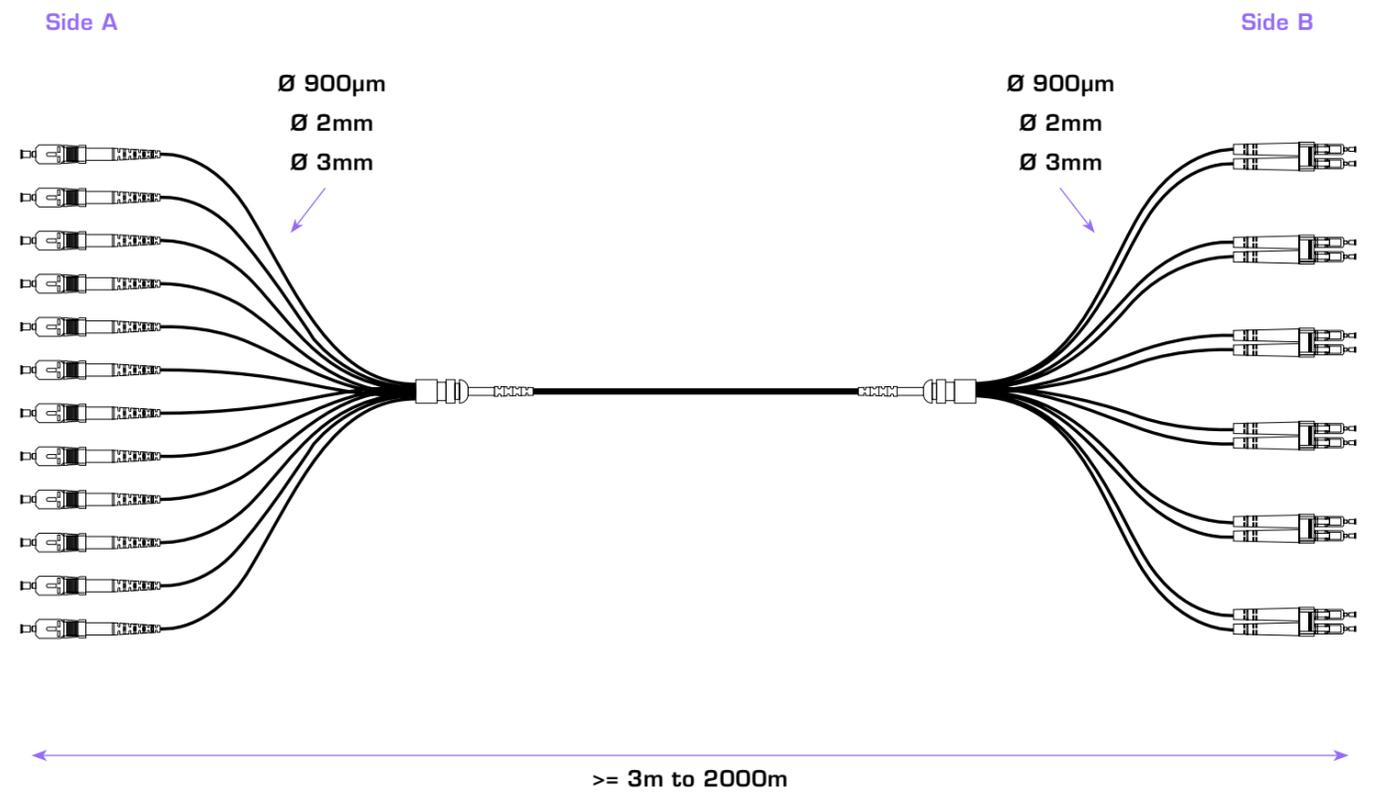
PRE-TERMINATED



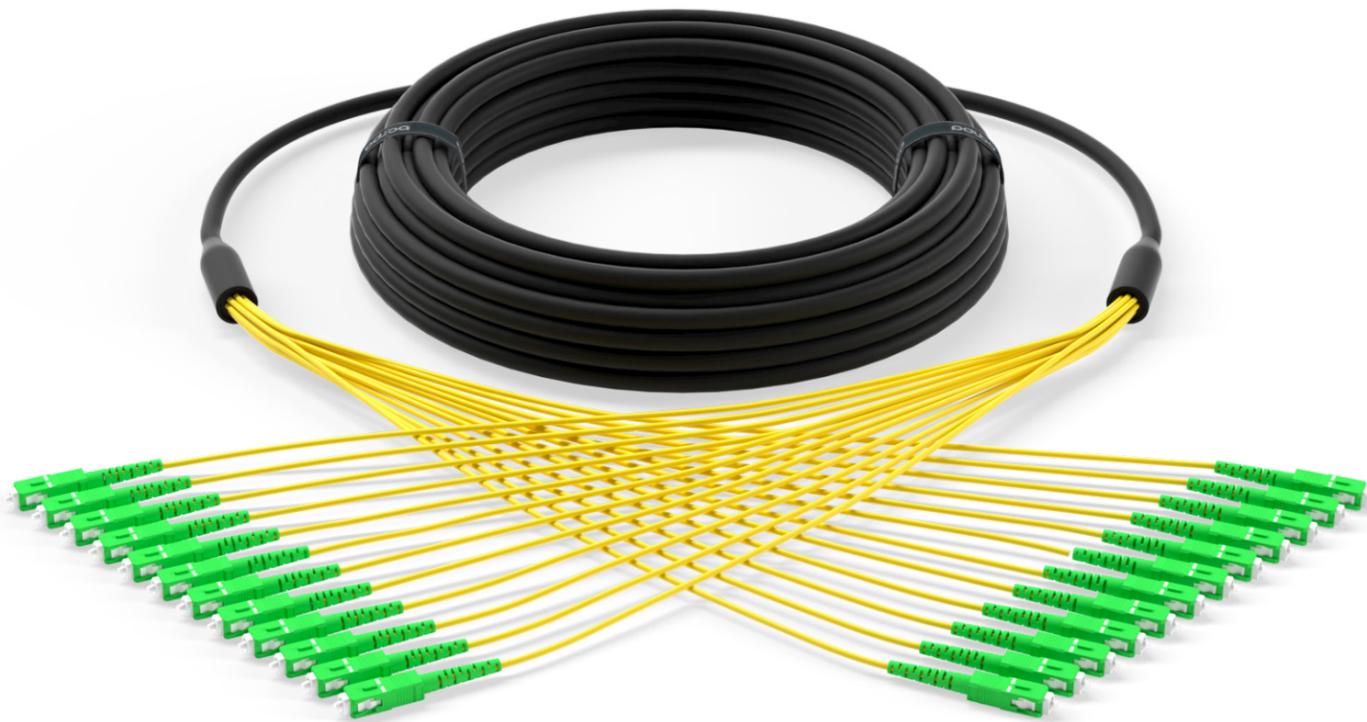
Pre-terminated Cable Unitube Loose Tube LSZH

3/3

SQUEME



PRE-TERMINATED



Pre-terminated Cable

Unitube Loose Tube PE

1/3

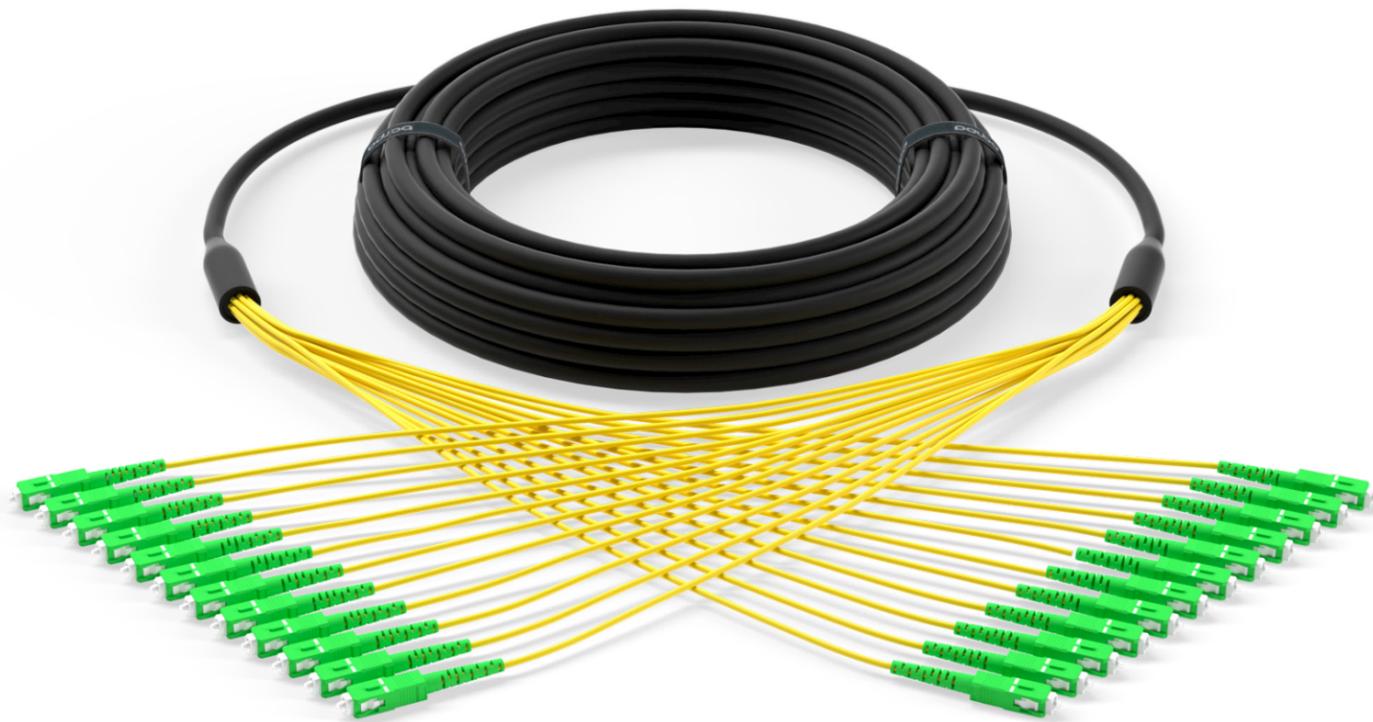
Suitable for outdoor applications.

Unitube PE Loose Tube is mostly used for campus backbone applications.

Even though it is not corrugated steel it has rodent protection.

Can also be applied in conduits, cable trays and underground. It is fire resistant.

