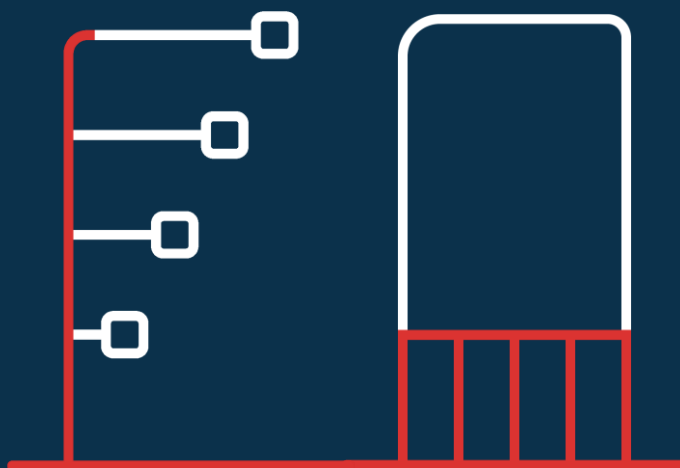


# Data Networks

## Fibre LAN Systems

Catalogue - January 2023



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# Three steps to empower your digital network

To meet explosive growth in demand for bandwidth and functionalities, and ensure cabling, connectivity and networks hold up in an increasingly demanding environment, a digital transformation is needed.

Nexans' three-step approach makes it easier to find a solution, as there's no 'one size fits all' answer.

## 1) People & devices - for the enterprise & data centre

When selecting a cabling system, you need to consider the people and devices that need to be supported. Emerging standards are driving increased bandwidth - especially in the data centre.

## 2) Building conditions - the specific issues for your buildings?

Which distances need to be bridged? Are there specific requirements with regard to functionality or uptime? The following all have an impact on the most suitable choice for the network:

- Limited space for cabling
- Distance and reach required
- Density constraints & limited rack space
- Fire performance & security needs

## 3) Network flexibility – managing your digital foundation

How flexible does your network need to be to accommodate probable future requirements?  
How do you ensure this is the case?

Planning the right network that can adapt with your changing business needs has a direct impact of the total cost of ownership. Different options may be more appropriate for different requirements:

- Planning redundancy and capacity for planned growth
- Ease of network management & administration
- Consequence of network downtime
- Lowering carbon footprint and energy management

**Nexans has a complete range of solutions to help you make the Smart Choices for your specific requirements ...**

# Nexans smart choices

Nexans' range of practical solutions offers the right performance for every business and environment. These exceed the requirements of all relevant standards, ensuring your network performs better and more reliably. Our expertise and far-reaching involvement in the development of standards means we always find the right solution.

Determining current and future requirements results in faster, more efficient roll-outs, solutions that perform exactly as specified, optimised TCO, enhanced energy efficiency and systems that will remain in business for years to come.

## LANmark

Flexible architectures for any environment

- Improved reliability and performance
- More ports, more connections, longer links, cost-effective bandwidth
- Perfect balance of copper and fibre for every application

## LANsense

Protecting and optimising performance

- Automated Infrastructure Management with intelligent management hardware and software
- Monitors and controls all connected equipment and manages changes
- Reduce operational costs and improve asset management, utilisation and deployment of new services

## LANactive

Fibre To The Office (FTTO): the alternative LAN solution

- Vast savings on time, space and cost
- 'Pay-as-you-grow' concept allows expansion according to needs
- Copper and fibre combined for best performance, scalability and flexibility

Parameters driving solution choice	Copper Networks		Fibre Networks	Mobile Networks	Network Management	Switches	
	LAN	SPE	LAN & Telecom	FTTA/PTTA & Hybrid	AIM	FTTO/DICE	Industry
	LANmark	SMARTCONVERGE	LANmark	UPSKY & LANmark	LANsense	LANactive	
<b>People &amp; Devices</b>							
Fire Performance	●●	●	FLOWGUARD	n/a	n/a	n/a	n/a
Network Security	SECURELOCK	●	SECURELOCK	●	●●	●●●	●●●
Devices	●●	●●●	●●		●●	●●●	●●●
Bandwidth	●●	●	●●●	●●●	n/a	●●	●●
Power	●●	●●	n/a	●●●	n/a	●●●	●●●
WiFi	●●	n/a	●	n/a	n/a	DICE	●●
5G	●	n/a	●●	●●●	n/a	n/a	n/a
<b>Installation Environment</b>							
Extended Distances	●	●●	●●●	●●●	n/a	●●●	●●●
Internal networks	●●	●●	●●	●	n/a	●●●	n/a
Outside networks	●	●	●●●	●●●	n/a	●	●●●
Harsh Environments (workshops)	LANmark Industry	●	●●	●	n/a	●	●●●
<b>Network Flexibility</b>							
Automated Documentation	n/a	n/a	n/a	n/a	●●●	n/a	n/a
Network Management	n/a	n/a	n/a	n/a	●●●	●●●	●●●
Redundancy	●	n/a	●●	n/a	n/a	●●●	●●●
Future alterations and IoT	●●	●●●	●●	n/a	●●●	●●	●●



# LANmark-OF Tight Buffer Universal Cca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Tight Buffer Universal optical fibre cable
- Indoor cable and outdoor installation in a duct
- Fully waterproof and rodent retardant
- Designed for direct termination and splicing
- Available in 6-12 and 24 fibres and in SM, OM3 and OM4

## DESCRIPTION

### Description and Application

The LANmark-OF Tight Buffer Universal cable is a fibre cable that can be used indoor and outdoor in a duct.

It complies with the indoor fire requirements and can be installed indoor both vertically and horizontally.

The LANmark-OF Tight Buffer Universal can also be used for outdoor installation in a duct: the water tight glass yarns make the cables fully waterproof and rodent retardant.

The LANmark-OF Tight Buffer Universal cable has 900 um buffered fibres. This second coating till 900 um provides additional protection of the fibres and facilitates the handling when terminating the fibres in a patch panel. The easy strip tight buffer design allows stripping the fibre over 10 cm in one action.

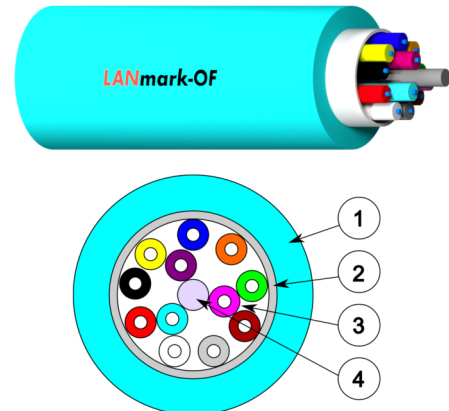
The LANmark-OF Tight Buffer Universal is most suitable for direct termination by either anaerobic or hot melt connectors. The tight buffered fibres can also be terminated with splicing of pigtails.

Tight buffer cables are available in Aqua for OM3 and OM4 and Yellow for singlemode. High exposure to UV radiation and sunlight could lead to fading of the Aqua and Yellow jacket, but the mechanical integrity of the cable jacket will be maintained.

### Construction

Legend accompanying the cross section drawing:

1. LSZH outer sheath with UV resistant additive
2. Watertight glass yarns
3. Optical fibres (900 um)
4. Central strength element



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Mechanical resistance to impacts  
10 impacts of 3 N.m



Flame retardant  
IEC 60332-1



Fire retardant  
IEC 60332-3



Gases toxicity  
IEC 61034



Gases corrosivity  
IEC 60754-1, IEC 60754-2



Ambient installation  
T°C range  
0 - 40 °C



Operating temp.  
-20 - 70 °C



Storage temperature, range  
-40 - 70 °C

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## Characteristics

- Designed for direct termination and splicing
- Dielectric design
- Indoor cable for horizontal and vertical installations
- Fire performance compliant with IEC 60332-1, IEC 60332-3, IEC 60754-1, IEC 60794, IEC61034
- Outdoor installation in a duct
- Fully waterproof
- Rodent retardant
- UV resistant
- Available in SM, OM3 and OM4
- Available in 6-12 and 24 fibres

## CHARACTERISTICS

### Mechanical characteristics

Crush resistance (IEC 60794-1-E3)	100 N/cm
Mechanical resistance to impacts	10 impacts of 3 N.m

### Usage characteristics

Flame retardant	IEC 60332-1
Fire retardant	IEC 60332-3
Gases toxicity	IEC 61034
Gases corrosivity	IEC 60754-1, IEC 60754-2
Ambient installation temperature, range	0 - 40 °C
Operating temperature, range	-20 - 70 °C
Storage temperature, range	-40 - 70 °C



Mechanical resistance to impacts  
10 impacts of 3 N.m



Flame retardant  
IEC 60332-1



Fire retardant  
IEC 60332-3



Gases toxicity  
IEC 61034



Gases corrosivity  
IEC 60754-1, IEC 60754-2



Ambient installation T°C range  
0 - 40 °C



Operating temp.  
-20 - 70 °C



Storage temperature, range  
-40 - 70 °C



# LANmark-OF Micro-Bundle Universal (6F-12F) Cca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Micro-Bundle Universal optical fibre cable with High Level of Fire Performance
- Reaction to fire Cca according to EN50575:2014+A1:2016
- Indoor cable and outdoor installation in a duct
- Fully waterproof and rodent retardant
- Designed for splicing with pigtails
- 6-12 fibres and available in all fibre grades

## DESCRIPTION

### Description and Application

The new Micro-Bundle technology from Nexans allows to manufacture a very flexible and small tube that is the central part of the new "LANmark-OF Micro-Bundle Universal" cable design. This results in a small, flexible, but mechanical robust cable. The central tube contains up till 12 fibres with a fibre diameter of 250  $\mu\text{m}$ . Termination of these fibres is done with splicing with pigtails.

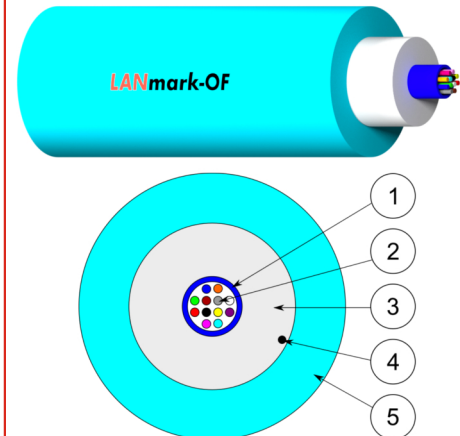
The small bending radius of the Micro-Bundle makes the cable easy to arrange in patch panels and for installations in data centres and backbones.

The watertight glass yarns and the very limited amount of gel inside the tube makes this cable design watertight and suitable for installation outdoor in a duct by pulling.

The fire performance of the LANmark-OF Micro-Bundle Universal allows indoor installation as well. Since there is no drip effect of the very limited amount of gel the cable is optimised for both horizontal and vertical installations.

### Construction

1. Central Micro-Bundle
2. Optical fibres (250  $\mu\text{m}$ )
3. Reinforced watertight glass yarns
4. Ripcord
5. LSZH outer jacket with UV resistant additive



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Halogen free  
IEC 60754-1



Mechanical  
resistance to  
impacts  
10 impacts of 3  
N.m



Flame retardant  
IEC 60332-1



Fire retardant  
IEC 60332-3



Smoke density  
IEC 61034-2



Gases toxicity  
IEC 60754-1



U.V resistance  
Very good



Water proof  
Longitudinal &  
radial

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# LANmark-OF Micro-Bundle Universal (6F-12F) Cca

Contact  
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datanetworks.info@nexans.com

## Characteristics

- Micro-Bundle design for easy installation
- Indoor cable for horizontal and vertical installation
- Flame retardant (IEC 60332-1)
- Fire retardant (IEC 60332-3)
- Outdoor cable for installation in a duct
- Designed for termination by splicing
- Central Micro-Bundle design for easy installation
- All dielectric design
- Waterproof structure, Rodent retardant and UV-resistant
- Flame retardant (IEC 60332-1) and fire retardant (IEC 60332-3)
- Available in all fibre grades and 6-12 fibres
- Gas Toxicity (IEC 60754) and Smoke Density (IEC61034)
- Reaction to fire Cca according to EN50575:2014+A1:2016
- Sheath color: Aqua (OM3-OM4), Violet (OM4), Yellow (OS2), Lime Green (OM5)



Halogen free  
IEC 60754-1



Mechanical  
resistance to  
impacts  
10 impacts of 3  
N.m



Flame retardant  
IEC 60332-1



Fire retardant  
IEC 60332-3



Smoke density  
IEC 61034-2



Gases toxicity  
IEC 60754-1



U.V resistance  
Very good



Water proof  
Longitudinal &  
radial

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# LANmark-OF Micro-Bundle Universal (6F-12F) Cca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## CHARACTERISTICS

### Construction characteristics

Construction type	Unibundle
Outer sheath	LSZH
Halogen free	IEC 60754-1
Metal free	Yes

### Dimensional characteristics

Nominal outer diameter	6.0 mm
Approximate weight	45 kg/km

### Mechanical characteristics

Maximum pulling force (IEC 60794-1-2-E1)	2200 N
Maximum operating pulling force	700 N
Crush resistance (IEC 60794-1-E3)	200 N/cm
Mechanical resistance to impacts	10 impacts of 3 N.m

### Usage characteristics

Flame retardant	IEC 60332-1
Fire retardant	IEC 60332-3
Smoke density	IEC 61034-2
Gases toxicity	IEC 60754-1
U.V resistance	Very good
Water proof	Longitudinal & radial
Installation type	Indoor/Outdoor
Installation temperature, range	0 - 40 °C
Storage temperature, range	-40 - 60 °C
Operating temperature, range	-40 - 60 °C
Minimum static operating bending radius	60 mm
Laying operation bending radius	60 mm

# LANmark-OF UCUN (Unitube Steel Armoring - Universal) Eca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

UC optical fibre cables

- Indoor/Outdoor cable
- Corrugated steel tape armour
- Gel filled tube
- All fibre grades
- Provides full rodent protection
- Low Smoke Zero Halogene (LSZH)

## DESCRIPTION

### Description and Application

The construction is suitable for indoor/outdoor use. It consists of a corrugated steel tape armouring providing full rodent protection. It is surrounded by glass yarns. The cable has a LSZH outer jacket.

The loose tube design has a capacity of up to 24 fibres. Diameter of the fibres is 250 um. Termination of these fibres is done with splicing of pigtails.

The cable is watertight due to the gel in the loose tube and the watertight glass yarns.

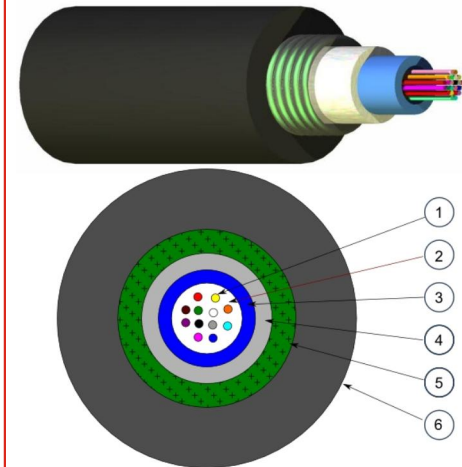
### Construction

Legend accompanying the cross section drawing:

1. Optical fibres (250 um)
2. Gel
3. Loose tube
4. Reinforced watertight glass yarns
5. Corrugated steel tape armour
6. LSZH outer jacket with UV resistant additive

### Characteristics

- Indoor/Outdoor cable
- Flame retardant (IEC 60332-1 and NFC 32070 C2) and fire retardant (IEC 60332-3 and NFC 32070 C1)
- Designed for termination by splicing
- Central loose tube design
- Corrugated steel protection
- Waterproof structure, rodent resistant and UV-resistant
- Available in all fibre grades
- Available from 4-24 fibres



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

# LANmark-OF Micro-Bundle Universal (6F-12F) Dca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Micro-Bundle Universal optical fibre cable
- Indoor cable and outdoor installation in a duct
- Fully waterproof and rodent retardant
- Designed for splicing with pigtails
- 6-12 fibres and available in all fibre grades

## DESCRIPTION

### Description and Application

The new Micro-Bundle technology from Nexans allows to manufacture a very flexible and small tube that is the central part of the new “LANmark-OF Micro-Bundle Universal” cable design. This results in a small, flexible, but mechanical robust cable. The central tube contains up till 12 fibres with a fibre diameter of 250 µm. Termination of these fibres is done with splicing with pigtails.

The small bending radius of the Micro-Bundle makes the cable easy to arrange in patch panels and for installations in data centres and backbones.

The watertight glass yarns and the very limited amount of gel inside the tube makes this cable design watertight and suitable for installation outdoor in a duct by pulling.

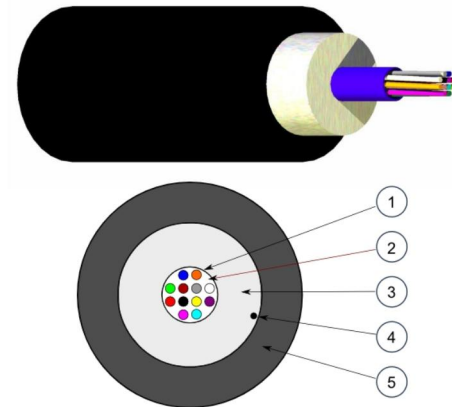
The fire performance of the LANmark-OF Micro-Bundle Universal allows indoor installation as well. Since there is no drip effect of the very limited amount of gel the cable is optimised for both horizontal and vertical installations.