PRE-TERMINATED



Pre-terminated Cable Unitube Loose Tube PE

2/3

CONNECTORS SPECIFICATIONS

										
	SC	LC	SC/APC	LC/APC	SC OM2	SC OM3	SC OM4	LC OM2	LC OM3	LC OM4
Standards	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS			IEC 61754-20 TIA 604-10-A RoHS		
Ferrule Type	Zirconium Ceramic (ZrO ₂)									
Operating Temperature	-20°C to +70°C									
Durability	< 0.2dB typical change for > 500 matings									
	Average values SM		Average values MM		Standards					
Insertion Loss	≤0,2dB		≤0,3dB		IEC 61300-3-34					
Return Loss	≥60dB		≥35dB		IEC 61300-3-6					

CABLES SPECIFICATIONS

Type	Cabo Unitubo PE
Categories	OS2 G652D / OM3 / OM4
Coating	PE
CPR Class	Fca
Cable diametre	900µm / 2mm / 3mm
N° of fibers	2 / 4 / 8 / 12 / 24
Length	>= 3m to 2000m (Tolerance ± 2%)
Packaging	Standard / Reel (>150m)

CHARACTERISTICS

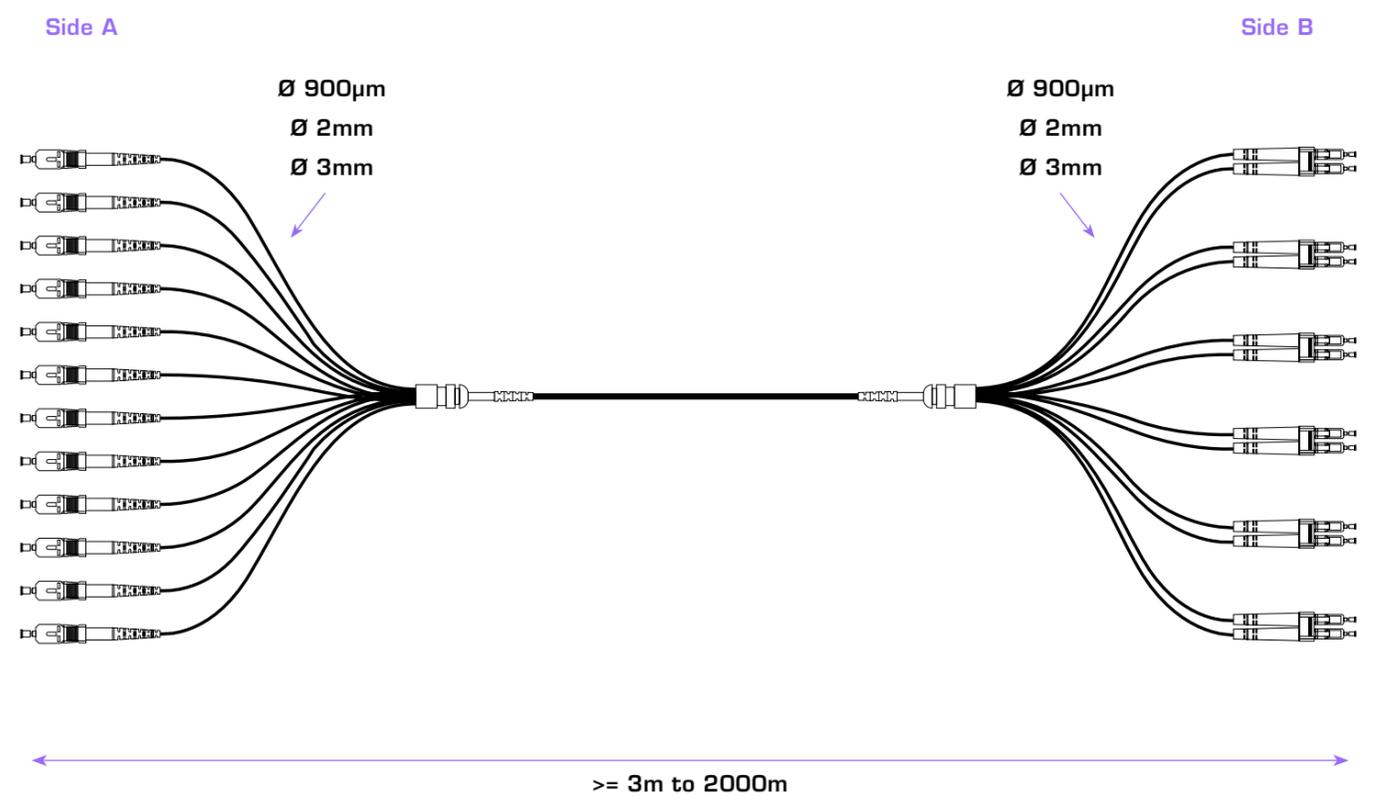


PRE-TERMINATED

Pre-terminated Cable Unitube Loose Tube PE

3/3

SQUEME



PRE-TERMINATED



Pre-terminated Cable

Unitube with Corrugated Steel LSZH

1/3

Suitable for indoor and outdoor applications.

Unitube with Corrugated Steel LSZH cable is mostly used for campus backbone applications.

This cable can be applied in conduits, cable trays and underground.

The corrugated steel allows for rodent protection and fire resistance.

Can also be applied in cable trays.

PRE-TERMINATED



Pre-terminated Cable

2/3

Unitube with Corrugated Steel LSZH

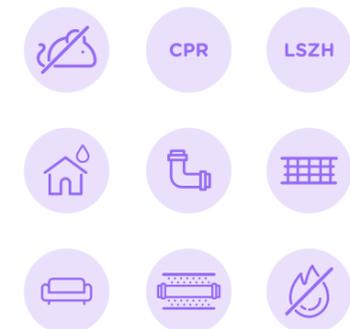
CONNECTORS SPECIFICATIONS

										
	SC	LC	SC/APC	LC/APC	SC OM2	SC OM3	SC OM4	LC OM2	LC OM3	LC OM4
Standards	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS			IEC 61754-20 TIA 604-10-A RoHS		
Ferrule Type	Zirconium Ceramic (ZrO ₂)									
Operating Temperature	-20°C to +70°C									
Durability	< 0.2dB typical change for > 500 matings									
	Average values SM		Average values MM		Standards					
Insertion Loss	≤0,2dB		≤0,3dB		IEC 61300-3-34					
Return Loss	≥60dB		≥35dB		IEC 61300-3-6					

CABLES SPECIFICATIONS

Type	Unitube with Corrugated Steel LSZH
Categories	OS2 G652D / OS2 G657A2 / OM3 / OM4
Coating	LSZH
CPR Class	Eca / Dca
Cable diametre	900µm / 2mm / 3mm
N° of fibers	2 / 4 / 8 / 12 / 24
Length	>= 3m to 2000m (Tolerance ± 2%)
Packaging	Standard / Reel (>150m)