### Construction

1. Central Micro-Bundle
2. Optical fibres (250 µm)
3. Reinforced watertight glass yarns
4. Ripcord
5. LSZH outer jacket with UV resistant additive

### Characteristics

- Indoor cable for horizontal and vertical installation
- Outdoor cable for installation in a duct
- Designed for termination by splicing
- Central Micro-Bundle design for easy installation
- All dielectric
- Waterproof structure, Rodent retardant and UV-resistant
- Flame retardant (IEC 60332-1) and fire retardant (IEC 60332-3)
- Available in all fibre grades and from 4-12 fibres
- Gas Toxicity (IEC 60754) and Smoke Density (IEC61034)



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Mechanical resistance to impacts  
1 impact of 3 N.m



Flame retardant  
IEC 60332-1



Fire retardant  
IEC 60332-3



Ambient installation  
T°C range  
0 - 40 °C



Operating temp.  
-20 - 60 °C



Storage temperature, range  
-40 - 60 °C



Min. dynamic operating bending rad.  
60.0 mm



Static bending rad.  
60 mm

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**Nexans**

# LANmark-OF Micro-Bundle Universal (6F-12F) Dca

Contact  
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Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## CHARACTERISTICS

### Mechanical characteristics

Maximum pulling force (IEC 60794-1-2-E1)	2200 N
Maximum operating pulling force	700 N
Crush resistance (IEC 60794-1-E3)	200 N/cm
Mechanical resistance to impacts	1 impact of 3 N.m

### Usage characteristics

Flame retardant	IEC 60332-1
Fire retardant	IEC 60332-3
Ambient installation temperature, range	0 - 40 °C
Operating temperature, range	-20 - 60 °C
Storage temperature, range	-40 - 60 °C
Minimum dynamic operating bending radius	60.0 mm
Minimum static operating bending radius	60 mm

## N-NUMBERS FOR MICRO-BUNDLE UNIVERSAL

Fiber optic type	Nexans Ref.	Name
OM3 50/125	N165.MBUN06	LANmark-OF Micro-Bundle Universal 6x Multimode 50/125 OM3 LSZH Dca s1d0a1 Black
OM3 50/125	N165.MBUN12	LANmark-OF Micro-Bundle Universal 12x Multimode 50/125 OM3 LSZH Dca s1d0a1 Black
OM4 50/125	N167.MBUN06	LANmark-OF Micro-Bundle Universal 6x Multimode 50/125 OM4 LSZH Dca s1d0a1 Black
OM4 50/125	N167.MBUN12	LANmark-OF Micro-Bundle Universal 12x Multimode 50/125 OM4 LSZH Dca s1d0a1 Black
SM (G657.A1)	N164.MBUN06	LANmark-OF Micro-Bundle Universal 6x Singlemode 9/125 OS2 LSZH Dca s1d0a1 Black
SM (G657.A1)	N164.MBUN12	LANmark-OF Micro-Bundle Universal 12x Singlemode 9/125 OS2 LSZH Dca s1d0a1 Black

# LANmark-OF UGUN Universal B2ca

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Unitube indoor/outdoor cable
- Good fire performance
- Large operation temperature range

## DESCRIPTION

### Description and Application

The cable is designed for indoor and outdoor installation. The design is made of a central loose tube surrounded by reinforcing yarns and a LSZH jacket incorporating 2 lateral strength members.

The cable is watertight due to the gel in the loose tube and the watertight swellable yarns.

The UGUN contains up to 24 fibres (Diameter 250µm). Termination of these fibres is done with splicing of pigtails.

### Construction

Legend accompanying the cross section drawing:

- 1. Central loose tube with 250 µm fibres
- 2. Gel
- 3. Reinforcing yarns
- 4. Lateral strengths members
- 5. LSZH Outer sheath

### Features

- Indoor / Outdoor cable
- Designed for termination by splicing
- Unitube design with Lateral Strength Elements
- Full dielectric design
- Waterproof structure
- Wide temperature range

## CHARACTERISTICS

### Construction characteristics

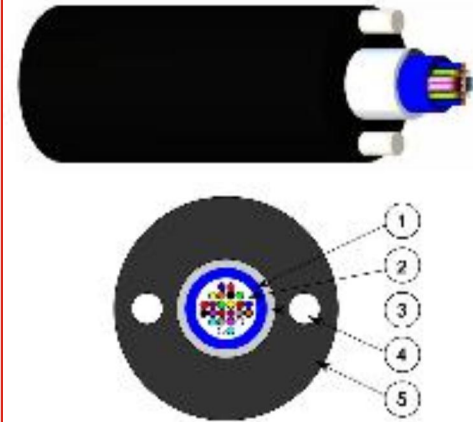
Fiber optic type

-

### Dimensional characteristics

Number of optical fibres

-



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

# LANmark-OF Micro-Bundle Universal (24F-96F) Cca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Micro-Bundle Universal optical fibre cable with High Level of Fire Performance
- Reaction to fire Cca according to EN50575:2014+A1:2016
- Indoor cable and outdoor installation in a duct
- Fully waterproof and rodent resistant
- Small, but mechanical strong cable
- Designed for splicing with pigtails
- 24-48-96 fibres and available in all fibre grades

## DESCRIPTION

### Description and Application

The new Micro-Bundle technology from Nexans allows to manufacture a flexible and small tube. This Micro-Bundle is the central part of the new “LANmark-OF Micro-Bundle Universal” cable design. Each Micro-Bundle contains 12 fibres with a fibre diameter of 250 µm. Termination of these fibres is done with splicing with pigtails.

Several Micro-Bundles are arranged around a central strength element. The combination of the Micro-Bundle technology, the central strength element and the glass yarns result in a mechanical robust, but also in a small and flexible cable.

The small bending radius of the LANmark-OF Micro-Bundle Universal makes the cable easy to arrange in patch panels, in cable trays and in ducts.

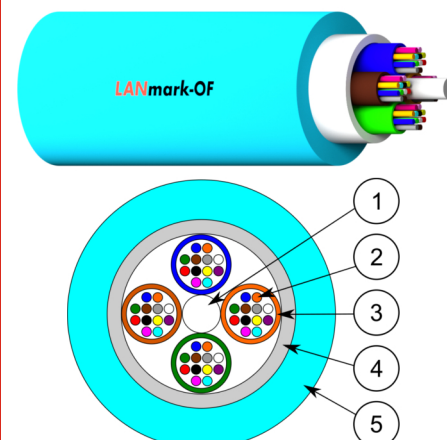
The watertight glass yarns and the very limited amount of gel inside the tube make the LANmark-OF Micro-Bundle Universal design watertight, rodent resistant and suitable for installation outdoor in a duct by pulling.

The LANmark-OF Micro-Bundle Universal complies with the indoor fire requirements. Since there is no drip effect of the very limited amount of gel the cable is optimised for both horizontal and vertical installations.

### Construction

Legend accompanying the cross section drawing:

1. Central strength element
2. Optical fibre (250 µm)
3. Micro-Bundle with 12 fibres
4. Reinforced watertight glass yarns
5. Outer sheath in LSZH material with UV resistant additive



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



# LANmark-OF Micro-Bundle Universal (24F-96F) Cca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## Characteristics

- Micro-Bundle design for easy installation
- Indoor cable for horizontal and vertical installations
- Flame retardant (IEC 60332-1)
- Fire retardant (IEC 60332-3)
- Outdoor cable for installation in a duct
- Waterproof structure, rodent resistant and UV-resistant
- All dielectric design
- Designed for termination by splicing
- 12 fibres per Micro-Bundle
- Available in all fibre grades
- Gas Toxicity (IEC 60754) and Smoke Density (IEC61034)
- Reaction fo fire: Cca according to EN50575:2014 +A1:2016
- Sheath Color: Aqua (OM3-OM4), Violet (OM4), Lime Green (OM5), Yellow (OS2)

# LANmark-OF Micro-Bundle Universal (144F) Cca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Micro-Bundle Universal optical fibre cable with High Level of Fire Performance
- Reaction to fire Cca -s1a,d0,a1 according to EN50575:2014+A1:2016
- Indoor cable and outdoor installation in a duct
- Fully waterproof and rodent resistant
- Small, but mechanical strong cable
- Bundle extraction over 2 meters
- Designed for splicing with pigtailed

## DESCRIPTION

### Description and Application

The new Micro-Bundle technology from Nexans allows to manufacture a flexible and small tube. This Micro-Bundle is the central part of the new “LANmark-OF Micro-Bundle Universal” cable design. Each Micro-Bundle contains 12 fibres with a fibre diameter of 250 µm. Termination of these fibres is done with splicing with pigtailed.

Several Micro-Bundles are arranged around a central strength element. The combination of the Micro-Bundle technology, the central strength element and the glass yarns result in a mechanical robust, but also in a small and flexible cable.

The small bending radius of the LANmark-OF Micro-Bundle Universal makes the cable easy to arrange in patch panels, in cable trays and in ducts.

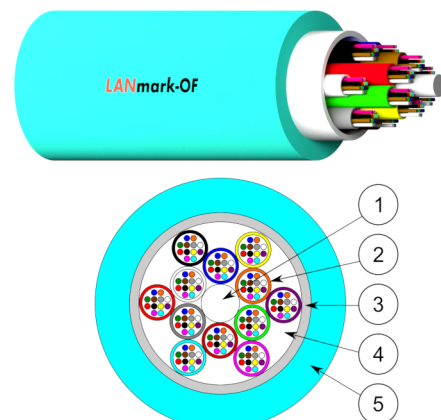
The watertight glass yarns and the very limited amount of gel inside the tube make the LANmark-OF Micro-Bundle Universal design watertight, rodent resistant and suitable for installation outdoor in a duct by pulling.

The LANmark-OF Micro-Bundle Universal complies with the indoor fire requirements. Since there is no drip effect of the very limited amount of gel the cable is optimised for both horizontal and vertical installations.

### Construction

Legend accompanying the cross section drawing:

1. Central strength element
2. Optical fibre (250 µm)
3. Micro-Bundle with 12 fibres
4. Reinforced watertight glass yarns
5. Outer sheath in LSZH material with UV resistant additive



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

# LANmark-OF Micro-Bundle Universal (144F) Cca

Contact  
Enquiries  
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datanetworks.info@nexans.com

## Characteristics

- Micro-Bundle design for easy installation
- Indoor cable for horizontal and vertical installations
- Flame retardant (IEC 60332-1 & NFC 32070 C2)
- Fire retardant (IEC 60332-3 & NFC 32070 C1)
- Outdoor cable for installation in a duct by pulling
- Waterproof structure, rodent resistant and UV-resistant
- All dielectric design
- Designed for termination by splicing
- 12 fibres per Micro-Bundle
- Smoke Density (IEC61034)
- Reaction fo fire: Cca a1d0s1 according to EN50575:2014 +A1:2016
- Sheath Color: Aqua (OM3), Yellow (OS2)

# LANmark-OF UD PE (Unitube Dielectric Armoring - Outdoor)

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Unitube Dielectric (UD) armoured fiberoptic cable
- Suitable for outdoor in ducts or direct burial
- Full dielectric design
- Available in all fibre grades and till 24 fibres
- Rodent resistance

## DESCRIPTION

### Description and Application

The LANmark-OF UDPE cable is designed as a outside campus cable. It can be pulled or pushed inside ducts, or can be also directly buried. Its full dielectric armoring does not provide an electrical path and hence the cable can be used to connect buildings.

The central loose tube is surrounded by robust strength elements: Fibre Reinforced Plastic (FRP) units. These FRP provide a high rodent resistant and a high resistant against impacts and compression. There are 9 FRP for fiber counts up to 12FO and then 10 FPR for structure up to 24FO.

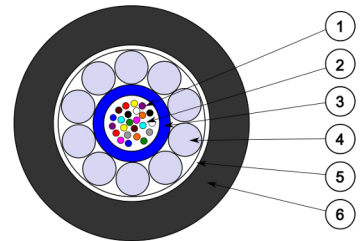
The loose tube design has a capacity of up to 24 fibres. Diameter of the fibres is 250 µm. Termination of these fibres is done with splicing of pigtails.

The cable is watertight due to the gel in the loose tube and the watertight bending elements.

### Construction

Legend accompanying the cross section drawing:

1. Optical fibres (250 µm)
2. Gel
3. Loose tube
4. Peripheric Fibre Reinforced Plastic strength elements
5. Binding and waterblocking elements
6. HDPE outer jacket with UV resistant additive



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Ambient installation T°C range  
0 - 40 °C



Operating temp.  
-30 - 60 °C



Storage temperature, range  
-40 - 70 °C

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# LANmark-OF UD PE (Unitube Dielectric Armoring - Outdoor)

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## Characteristics

- Outdoor cable for installation in a duct or direct burial
- Designed for termination by splicing
- Central loose tube design
- All dielectric design with FRP reinforcement and glass yarns
- Waterproof structure, rodent resistant and UV-resistant
- Available in all fibre grades
- Available from 4-24 fibres
- Excellent friction properties

## CHARACTERISTICS

### Usage characteristics

Ambient installation temperature, range	0 - 40 °C
Operating temperature, range	-30 - 60 °C
Storage temperature, range	-40 - 70 °C



Ambient installation T°C range  
0 - 40 °C



Operating temp.  
-30 - 60 °C



Storage temperature, range  
-40 - 70 °C

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# LANmark-OF UC PE (Unitube Steel Armoring - Outdoor)

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

UC optical fibre cables

- Outdoor in ducts or direct burial
- Corrugated steel tape armour
- Available in all fibres grades
- Provides full rodent protection

## DESCRIPTION

### Description and Application

The construction is suitable for use outdoor in ducts and for direct burial. It consists of a corrugated steel tape armoring providing full rodent protection. It is surrounded by glass yarns. The cable has a HDPE outer jacket.

The loose tube design has a capacity of up to 24 fibres. Diameter of the fibres is 250 um. Termination of these fibres is done with splicing of pigtails.

The cable is watertight due to the gel in the loose tube and the watertight glass yarns.

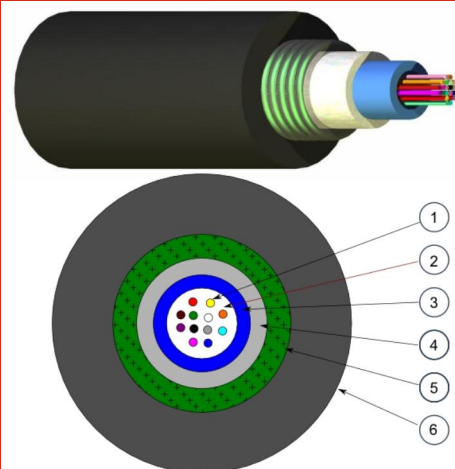
### Construction

Legend accompanying the cross section drawing:

1. Optical fibres (250 um)
2. Gel
3. Loose tube
4. Reinforced watertight glass yarns
5. Corrugated steel tape armour
6. PE outer jacket with UV resistant additive

### Characteristics

- Outdoor cable for installation in a duct or direct burial
- Designed for termination by splicing
- Central loose tube design
- Corrugated steel protection
- Waterproof structure, rodent resistant and UV-resistant
- Available in all fibre grades
- Available from 4-24 fibres



**LANmark-OF**

### STANDARDS

International ISO/IEC 11801



Mechanical resistance to impacts  
3 impacts of 5 N.m



Static bending rad.  
130 mm



Min. dynamic operating bending rad.  
180.0 mm



Ambient installation T°C range  
0 - 40 °C



Operating temp. range  
-40 - 70 °C



Storage temperature, range  
-40 - 70 °C

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# LANmark-OF UC PE (Unitube Steel Armoring - Outdoor)

Contact  
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Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## CHARACTERISTICS

### Dimensional characteristics

Nominal outer diameter	8.5 mm
Approximate weight	85 kg/km

### Mechanical characteristics

Maximum pulling force (IEC 60794-1-2-E1)	1500 N
Maximum operating pulling force	450 N
Mechanical resistance to impacts	3 impacts of 5 N.m
Crush resistance (IEC 60794-1-E3)	300 N/cm

### Usage characteristics

Minimum static operating bending radius	130 mm
Minimum dynamic operating bending radius	180.0 mm
Ambient installation temperature, range	0 - 40 °C
Operating temperature, range	-40 - 70 °C
Storage temperature, range	-40 - 70 °C

# LANmark-OF UGUN (Unitube - Universal) Dca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Unitube indoor/outdoor cable
- Good fire performance
- Reaction to fire: Dca-s1,d2,a1 according to EN50575:2014+A1:2016
- Large operation temperature range

## DESCRIPTION

### Description and Application

The cable is designed for indoor and outdoor installation. The design is made of a central loose tube surrounded by reinforcing yarns and a LSZH jacket incorporating 2 lateral strength members.

The cable is watertight due to the gel in the loose tube and the watertight swellable yarns.

The UGUN contains up to 24 fibres (Diameter 250µm). Termination of these fibres is done with splicing of pigtails.

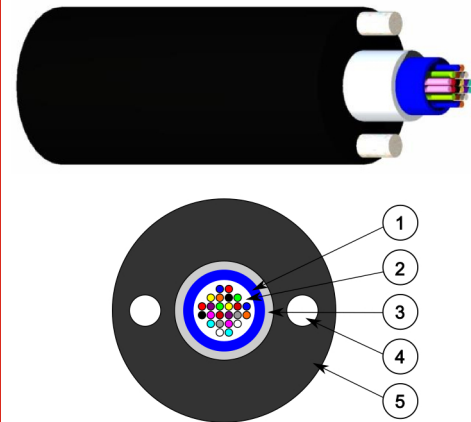
### Construction

Legend accompanying the cross section drawing:

- 1. Central loose tube with 250 µm fibres
- 2. Gel
- 3. Reinforcing yarns
- 4. Lateral strengths members
- 5. LSZH Outer sheath

### Features

- Indoor / Outdoor cable
- Designed for termination by splicing
- Unitube design with Lateral Strength Elements
- Full dielectric design
- Waterproof structure
- UV Resistant
- Wide temperature range



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

## CHARACTERISTICS

### Dimensional characteristics

Nominal outer diameter

6.0 mm



Mechanical resistance to impacts  
3 impacts of 3 N.m



Static bending rad.  
60 mm



Min. dynamic operating bending rad.  
90.0 mm



Ambient installation T°C range  
0 - 40 °C



Operating temp. range  
-30 - 60 °C



Storage temperature, range  
-40 - 60 °C

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# LANmark-OF UGUN (Unitube - Universal) Dca

Contact  
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Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## Dimensional characteristics

Approximate weight 45 kg/km

## Mechanical characteristics

Maximum pulling force (IEC 60794-1-2-E1) 1100 N

Maximum operating pulling force 250 N

Crush resistance (IEC 60794-1-E3) 200 N/cm

Mechanical resistance to impacts 3 impacts of 3 N.m

## Usage characteristics

Minimum static operating bending radius 60 mm

Minimum dynamic operating bending radius 90.0 mm

Ambient installation temperature, range 0 - 40 °C

Operating temperature, range -30 - 60 °C

Storage temperature, range -40 - 60 °C

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Fiber optic type	Number of optical fibres
☎ N164.UGUN24-BD -		LANmark-OF UGUN 24x Singlemode 9/125 OS2 LSZH Dca s1d2a1 Black	SM (G657.A1)	24
☎ N164.UGUN12-BD -		LANmark-OF UGUN 12x Singlemode 9/125 OS2 LSZH Dca s1d0a1 Black	SM (G657.A1)	12
☎ N164.UGUN24-PD -		LANmark-OF UGUN 24x Singlemode 9/125 OS2 LSZH Dca s1d2a1 Purple	SM (G657.A1)	24
☎ N165.UGUN24-GD -		LANmark-OF UGUN 24x Multimode 50/125 OM3 LSZH Dca s1d2a1 Green	OM3 50/125	24
☎ N164.UGUN12-PD -		LANmark-OF UGUN 12x Singlemode 9/125 OS2 LSZH Dca s1d0a1 Purple	SM (G657.A1)	12
☎ N165.UGUN12-GD -		LANmark-OF UGUN 12x Multimode 50/125 OM3 LSZH Dca s1d0a1 Green	OM3 50/125	12
☎ N167.UGUN24-BD -		LANmark-OF UGUN 24x Multimode 50/125 OM4 LSZH Dca s1d2a1 Black	OM4 50/125	24
☎ N165.UGUN24-BD -		LANmark-OF UGUN 24x Multimode 50/125 OM3 LSZH Dca s1d2a1 Black	OM3 50/125	24
☎ N165.UGUN12-BD -		LANmark-OF UGUN 12x Multimode 50/125 OM3 LSZH Dca s1d0a1 Black	OM3 50/125	12
☎ N167.UGUN12-AD -		LANmark-OF UGUN 12x Multimode 50/125 OM4 LSZH Dca s1d0a1 Aqua	OM4 50/125	12

☎ = Make to order, 📦 = In stock,



Mechanical resistance to impacts  
3 impacts of 3 N.m



Static bending rad.  
60 mm



Min. dynamic operating bending rad.  
90.0 mm



Ambient installation T°C range  
0 - 40 °C



Operating temp. range  
-30 - 60 °C



Storage temperature, range  
-40 - 60 °C

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# LANmark-OF UGUN (Unitube - Universal) Dca

Contact  
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 datanetworks.info@nexans.com

Nexans Ref.	Country Ref.	Name	Fiber optic type	Number of optical fibres
☎ N167.UGUN24-AD -		LANmark-OF UGUN 24x Multimode 50/125 OM4 LSZH Dca s1d2a1 Aqua	OM4 50/125	24
☎ N167.UGUN12-BD -		LANmark-OF UGUN 12x Multimode 50/125 OM4 LSZH Dca s1d0a1 Black	OM4 50/125	12

☎ = Make to order, 📦 = In stock,



Mechanical resistance to impacts  
**3 impacts of 3 N.m**



Static bending rad.  
**60 mm**



Min. dynamic operating bending rad.  
**90.0 mm**



Ambient installation T°C range  
**0 - 40 °C**



Operating temp. range  
**-30 - 60 °C**



Storage temperature, range  
**-40 - 60 °C**

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# LANmark-OF Micro-Bundle Universal (24F-96F) Eca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Micro-Bundle Universal optical fibre cable
- Indoor cable and outdoor installation in a duct
- Fully waterproof and rodent resistant
- Small, but mechanical strong cable
- Designed for splicing with pigtails
- 24-96 fibres and available in all fibre grades

## DESCRIPTION

### Description and Application

The new Micro-Bundle technology from Nexans allows to manufacture a flexible and small tube. This Micro-Bundle is the central part of the new “LANmark-OF Micro-Bundle Universal” cable design. Each Micro-Bundle contains 12 fibres with a fibre diameter of 250 µm. Termination of these fibres is done with splicing with pigtails.

Up to 8 Micro-Bundles are arranged around a central strength element. The combination of the Micro-Bundle technology, the central strength element and the glass yarns result in a mechanical robust, but also in a small and flexible cable.

The small bending radius of the LANmark-OF Micro-Bundle Universal makes the cable easy to arrange in patch panels, in cable trays and in ducts.

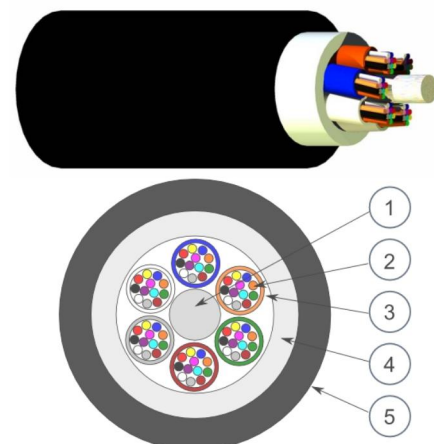
The watertight glass yarns and the very limited amount of gel inside the tube make the LANmark-OF Micro-Bundle Universal design watertight, rodent resistant and suitable for installation outdoor in a duct by pulling.

The LANmark-OF Micro-Bundle Universal complies with the indoor fire requirements. Since there is no drip effect of the very limited amount of gel the cable is optimised for both horizontal and vertical installations.

### Construction

Legend accompanying the cross section drawing:

1. Central strength element
2. Optical fibre (250 µm)
3. Micro-Bundle with 12 fibres
4. Reinforced watertight glass yarns
5. Outer sheath in LSZH material with UV resistant additive



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

# LANmark-OF Micro-Bundle Universal (24F-96F) Eca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## Characteristics

- Micro-Bundle design for easy installation
- Indoor cable for horizontal and vertical installations
- Flame retardant (IEC 60332-1)
- Fire retardant (IEC 60332-3)
- Outdoor cable for installation in a duct
- Waterproof structure, rodent resistant and UV-resistant
- All dielectric design
- Designed for termination by splicing
- 12 fibres per Micro-Bundle
- Available in 24, 48 and 96 fibres
- Available in all fibre grades
- Gas Toxicity (IEC 60754) and Smoke Density (IEC61034)

## N-NUMBER FOR MICRO-BUNDLE UNIVERSAL (24F-72F)

Fiber optic type	Nexans Ref.	Name
OM3 50/125	N165.MBUN24	LANmark-OF Micro-Bundle Universal 24x Multimode 50/125 OM3 LSZH Eca Black
OM3 50/125	N165.MBUN48	LANmark-OF Micro-Bundle Universal 48x Multimode 50/125 OM3 LSZH Eca Black
OM3 50/125	N165.MBUN72	LANmark-OF Micro-Bundle Universal 72x Multimode 50/125 OM3 LSZH Eca Black
OM3 50/125	N165.MBUN96	LANmark-OF Micro-Bundle Universal 96x Multimode 50/125 OM3 LSZH Eca Black
OM4 50/125	N167.MBUN24	LANmark-OF Micro-Bundle Universal 24x Multimode 50/125 OM4 LSZH Eca Black
OM4 50/125	N167.MBUN48	LANmark-OF Micro-Bundle Universal 48x Multimode 50/125 OM4 LSZH Eca Black
OM4 50/125	N167.MBUN72	LANmark-OF Micro-Bundle Universal 72x Multimode 50/125 OM4 LSZH Eca Black
OM4 50/125	N167.MBUN96	LANmark-OF Micro-Bundle Universal 96x Multimode 50/125 OM4 LSZH Eca Black
SM (G657.A1)	N164.MBUN24	LANmark-OF Micro-Bundle Universal 24x Singlemode 9/125 OS2 LSZH Eca Black
SM (G657.A1)	N164.MBUN48	LANmark-OF Micro-Bundle Universal 48x Singlemode 9/125 OS2 LSZH Eca Black
SM (G657.A1)	N164.MBUN72	LANmark-OF Micro-Bundle Universal 72x Singlemode 9/125 OS2 LSZH Eca Black
SM (G657.A1)	N164.MBUN96	LANmark-OF Micro-Bundle Universal 96x Singlemode 9/125 OS2 LSZH Eca Black

# Preterminated Assemblies

## Contact

Enquiries

Phone: +32 2 3633 800

[datanetworks.info@nexans.com](mailto:datanetworks.info@nexans.com)

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# LANmark-OF ENSPACE Indoor MPO-MPO Pre-Term

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Factory terminated MPO-MPO fibre assembly
- Pre-Term cable with high CPR rating: Ccas1,d1,a1
- Small cable diameter reduces required data centre space
- Flexible fan-out for ease of installation in patch panel

## DESCRIPTION

### MPO-MPO Pre-Term characteristics

The MPO-MPO Pre-Term has pinned (male) connectors. This matches with the unpinned (female) connectors in the ENSPACE modules and the female Plug&Play modules.

The MPO-MPO Pre-Terms have PG-13 cable glands on both sides that provide a solid fixing in the LANmark-OF ENSPACE and Plug&Play patch panel slots.

The Pre-Terms are installed by laying. For longer lengths a detachable pulling eye can be used for installations by pulling.

The "xxx" in the N-number is the length in metre between the cable glands, i.e. the Pre-Term length between the rear of the patch panels.

In order to reduce overlengths in data centers the Pre-Terms are custom made and available with 1m increments.

### Cable characteristics

The cable used for the Pre-Term is the "LANmark-OF Double Jacket Indoor Cable Cca" and is optimized indoor installations. The cable has an inner and outer jacket and 2 layers of Aramid yarns.

The double jacket makes the Pre-Term more robust between the racks.

Inside the panel the outer jacket is removed and the inner jacket allows for a flexible fan-out for installation inside the patch panel.

The cable has been tested for fire performance according to the new Construction Product Regulation: EN50575:2014 +A1:2016. It has a very high fire performance with minimal fire load and spread, smoke density, droplets and acidity: Ccas1,d1,a1.

### Polarity and optical performance

The Pre-Terms are available with a method B or C polarity according to standard TIA-568.3-D-2016.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1

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# LANmark-OF ENSPACE Indoor MPO-MPO Pre-Term

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

For a duplex transmission like for 10GBase-SR (10G) the transmit-receive polarity in the channel is maintained with one of the following approaches:

1. Straight cassette on side A + Method C Pre-Term + straight cassette on side B.
2. Straight cassette on side A + Method B Pre-Term + crossed cassette on side B.

Both approaches use the same duplex LC patch cords on both sides.

For parallel optics for multimode like for 100GBase-SR4 (100G) method B Pre-Terms can be used with key up/key down adaptors on both sides of the channel. The same straight female-female patch cords can be used on both sides.

The insertion loss of a MPO-MPO connection is measured according to standard IEC61300-3-45.

The return loss of a MPO connection is measured according to IEC 61300-3-6.



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1

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# LANmark-OF ENSPACE Indoor MPO-MPO Pre-Term

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## CHARACTERISTICS

### Dimensional characteristics

Number of optical fibres 12

### Usage characteristics

Ambient installation temperature, range 0 - 40 °C

Storage temperature, range -20 - 60 °C

Fire retardant IEC 60332-3

Flame retardant IEC 60332-1

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name
☎ N157.BI12AACxxx-AC -		LANmark-OF ENSPACE Indoor Method B Pre-Term OM4 x12F MPO/M-MPO/M Ultra Low Loss fan out C xm LSZH Cca Aqua
☎ N154.BI12AACxxx-YC -		LANmark-OF ENSPACE Indoor Method B Pre-Term SM x12F MPO/M-MPO/M Low Loss fan out C xm LSZH Cca Yellow
☎ N157.CI12AACxxx-AC -		LANmark-OF ENSPACE Indoor Method C Pre-Term OM4 x12F MPO/M-MPO/M Ultra Low Loss fan out C xm LSZH Cca Aqua
☎ N154.CI12AACxxx-YC -		LANmark-OF ENSPACE Indoor Method C Pre-Term SM x12F MPO/M-MPO/M Low Loss fan out C xm LSZH Cca Yellow
☎ N157.BI12FFPxxx-AC -		LANmark-OF ENSPACE Indoor Patch Cord OM4 x12F MTP/F-MTP/F Ultra Low Loss xm LSZH Cca Aqua
☎ N154.BI12FFPxxx-YC -		LANmark-OF ENSPACE Indoor Patch Cord SM x12F MTP/F-MTP/F Low Loss xm LSZH Cca Yellow

☎ = Make to order, 📦 = In stock,



# LANmark-OF ENSPACE Patching Assemblies Cca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Factory terminated LC fibre assembly
- ENSPACE Pre-Term for patching on switches side A and installation in patch panel side B
- Fibre count: 12F, 24F, 48F and 96F
- Fibre type: OM4 and singlemode (OS2)
- Small cable diameter reduces required data centre space

## DESCRIPTION

Patching assemblies allow to represent switches with patch panels. On one side there is a patch cord fan-out design to allow patching on switches. On the other side the assembly is optimized for installation inside the patch panel.

### Pre-Term for data centres, buildings and campus based on Micro-Bundle Universal

The cable has a small diameter and bend radius to meet data centre requirements.

The cable is watertight and rodent retardant due to the glass yarns. It can be used in buildings and between buildings.

### Fire performance

The cables have been tested for fire performance according to the new Construction Product Regulation: EN50575:2014 +A1:2016.

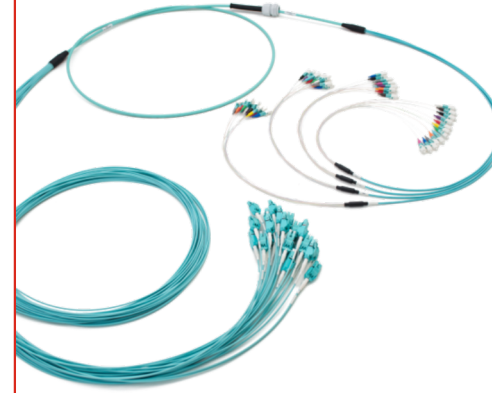
According to this standard the cables have a very high fire performance with minimal fire load and spread, smoke density, droplets and acidity: Ccas1,d0,a1.

The Declaration Of Performance for these cables can be found under fibre cables and the corresponding cable for fibre count and fibre type in the section "Micro-Bundle Universal Cca".

In addition the cables meet the requirements for flame non-propagation (IEC 60332-1) and fire non-propagation (IEC 60332-3).

### Pre-Term characteristics

On the side of the active equipment 2 fibres are inside a round 2mm patch cord and are terminated with an uniboot connector. The length from the fan-out to the uniboot connectors is typical 1m for all uniboot connectors, but can be customized to 1,5m or 2m length.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1

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# LANmark-OF ENSPACE Patching Assemblies Cca

Contact  
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The 900 µm side is optimised for installation inside the LANmark-OF ENSPACE patch panel. This side has a dual fan-out design.

The first fan-out point is between the cable and the legs of the fan-out. Each leg of the fan-out contains 1 Micro-Bundle with 12 fibres inside. This fan-out has been reinforced with aramid yarns.

The second fan-out distributes the tube into 12 buffered fibres. The 900 µm tubes are transparent and the fibres are identified with colored boots in compliance with the TIA/EIA-standard.

The second fan-out together with the 12 buffered fibres and connectors are optimized for installation and fixing into the ENSPACE adaptor modules.

The Tight Buffered fibres of the Pre-Term are easy to arrange inside an ENSPACE module since they are at the same time flexible and robust enough to handle.

The fan-out is protected with a bubble foam and a black net for protection during transport and installation.

The 900 µm side of the Pre-Term has a PG13 cable gland that can be fixed in the LANmark-OF patch panels.

On the 900µ side a pulling eye and a black protecting net is installed. The maximum pulling force on the pulling eye is 450N.

Insertion loss for the connectors is less than 0,25 dB measured according to standard IEC 61300-3-4. The minimum return loss is measured according to standard IEC 61300-3-6. For a multimode LC connection the return loss is 30 dB, for a singlemode connection it is 45 dB and for a LC/APC connection it is 55 dB.

“xxx” in the N-number is the length between the fan-out points of both sides.