CHARACTERISTICS



PRE-TERMINATED

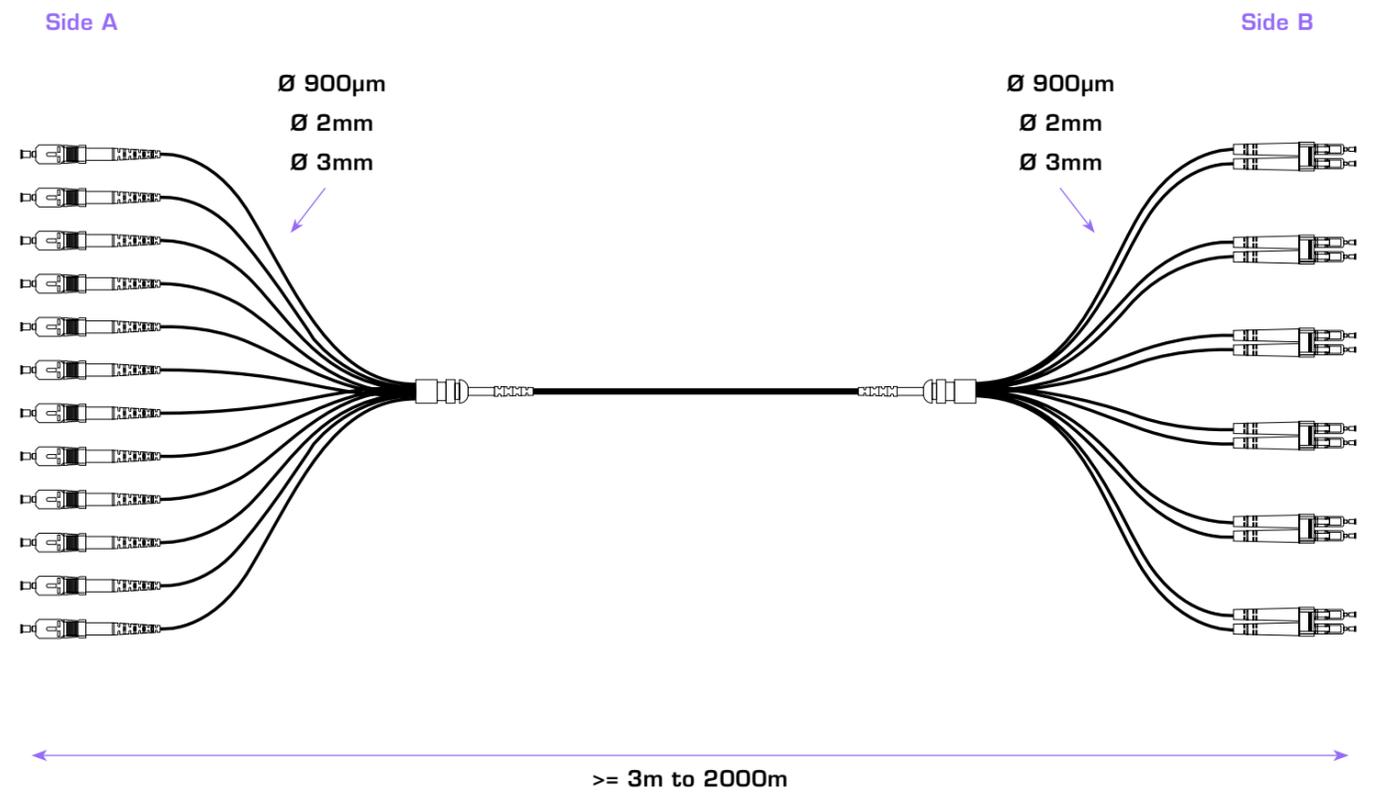


Pre-terminated Cable

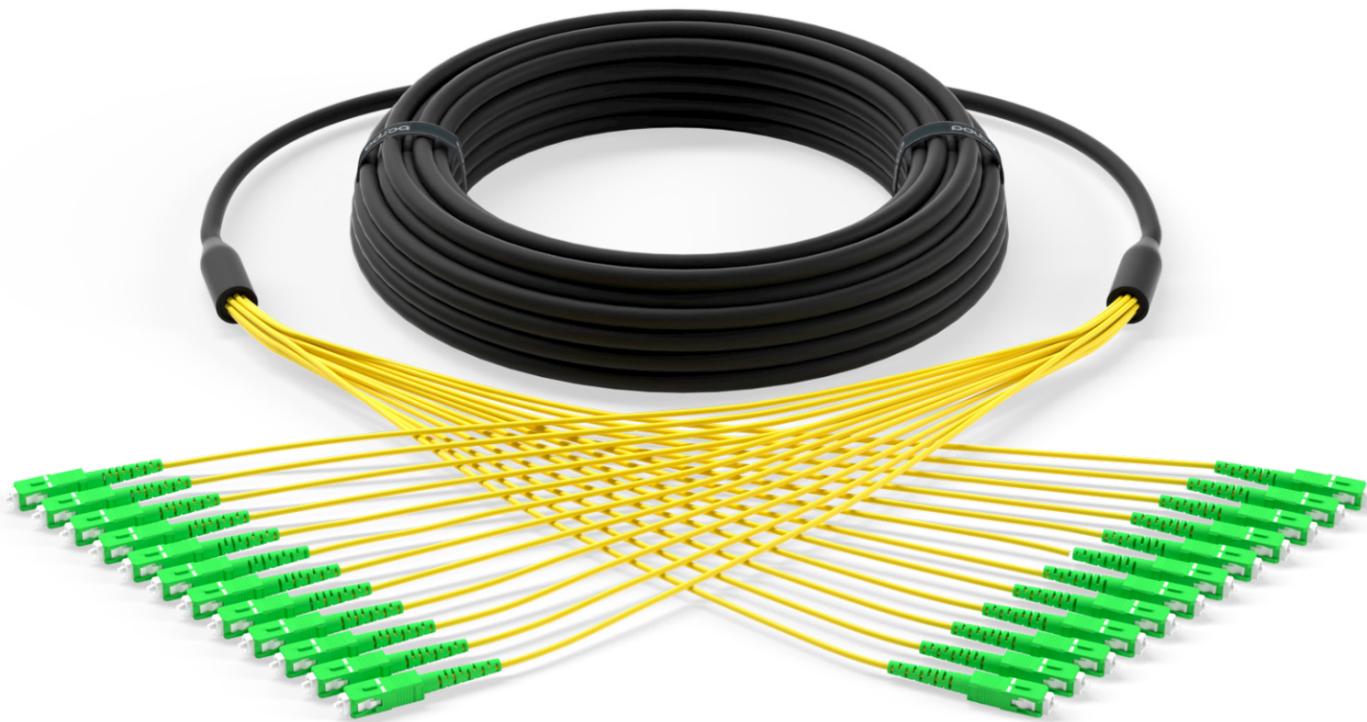
3/3

Unitube with Corrugated Steel LSZH

CONNECTORS SPECIFICATIONS



PRE-TERMINATED



Pre-terminated Cable

Unitube with Corrugated Steel PE

1/3

Suitable for outdoor applications.

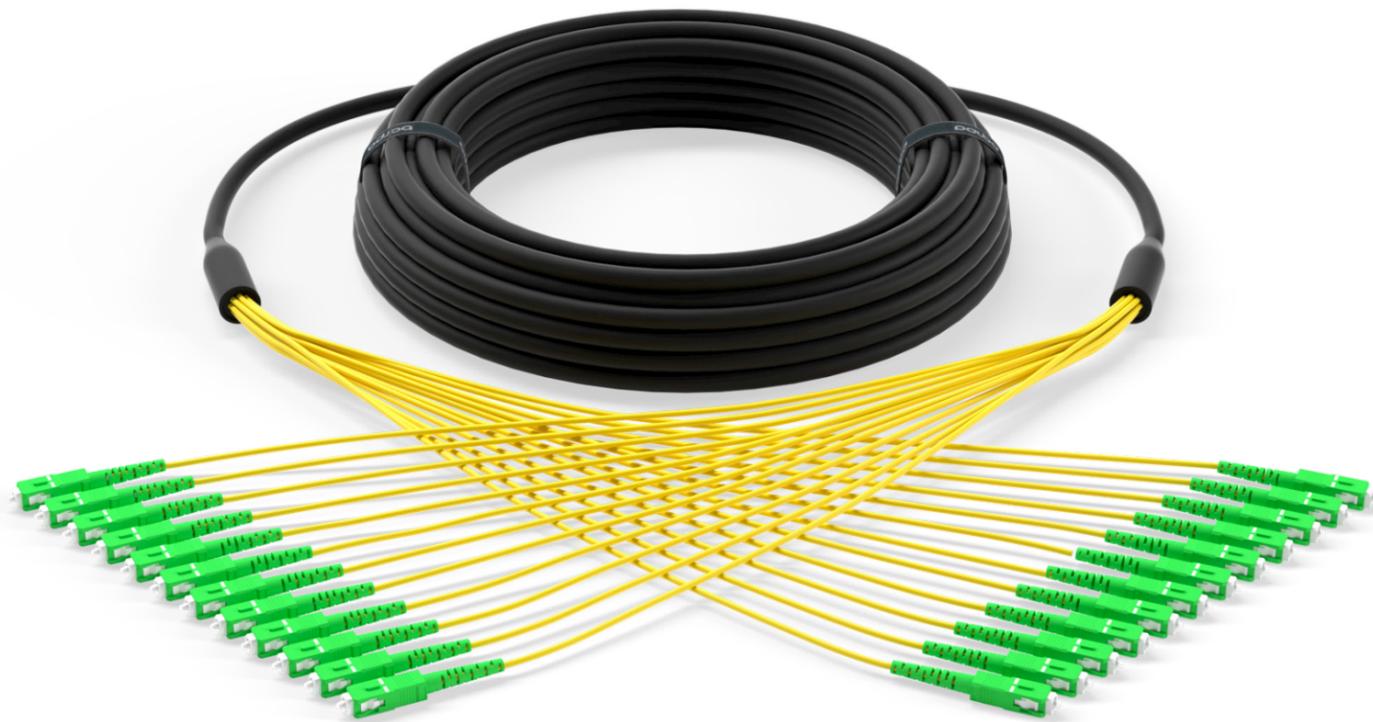
Unitube with Corrugated Steel PE cable is mostly used for campus backbone applications.

This cable is suited to be applied in conduits and underground.

The corrugated steel allows for rodent protection.

Can also be applied in cable trays.

PRE-TERMINATED



Pre-terminated Cable

2/3

Unitube with Corrugated Steel PE

CONNECTORS SPECIFICATIONS

										
	SC	LC	SC/APC	LC/APC	SC OM2	SC OM3	SC OM4	LC OM2	LC OM3	LC OM4
Standards	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS			IEC 61754-20 TIA 604-10-A RoHS		
Ferrule Type	Zirconium Ceramic (ZrO ₂)									
Operating Temperature	-20°C to +70°C									
Durability	< 0.2dB typical change for > 500 matings									
	Average values SM		Average values MM		Standards					
Insertion Loss	≤0,2dB		≤0,3dB		IEC 61300-3-34					
Return Loss	≥60dB		≥35dB		IEC 61300-3-6					

CABLES SPECIFICATIONS

Type	Unitube with Corrugated Steel PE
Categories	OS2 G652D / OM3 / OM4
Coating	PE
CPR Class	Fca
Cable diametre	900µm / 2mm / 3mm
N° of fibers	2 / 4 / 8 / 12 / 24
Length	>= 3m to 2000m (Tolerance ± 2%)
Packaging	Standard / Reel (>150m)