## CHARACTERISTICS

### Usage characteristics

Ambient installation temperature, range	0 - 40 °C
Storage temperature, range	-20 - 60 °C
Fire retardant	IEC 60332-3
Flame retardant	IEC 60332-1



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1

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# LANmark-OF ENSPACE Patching Assemblies Cca

Contact  
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datanetworks.info@nexans.com

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Fiber optic type	Number of optical fibres
☎ N154.S048ULAxXX-YC -		LANmark-OF ENSPACE Patching Assembly SM x48F DLC(2mm)-LC(900µm) fan out A 1m xxxm LSZH Yellow	SM (G657.A1)	48
☎ N154.S096ULAxXX-YC -		LANmark-OF ENSPACE Patching Assembly SM x96F DLC(2mm)-LC(900µm) fan out A 1m xxxm LSZH Yellow	SM (G657.A1)	96
☎ N154.S024ULAxXX-YC -		LANmark-OF ENSPACE Patching Assembly SM x24F DLC(2mm)-LC(900µm) fan out A 1m xxxm LSZH Yellow	SM (G657.A1)	24
☎ N154.S012ULAxXX-YC -		LANmark-OF ENSPACE Patching Assembly SM x12F DLC(2mm)-LC(900µm) fan out A 1m xxxm LSZH Yellow	SM (G657.A1)	12
☎ N157.S048ULAxXX-AC -		LANmark-OF ENSPACE Patching Assembly OM4 x48F DLC(2mm)-LC(900µm) fan out A 1m xxxm LSZH Aqua	OM4 50/125	48
☎ N157.S096ULAxXX-AC -		LANmark-OF ENSPACE Patching Assembly OM4 x96F DLC(2mm)-LC(900µm) fan out A 1m xxxm LSZH Aqua	OM4 50/125	96
☎ N157.S012ULAxXX-AC -		LANmark-OF ENSPACE Patching Assembly OM4 x12F DLC(2mm)-LC(900µm) fan out A 1m xxxm LSZH Aqua	OM4 50/125	12
☎ N157.S024ULAxXX-AC -		LANmark-OF ENSPACE Patching Assembly OM4 x24F DLC(2mm)-LC(900µm) fan out A 1m xxxm LSZH Aqua	OM4 50/125	24
☎ N157.S096ULAxXX-VC -		LANmark-OF ENSPACE Patching Assembly OM4 x96F DLC(2mm)-LC(900µm) fan out A 1m xxxm LSZH Violet	OM4 50/125	96
☎ N157.S048ULAxXX-VC -		LANmark-OF ENSPACE Patching Assembly OM4 x48F DLC(2mm)-LC(900µm) fan out A 1m xxxm LSZH Violet	OM4 50/125	48
☎ N157.S024ULAxXX-VC -		LANmark-OF ENSPACE Patching Assembly OM4 x24F DLC(2mm)-LC(900µm) fan out A 1m xxxm LSZH Violet	OM4 50/125	24
☎ N157.S012ULAxXX-VC -		LANmark-OF ENSPACE Patching Assembly OM4 x12F DLC(2mm)-LC(900µm) fan out A 1m xxxm LSZH Violet	OM4 50/125	12
☎ N159.S024ULAxXX-LC -		LANmark-OF ENSPACE Patching Assembly OM5 x24F DLC(2mm)-LC(900µm) fan out A 1m xxxm LSZH Lime Green	OM5 50/125 Wideband	24

☎ = Make to order, ☑ = In stock,



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1

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# LANmark-OF ENSPACE LC/LC Pre-Term Euroclass Cca

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- Factory terminated LC fibre assembly
- ENSPACE Pre-Term for installation in LANmark-OF ENSPACE Patch Panel
- Fibre count: 12F, 24F, 48F and 96F
- Fibre type: OM4, OM5 and singlemode (OS2)
- Small cable diameter reduces required data centre space

## DESCRIPTION

The assembly consists of a Micro-Bundle Universal Cca cable terminated with LC connectors on each side in a factory.

### Pre-Term for data centres, buildings and campus based on Micro-Bundle Universal

The cable has a small diameter and bend radius to meet data centre requirements.

The cable is watertight and rodent retardant due to the glass yarns. It can be used in buildings and between buildings.

### Fire performance

The cables have been tested for fire performance according to the new Construction Product Regulation: EN50575:2014 +A1:2016.

According to this standard the cables have a very high fire performance with minimal fire load and spread, smoke density, droplets and acidity: Cca.

The Declaration Of Performance for these cables can be found under fibre cables and the corresponding cable for fibre count and fibre type in the section "Micro-Bundle Universal Cca".

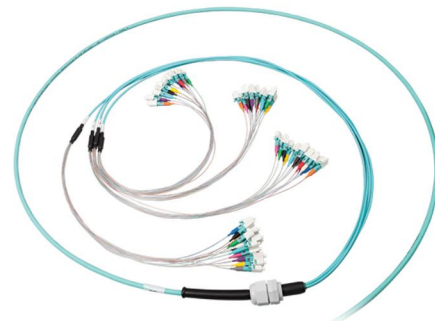
In addition the cables meet the requirements for flame non-propagation (IEC 60332-1) and fire non-propagation (IEC 60332-3).

### Pre-Term characteristics

The Pre-Term has a dual stage fan-out design.

The first fan-out point is between the cable and the legs of the fan-out. Each leg of the fan-out contains 1 Micro-Bundle with 12 fibres inside. This fan-out has been reinforced with aramid yarns.

The second fan-out distributes the reinforced Micro-Bundle into 12 buffered fibres. The second fan-out is optimized for installation and fixation into the ENSPACE adaptor modules.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1

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# LANmark-OF ENSPACE LC/LC Pre-Term Euroclass Cca

Contact  
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The Tight Buffered fibres of the Pre-Term are easy to arrange inside a ENSPACE module since they are at the same time flexible and robust enough to handle.

The connectors on the Tight Buffered fibres have coloured boots for identification in compliance with the TIA/EIA standard. In manufacturing a fibre pair flip has been implemented. When installing the connectors inside the ENSPACE modules the coloured boots need to match the colours of the integrated strip inside the ENSPACE module to obtain transmit-receive polarity in the channel.

The fan-out is protected with a bubble foam for protection during transport and installation. Every bundle of 12 connectors has an additional individual protection to avoid mixing them up with other connectors.

A pulling eye system is positioned at one side of the Pre-Term to facilitate the installation. This pulling eye is connected to the internal strength element of the cable. The maximum pulling force on the pulling eye is 450N.

The LC/LC Pre-Terms come with a PG-13 cable gland that fits into the LANmark-OF ENSPACE patch panel slots.

In order to reduce overlengths in data centers the Pre-Terms are custom made and available with 1m increments. The "xxx" in the N-number is the length in metre between the cable glands, i.e. the Pre-Term length between the rear of the patch panels.

The typical value for the insertion loss for the low loss LC/LC connection is 0,15 dB. The limit value is 0,25 dB measured according to standard IEC61300-3-4. The minimum return loss is measured according to standard IEC 61300-3-6. For a multimode LC connection the RL is 30 dB, for a singlemode LC connection it is 45 dB and for a LC/APC connection it is 55 dB.

All LANmark-OF Pre-term assemblies are fully terminated and tested in a quality assured factory environment.

## CHARACTERISTICS

### Usage characteristics

Ambient installation temperature, range	0 - 40 °C
Storage temperature, range	-20 - 60 °C
Fire retardant	IEC 60332-3
Flame retardant	IEC 60332-1



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3








Flame retardant  
IEC 60332-1

# LANmark-OF ENSPACE LC/LC Pre-Term Euroclass Cca

Contact  
Enquiries  
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datanetworks.info@nexans.com

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Fiber optic type	Number of optical fibres
 N154.D048LLExxx-YC -		LANmark-OF ENSPACE Pre-Term SM x48F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Yellow	SM (G657.A1)	48
 N154.D096LLExxx-YC -		LANmark-OF ENSPACE Pre-Term SM x96F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Yellow	SM (G657.A1)	96
 N154.D024LLExxx-YC -		LANmark-OF ENSPACE Pre-Term SM x24F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Yellow	SM (G657.A1)	24
 N154.D012LLExxx-YC -		LANmark-OF ENSPACE Pre-Term SM x12F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Yellow	SM (G657.A1)	12
 N157.D048LLExxx-AC -		LANmark-OF ENSPACE Pre-Term OM4 x48F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Aqua	OM4 50/125	48
 N157.D096LLExxx-AC -		LANmark-OF ENSPACE Pre-Term OM4 x96F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Aqua	OM4 50/125	96
 N157.D012LLExxx-AC -		LANmark-OF ENSPACE Pre-Term OM4 x12F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Aqua	OM4 50/125	12
 N157.D024LLExxx-AC -		LANmark-OF ENSPACE Pre-Term OM4 x24F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Aqua	OM4 50/125	24
 N157.D012LLExxx-VC -		LANmark-OF ENSPACE Pre-Term OM4 x12F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Violet	OM4 50/125	12
 N157.D024LLExxx-VC -		LANmark-OF ENSPACE Pre-Term OM4 x24F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Violet	OM4 50/125	24
 N157.D048LLExxx-VC -		LANmark-OF ENSPACE Pre-Term OM4 x48F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Violet	OM4 50/125	48
 N157.D096LLExxx-VC -		LANmark-OF ENSPACE Pre-Term OM4 x96F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Violet	OM4 50/125	96
 N159.D024LLExxx-LC -		LANmark-OF ENSPACE Pre-Term OM5 x24F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Lime Green	OM5 50/125 Wideband	24

 = Make to order,  = In stock,



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1

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# LANmark-OF ENSPACE LC/LC Pre-Term Euroclass Cca

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Nexans Ref.	Country Ref.	Name	Fiber optic type	Number of optical fibres
☎ N159.D012LLExxx-LC -		LANmark-OF ENSPACE Pre-Term OM5 x12F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Lime Green	OM5 50/125 Wideband	12

☎ = Make to order, 📦 = In stock,



Ambient installation T°C range  
**0 - 40 °C**



Storage temperature, range  
**-20 - 60 °C**



Fire retardant  
**IEC 60332-3**



Flame retardant  
**IEC 60332-1**

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# LANmark-OF ENSPACE Method B MTP-MTP Pre-Term Cca

Contact  
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- Factory terminated MTP-MTP fibre assembly
- Flexible fan-out for ease of installation in patch panel
- Small cable diameter reduces required data centre space
- Method B polarity Pre-Term
- Only one type of patch cords and one type of cassettes required for parallel transmission
- Fibre count: 12F, 24F, 48F and 96F
- Fibre type: OM3, OM4 and singlemode (OS2)

## DESCRIPTION

### Pre-Term for data centres, buildings and campus based on Micro-Bundle Universal

The cable has a small diameter and bend radius to meet data centre requirements.

The cable is watertight and rodent retardant due to the glass yarns. It can be used in buildings and between buildings.

### Fire performance

The cables have been tested for fire performance according to the new Construction Product Regulation: EN50575:2014 +A1:2016.

According to this standard the cables have a very high fire performance with minimal fire load and spread, smoke density, droplets and acidity: Cca.

The Declaration Of Performance for these cables can be found under fibre cables and the corresponding cable for fibre count and fibre type in the section "Micro-Bundle Universal Cca".

In addition the cables meet the requirements for flame non-propagation (IEC 60332-1) and fire non-propagation (IEC 60332-3).

### MTP\*-MTP Pre-Term characteristics

The MTP-MTP Pre-Term has standard pinned (male) connectors. This matches with the un-pinned (female) connectors in the ENSPACE modules and the female Plug&Play modules.

In order to reduce overlengths in data centers the Pre-Terms are custom made and available with 1m increments. The "xxx" in the N-number is the length in metre between the cable glands, i.e. the Pre-Term length between the back side of the patch panels.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1

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# LANmark-OF ENSPACE Method B MTP-MTP Pre-Term Cca

Contact  
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After the cable gland the Pre-Term has a fan-out. The fan-out splits the cable into tubes. The tubes are reinforced with aramid yarns. At the end of each tube a MTP-connector is mounted. The jacket of the tube is the same colour as the cable jacket. Close to the MTP-connector a label is installed to identify the number of the leg.

The Pre-Terms are optimized for both pulling and laying in data centers. On both sides the MTP connectors are protected by a bubble foam. On one side there is also a protecting net around the fan-out with MTP connectors and a pulling eye. The maximum pulling force on the pulling eye is 450N.

The MTP-MTP Pre-Terms come with a PG-13 cable gland that fits into the LANmark-OF ENSPACE and Plug&Play patch panel slots.

## Optical Performance and Polarity

The insertion loss of a multimode MTP-MTP\* connection has Ultra Low Loss performance: typical insertion loss is 0,125 dB with a maximum of 0,25 dB insertion loss.

The insertion loss of a singlemode MTP-MTP\* connection has Low Loss performance: typical insertion loss is 0,3 dB with a maximum of 0,5 dB insertion loss.

The insertion loss of a MTP-MTP\* connection is measured according to standard IEC61300-3-45.

The minimum return loss for a multimode MTP connection is 20 dB measured according to IEC 61300-3-6. The minimum return loss for a singlemode MTP connection is 45 dB measured according to IEC 61300-3-6.

The method B Pre-Term has a straight key up / key up design. This is in agreement with standard TIA-568.3-D-2016 method B.

For a duplex transmission like for 10GBase-SR (10G) polarity in the channel is maintained with this method B design and the use of a straight cassette on side A and a crossed cassette on side B. In addition the same patch cords can be used on both sides.

For parallel optics like for 40GBase-SR4 (40G) these method B Pre-Terms can be used with key up/key down adaptors on both sides of the channel. The same straight female-female patch cords can be used on both sides.

## CHARACTERISTICS

### Usage characteristics

Ambient installation temperature, range	0 - 40 °C
Storage temperature, range	-20 - 60 °C
Fire retardant	IEC 60332-3



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1

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# LANmark-OF ENSPACE Method B MTP-MTP Pre-Term Cca

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## Usage characteristics

Flame retardant

IEC 60332-1

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Fiber optic type	Number of optical fibres
☎ N154.B048MMExxx-YC -		LANmark-OF ENSPACE Method B Pre-Term SM x48F MTP/M-MTP/M Low Loss fan out E xxxm LSZH Cca Yellow	SM (G657.A1)	48
☎ N154.B096MMExxx-YC -		LANmark-OF ENSPACE Method B Pre-Term SM x96F MTP/M-MTP/M Low Loss fan out E xxxm LSZH Cca Yellow	SM (G657.A1)	96
☎ N154.B024MMExxx-YC -		LANmark-OF ENSPACE Method B Pre-Term SM x24F MTP/M-MTP/M Low Loss fan out E xxxm LSZH Cca Yellow	SM (G657.A1)	24
☎ N154.B012MMExxx-YC -		LANmark-OF ENSPACE Method B Pre-Term SM x12F MTP/M-MTP/M Low Loss fan out E xxxm LSZH Cca Yellow	SM (G657.A1)	12
☎ N157.B048MMExxx-AC -		LANmark-OF ENSPACE Method B Pre-Term OM4 x48F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Aqua	OM4 50/125	48
☎ N157.B096MMExxx-AC -		LANmark-OF ENSPACE Method B Pre-Term OM4 x96F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Aqua	OM4 50/125	96
☎ N157.B012MMExxx-AC -		LANmark-OF ENSPACE Method B Pre-Term OM4 x12F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Aqua	OM4 50/125	12
☎ N157.B024MMExxx-AC -		LANmark-OF ENSPACE Method B Pre-Term OM4 x24F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Aqua	OM4 50/125	24
☎ N159.B024MMExxx-LC -		LANmark-OF ENSPACE Method B Pre-Term OM5 x24F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Lime Green	OM5 50/125 Wideband	24
☎ N159.B012MMExxx-LC -		LANmark-OF ENSPACE Method B Pre-Term OM5 x12F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Lime Green	OM5 50/125 Wideband	12
☎ N157.B096MMExxx-VC -		LANmark-OF ENSPACE Method B Pre-Term OM4 x96F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Violet	OM4 50/125	96

☎ = Make to order, 📦 = In stock,



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3






Flame retardant  
IEC 60332-1



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# LANmark-OF ENSPACE Method B MTP-MTP Pre-Term Cca

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Nexans Ref.	Country Ref.	Name	Fiber optic type	Number of optical fibres
 N157.B048MMExxx-VC -		LANmark-OF ENSPACE Method B Pre-Term OM4 x48F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Violet	OM4 50/125	48
 N157.B024MMExxx-VC -		LANmark-OF ENSPACE Method B Pre-Term OM4 x24F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Violet	OM4 50/125	24
 N157.B012MMExxx-VC -		LANmark-OF ENSPACE Method B Pre-Term OM4 x12F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Violet	OM4 50/125	12

 = Make to order,  = In stock,



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1

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# LANmark-OF ENSPACE Method C MTP-MTP Pre-Term Cca

Contact  
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datanetworks.info@nexans.com

- Factory terminated MTP-MTP fibre assembly
- Flexible fan-out for ease of installation in patch panel
- Small cable diameter reduces required data centre space
- Method C polarity Pre-Term
- Only one type of patch cords and one type of cassettes required for duplex transmission
- Fibre count: 12F, 24F, 48F and 96F
- Fibre type: OM3, OM4 and singlemode (OS2)

## DESCRIPTION

### Pre-Term for data centres, buildings and campus based on Micro-Bundle Universal

The cable has a small diameter and bend radius to meet data centre requirements.

The cable is watertight and rodent retardant due to the glass yarns. It can be used in buildings and between buildings.

#### Fire performance

The cables have been tested for fire performance according to the new Construction Product Regulation: EN50575:2014 +A1:2016.

According to this standard the cables have a very high fire performance with minimal fire load and spread, smoke density, droplets and acidity: Cca.

The Declaration Of Performance for these cables can be found under fibre cables and the corresponding cable for fibre count and fibre type in the section "Micro-Bundle Universal Cca".

In addition the cables meet the requirements for flame non-propagation (IEC 60332-1) and fire non-propagation (IEC 60332-3).

#### MTP\*-MTP Pre-Term characteristics

The MTP-MTP Pre-Term has standard pinned (male) connectors. This matches with the un-pinned (female) connectors in the ENSPACE modules and the female Plug&Play modules.

In order to reduce overlengths in data centers the Pre-Terms are custom made and available with 1m increments. The "xxx" in the N-number is the length in metre between the cable glands, i.e. the Pre-Term length between the back side of the patch panels.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1

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# LANmark-OF ENSPACE Method C MTP-MTP Pre-Term Cca

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datanetworks.info@nexans.com

After the cable gland the Pre-Term has a fan-out. The fan-out splits the cable into tubes. The tubes are reinforced with aramid yarns. At the end of each tube a MTP-connector is mounted. The jacket of the tube is the same colour as the cable jacket. Close to the MTP-connector a label is installed to identify the number of the leg.

The Pre-Terms are optimized for both pulling and laying in data centers. On both sides the MTP connectors are protected by a bubble foam. On one side there is also a protecting net around the fan-out with MTP connectors and a pulling eye. The maximum pulling force on the pulling eye is 450N.

The MTP-MTP Pre-Terms come with a PG-13 cable gland that fits into the LANmark-OF ENSPACE and Plug&Play patch panel slots.

## Optical Performance and Polarity

The insertion loss of a multimode MTP-MTP\* connection has Ultra Low Loss performance: typical insertion loss is 0,125 dB with a maximum of 0,25 dB insertion loss.

The insertion loss of a singlemode MTP-MTP\* connection has Low Loss performance: typical insertion loss is 0,3 dB with a maximum of 0,5 dB insertion loss.

The insertion loss of a MTP-MTP\* connection is measured according to standard IEC61300-3-45.

The minimum return loss for a multimode MTP connection is 20 dB measured according to IEC 61300-3-6. The minimum return loss for a singlemode MTP connection is 45 dB measured according to IEC 61300-3-6.

The method C Pre-Term has a straight key up / key up design. This is in agreement with standard TIA-568.3-D-2016 method C.

For a duplex transmission like for 10GBase-SR (10G) polarity in the channel is maintained with this method C design and the use of the same straight cassettes on both sides. In addition the same patch cords can be used on both sides.

For parallel optics for multimode like for 40GBase-SR4 (40G) these method C Pre-Terms can be used with key up/key down adaptors on one side of the channel and key up/key up adaptors on the other side. The same straight female-female patch cords can be used on both sides.



Ambient installation T°C range  
0 - 40 °C



Storage temperature, range  
-20 - 60 °C



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1

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# LANmark-OF ENSPACE Method C MTP- MTP Pre-Term Cca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## CHARACTERISTICS

### Usage characteristics

Ambient installation temperature, range	0 - 40 °C
Storage temperature, range	-20 - 60 °C
Fire retardant	IEC 60332-3
Flame retardant	IEC 60332-1

# LANmark-OF ENSPACE Method C MTP-MTP Pre-Term Cca

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Fiber optic type	Number of optical fibres
☎ N154.C048MMExxx-YC -		LANmark-OF ENSPACE Method C Pre-Term SM x48F MTP/M-MTP/M Low Loss fan out E xxxm LSZH Cca Yellow	SM (G657.A1)	48
☎ N154.C096MMExxx-YC -		LANmark-OF ENSPACE Method C Pre-Term SM x96F MTP/M-MTP/M Low Loss fan out E xxxm LSZH Cca Yellow	SM (G657.A1)	96
☎ N154.C024MMExxx-YC -		LANmark-OF ENSPACE Method C Pre-Term SM x24F MTP/M-MTP/M Low Loss fan out E xxxm LSZH Cca Yellow	SM (G657.A1)	24
☎ N154.C012MMExxx-YC -		LANmark-OF ENSPACE Method C Pre-Term SM x12F MTP/M-MTP/M Low Loss fan out E xxxm LSZH Cca Yellow	SM (G657.A1)	12
☎ N157.C048MMExxx-AC -		LANmark-OF ENSPACE Method C Pre-Term OM4 x48F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Aqua	OM4 50/125	48
☎ N157.C096MMExxx-AC -		LANmark-OF ENSPACE Method C Pre-Term OM4 x96F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Aqua	OM4 50/125	96
☎ N157.C012MMExxx-AC -		LANmark-OF ENSPACE Method C Pre-Term OM4 x12F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Aqua	OM4 50/125	12
☎ N157.C024MMExxx-AC -		LANmark-OF ENSPACE Method C Pre-Term OM4 x24F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Aqua	OM4 50/125	24
☎ N159.C024MMExxx-LC -		LANmark-OF ENSPACE Method C Pre-Term OM5 x24F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Lime Green	OM5 50/125 Wideband	24
☎ N159.C012MMExxx-LC -		LANmark-OF ENSPACE Method C Pre-Term OM5 x12F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Lime Green	OM5 50/125 Wideband	12
☎ N157.C012MMExxx-VC -		LANmark-OF ENSPACE Method C Pre-Term OM4 x12F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Violet	OM4 50/125	12
☎ N157.C024MMExxx-VC -		LANmark-OF ENSPACE Method C Pre-Term OM4 x24F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Violet	OM4 50/125	24
☎ N157.C048MMExxx-VC -		LANmark-OF ENSPACE Method C Pre-Term OM4 x48F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Violet	OM4 50/125	48
☎ N157.C096MMExxx-VC -		LANmark-OF ENSPACE Method C Pre-Term OM4 x96F MTP/M-MTP/M Ultra Low Loss fan out E xxxm LSZH Cca Violet	OM4 50/125	96

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# Fibre patch panels

## Contact

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# LANmark-OF ENSPACE Patch Panels

## Contact

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datanetworks.info@nexans.com

- Optical patch panels with Ultra High Density or High Density

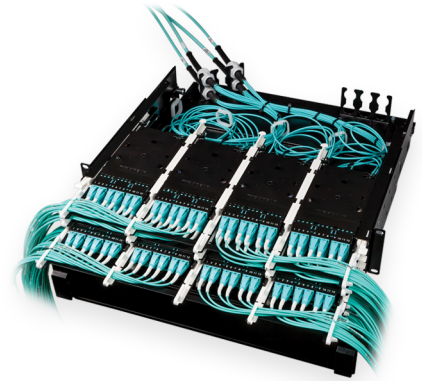
## DESCRIPTION

For the Ultra High Density areas like patching zones Nexans has developed ENSPACE UHD panels. The panels support 144 LC connections or 72 MTP ports per 'U' without compromising operational efficiency. The panels feature three individual sliding trays per 'U'. Each individual tray can be pulled forward to allow fingertip access to the patch cords and ease day to day operations. An innovative rear tray facilitates the installation of the Pre-Terms with the UHD panels. The panels are available in 1U, 2U and 4U.

The ENSPACE HD panels can be installed in server racks or less dense patching zones. They feature a High Density of 96 LC or 48 MTP ports within 1 rack unit. The fixed trays are staggered and allow easy access to the patch cords. 1U and 2U panels are available.

For all panels ports can be added as and when needed without interrupting already installed connections. The ENSPACE modules and Pre-Terms can be installed from the rear. Moves, adds and changes for every project can be accommodate without impact on the operation of a data centre.

A labeling front sits in front of the modules. It can rotate almost 180° even when ENSPACE patch panels are installed underneath. This facilitates port identification when the panel is mounted at the top of the rack.













**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name
 NSPACE.PP1U	-	LANmark-OF ENSPACE UHD Patch Panel 1U 12x Modules Black
 NSPACE.PP2U	-	LANmark-OF ENSPACE UHD Patch Panel 2U 24x Modules Black
 NSPACE.PP4U	-	LANmark-OF ENSPACE UHD Patch Panel 4U 48x Modules Black
 NSPACE.PPCB1U4S	-	LANmark-OF ENSPACE Patch Panel Cable Bracket 1U 4 slots
 NSPACE.PPCB2U8S	-	LANmark-OF ENSPACE Patch Panel Cable Bracket 2U 8 slots
 NSPACE.PPHD2U	-	LANmark-OF ENSPACE HD Patch Panel 2U 16x Modules Black
 NSPACE.PPHD1U	-	LANmark-OF ENSPACE HD Patch Panel 1U 8x Modules Black
 NSPACE.PPCBM40	-	LANmark-OF ENSPACE Patch Panel Cable Bracket 2U 1 slot M40

 = Make to order,  = In stock,

# LANmark-OF Plug&Play Patch Panels

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Optical patch panel that holds up to 4 Plug&Play modules or adaptor plates in 1U
- High density connectivity: up to 48 SC or 96 LC depending on module type.
- Sliding and tilting patch panel for ease of installation, upgrade and maintenance
- Optimised for installation of LANmark-OF Pre-Term with a cable gland
- Optimised for splicing with LANmark-OF Pigtailed or Cassettes
- Labelling front for port identification and patch cord management within 1U
- UL listed

## DESCRIPTION

The Nexans' Plug and Play concept is specifically designed for installation in data centres where the high density, integrated patch cord guide and enhanced installation benefits of the patch panel meet the key requirements for implementation.

The Nexans unique patch panel design allows to hold up to 4 MPT modules or adaptor plates in 1U of the distribution rack. Depending on the type of the module a high density of up to 96 fibre connections can be accommodated.

The new patch cord guide sits in front of the modules and allows the patch cords to be managed within the same 1U saving expensive rack space. The patch cord guide also provides a labelling facility to identify connections. Additional labelling is provided by printed port numbers on the modules.

The newly developed tray slides and tilts for improved access to install new modules and adaptor plates.

The patch panel is optimised for installation of the LANmark-OF MTP/MTP or SC/LC Pre-Term Trunks. The cable glands of the Pre-Term allow a fast and solid fixing of the cable. There is ample space inside the patch panel to organise the flexible fan-out of the Pre-Term.

The LANmark-OF Fibre Organiser (N890.070) fits in the patch panel to facilitate the installation of the SC/LC Pre-Term.

The various modules of the LANmark-OF Plug&Play modules (e.g. N441.5L24LC4FS and N441.4L12LC4FS) can be easily fit in the patch panel.

Inside the patch panel the following splice cassettes can be installed:

- N890.090: LANmark-OF Splice Cassette Heat Shrink Protectors
- N890.091: LANmark-OF Splice Cassette Aluminium Protectors
- N890.092: LANmark-OF Splice Cassette Cover

For information regarding the possible combinations for splice cassettes, maxistrrip/tight buffer pigtails and cables please consult the installation guide.

Panels are fully painted in black for a professional look and feel. Blank fillers (N441.2MBP) are available as separate accessories for unused positions to give a finished look.

The front adaptor plate can be fixed in a flush or recessed position in the rack using the adjustable side brackets. When the panel is installed recessed the distance between the rack vertical and the rear of the panel is 288 mm. The front cord management projection is 67 mm. When the panel is installed flush the distance between the rack vertical and the rear of the panel is 248 mm. The front cord management projection is 107 mm.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

# LANmark-OF Sliding Patch Panels

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Empty OF patch panels with sliding mechanism.
- Suitable for direct termination or splicing.
- Inner sliding to respect bending radius of patch cord.
- LANmark look.

## DESCRIPTION

### Application

Accepting the range of ST couplers or LANmark-OF snap-ins, these patch panels with sliding mechanism facilitate front side installation.

### Compatibility

Suitable for tight buffer cables (direct termination) , Loose tube cables using Splice Cassette / pigtailed terminations. Accepts pre-terminated cable assemblies.

### Installation

- 19" width. 1U
- Accommodates 24 ST or 24 LANmark-OF snap-ins (or 12DSC).
- 2 positions : flush or recessed with respect of cable bend radius.
- Comes with marking strips to number and categorise ports.



**LANmark-OF**

## STANDARDS




International ISO/IEC 11801



## CHARACTERISTICS

### Dimensional characteristics

Depth	280 mm
Heightunit	1 U
Width	19 inches

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name
 N439.4SNB-H	-	LANmark Hybrid Patch Panel Snap-In Sliding Black
 N439.4SNB	-	LANmark-OF Patch Panel Snap-In Sliding Black
 N439.4SNW	-	LANmark-OF Patch Panel Snap-In Sliding White

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# Patch cords

## Contact

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# LANmark-OF ENSPACE Patch Cord Duplex LC

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Optical fibre ENSPACE patch cords
- LANmark-OF performance
- For use in cabinets and workplaces
- Bend radius reduced to 10 mm
- GIGAliteFLEX bend insensitive fibre
- Round patch cord with uniboot design
- Reverse polarity uniboot connector

## DESCRIPTION

### Optimised for data centres environments

LANmark-OF ENSPACE patch cords have a very small bend radius of 10 mm due to the use GIGAliteFLEX bend insensitive fibre.

The small bend radius of the patch cord is beneficial in high density patching areas where a lot of bends are common. There is a high risk that the larger bend radius (40 mm) of traditional patch cords is not maintained resulting in high attenuation and loss of transmission.

The round design of the ENSPACE patch cord results in a small bend radius in any direction. Traditional patch cords based on a zipcord design have a bend radius that is dependent on the orientation.

With the round design and the small diameter (2mm) of the patch cable the area required for the patch cord is reduced by 50 % resulting in space savings, reduced disturbance of the airflow for cooling and easier patch cords management in high density racks.

For the support of the advanced high speed Ethernet protocols with stringent power budgets the ENSPACE patch cord features a low loss performance of 0.25 dB. This increases the headroom in the channel and reduces the risk of down time.

### Characteristics

- Patch cord cable is according to IEC 60794-2-50
- Maximum insertion loss according to IEC 61300-3-4: 0.25 dB
- Typical insertion loss: 0.125 dB
- GIGAliteFLEX bend insensitive fibre
- A label is added close to the uniboot connector for traceability of the measurement results

### Guarantees and installation

Nexans LANmark-OF optical fibre patch cords have been designed for indoor applications in support of high speed protocols. Details on the supported distances can be found in the LANmark-OF warranty modules.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Mechanical resistance to impacts  
10 impacts of 1 N.m

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The Nexans logo, featuring a stylized red 'N' followed by the word 'Nexans' in a black sans-serif font.

# LANmark-OF ENSPACE Patch Cord Duplex LC

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## Typical installation environments are:

- Cabinets to connect patch panels to active equipment.
- Cross connects in data centres.

## Design

Nexans LANmark-OF patch cords are delivered according to the "Cross-Over" wiring principle to improve field installation (A1-B2, B1-A2). This complies to the requirements of IEC 11801 and EN 50174-1:2009.

The polarity of the ENSPACE patch cord can be changed by opening the uniboot connector on one side and change the position of the 2 LC connectors. A black and yellow plastic square identify the fibre inside the patch cord. The patch cords are delivered with the black square on the left on side A and on the right on side B. This is required for cross-over or optical crossed patch cords. By changing the position of the black square on side A from the left to the right the patch cord becomes an optical straight patch cord. This straight patch cord can be used for some rare legacy applications that have a non-standard polarity.

## CHARACTERISTICS




### Transmission characteristics



Insertion Loss, maximum, dB	0.25 dB
-----------------------------	---------

### Mechanical characteristics

Crush resistance (IEC 60794-1-E3)	100 N/cm
Maximum pulling force (IEC 60794-1-2-E1)	100 N
Mechanical resistance to impacts (IEC 60794-1-E4)	10 impacts of 1 N.m

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Fiber optic type
 N122.7UUAx -		LANmark-OF ENSPACE Patch Cord DLC-DLC OM4 LSZH xm Aqua	OM4 50/125
 N122.4UUYx -		LANmark-OF ENSPACE Patch Cord DLC-DLC SM LSZH xm Yellow	SingleMode 9/125
 N122.9UULx -		LANmark-OF ENSPACE Patch Cord DLC-DLC OM5 LSZH xm Lime Green	OM5 50/125 Wideband

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Mechanical resistance to impacts  
10 impacts of 1 N.m

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# LANmark-OF Aggregation Assembly MTP/F-4XDLC

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Factory terminated fibre assembly
- Fibre assembly with Female MTP towards 4x uniboot DLC connectors
- Female MTP connector for connecting to QSFP+ transceiver on switch
- Uniboot DLC connectors for patching on front of patch panel
- Aggregation of 4X 10G channels on patch panel into 1x 40G port on switch
- Fibre type: OM3 and OM4
- 8 core
- Low loss connectivity performance: max of 0,3 dB per connection

## DESCRIPTION

### Construction

A round cable with a diameter of 3,65 mm is terminated on one side with a female MTP\*-connector. The other side is terminated as a fan-out with uniboot duplex LC connectors. The round fan-out legs contain 2 fibres. The lengths between the fan-out point and each uniboot connector is equal and typically 1m (fan out A) or 2m (fan out C). The length between the MTP-connector and the fan-out point is variable and can be increased in steps of 1 m.

The cable features a small bend radius of 40mm and has bend insensitive fibres inside.

The cable is flame non propagation (IEC 60332-1) and fire non propagation (IEC 60332-3).

### Application

The assembly allows to aggregate 4X 10G channels from the front of a patch panel into 1x 40G port on a switch.

The female MTP-connector fits with the male MTP connector inside the 40G QSFP+ port of the switch.

### Performance

The MTP connector has a low loss performance. Typical value for the insertion loss for the low loss MTP-MTP connection is 0.125 dB. The limit value is 0.3 dB measured according to standard IEC 61300-3-45.

### Consistent quality



**LANmark-OF**

## STANDARDS

International ISO/  
IEC 11801:2002/Amd 1:2008/  
Cor 1:2008



Mechanical resistance to impacts  
10 impacts of 1 N.m



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1



Static bending rad.  
40 mm



Operating temp.  
0 - 60 °C



Storage temperature, range  
-20 - 60 °C

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 Nexans



# LANmark-OF Aggregation Assembly MTP/F-4XDLC

Contact  
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datanetworks.info@nexans.com

In order to produce high quality, reliable pre-terminated multi-fibre cables, there are a number of physical characteristics that must be addressed. Therefore, all LANmark-OF Pre-Terms are fully terminated and tested in a quality assured factory environment. They are delivered with these test results.

\* MTP is a trade name of US Conec

## CHARACTERISTICS

### Construction characteristics

Fiber optic type OM3 50/125

### Dimensional characteristics

Nominal outer diameter 3.65 mm

### Mechanical characteristics

Crush resistance (IEC 60794-1-E3) 50 N/cm

Mechanical resistance to impacts 10 impacts of 1 N.m

### Usage characteristics

Fire retardant IEC 60332-3

Flame retardant IEC 60332-1

Minimum static operating bending radius 40 mm

Operating temperature, range 0 - 60 °C

Storage temperature, range -20 - 60 °C



Mechanical resistance to impacts  
10 impacts of 1 N.m



Fire retardant  
IEC 60332-3



Flame retardant  
IEC 60332-1



Static bending rad.  
40 mm



Operating temp.  
0 - 60 °C



Storage temperature, range  
-20 - 60 °C

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# LANmark-OF Aggregation Assembly MTP/F-4XDLC

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name
☒ N127.7FLAAX -		LANmark-OF Aggregation Assembly MTP/F-4XDLC 8XOM4 1m fan-out A xm Aqua
☒ N127.7FLCAX -		LANmark-OF Aggregation Assembly MTP/F-4XDLC 8XOM4 2m fan-out C xm Aqua

☒ = Make to order, ☒ = In stock,

# LANmark-OF Slimflex Patch Cords OM4

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Optical fiber patch cords
- LANmark-OF OM4 performance
- GIGAliteFLEX bend insensitive fibre
- For use in cabinets and workplaces

## DESCRIPTION

### Guarantees and installation

Nexans LANmark-OF optical fibre patch cords have been designed for indoor applications in support of high speed protocols.