CHARACTERISTICS



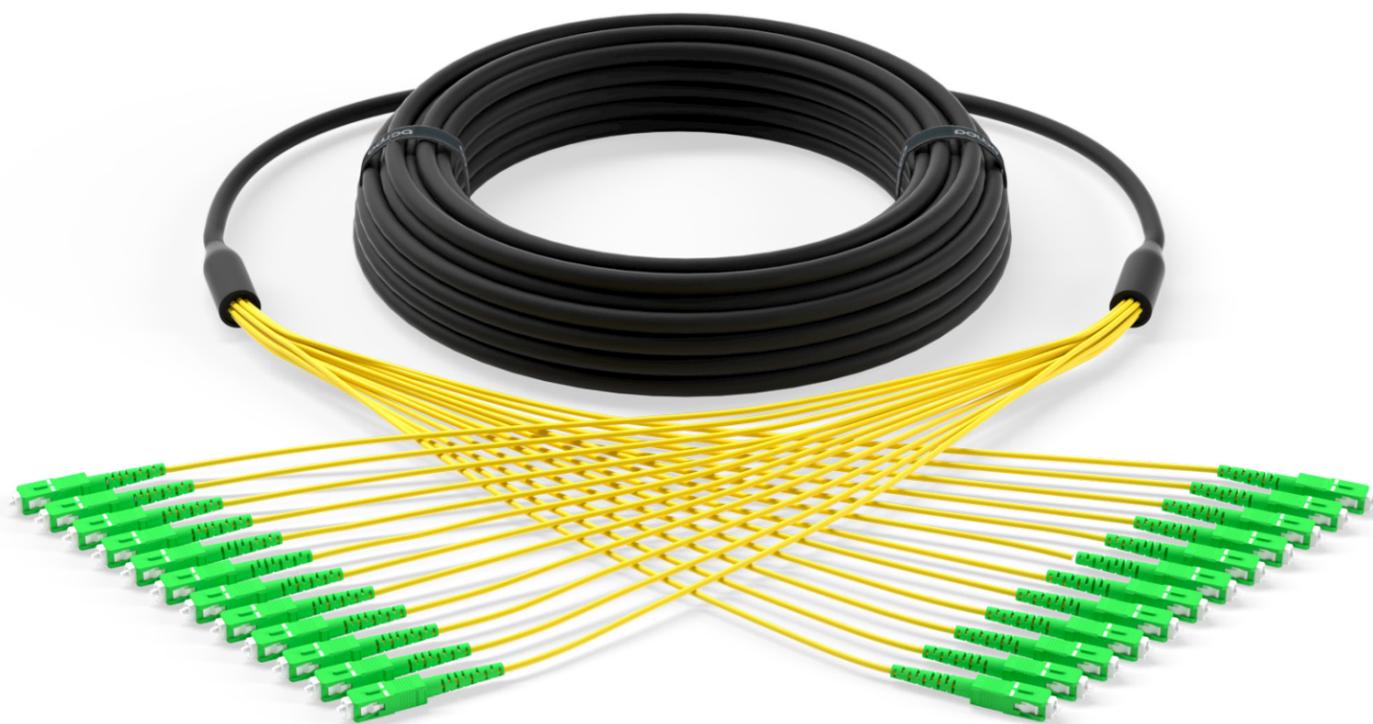
PRE-TERMINATED

Pre-terminated Cable

3/3

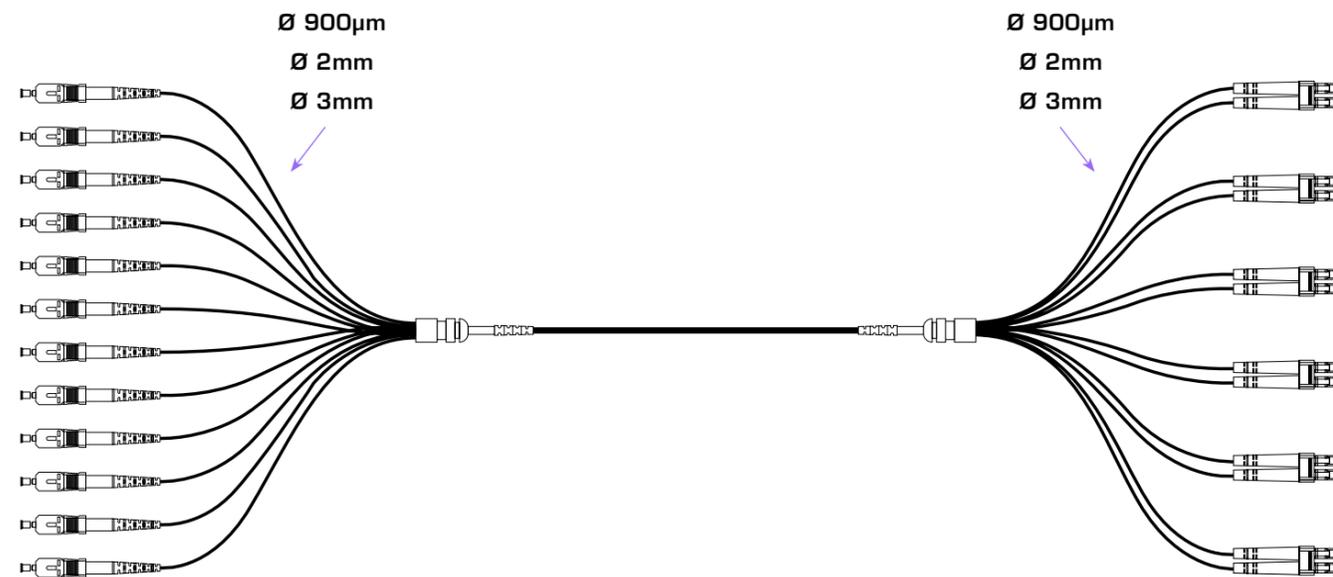
Unitube with Corrugated Steel PE

SQUEME



Side A

Side B



$\geq 3m$ to 2000m

Protection Pulling Eye IP68 or IP10

Since the connectors are the most sensitive part of a pre-terminated cable, it is essential to ensure its protection throughout the supply chain and, above all, at the moment of the installation.

At HIGGS we developed two pulling eye solutions that protect the cables in the best possible way.

Both systems provide the possibility of towing the cable during the installation process, ensuring that the traction forces are applied in the correct areas and don't compromise the connectorizations or the cable itself.

The **pulling eye IP10** has an IP10 degree of protection, protecting the connectors from light impacts during transport and installation. The eye system helps guide the cable during installation.

The **pulling eye IP68** is recommended for applications where protection from dust and continuous water immersion is needed.

When ordering select one of these solutions in one or both ends.

Pulling-Eye IP10



Pulling-Eye IP68



Pre-terminated Cables Solutions

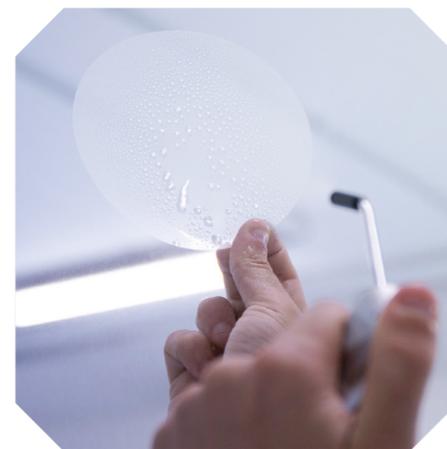
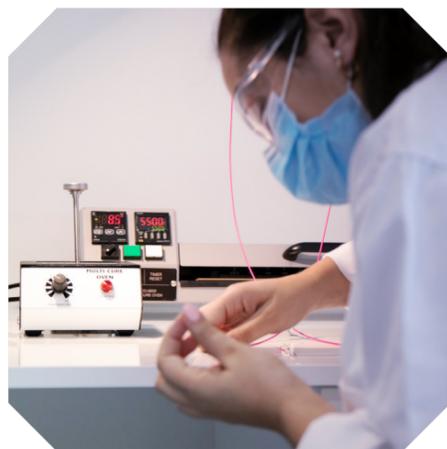
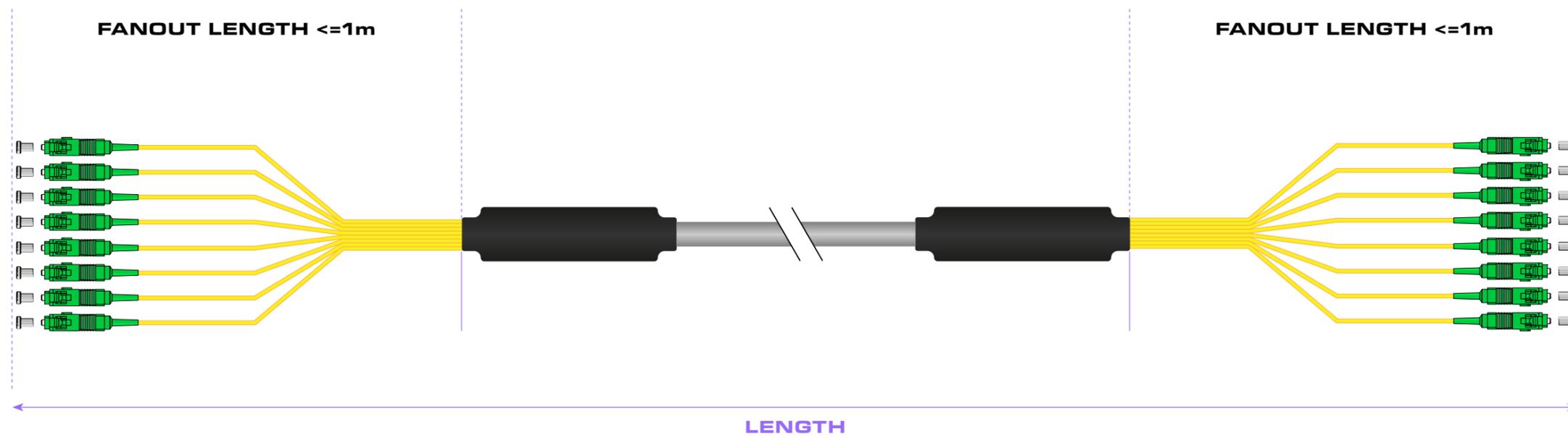
Everything you need to select when ordering:

CATEGORY	OS2 G652D	OS2 G657A2	OM2	OM3	OM4	
CABLE TYPE	Drop	Distribution	Unitube with Corrugated Steel PE	Unitube with Corrugated Steel LSZH	Unitube Loose Tube PE	Unitube Loose Tube LSZH
FANOUT CABLE DIAMETER	900µm	2mm	3mm			
CPR CLASS	Eca	Dca	Cca	Fca (PE)		
NUMBER OF FIBERS	2	4	6	8	12	24
CONNECTOR A	SC	SC/APC	LC	LC/APC		
CONNECTOR B	SC	SC/APC	LC	LC/APC		
TERMINATION	Conectores Escalonados	Conectores alinhados				
PROTECTION END A	Pulling Eye IP68	Pulling Eye IP10	Without protection (Standard)			
PROTECTION END B	Pulling Eye IP68	Pulling Eye IP10	Without protection (Standard)			
PACKAGING	Standard	Reel				
LENGTH	≥ 1m a 1000m (Cable Drop and Distribution Cable) / (Tolerance ± 2%)		≥ 5m to 2000m (Unitube Cable) / (Tolerance ± 2%)			

For assistance when customizing your cable, please contact our team by sending an email to info@barpa.eu

Pre-terminated Cables Solutions

Cable **length** is measured from one ferrule to the other including the dust cap. Tolerance $\pm 2\%$.



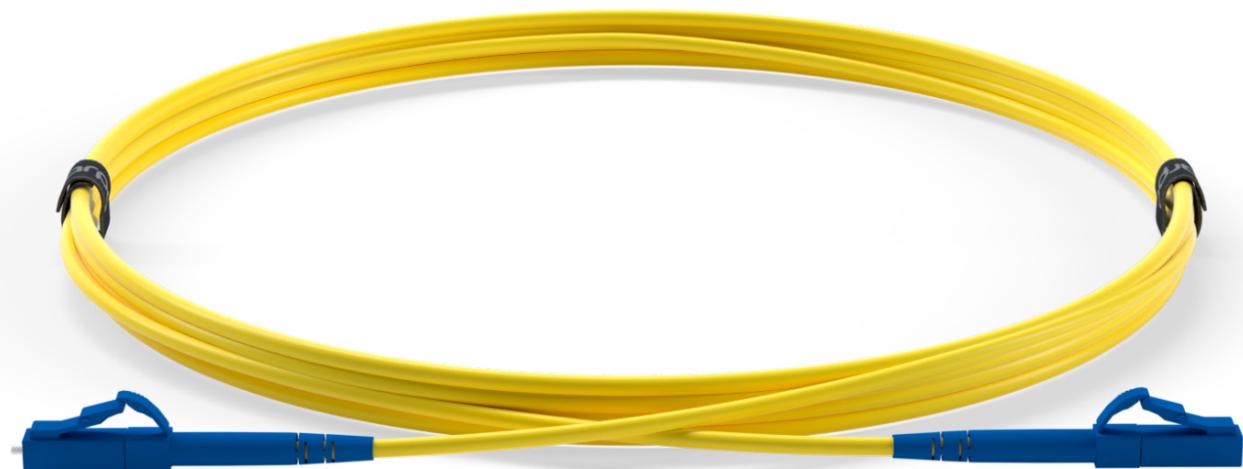
Higgs Patch Cords Solutions

Higgs Patch Cords are destined to be used indoors.

They are mainly used to connect passive and active optical devices.