High speed protocols supported include, but are not limited to

- Ethernet: 1GBase-SX, 10GBase-SR, 25GBASE-SR
- Fibre channel Serial: 4G, 8G, 16G and 32G

Details on the supported distances can be found in the LANmark-OF warranty modules.

Typical installation environments are:

- Cabinets to connect patch panels to active equipment.
- Cross connects in data centres.
- Suitable for use in the work area to connect the workstation to the wall outlet (Fibre To The Desk).

### Characteristics

- Patch cord cable is according to IEC 60794-2-50
- Maximum insertion loss according to IEC 61300-3-4: 0.25 dB
- Typical insertion loss: 0.1 dB
- Minimum return loss according to IEC 61300-3-6: 30 dB
- Duplex LC-LC, duplex LC-SC and duplex SC-SC patch cords have a duplex cable construction with a diameter of 2 X 2.0 mm.
- Short connector boots of 19mm
- Small bend radius: 10 mm
- A label is added close to the duplex connector for traceability of the measurement results

### Fibre

The LANmark-OF OM4 patch cords have LANmark-OF OM4 GIGAliteFLEX fibre inside. This bend insensitive multimode fibre has a small bend radius and is compliant to IEC 60793-2-10, fibre model A1a.3b.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Static bending rad.  
10 mm



Operating temp.  
-10 - 50 °C

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# LANmark-OF Slimflex Patch Cords OM4

Contact  
Enquiries  
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## Design

Nexans LANmark-OF patch cords designed according to the "Cross-Over" wiring principle to improve field installation (A1-B2, B1-A2). This conforms to the requirements of IEC 11801 and EN 50174-1:2009.

The "butterfly" duplex clip allows to change the polarity on site easily by simply removing the 2 connectors and put them in a reverse order back into the same clip. No tool is required for this polarity change.

## CHARACTERISTICS

### Construction characteristics

Armour type	Aramid yarn
Colour	Aqua
Outer sheath	LSZH-FR

### Transmission characteristics

Insertion Loss, maximum, dB	0.25 dB
Return Loss, Minimum, dB	30 dB

### Mechanical characteristics

Crush resistance (IEC 60794-1-E3)	100 N/cm
Maximum pulling force (IEC 60794-1-2-E1)	200 N

### Usage characteristics

Minimum static operating bending radius	10 mm
Operating temperature, range	-10 - 50 °C

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Connector type
☎ N122.7CLAX -		LANmark-OF Slimflex Patch Cord DLC - DSC OM4 LSZH Aqua Xm	Duplex SC-LC
☎ N122.7CCAX -		LANmark-OF Slimflex Patch Cord DSC - DSC OM4 LSZH Aqua Xm	Duplex SC-SC

☎ = Make to order, 📦 = In stock,



Static bending rad.  
10 mm

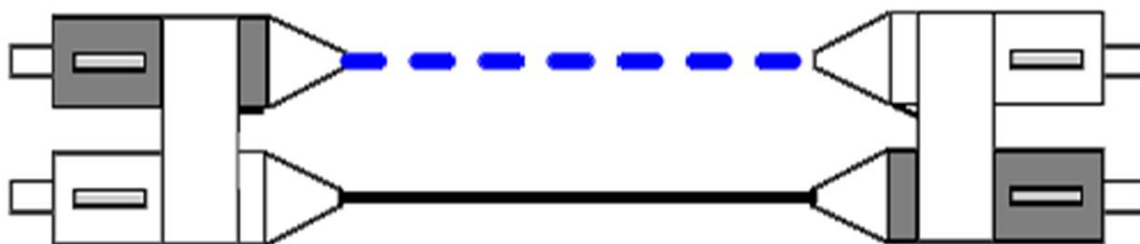


Operating temp.  
-10 - 50 °C

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## SCHEMATIC POLARITY DUPLEX PATCH CORD



Cross-over patch cord (A1 to B2 & B1 to A2)

# LANmark-OF Ruggedised Patch Cords

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Ruggedized optical fiber patch cords
- LANmark-OF OM3, OM4 and SM performance
- For FTTO, FTTD and installations requiring strong mechanical protection

## DESCRIPTION

### Construction

Each tight buffered fibre of the patch cord is protected by a metal spring. This results in a mechanical robust patch cord with a very high crush resistance.

Between the spring and the LSZH jacket aramid yarns are introduced to enhance the pulling force.

The spring is very flexible and this results in a patch cord with a bend radius of only 30mm.

The patch cord has a duplex cable construction with a diameter of 2 X 2.8 mm.

### Installation and Guarantees

The Ruggedised patch cord is designed for indoor use and complies to following fire performance standards: IEC 60332-1 and IEC 60332-3.

Typical Fibre To The Office (FTTO) installations use this robust patch cord for the connection between the ZD-boxes and the LANactive office switches. The length is hereby often more than 5m and the cords are laid in crowded trunking between all the other wires. Both expose the cord much more to mechanical stress. The metal spring inside the Ruggedised patch cords protects the fibres well. The small bend radius of 30mm allows to route the patch cord through many turns and the short connector boot of 19mm facilitates the connection to the LANactive switch.

Also Fibre To The Desk (FTTD) and other challenging environments that require a strong mechanical protection are installations that can benefit from of this new patch cord.

Nexans LANmark-OF optical fibre patch cords have been designed for indoor applications in support of high speed protocols.

High speed protocols supported include, but are not limited to

- Ethernet: 1GBase-SX, 1GBase-LX, 10GBase-SR, 10GBase-LR
- Fibre channel Serial: 4G, 8G and 16G

Details on the supported distances can be found in the LANmark-OF warranty modules.

### Characteristics



Static bending rad.  
30 mm



Operating temp.  
-10 - 50 °C



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

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# LANmark-OF Ruggedised Patch Cords

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Patch cord cable is according to IEC 60794-2-50
- Maximum insertion loss according to IEC 61300-3-4: 0.25 dB
- Typical insertion loss: 0.15 dB
- Minimum return loss according to IEC 61300-3-6: 30 dB for Multimode and 50 dB for Singlemode
- Color of Jacket: Aqua for Multimode and Yellow for Singlemode

## Design

Nexans LANmark-OF patch cords are designed according to the "Cross-Over" wiring principle to improve field installation (A1-B2, B1-A2). This conforms to the requirements of IEC 11801 and EN 50174-1:2009.

## CHARACTERISTICS

### Transmission characteristics

Insertion Loss, maximum, dB 0.25 dB

### Mechanical characteristics

Crush resistance (IEC 60794-1-E3) 500 N/cm

Maximum pulling force (IEC 60794-1-2-E1) 400 N

### Usage characteristics

Minimum static operating bending radius 30 mm

Operating temperature, range -10 - 50 °C

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Fiber optic type
☎ N123R.5LLAX	-	LANmark-OF Ruggedised Patch Cord Duplex LC Duplex LC OM3 LSZH Xm Aqua	OM3 50/125
☎ N123R.7LLAX	-	LANmark-OF Ruggedised Patch Cord Duplex LC Duplex LC OM4 LSZH Xm Aqua	OM4 50/125
☎ N123R.4LLYX	-	LANmark-OF Ruggedised Patch Cord Duplex LC Duplex LC Singlemode LSZH Xm Yellow	SingleMode 9/125
☎ N123RS.4LLYX	-	LANmark-OF Ruggedised Simplex Patch Cord LC-LC Singlemode LSZH Xm Yellow	SingleMode 9/125

☎ = Make to order, 📦 = In stock,



Static bending rad.  
30 mm



Operating temp.  
-10 - 50 °C

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# LANmark-OF Slimflex Patch Cords FC Singlemode

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Optical fiber patch cords
- LANmark-OF singlemode performance
- GIGAliteFLEX bend insensitive fibre
- For use in cabinets and workplaces

## DESCRIPTION

### Guarantees and installation

Nexans LANmark-OF optical fibre patch cords have been designed for indoor applications in support of high speed protocols.

High speed protocols supported include, but are not limited to Ethernet 1GBase-LX and Ethernet 10GBase-LR

Details on the supported distances can be found in the LANmark-OF warranty modules.

Typical installation environments are:

- Cabinets to connect patch panels to active equipment.
- Cross connects in data centres.
- Suitable for use in the work area to connect the workstation to the wall outlet (Fibre To The Desk).

### Characteristics

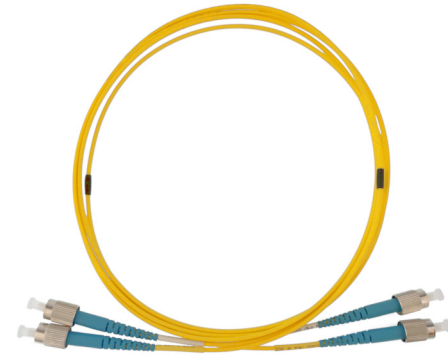
- Patch cord cable is according to IEC 60794-2-50
- Maximum insertion loss according to IEC 61300-3-4: 0.3 dB
- Typical insertion loss: 0.1 dB
- Minimum return loss according to IEC 61300-3-6 for FC/PC: 50 dB
- Minimum return loss according to IEC 61300-3-6 for FC/APC: 65 dB
- Patch cords have a duplex cable construction with a diameter of 2 X 2.0 mm.
- Small bend radius: 10 mm
- A traceability label is added close to the connector

### Fibre type

The LANmark-OF SM patch cords have LANmark-OF SM GIGAliteFLEX fibre inside. These fibres are bend insensitive and compliant to ITU-T G.657.A1 and to IEC 60793-2-50, fibre model B6.a1. The pigtail jacket of the singlemode pigtails is yellow.

### Design

Nexans LANmark-OF patchcords designed according to the "Cross-Over" wiring principle to improve field installation (A1-B2, B1-A2). This conforms to the requirements of IEC 11801 and EN 50174-1:2009.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Static bending rad.  
10 mm



Operating temp.  
-10 - 50 °C

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 Nexans



# LANmark-OF Slimflex Patch Cords FC Singlemode

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## CHARACTERISTICS

### Construction characteristics

Armour type	Aramid yarn
Colour	Yellow
Connector type	Duplex LC-LC
Fiber optic type	SingleMode 9/125
Outer sheath	LSZH-FR

### Transmission characteristics

Insertion Loss, maximum, dB	- dB
Return Loss, Minimum, dB	- dB

### Mechanical characteristics

Crush resistance (IEC 60794-1-E3)	- N/cm
Maximum pulling force (IEC 60794-1-2-E1)	200 N

### Usage characteristics

Minimum static operating bending radius	10 mm
Operating temperature, range	-10 - 50 °C



Static bending rad.  
10 mm



Operating temp.  
-10 - 50 °C

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# LANmark-OF Slimflex Patch Cords Singlemode

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Optical fiber patch cords
- LANmark-OF singlemode performance
- GIGAliteFLEX bend insensitive fibre
- For use in cabinets and workplaces

## DESCRIPTION

### Guarantees and installation

Nexans LANmark-OF optical fibre patch cords have been designed for indoor applications in support of high speed protocols.

High speed protocols supported include, but are not limited to Ethernet 1GBase-LX and Ethernet 10GBase-LR

Details on the supported distances can be found in the LANmark-OF warranty modules.

Typical installation environments are:

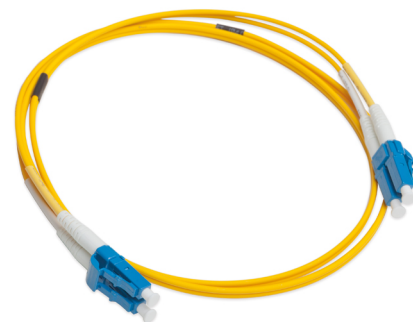
- Cabinets to connect patch panels to active equipment.
- Cross connects in data centres.
- Suitable for use in the work area to connect the workstation to the wall outlet (Fibre To The Desk).

### Characteristics

- Patch cord cable is according to IEC 60794-2-50
- Maximum insertion loss according to IEC 61300-3-4: 0.25 dB
- Typical insertion loss: 0.1 dB
- Minimum return loss according to IEC 61300-3-6 for LC/UPC: 50 dB
- Minimum return loss according to IEC 61300-3-6 for LC/APC: 65 dB
- Duplex LC-LC, duplex LC-SC and duplex SC-SC patch cords have a duplex cable construction with a diameter of 2 X 2.0 mm.
- Short connector boots of 19mm
- Small bend radius: 10 mm
- A traceability label is added close to the connector

### Fibre type

The LANmark-OF SM patch cords have LANmark-OF SM GIGAliteFLEX fibre inside. These fibres are bend insensitive and compliant to ITU-T G.657.A1 and to IEC 60793-2-50, fibre model B6.a1. The pigtail jacket of the singlemode pigtails is yellow.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Static bending rad.  
10 mm



Operating temp.  
-10 - 50 °C

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# LANmark-OF Slimflex Patch Cords Singlemode

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## Design

Nexans LANmark-OF patchcords designed according to the "Cross-Over" wiring principle to improve field installation (A1-B2, B1-A2). This conforms to the requirements of IEC 11801 and EN 50174-1:2009.

The "butterfly" duplex clip allows to change the polarity on site easily by simply removing the 2 connectors and put them in a reverse order back into the same clip. No tool is required for this polarity change.

## CHARACTERISTICS

### Construction characteristics

Armour type	Aramid yarn
Colour	Yellow
Fiber optic type	SingleMode 9/125
Outer sheath	LSZH-FR

### Transmission characteristics

Insertion Loss, maximum, dB	0.25 dB
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### Mechanical characteristics



Crush resistance (IEC 60794-1-E3)	100 N/cm
Maximum pulling force (IEC 60794-1-2-E1)	200 N

### Usage characteristics

Minimum static operating bending radius	10 mm
Operating temperature, range	-10 - 50 °C

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Connector type	Return Loss, Minimum, dB [dB]
 N122.4DPYX	-	LANmark-OF Slimflex Patch Cord DLC/APC - DSC/APC SM LSZH Yellow X m	Duplex LC/APC-SC/APC	65
 N122.4CLYX	-	LANmark-OF Slimflex Patch Cord DLC/UPC - DSC/UPC SM LSZH Yellow X m	Duplex SC-LC	50
 N122.4CCYX	-	LANmark-OF Slimflex Patch Cord DSC/UPC - DSC/UPC SM LSZH Yellow X m	Duplex SC-SC	50
 N122.4DCYX	-	LANmark-OF Slimflex Patch Cord DSC/APC - DSC/UPC SM LSZH Yellow X m	Duplex SC/UPC-SC/APC	50

 = Make to order,  = In stock,



Static bending rad.  
10 mm










Operating temp.  
-10 - 50 °C



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# LANmark-OF Slimflex Patch Cords Singlemode

Contact  
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Nexans Ref.	Country Ref.	Name	Connector type	Return Loss, Minimum, dB [dB]
 N122.4DLYX	-	LANmark-OF Slimflex Patch Cord DLC/UPC - DSC/APC SM LSZH Yellow X m	Duplex LC/UPC-SC/APC	50
 N122.4CPYX	-	LANmark-OF Slimflex Patch Cord DLC/APC - DSC/UPC SM LSZH Yellow X m	Duplex LC/APC-SC/UPC	50
 N122.4PPYX	-	LANmark-OF Slimflex Patch Cord DLC/APC - DLC/APC SM LSZH Yellow X m	Duplex LC/APC-LC/APC	65
 N122.4LLYX	-	LANmark-OF Slimflex Patch Cord DLC/UPC - DLC/UPC SM LSZH Yellow X m	Duplex LC-LC	50
 N122.4PLYX	-	LANmark-OF Slimflex Patch Cord DLC/APC - DLC/UPC SM LSZH Yellow X m	Duplex LC/UPC-LC/APC	50
 N122.4DDYX	-	LANmark-OF Slimflex Patch Cord DSC/APC - DSC/APC SM LSZH Yellow X m	Duplex SC/APC-SC/APC	65
 N122S.4LLYX	-	LANmark-OF Slimflex Simplex Patch Cord LC/UPC-LC/UPC SM LSZH Xm Yellow	LC	50

 = Make to order,  = In stock,



Static bending rad.  
10 mm

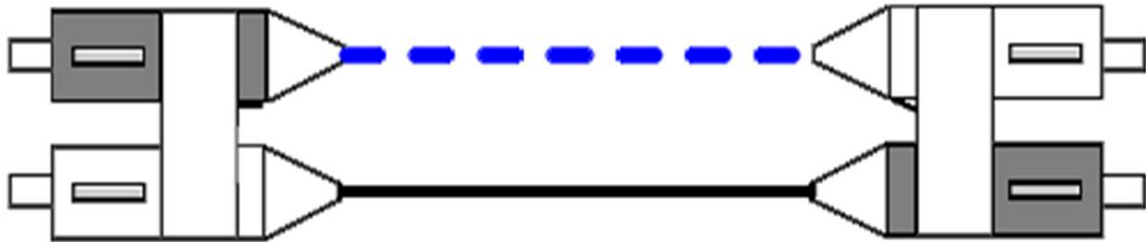


Operating temp.  
-10 - 50 °C

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## SCHEMATIC POLARITY PATCH CORD



Cross-over patch cord (A1 to B2 & B1 to A2)

# LANmark-OF Slimflex Patch Cords OM3

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Optical fiber patch cords
- LANmark-OF OM3 performance
- GIGAliteFLEX bend insensitive fibre
- For use in cabinets and workplaces

## DESCRIPTION

### Guarantees and installation

Nexans LANmark-OF optical fibre patch cords have been designed for indoor applications in support of high speed protocols.

High speed protocols supported include, but are not limited to

- Ethernet: 1GBase-SX, 10GBase-SR, 25GBASE-SR
- Fibre channel Serial: 4G, 8G, 16G and 32G

Details on the supported distances can be found in the LANmark-OF warranty modules.

Typical installation environments are:

- Cabinets to connect patch panels to active equipment.
- Cross connects in data centres.
- Suitable for use in the work area to connect the workstation to the wall outlet (Fibre To The Desk).

### Characteristics

- Patch cord cable is according to IEC 60794-2-50
- Maximum insertion loss according to IEC 61300-3-4: 0.25 dB
- Typical insertion loss: 0.1 dB
- Minimum return loss according to IEC 61300-3-6: 30 dB
- Duplex LC-LC, duplex LC-SC and duplex SC-SC patch cords have a duplex cable construction with a diameter of 2 X 2.0 mm.
- Short connector boots of 19mm
- Small bend radius: 10 mm
- A label is added close to the duplex connector for traceability of the measurement results

### Fibre

The LANmark-OF OM3 patch cords have LANmark-OF OM3 GIGAliteFLEX fibre inside. This bend insensitive multimode fibre has a small bend radius and is compliant to IEC 60793-2-10, fibre model A1a.2b.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Static bending rad.  
10 mm



Operating temp.  
-10 - 50 °C

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# LANmark-OF Slimflex Patch Cords OM3

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## Design

Nexans LANmark-OF patch cords designed according to the "Cross-Over" wiring principle to improve field installation (A1-B2, B1-A2). This conforms to the requirements of IEC 11801 and EN 50174-1:2009.

The "butterfly" duplex clip allows to change the polarity on site easily by simply removing the 2 connectors and put them in a reverse order back into the same clip. No tool is required for this polarity change.

## CHARACTERISTICS

### Construction characteristics

Armour type	Aramid yarn
Colour	Aqua
Fiber optic type	OM3 50/125
Outer sheath	LSZH-FR

### Transmission characteristics

Insertion Loss, maximum, dB	0.25 dB
Return Loss, Minimum, dB	30 dB

### Mechanical characteristics

Crush resistance (IEC 60794-1-E3)	100 N/cm
Maximum pulling force (IEC 60794-1-2-E1)	200 N

### Usage characteristics

Minimum static operating bending radius	10 mm
Operating temperature, range	-10 - 50 °C

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Connector type
☎ N122.5LLAX -		LANmark-OF Slimflex Patch Cord DLC-DLC OM3 LSZH Xm Aqua	Duplex LC-LC
☎ N122.5CLAX -		LANmark-OF Slimflex Patch Cord DSC-DLC OM3 LSZH Xm Aqua	Duplex SC-LC
☎ N122.5CCAX -		LANmark-OF Slimflex Patch Cord DSC-DSC OM3 LSZH Xm Aqua	Duplex SC-SC

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Static bending rad.  
10 mm

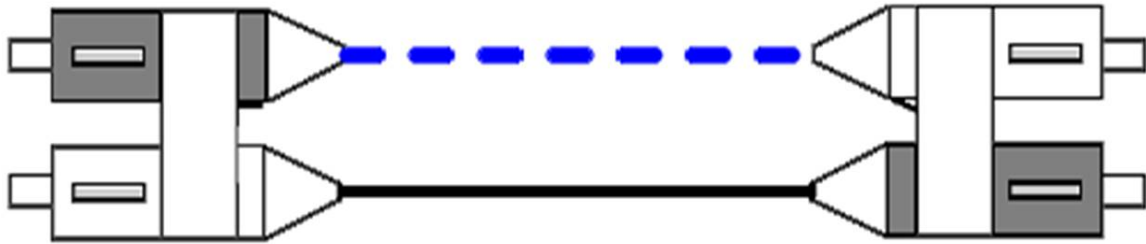


Operating temp.  
-10 - 50 °C

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## SCHEMATIC POLARITY DUPLEX PATCH CORD



Cross-over patch cord (A1 to B2 & B1 to A2)



# LANmark-OF MTP-MTP Patch Cords

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Optical fiber patch cords
- Parallel Optics: 40GBase-SR4 and 100GBase-SR4
- LANmark-OF SM and OM4 performance
- MTP PRO connectors for change of gender and polarity on site
- For use in data centres

## DESCRIPTION

### DESCRIPTION

Nexans LANmark-OF MTP-MTP patch cords have been designed for indoor applications in support of parallel optics, i.e. 40GBase-SR4 and 100GBase-SR4.

Details on the supported distances can be found in the LANmark-OF warranty modules.

Typical installation environments are data centres:

- Connections from patch panels to the active equipment
- Cross connects

Nexans LANmark-OF MTP patch cords are delivered as straight patch cords with a key up - key up design, i.e. the method B polarity. The patch cords are delivered with female MTP\* PRO connectors.

For ease of patching the MTP PRO connector has a short boot length of 17mm.

With the tool in the LANmark-OF Tool MTP PRO Sample Box (N890.160) the gender and polarity of the patch cords can be changed

- Gender can be changed to male with the pins of product N890.161
- The polarity can be changed to a key up – key down design.

The patch cords are available with LANmark-OF OM4 performance. Details on the fibre specifications can be found in the detailed fibre datasheets.

The typical value for the insertion loss for a multimode MTP connection is 0,125 dB. The limit value for a multimode MTP connection is 0,25 dB measured according to standard IEC 61300-3-45. The minimum return loss for a multimode MTP connection is 20 dB measured according to IEC 61300-3-6.

Mechanical characteristics of the Pre-Term are conform to the IEC 60794-20 standard for indoor cables. The small diameter of 2.5 mm and the small bend radius of 30mm the cable facilitates the patching in densely populated areas in the data centre.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



Mechanical resistance to impacts  
10 impacts of 1 N.m

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# LANmark-OF MTP-MTP Patch Cords

Contact  
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datanetworks.info@nexans.com

The length between the 2 MTP-connectors is variable and can be increased in steps of 1m. The "X" in the N-number equals Xm.

\* MTP is a trade name of US Conec

## CHARACTERISTICS

### Construction characteristics

Outer sheath LSZH-FR

### Mechanical characteristics

Crush resistance (IEC 60794-1-E3) 50 N/cm

Mechanical resistance to impacts (IEC 60794-1-E4) 10 impacts of 1 N.m

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Fiber optic type	Colour
☎ N125.4GGYx -		LANmark-OF Patch Cord Female MTP PRO - Female MTP PRO SM LSZH xm Yellow	SingleMode 9/125	Yellow
☎ N125.7GGAx -		LANmark-OF Patch Cord Female MTP PRO - Female MTP PRO OM4 LSZH xm Aqua	OM4 50/125	Aqua
☎ N125.7GGVx -		LANmark-OF Patch Cord Female MTP Pro - Female MTP Pro OM4 LSZH xm Violet	OM4 50/125	Violet

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Mechanical resistance to impacts  
10 impacts of 1 N.m

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# Pigtails and splicing

## Contact

Enquiries

Phone: +32 2 3633 800

[datanetworks.info@nexans.com](mailto:datanetworks.info@nexans.com)

# LANmark-OF Pigtails Tight Buffer

## Contact

Enquiries

Phone: +32 2 3633 800

datanetworks.info@nexans.com

- Factory terminated fibre assembly
- Tight Buffer pigtail: 1-2cm stripping in one action
- Insertion loss per connection without splice: typical 0,1 dB; 0.25 dB maximum
- 100 % factory tested
- Compatible with LANmark-OF splice cassette with heat shrink protectors

## DESCRIPTION

### Pigtail characteristics

- Fibre assembly to terminate cable with fusion splicing
- Suitable for use in patch panels using splice cassettes
- The pigtails can be stripped in one action over a distance of 1-2cm

### Fibre type

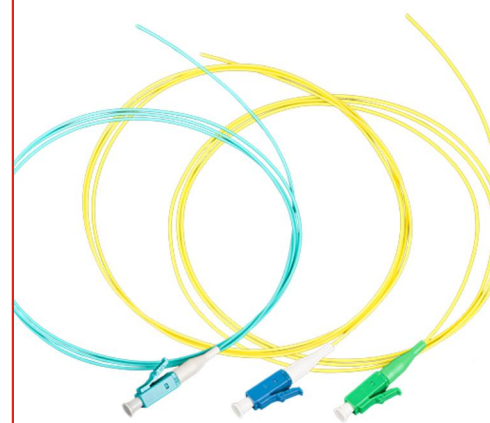
- The LANmark-OF OM3 pigtails have LANmark-OF OM3 **GIGAliteFLEX** fibre inside. This bend insensitive multimode fibre has a small bend radius of 7,5 mm and is compliant to IEC 60793-2-10, fibre model A1a.2b. The pigtail jacket is Aqua.
- The LANmark-OF OM4 pigtails have LANmark-OF OM4 **GIGAliteFLEX** fibre inside. This bend insensitive multimode fibre has a small bend radius of 7,5 mm and is compliant to IEC 60793-2-10, fibre model A1a.3b. The pigtail jacket is Aqua.
- The LANmark-OF OM5 pigtails have LANmark-OF OM5 **GIGAliteFLEX** fibre inside. This bend insensitive multimode fibre has a small bend radius of 7,5 mm and is compliant to IEC 60793-2-10, fibre model A1a.4b. The pigtail jacket is Lime Green.
- The LANmark-OF SM pigtails have LANmark-OF SM **GIGAliteFLEX** fibre inside. These fibres are bend insensitive and compliant to ITU-T G.657.A1 and to IEC 60793-2-50, fibre model B6.a1. The pigtail jacket of the singlemode pigtails is yellow.

### Compatibility and installation practices

- Tight buffer pigtails are compatible with heat shrink splice cassettes (N890.090 and N890.095) with heat shrink protections (N890.021).
- Tight buffer pigtails are recommended to be used with tight buffer cables, i.e. with 900 um fibres. When using loose tube cables (250 um fibres) additional stress on the loose tube fibres should be limited as much as possible
- Around the splice area the pigtail needs to be stripped till the cladding before insertion in the splice tool.
- For proper alignment in the fusion splice tool the pigtail is fixed on the 900 um outer sheath. There is no need to strip the outer sheath of the pigtail on the place for fixation for getting a proper fixation.

### Guarantees

Nexans LANmark-OF pigtails are covered by Nexans warranty as described in the General Terms and Conditions.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

# LANmark-OF Pigtails Tight Buffer

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Connector type	Fiber optic type
☐ N121.7TCA	-	LANmark-OF Pigtail SC OM4 Tight Buffer LSZH 50/125 1m Aqua	SC	OM4 50/125
☐ N121.5TCA	-	LANmark-OF Pigtail SC OM3 Tight Buffer LSZH 50/125 1m Aqua	SC	OM3 50/125
☐ N121.4TLY	-	LANmark-OF Pigtail LC/UPC Singlemode Tight Buffer LSZH 9/125 1m Yellow	LC	SM (G657.A1)
☐ N121.4TDY	-	LANmark-OF Pigtail SC/APC Singlemode Tight Buffer LSZH 9/125 1m Yellow	SC/APC	SM (G657.A1)
☐ N121.4TPY	-	LANmark-OF Pigtail LC/APC Singlemode Tight Buffer LSZH 9/125 1m Yellow	LC/APC	SM (G657.A1)
☐ N121.7TLA	-	LANmark-OF Pigtail LC OM4 Tight Buffer LSZH 50/125 1m Aqua	LC	OM4 50/125
☐ N121.5TLA	-	LANmark-OF Pigtail LC OM3 Tight Buffer LSZH 50/125 1m Aqua	LC	OM3 50/125
☐ N121.4TCY	-	LANmark-OF Pigtail SC/UPC Singlemode Tight Buffer LSZH 9/125 1m Yellow	SC	SM (G657.A1)

☐ = Make to order, ☐ = In stock,

# LANmark-OF Pigtails Tight Buffer Set of 12 Colours

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Factory terminated fibre assembly
- Tight Buffer pigtail: 1-2cm stripping in one action
- Set of 12 pigtails with different jacket colours
- Insertion loss per connection without splice: typical 0,1 dB; 0.25 dB maximum
- 100 % factory tested
- Compatible with LANmark-OF splice cassette with heat shrink protectors.

## DESCRIPTION

### Pigtail set characteristics

- Fibre assembly to terminate cable with fusion splicing
- Suitable for use in patch panels using splice cassettes
- The pigtails can be stripped in one action over a distance of 1-2cm
- Jacket colours match fibre colours according to TIA/EIA-598-B
- Jacket colours: Blue, Orange, Green, Brown, Grey, White, Red, Black, Yellow, Violet, Pink, Turquoise
- 12 pigtails on a cardboard and wrapped in a bubblefoam

### Fibre type

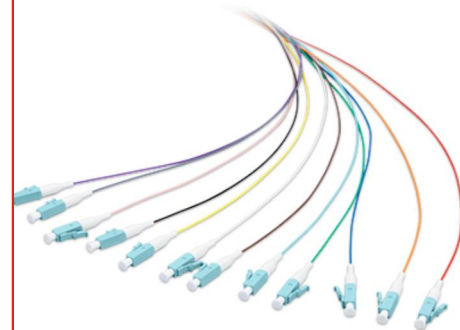
- The LANmark-OF OM3 pigtails have LANmark-OF OM3 **GIGAliteFLEX** fibre inside. This bend insensitive multimode fibre has a small bend radius of 7,5 mm and is compliant to IEC 60793-2-10, fibre model A1a.2b.
- The LANmark-OF OM4 pigtails have LANmark-OF OM4 **GIGAliteFLEX** fibre inside. This bend insensitive multimode fibre has a small bend radius of 7,5 mm and is compliant to IEC 60793-2-10, fibre model A1a.3b.
- The LANmark-OF SM pigtails have LANmark-OF SM **GIGAliteFLEX** fibre inside. These fibres are bend insensitive and compliant to ITU-T G.657.A1 and to IEC 60793-2-50, fibre model B6.a1.

### Compatibility and installation practices

- Tight buffer pigtails are compatible with heat shrink splice cassettes (N890.090 and N890.095) with heat shrink protections (N890.021).
- Tight buffer pigtails are recommended to be used with tight buffer cables, i.e. with 900 um fibres. When using loose tube cables (250 um fibres) additional stress on the loose tube fibres should be limited as much as possible
- Around the splice area the pigtail needs to be stripped till the cladding before insertion in the splice tool.
- For proper alignment in the fusion splice tool the pigtail is fixed on the 900 um outer sheath. There is no need to strip the outer sheath of the pigtail on the place for fixation for getting a proper fixation.

### Guarantees

Nexans LANmark-OF pigtails are covered by Nexans warranty as described in the General Terms and Conditions.



**LANmark-OF**










## STANDARDS



International ISO/IEC 11801

# LANmark-OF Pigtails Tight Buffer Set of 12 Colours

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Connector type	Fiber optic type
 N121.5TLS	-	LANmark-OF Pigtail LC OM3 Tight Buffer LSZH 50/125 1m 12 Colours	LC	OM3 50/125
 N121.4TCS	-	LANmark-OF Pigtail SC/UPC Singlemode Tight Buffer LSZH 9/125 1m 12 Colours	SC	SM (G657.A1)
 N121.4TLS	-	LANmark-OF Pigtail LC/UPC Singlemode Tight Buffer LSZH 9/125 1m 12 Colours	LC	SM (G657.A1)
 N121.7TLS	-	LANmark-OF Pigtail LC OM4 Tight Buffer LSZH 50/125 1m 12 Colours	LC	OM4 50/125
 N121.4TLS2	-	LANmark-OF Pigtail LC/UPC Singlemode Tight Buffer LSZH 9/125 2m 12 Colours	LC	SM (G657.A1)
 N121.4TCS2	-	LANmark-OF Pigtail SC/UPC Singlemode Tight Buffer LSZH 9/125 2m 12 Colours	SC	SM (G657.A1)
 N121.5TLS2	-	LANmark-OF Pigtail LC OM3 Tight Buffer LSZH 50/125 2m 12 Colours	LC	OM3 50/125
 N121.5TCS2	-	LANmark-OF Pigtail SC OM3 Tight Buffer LSZH 50/125 2m 12 Colours	SC	OM3 50/125
 N121.7TCS2	-	LANmark-OF Pigtail SC OM4 Tight Buffer LSZH 50/125 2m 12 Colours	SC	OM4 50/125

 = Make to order,  = In stock,

# LANmark-OF Splicing Fan-Out Accessories

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## DESCRIPTION

A range of tubings and accessories to create a fan-out for a LANmark-OF cable.

The fan-out allows splicing inside LANmark-OF patch panels.





**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name
 N890.050	-	LANmark-OF Fan-out 3mm Tube 25m Yellow
 N890.051	-	LANmark-OF Fan-out 3mm Tube 25m Aqua
 N890.060	-	LANmark-OF Heat Shrink Fan-Out 10X

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# LANmark-OF Pigtailed Maxistrip Set of 12 colors

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Factory terminated fibre assembly
- Ceramic ferule with metallic flange
- Maxistrip pigtail: up to 100cm stripping in one action
- Set of 12 pigtailed with different jacket colours
- Insertion loss per connection without splice: typical 0,1 dB; 0.25 dB maximum
- 100 % factory tested
- Compatible with LANmark-OF splice cassette with heat shrink and Aluminium protectors.

## DESCRIPTION

### Pigtail set characteristics

- Fibre assembly to terminate cable with fusion splicing
- Suitable for use in patch panels using splice cassettes
- The pigtailed can be stripped in one action over a long distance up to 100cm
- Jacket colours match fibre colours according to TIA/EIA-598-B
- Jacket colours: Blue, Orange, Green, Brown, Grey, White, Red, Black, Yellow, Violet, Pink, Turquoise
- 12 pigtailed on a cardboard and wrapped in a bubblefoam

### Fibre type

- The LANmark-OF OM3 pigtailed have LANmark-OF OM3 **GIGAliteFLEX** fibre inside. This bend insensitive multimode fibre has a small bend radius of 7,5 mm and is compliant to IEC 60793-2-10, fibre model A1a.2b. The pigtail jacket is Aqua.
- The LANmark-OF OM4 pigtailed have LANmark-OF OM4 **GIGAliteFLEX** fibre inside. This bend insensitive multimode fibre has a small bend radius of 7,5 mm and is compliant to IEC 60793-2-10, fibre model A1a.3b. The pigtail jacket is Aqua.
- The LANmark-OF SM pigtailed have LANmark-OF SM **GIGAliteFLEX** fibre inside. These fibres are bend insensitive and compliant to ITU-T G.657.A1 and to IEC 60793-2-50, fibre model B6.a1. The pigtail jacket of the singlemode pigtailed is yellow.