PATCH CORD



Patch cord Singlemode Simplex

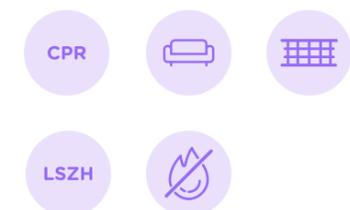
CONNECTORS SPECIFICATIONS

	 SC	 LC	 SC/APC	 LC/APC
Standards	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS
Ferrule Type	Zirconium Ceramic (ZrO ₂)			
Operating Temperature	-20°C to +70°C			
Durability	< 0.2dB typical change for > 500 matings			
	Average values		Standards	
Insertion Loss	≤0,2dB		IEC 61300-3-34	
Return Loss	≥60dB		IEC 61300-3-6	

CABLES SPECIFICATIONS

Type	Zipcord
Categories	OS2 G652D / OS2 G657A2 / OS2 G657B3
Coating	LSZH
CPR Class	Eca / Dca / Cca / B2ca
Cable diameter	2mm / 3mm
N° of fibers	1
Length	0,5 – 1000m (Tolerance ± 1%)
Packaging	Standard (Bag)

CHARACTERISTICS



PATCH CORD

Patch cord Singlemode Duplex

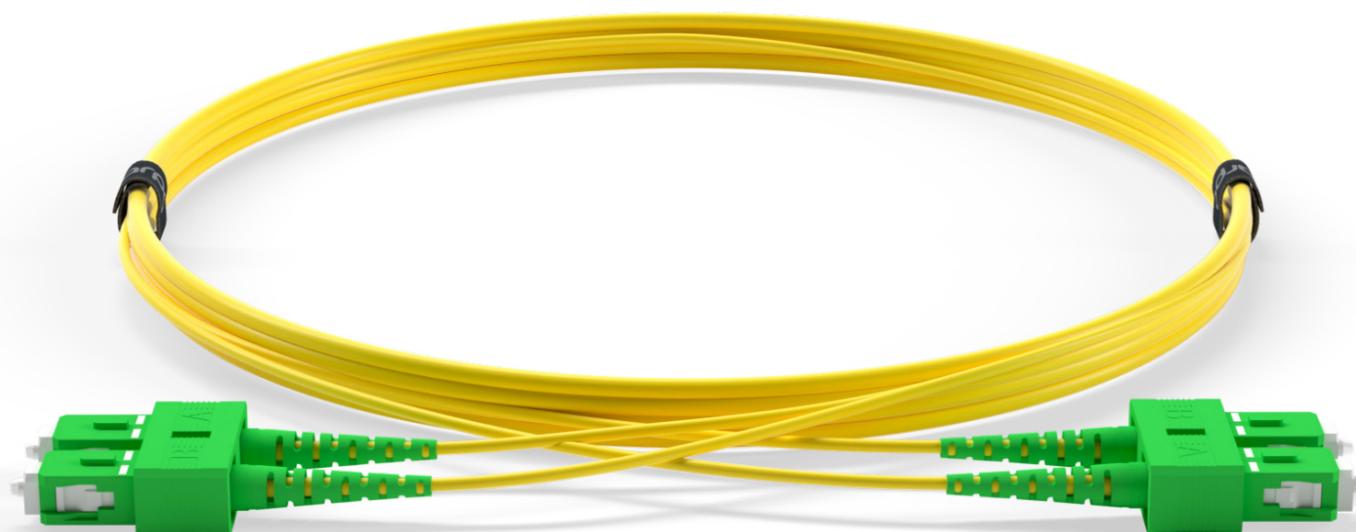
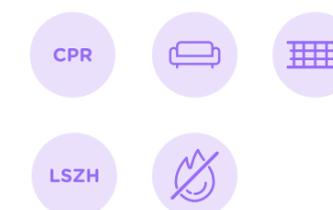
CONNECTORS SPECIFICATIONS

	 SC	 LC	 SC/APC	 LC/APC
Standards	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS
Ferrule Type	Zirconium Ceramic (ZrO ₂)			
Operating Temperature	-20°C to +70°C			
Durability	< 0.2dB typical change for > 500 matings			
	Average values		Standards	
Insertion Loss	≤0,2dB		IEC 61300-3-34	
Return Loss	≥60dB		IEC 61300-3-6	

CABLES SPECIFICATIONS

Type	Zipcord
Categories	OS2 G652D / OS2 G657A2 / OS2 G657B3
Coating	LSZH
CPR Class	Eca / Dca / Cca / B2ca
Cable diameter	2mm / 3mm
N° of fibers	2
Length	0,5 – 1000m (Tolerance ± 1%)
Packaging	Standard (Bag)

CHARACTERISTICS



PATCH CORD



Patch cord Multimode Simplex

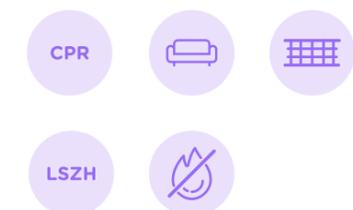
CONNECTORS SPECIFICATIONS

						
	SC OM2	SC OM3	SC OM4	LC OM2	LC OM3	LC OM4
Standards		IEC 61754-4 TIA 604-3 RoHS			IEC 61754-20 TIA 604-10-A RoHS	
Ferrule Type	Zirconium Ceramic (ZrO ₂)					
Operating Temperature	-20°C to +70°C					
Durability	< 0.2dB typical change for > 500 matings					
	Average values			Standards		
Insertion Loss	≤0,3dB			IEC 61300-3-34		
Return Loss	≥35dB			IEC 61300-3-6		

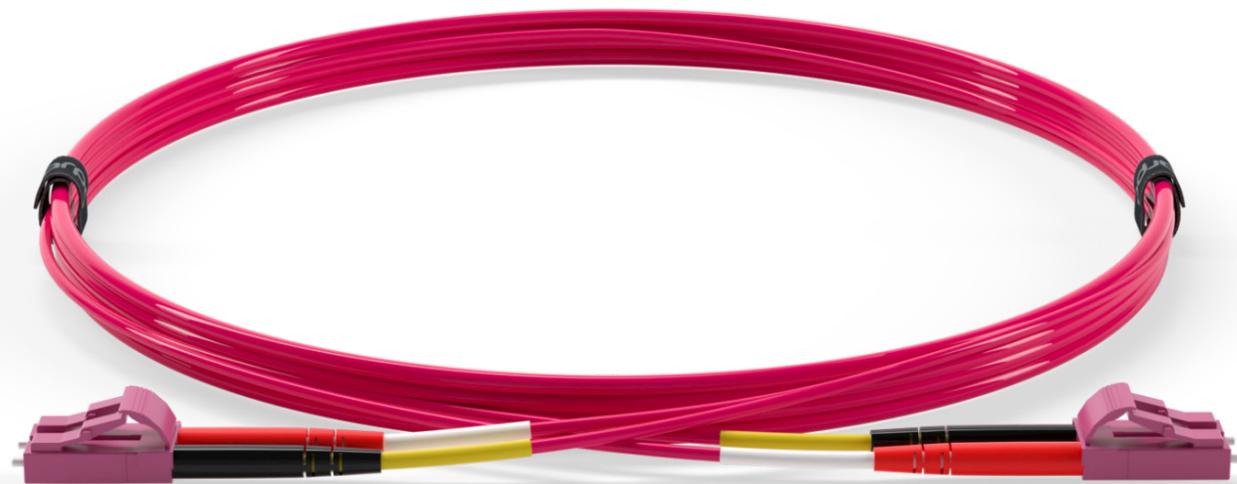
CABLES SPECIFICATIONS

Type	Zipcord
Categories	OM2 / OM3 / OM4
Coating	LSZH
CPR Class	Eca / Dca / Cca / B2ca
Cable diametre	2mm / 3mm
N° of fibers	2
Length	0,5 – 1000m (Tolerance ± 1%)
Packaging	Standard (Bag)

CHARACTERISTICS



PATCH CORD



Patch cord Multimode Duplex

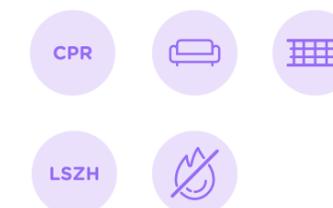
CONNECTORS SPECIFICATIONS

						
	SC OM2	SC OM3	SC OM4	LC OM2	LC OM3	LC OM4
Standards		IEC 61754-4 TIA 604-3 RoHS			IEC 61754-20 TIA 604-10-A RoHS	
Ferrule Type	Zirconium Ceramic (ZrO ₂)					
Operating Temperature	-20°C to +70°C					
Durability	< 0.2dB typical change for > 500 matings					
	Average values			Standards		
Insertion Loss	≤0,3dB			IEC 61300-3-34		
Return Loss	≥35dB			IEC 61300-3-6		

CABLES SPECIFICATIONS

Type	Zipcord
Categories	OM2 / OM3 / OM4
Coating	LSZH
CPR Class	Eca / Dca / Cca / B2ca
Cable diametre	2mm / 3mm
N° of fibers	2
Length	0,5 – 1000m (Tolerance ± 1%)
Packaging	Standard (Bag)

CHARACTERISTICS



Higgs Patch Cord Solutions

Everything you need to select when ordering:

CATEGORY	OS2 G652D	OS2 G657A2	OS2 G657B3	OM2	OM3	OM4
COATING AND CPR CLASS	Eca	Dca	Cca	B2ca		
CABLE DIAMETRE	2,0 mm	3,0 mm				
NUMBER OF FIBERS	1 - Simplex	2 - Duplex				
CONECTOR A	SC	SC/APC	LC	LC/APC		
CONECTOR B	SC	SC/APC	LC	LC/APC		
LENGTH	0,5 - 1000m (Tolerance \pm 1%)					

For assistance when customizing your cable, please contact our team by sending an email to info@barpa.eu

MPO/MTP® Multifiber solutions

The MPO/MTP® cables produced at Higgs are mainly used for high density applications, they are a Plug&Play solution with the ability to combine several fibers in one connector allowing space reduction and better cable management.

The possibility to change polarity and the pins of the connector at any time and anywhere is a feature of our connectors allowing a greater adaptation to your needs.

This solution guarantees faster and safer connections, making a practical installation.





Patch cord MPO/MTP® PRO

1/2

CONNECTORS SPECIFICATIONS

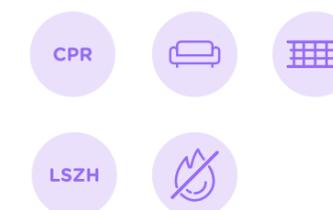
				
	MPO/MTP® PRO	MPO/MTP® PRO OM3	MPO/MTP® PRO OM4	MPO/MTP® PRO OM5
Standards	RoHS Reach IEC 61754-5			
Retention of the pins	19,6N Exceed directives IEC			
Ferrule - Material	Polyphenylene Sulfide (PPS)			
Ferrule Type	Single-mode MT Elite®	Multimode MT Elite® Optimized to 10G, 40G, 100G and 400G applications		
Durability	There is no pins degradation after 200 cycles			

	Average values SM	Average values MM	Standards
Insertion Loss	≤0,25dB	≤0,25dB	IEC 61755-3-31 is defined for up to 12 fibers for SM APC only
Return Loss	≥60dB	≥25dB	Exceeds IEC 61755-1 Grade B performance

CABLES SPECIFICATIONS

Type	Patch Cord MPO for Cable
Categories	OS2 G657A2 / OM3 / OM4 / OM5
Coating	LSZH
CPR Class	Cca
Cable diametre	2mm / 3mm
N° of fibers	4 / 8 / 12 / 24
Length	≥ 1m to 1000m (Tolerance ± 1%)
Packaging	Standard (Bag)

CHARACTERISTICS



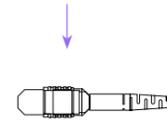


Patch cord MPO/ MTP® PRO

2/2

SQUEME

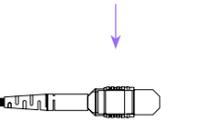
8/4/12/24
MTP Fibers



Ø 2 or 3 mm



8/4/12/24
MTP Fibers



≥ 1m to 1000m

Multifiber MPO/MTP® Solutions

Everything you need to select when ordering the MPO/MTP® PRO Patch Cord:

CATEGORY	OS2 G657A2	OM3	OM4	OM5
CPR CLASS	Cca			
CABLE DIAMETRE	2 mm	3 mm		
NUMBER OF FIBERS	4	8	12	24
CONECTOR A	MTP® PRO (Male)	MTP® PRO (Female)		
CONECTOR B	MTP® PRO (Male)	MTP® PRO (Female)		
LENGTH	1 - 1000 meters (Tolerance ± 1%)			
POLARITY	A	B (Standard)	C	

For assistance when customizing your cable, please contact our team by sending an email to info@barpa.eu

MTP is a trademark from US Conec.



Trunk Cable MPO/MTP® PRO

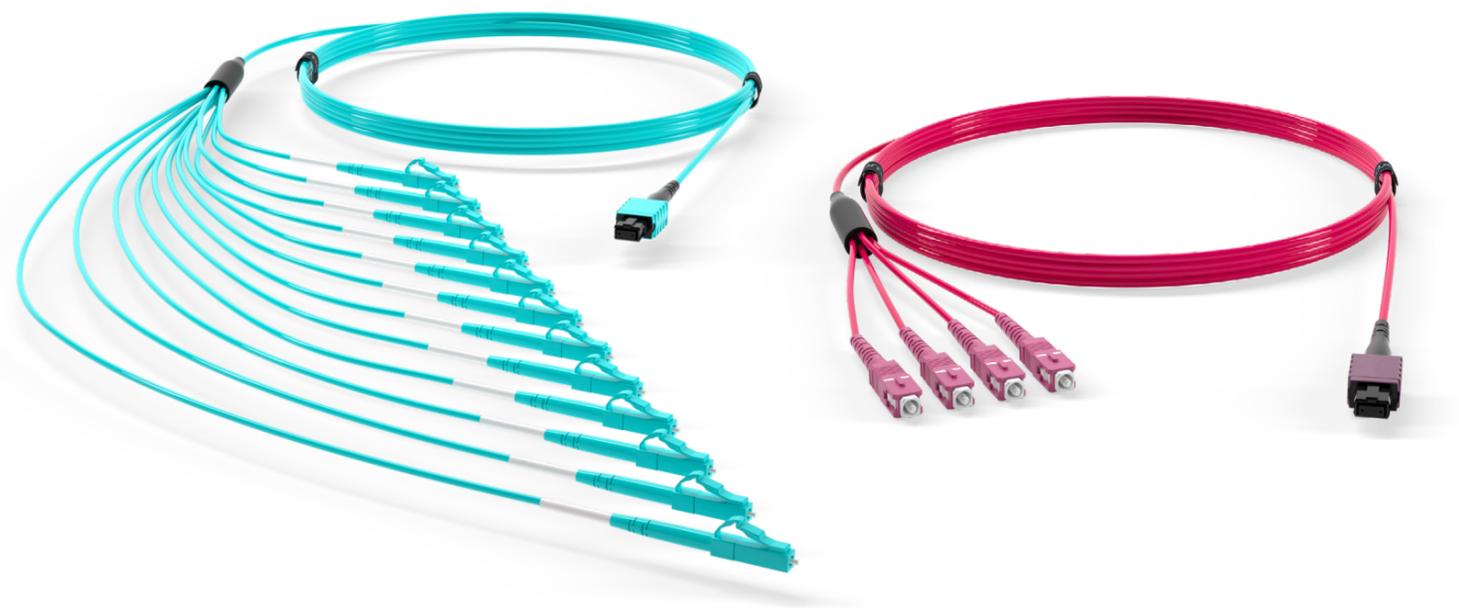
1/3

CONNECTORS SPECIFICATIONS MULTIFIBER

				
	MPO/MTP® PRO	MPO/MTP® PRO OM3	MPO/MTP® PRO OM4	MPO/MTP® PRO OM5
Standards	RoHS Reach IEC 61754-5			
Retention of the pins	19,6N Exceed directives IEC			
Ferrule - Material	Polyphenylene Sulfide (PPS)			
Ferrule Type	Single-mode MT Elite®	Multimode MT Elite® Optimized to 10G, 40G, 100G and 400G applications		
Durability	There is no pins degradation after 200 cycles			

CONNECTORS SPECIFICATIONS SINGLEFIBER

								
	SC	LC	SC/APC	LC/APC	SC OM3	SC OM4	LC OM3	LC OM4
Standards	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS		IEC 61754-20 TIA 604-10-A RoHS	
Ferrule Type	Zirconium Ceramic (ZrO ₂)							
Operating Temperature	-20°C to +70°C							
Durability	< 0.2dB typical change for > 500 matings							



Trunk Cable MPO/MTP® PRO

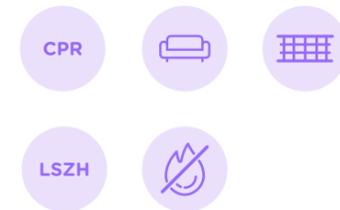
2/3

	Average values SM	Average values MM	Standards
Insertion Loss	≤0,25dB	≤0,25dB	IEC 61755-3-31 is defined for up to 12 fibers for SM APC only
Return Loss	≥60dB	≥25dB	Exceeds IEC 61755-1 Grade B performance

CABLES SPECIFICATIONS

Type	Unitube Patch Cord for Cable
Categories	OS2 G652D / OS2 G657A2 / OM3 / OM4 / OM5
Coating	LSZH
CPR Class	Eca / Dca / Cca
Cable diametre	2mm / 3mm
N° of fibers	4 / 8 / 12 / 24
Length	≥ 3m to 1000m (Tolerance ± 2%)
Packaging	Standard / Reel

CHARACTERISTICS



Observation: MTP is a trademark from US Conec.

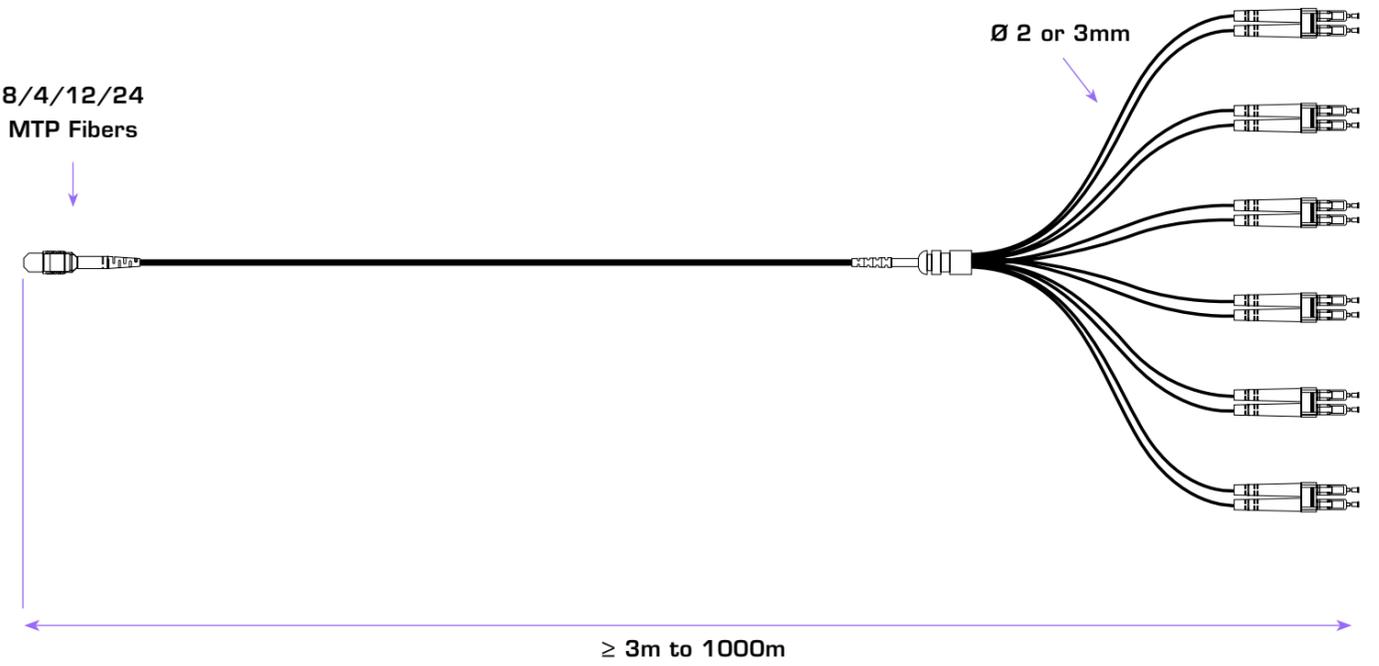


Trunk Cable MPO/MTP® PRO

3/3

SQUEME

8/4/12/24
MTP Fibers



Multifiber MPO/MTP® PRO Solutions

Everything you need to select when ordering the Trunk Cables MPO/MTP® PRO.

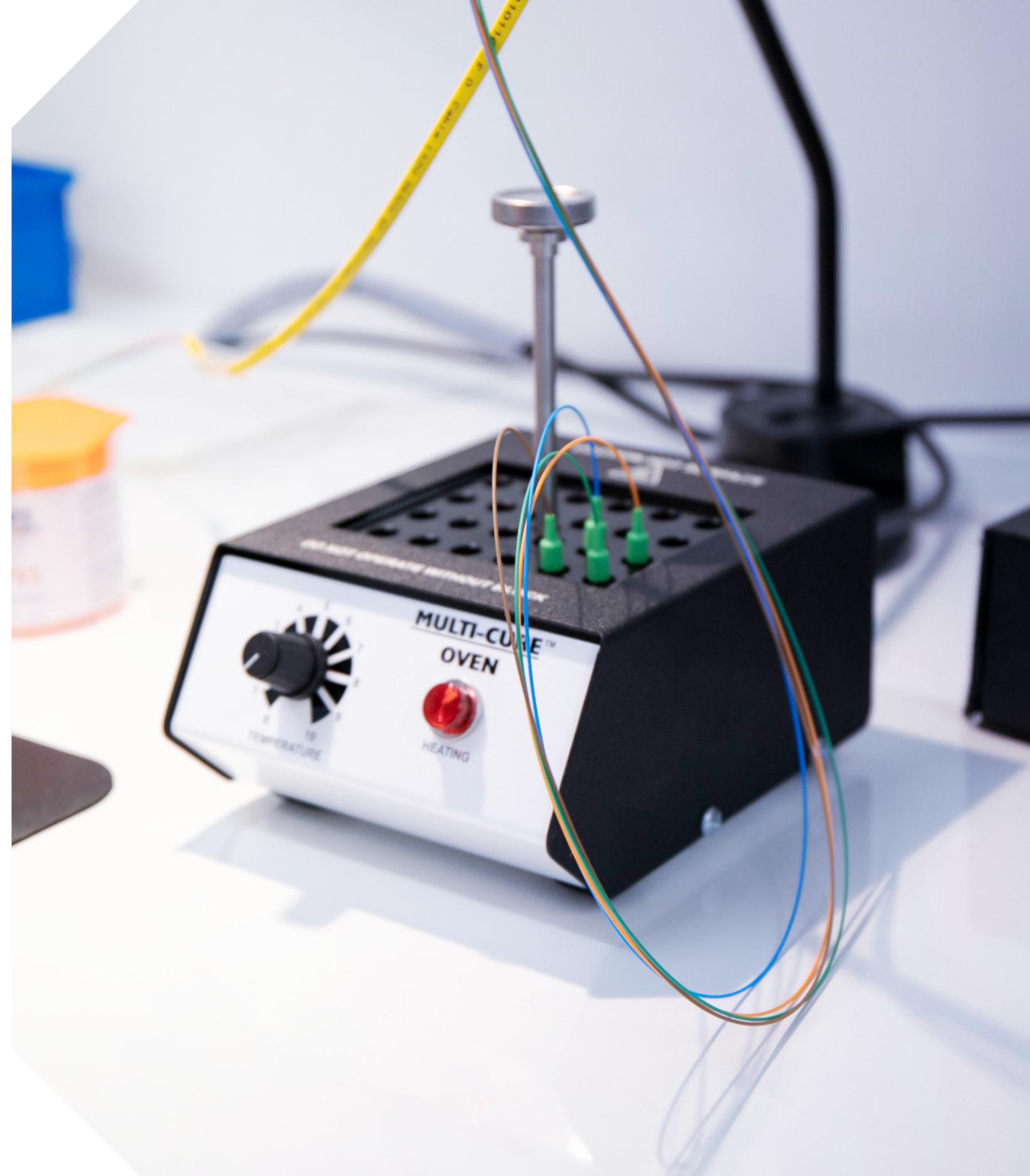
CATEGORY	OS2 G652D	OS2 G657A2	OM3	OM4	OM5
CABLE TYPE	Cable for Patch Cord MPO	Unitube Loose Tube LSZH			
FANOUT DIAMETRE	2 mm	3 mm			
FANOUT LENGTH	≤1m				
CPR CLASS	Eca	Dca	Cca		
NUMBER OF FIBERS	4	8	12	24	
CONNECTOR A	MTP® PRO (Male)	MTP® PRO (Female)			
CONNECTOR B	SC	SC/APC	LC	LC/APC	
TERMINATION	Staggered Connectors	Aligned Connectors			
PACKAGING	Standard	Reel			
LENGTH	≥ 3m (Tolerance ± 1%)				

For assistance when customizing your cable, please contact our team by sending an email to info@barpa.eu

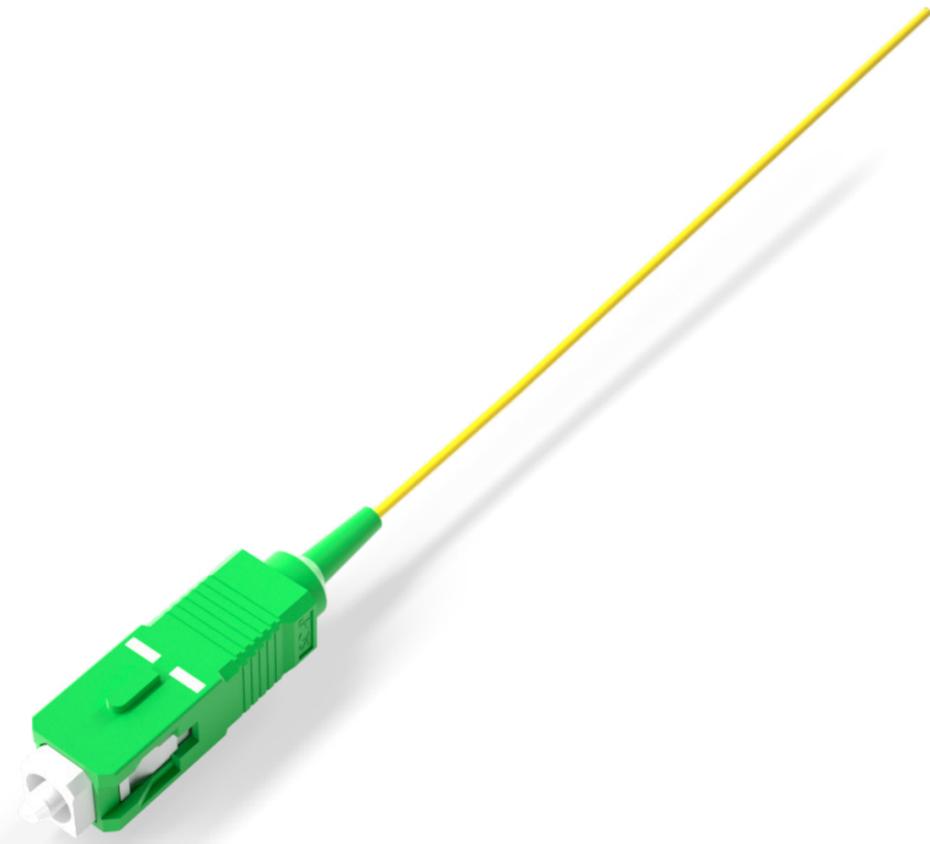
MTP is a trademark from US Conec.

Higgs Pigtailed Solutions

Higgs pigtailed are a quick and effective method of making terminations on site, where mergers can be carried out with the existing fiber optics cables.



PIGTAIL



Pigtail Singlemode

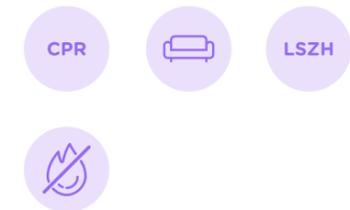
CONNECTORS SPECIFICATIONS

	 SC	 LC	 SC/APC	 LC/APC
Standards	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS	IEC 61754-4 TIA 604-3 RoHS	IEC 61754-20 TIA 604-10-A RoHS
Ferrule Type	Zirconium Ceramic (ZrO ₂)			
Operating Temperature	-20°C to +70°C			
Durability	< 0.2dB typical change for > 500 matings			
	Average values		Standards	
Insertion Loss	≤0,2dB		IEC 61300-3-34	
Return Loss	≥60dB		IEC 61300-3-6	

CABLES SPECIFICATIONS

Type	Pigtail for Cable / Zipcord
Categories	OS2 G652D / OS2 G657A2 / OS2 G657B3
Coating	LSZH
CPR Class	Eca / Dca / Cca / B2ca
Cable diametre	900µm / 2mm / 3mm
N° of fibers	1 ou 2
Length	≥ 0,2m (Tolerance ± 1%)
Packaging	Standard (Bag)

CHARACTERISTICS



PIGTAIL



Pigtail Singlemode

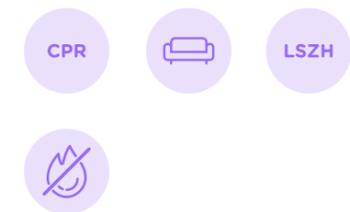
CONNECTORS SPECIFICATIONS

						
	SC OM2	SC OM3	SC OM4	LC OM2	LC OM3	LC OM4
Standards		IEC 61754-4 TIA 604-3 RoHS			IEC 61754-20 TIA 604-10-A RoHS	
Ferrule Type	Zirconium Ceramic (ZrO ₂)					
Operating Temperature	-20°C to +70°C					
Durability	< 0.2dB typical change for > 500 matings					
	Average values			Standards		
Insertion Loss	≤0,3dB			IEC 61300-3-34		
Return Loss	≥35dB			IEC 61300-3-6		

CABLES SPECIFICATIONS

Type	Pigtail for Cable / Zipcord
Categories	OM2 / OM3 / OM4
Coating	LSZH
CPR Class	Eca / Dca / Cca / B2ca
Cable diametre	900µm / 2mm / 3mm
N° of fibers	1 or 2
Length	≥ 0,2m (Tolerance ± 1%)
Packaging	Standard (Bag)

CHARACTERISTICS



Higgs Pigtails Solutions

Everything you need to select when ordering:

CATEGORY	OS2 G652D	OS2 G657A2	OS2 G657B3	OM2	OM3	OM4
COATING AND CPR	Eca	Dca	Cca	B2ca		
CABLE DIAMETER	900µm	2,0 mm	3,0 mm			
NUMBER OF FIBERS	1 - Simplex	2 - Duplex				
CONNECTOR A	SC	SC/APC	LC	LC/APC		
LENGTH	≥= 0,2m (Tolerance ± 1%)					

For assistance when customizing your cable, please contact our team by sending an email to info@barpa.eu

Pre-assembled Boxes and Panels

Reducing waste and time on site is important for you?

Get to know the barpa pre-assembled Fiber Optic Boxes and Panels for faster, easier installations with better performance.

These solutions are fully configured, labeled and inspected by us in a controlled environment and they are made so that your job is focusing on what really matters.

At barpa we have multiple pre-assembled solutions at your disposal.

Tell us which configuration you want and we'll take care of the rest.



BOX AND PANELS



Box

FO Wall Distribution for Optical Splitter

The barpa Wall Distribution box for optical splitter is a unit to support the PLC optical splitters. With a metal construction and black powder coating.

Specially designed for barpa's GPON solution. You can order the product alone or customized according to your needs (with optical splitters and adapters).

ESPECIFICAÇÕES DA CAIXA

Adaptor type	SC simplex
Dimensions (mm)	338 x 196 x 45
Weight (kg)	2,1
Material	Aço
Number of exits	32
Number of entries	2

YOU CAN COSTUMIZE THIS PRODUCT. YOU MUST PAY ATTENTION TO:

Choose the Optical Splitter you want

1x16

1x32

Choose the number of splitters you want

For 1x16 - Maximum 2 splitters

For 1x32 - Maximum 1 splitter

Choose the number of optical splitters you want

BOX AND PANELS



Patch panel Optical Splitter

barpa's Optical Splitter Panel was developed to include PLC splitters.

This panel was specially designed for barpa's GPON solution.

You can order this product alone or customized according to your needs (with optical splitters and adapters).

PATCH PANEL SPECIFICATIONS

Adaptor type	SC simplex	Splitter type/ maximum number of splitters
Width (mm)	1,5	1 x 2 — Maximum 8
Dimensions (mm)	484 x 44,8 x 207	1 x 4 — Maximum 5
Weight (kg)	2,4	1 x 8 — Maximum 3
Material	Steel	

YOU CAN COSTUMIZE THIS PRODUCT. YOU MUST PAY ATTENTION TO:

Choose the optical splitter you want

1x2

1x4

1x8

Choose the number of splitters you want

For 1x2 - Maximum of 8 Splitters

For 1x4 - Maximum of 5 Splitters

For 1x8 - Maximum of 3 Splitters

Choose the number of optical splitters you want

BOX AND PANELS



Patch panel

Optic Fiber with 24 Outs

The barpa 19" fiber optic distribution panel or splitter is easy and quick to install.

Pre-assembled sliding tray, used for terminating fiber optic cables.

With depth adjustment, it has a rear cable entry.

PATCH PANEL SPECIFICATIONS

Adaptor type	SC simplex or LC duplex / SC duplex or LC quadriplex
Width (mm)	1,5
Dimensions (mm)	487 x 236 x 44
Weight (kg)	3
Material	Steel
Maximum number of fusion cassettes	4
Number of fusion cassettes	12

Adaptor type	Number of fibers
Patch panel for 24 SC duplex or 24 LC quadriplex	48 or 96
Patch panel for 24 SC Simplex or 24 LC duplex	24 or 48

YOU CAN COSTUMIZE THIS PRODUCT. YOU MUST PAY ATTENTION TO:

Choose the number and type of the adaptors

Choose the type and number of pigtails

BOX AND PANELS



Box

1/2

Lynx Pre-connectorized Termination

Designed for FTTH applications, it consists of 1, 2 or 4 directly connectorized fibers in a box terminated in SC/APC, allowing a quick and safe installation.

This product can be supplied with or without connectors at the end of the cable, and is protected by an IP10 pulling eye for greater protection of the fibers at the time of installation.

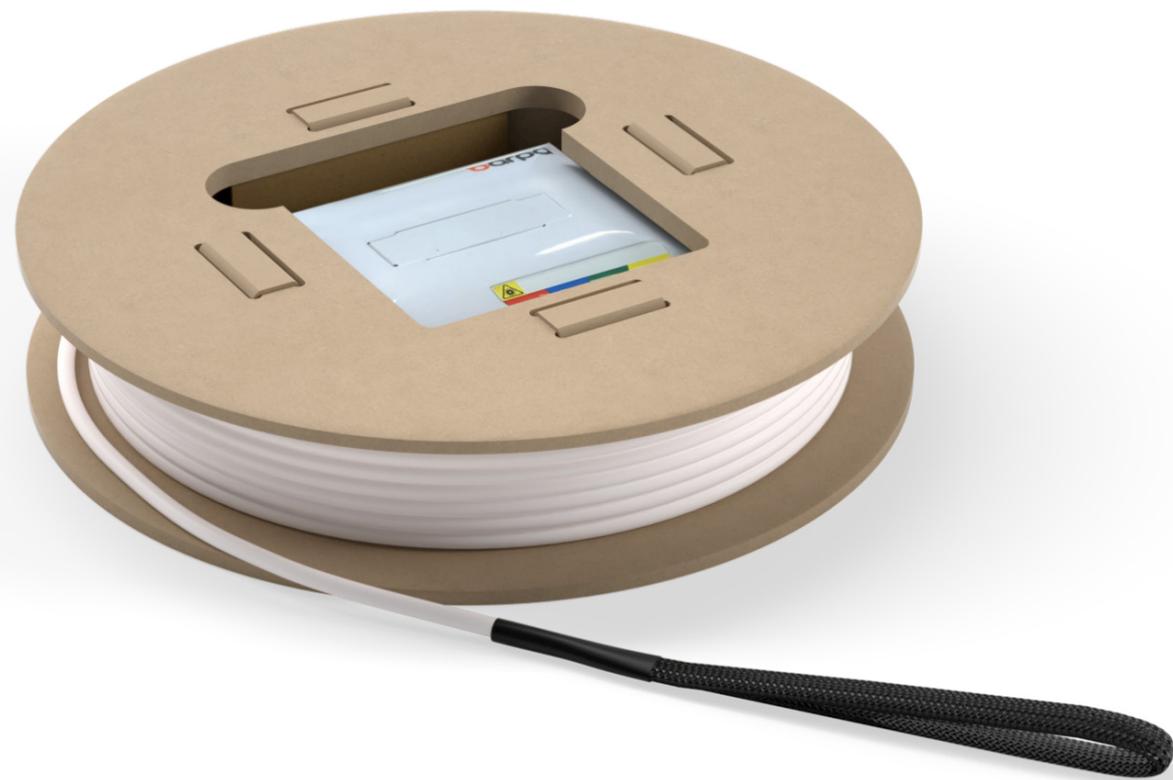
BOX SPECIFICATIONS

Adaptor type	SC/APC simplex / LC/APC duplex
Number of fibers/adaptors	1 / 2 / 4
Standard Length (m)	20 / 30 / 40 / 50
Drop Cable Category	OS2 G657A2
CPR Class	Dca
Coating	LSZH

CHARACTERISTICS

- It can be mounted on a DIN rail in two positions and also allows wall mounting;
- Includes IP10 pulling eye at one end;
- Has color identifiers;
- Adaptors come with safety caps;
- Contains an identification label;
- Features multiple cable entries;
- Includes Pivot Cassette.

BOX AND PANELS



Box

2/2

Lynx Pre-connectorized Termination

EXTRAS

- Possibility for the connectorized tips to be staggered;
- All cables are subject to a visual and geometric inspection, if you wish, you can request these results together with your order.

DETAILS

- Tailor made – Made-to-measure products;
- Traceability system for quality purposes incorporated in the QR code on the cable identification label;
- All cables come with a report of insertion losses, IL, and return losses, RL.

STANDARDS

- All connections made comply with IEC and Telcordia standards. Design, production and distribution made according to the ISO9001:2015 quality management system;
- IEC 61300
- IEC 61755;
- IEC 61754;
- IEC 61753
- ISO/IEC11801;
- Telcordia GR-326.



Explore your
options in Higgs
Tailor Made

HIGGS
BY BARPA

Tailor Made

Cut by length

According to your individual specifications the lengths will be to your measure.



Tailor Made

Packaging and Labeling

The products are individually packed in carton boxes or in reels.

We always label the products and it can have the layout you desire.



3.

Tailor Made

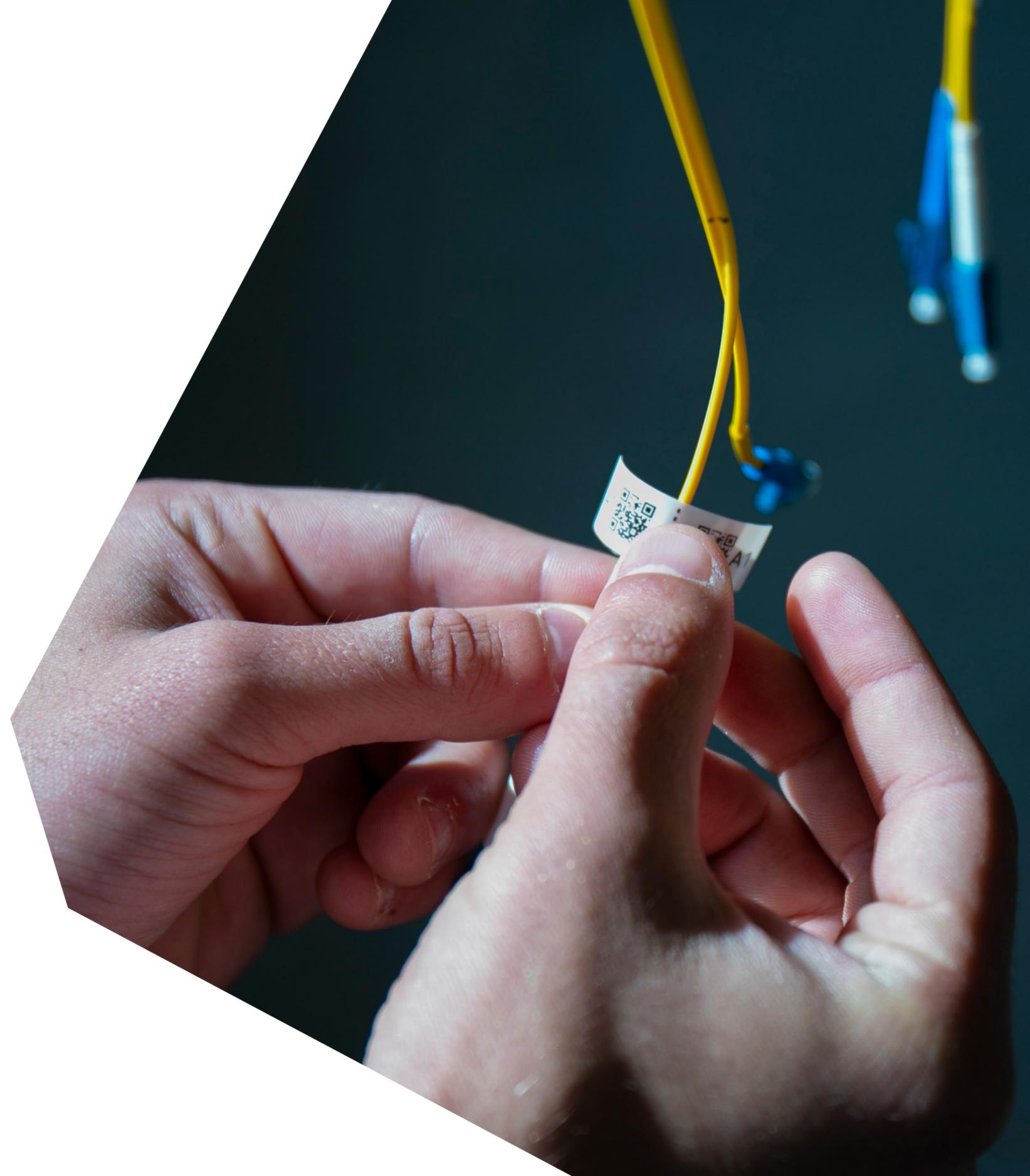
Final Details decided by the customer

We can use Braided Sleeve for protection of one of the ends or for both.

We are able to not finalize the connector assembly if you need less diameter for the cable passage.

With staggered or straight fanout.

It's up to you.



Measures and Tests

We are equipped with *state of the art* machines and we are able to test and measure all the cables we manufacture.

In our production line we are able to make geometrical tests, insertion loss, return loss tests and visual tests.

All of this data are saved according to the traceability process we have to make sure we have all the information accessible.



6.

Tailor Made

Other Solutions

Talk to the sales team and they will show you all the options that we can present you.



Tailor Made

Standards

All the connections are made under the IEC and Telcordia standards.

You just need to specify which standard you desire.





HIGGS

BY BARPA