### Compatibility and installation practices

- Maxistrip pigtailed are compatible with heat shrink splice cassettes (N890.090 and N890.095) with heat shrink protectors (N890.021).
- Maxistrip pigtailed are compatible with splice cassettes (N890.091 and N890.096) with Aluminium protectors (N890.021).
- Maxistrip pigtailed are recommended to be used with loose tube cables or Micro-Bundle cables, i.e. with 250 um fibres. When using tight buffer cables (900 um fibres) additional stress on the maxistrip pigtailed should be limited as much as possible
- For proper alignment in the fusion splice tool the pigtail is fixed on the 250 um coating after stripping the 900 um coating. Fixing the pigtail on the 900 um coating will lead to improper alignment.
- In addition the pigtail needs to be stripped till the cladding around the splice area before insertion in the splice tool.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

# LANmark-OF Pigtailed Maxistrip Set of 12 colors

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## Guarantees

Nexans LANmark-OF pigtailed are covered by Nexans warranty as described in the General Terms and Conditions.

## CHARACTERISTICS

### Construction characteristics

Connector type

LC

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Fiber optic type
📦 N121.5MLS	-	LANmark-OF Pigtail LC OM3 Maxistrip LSZH 50/125 1m 12 Colours	OM3 50/125
📦 N121.4MLS	-	LANmark-OF Pigtail LC/UPC Singlemode Maxistrip LSZH 9/125 1m 12 Colours	SM (G657.A1)
📦 N121.7MLS	-	LANmark-OF Pigtail LC OM4 Maxistrip LSZH 50/125 1m 12 Colours	OM4 50/125

☎ = Make to order, 📦 = In stock,

# LANmark-OF Splice Cassettes

## Contact

Enquiries

Phone: +32 2 3633 800

datanetworks.info@nexans.com

- Splice cassette for management of splices
- Heat Shrink or Aluminum Protectors
- Large or small cassette depending on panel or ZD-box

## DESCRIPTION

Family of patch panel accessories for termination of cable when using fusion splicing techniques.

The cassette protects the fusion splices and holds them in position.

The splice cassettes with heatshrink protectors can be used for both 250 and 900  $\mu\text{m}$  coated fibres. Hence these cassettes are compatible with LANmark-OF Tight Buffer, Loose Tube and Micro-Bundle cables. Splicing with heat shrink protectors can also be used for both LANmark-OF Maxistrip and Tight Buffer Pigtails.

These cassettes have 12 splice positions.

The cassettes with Aluminum protectors can only be used for Loose Tube cables, Micro-Bundle cables and LANmark-OF Maxistrip Pigtails, i.e. fibres with a diameter of 250  $\mu\text{m}$ . Aluminum protectors can NOT be used with LANmark-OF Tight Buffer cables and LANmark-OF Tight Buffer Pigtails, i.e. fibres with a 900  $\mu\text{m}$  coating.

The splice cassettes with Aluminum protectors have 24 splice positions.

The Nexans fibre panels can hold up to 4 splice cassettes and only the top splice cassette needs a cover.

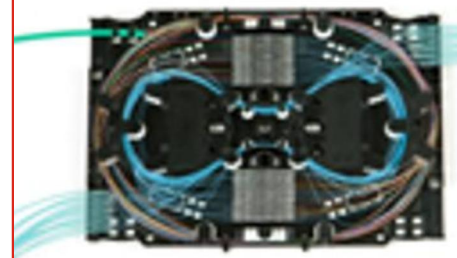
The LANmark-OF Splice cassettes are available in 2 sizes: small and large.

The large splice cassettes (N890.090, N890.091 and N890.092) can be installed in the LANmark-OF patch panels (N439.\*) and LANSense-OF sliding preloaded patch panels (N883.2B\*).

These splice cassettes are fixed to each other at the back of the cassettes with the provided hinges. This feature facilitates the inspection after installation since the cassettes can be lifted and tilted.

The cassette facilitates 2 rings of routing: an inner ring for the fibres of the pigtails and an outer ring for the fibres of the cable.

The small splice cassettes (N890.095, N890.096 and N890.097) are compatible with the LANmark-OF Snap-In panels (N441.203 and N441.204) and the LANmark-OF ZD-boxes (N521.630 and N521.612).



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

# LANmark-OF Splice Cassettes







## Contact



Enquiries

Phone: +32 2 3633 800

datanetworks.info@nexans.com

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name
 N890.090	-	LANmark-OF Splice Cassette Heat Shrink Protectors
 N890.091	-	LANmark-OF Splice Cassette Aluminum Protectors
 N890.092	-	LANmark-OF Splice Cassette Cover
 N890.095	-	LANmark-OF Splice Cassette Heat Shrink Protectors Small
 N890.096	-	LANmark-OF Splice Cassette Aluminum Protectors Small
 N890.097	-	LANmark-OF Splice Cassette Cover Small

 = Make to order,  = In stock,

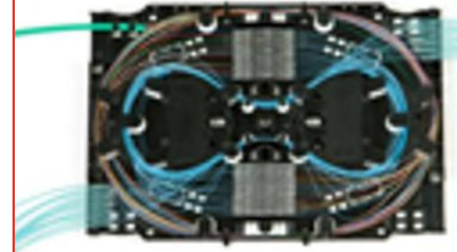
# LANmark-OF Splicing Accessories

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## DESCRIPTION

A range of materials and accessories for splicing



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name
☐ N890.003	-	LANmark-OF Fusion Splice Aluminum Protection 150x
☐ N890.004	-	LANmark-OF Tool For Aluminum Fusion Splice Protection
☐ N890.021	-	LANmark-OF Fusion Splice Heat Shrink Protection 45mm 100x

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# LANmark-OF Pigtailed Maxistrip

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Factory terminated fibre assembly
- Ceramic ferule with metallic flange
- Maxistrip pigtail: up to 100cm stripping in one action
- Insertion loss per connection without splice: typical 0,1 dB; 0.25 dB maximum
- 100 % factory tested
- Compatible with LANmark-OF splice cassette with heat shrink and Aluminium protectors.

## DESCRIPTION

### Pigtail characteristics

- Fibre assembly to terminate cable with fusion splicing
- Suitable for use in patch panels using splice cassettes.
- The pigtailed can be stripped in one action over a long distance up to 100cm.

### Fibre type

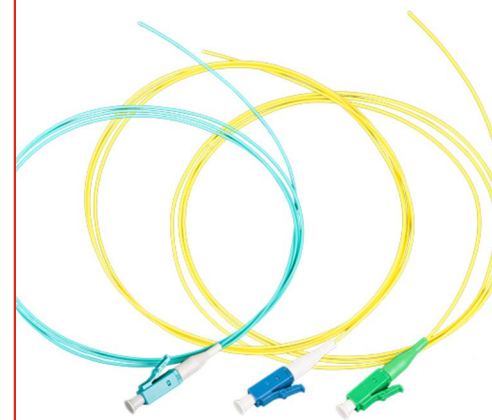
- The LANmark-OF OM3 pigtailed have LANmark-OF OM3 **GIGAliteFLEX** fibre inside. This bend insensitive multimode fibre has a small bend radius of 7,5 mm and is compliant to IEC 60793-2-10, fibre model A1a.2b. The pigtail jacket is Aqua.
- The LANmark-OF OM4 pigtailed have LANmark-OF OM4 **GIGAliteFLEX** fibre inside. This bend insensitive multimode fibre has a small bend radius of 7,5 mm and is compliant to IEC 60793-2-10, fibre model A1a.3b. The pigtail jacket is Aqua.
- The LANmark-OF OM5 pigtailed have LANmark-OF OM5 **GIGAliteFLEX** fibre inside. This bend insensitive multimode fibre has a small bend radius of 7,5 mm and is compliant to IEC 60793-2-10, fibre model A1a.4b. The pigtail jacket is Lime Green.
- The LANmark-OF SM pigtailed have LANmark-OF SM **GIGAliteFLEX** fibre inside. These fibres are bend insensitive and compliant to ITU-T G.657.A1 and to IEC 60793-2-50, fibre model B6.a1. The pigtail jacket of the singlemode pigtailed is yellow.

### Compatibility and installation practices

- Maxistrip pigtailed are compatible with heat shrink splice cassettes (N890.090 and N890.095) with heat shrink protectors (N890.021).
- Maxistrip pigtailed are compatible with splice cassettes (N890.091 and N890.096) with Aluminium protectors (N890.021).
- Maxistrip pigtailed are recommended to be used with loose tube cables or Micro-Bundle cables, i.e. with 250 um fibres. When using tight buffer cables (900 um fibres) additional stress on the maxistrip pigtailed should be limited as much as possible
- For proper alignment in the fusion splice tool the pigtail is fixed on the 250 um coating after stripping the 900 um coating. Fixing the pigtail on the 900 um coating will lead to improper alignment.
- In addition the pigtail needs to be stripped till the cladding around the splice area before insertion in the splice tool.

### Guarantees

Nexans LANmark-OF pigtailed are covered by Nexans warranty as described in the General Terms and Conditions.



**LANmark-OF**

## STANDARDS










International ISO/IEC 11801



# LANmark-OF Pigtailed Maxistrip

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Connector type	Fiber optic type
 N121.5MLA	-	LANmark-OF Pigtail LC OM3 Maxistrip LSZH 50/125 1m Aqua	LC	OM3 50/125
 N121.4MCY	-	LANmark-OF Pigtail SC/UPC Singlemode Maxistrip LSZH 9/125 1m Yellow	SC	SM (G657.A1)
 N121.4MLY	-	LANmark-OF Pigtail LC/UPC Singlemode Maxistrip LSZH 9/125 1m Yellow	LC	SM (G657.A1)
 N121.5MCA	-	LANmark-OF Pigtail SC OM3 Maxistrip LSZH 50/125 1m Aqua	SC	OM3 50/125
 N121.4MDY	-	LANmark-OF Pigtail SC/APC Singlemode Maxistrip LSZH 9/125 1m Yellow	SC/APC	SM (G657.A1)
 N121.7MCA	-	LANmark-OF Pigtail SC OM4 Maxistrip LSZH 50/125 1m Aqua	SC	OM4 50/125
 N121.4MPY	-	LANmark-OF Pigtail LC/APC Singlemode Maxistrip LSZH 9/125 1m Yellow	LC/APC	SM (G657.A1)
 N121.7MLA	-	LANmark-OF Pigtail LC OM4 Maxistrip LSZH 50/125 1m Aqua	LC	OM4 50/125
 N121.9MLL	-	LANmark-OF Pigtail LC OM5 Maxistrip LSZH 50/125 1m Lime Green	LC	OM5 50/125 Wideband

 = Make to order,  = In stock,





# LANmark-OF Demarcation Boxes

## Contact

Enquiries

Phone: +32 2 3633 800

datanetworks.info@nexans.com

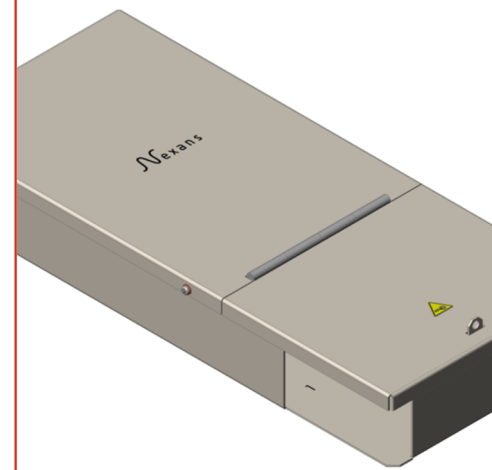
- Demarcation box for FTTO applications
- 6 Port DLC
- Robust Construction

## DESCRIPTION

The Demarcation Box is a robust yet lightweight, cost effective solution for the break-out and termination of extractable bundle cables in FTTO implementations. The box is symmetrical allowing mounting with the LC adaptors facing right or left and features a hook and staple locking feature which can be used with a padlock (not supplied) to prevent access to the patching area.

The new box is compatible with the standard Nexans splice cassettes (N890.095 - heat shrink or N890.096 – alu protect) and cover (N890.097) which can be ordered separately.

Nominal dimensions: Length 353mm x Width 155mm (over screws) x Height 58mm (over lock feature).



## STANDARDS

International ISO/IEC 11801

# Structural Hardware

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- For all 45x45mm fittings
- Fits Surface Mount Boxes, Cover plates and Ducts
- Outlets include labeling and shutters
- Suitable for all snap-in adaptors.
- Easy click-in mechanism.

## DESCRIPTION

### Application

This range of outlets is suitable for any environment: ducts, cover plates and surface mount boxes (including 45 fittings). The range features Snap-in adaptors for fast and easy installation.

For the specific information on the Snap-in adaptors , refer to the corresponding datasheets.

### Guarantees

- All plastic material is UL 94V0

### Installation

These modular outlets fit into a complete range of international 45x45 covering plates and surface mount boxes.

For easy management and identification, the outlets are include an integrated outlet labelling system using transparent windows.

The Snap-in connectors are inserted into the modular outlet by a simple click-in mechanism.






**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name
 N420.035	-	Modular OF Splicing Outlet 45X45 for 2 Snap-in adaptors

 = Make to order,  = In stock,

# LANmark-OF Zone Distribution Box

## Contact

Enquiries

Phone: +32 2 3633 800

datanetworks.info@nexans.com

- Empty ZD box optical fiber
- Suitable for direct termination or splicing.

## DESCRIPTION

### Application

Designed for the installation of zone wiring, fibre to the office and to the desk

Maximum capacity of 12 duplex LC or 6 duplex SC adaptors.

### Installation

The LANmark-OF zone distribution box is easy to install in the ceiling, false floor or on the wall with four fixing points in the bottom plate.

There is a slot in the rear to fix a cable or a Pre-Term. It has a diameter of 20.5mm, compatible with PG13 cable glands.

Small Nexans splice trays (N890.095, N890.096 and N890.097) can be fixed inside the tray.

Printed numbers are on the cover for port identification.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

# LANmark-OF Zone Distribution Box

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## CHARACTERISTICS

### Dimensional characteristics

Depth	200 mm
Height	40 mm
Width	230 mm



### Usage characteristics

Field of application	Indoor
Packaging	Box

## CHARACTERISTICS ZD BOX

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name
 N521.630	-	LANmark-OF Modular Zone Distribution Box

 = Make to order,  = In stock,

# Adaptors and modules

## Contact

Enquiries

Phone: +32 2 3633 800

[datanetworks.info@nexans.com](mailto:datanetworks.info@nexans.com)

# LANmark-OF Plug&Play Module

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Play&Play module with 12 LC or 24 LC connections
- Available in LANmark-OF OM4 multimode and LANmark-OF OS2 singlemode
- Module can be easily mounted into Nexans' Plug&Play patch panel
- High density: 4 modules fit into 1U
- Plug&Play modules are pre-installed and 100 % factory tested

## DESCRIPTION

The Plug&Play system consists of 3 subcomponents: the Plug&Play modules, the MTP-MTP\* Pre-Terms and the Plug&Play patch panel.

The central component is the pre-installed Plug&Play module. The MTP connector at the back of the module connects at once 12 fibres to the MTP-MTP Pre-Term. Inside the module the fibres are spread out towards the LC adaptors at the front.

## Plug&Play Module Characteristics

Up to 4 Plug&Play modules can be installed quickly into the Plug&Play patch panel with push rivets. With these 4 modules a medium density of 48 LC or a high density of 96 LC connections within 1U can be achieved.

The insertion loss for the multimode LANmark-OF Plug&Play low loss module is 0,6 dB measured according to standard IEC 61300-3-45. The minimum return loss for a multimode MTP connection is 20 dB measured according to IEC 61300-3-6.

The insertion loss for the singlemode LANmark-OF Plug&Play module is 0,9 dB measured according to standard IEC 61300-3-45. The minimum return loss for a singlemode MTP connection is 45 dB measured according to IEC 61300-3-6.

The modules are available with OM4 fibres for multimode and are backwards compatible with OM3 fibres. The LC multimode adaptors are aqua. The singlemode module has G652D fibres for OS2 compatibility. The LC singlemode adaptors are blue.

The wiring inside the module is straight. This allows to maintain polarity in the MPO-link together with the pair-wise fibre flip inside the MPO-MPO Pre-Term according to method C from standard TIA 568-B-1-7-2007.

Since all connectivity is factory installed and factory tested installation times are short for a quick deployment or for frequent changes.

The Plug&Play module has standard pinned (male) connectors. This matches perfectly with the non-pinned (female) connectors of the MTP-MTP Pre-Term.

\* MTP is a trade name of US Conec



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

# LANmark-OF Female Plug&Play MTP-LC Module

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- Play&Play module with 12 LC or 24 LC connections
- Available in LANmark-OF OM4 multimode and LANmark-OF OS2 singlemode
- Ultra low loss optical performance for multimode and low loss for singlemode
- Module can be easily mounted into Nexans' Plug&Play patch panel
- High density: 4 modules fit into 1U
- Straight or crossed wiring
- Plug&Play modules are pre-installed and 100 % factory tested

## DESCRIPTION

The Plug&Play system consists of 3 subcomponents: the Plug&Play modules, the MTP-MTP\* Pre-Terms and the Plug&Play patch panel.

The central component is the pre-installed Plug&Play module. The MTP connector at the back of the module connects at once 12 fibres to the MTP-MTP Pre-Term. Inside the module the fibres are spread out towards the LC adaptors at the front.

Up to 4 Plug&Play modules can be installed quickly into the Plug&Play patch panel with push rivets. With these 4 modules a medium density of 48 LC or a high density of 96 LC connections within 1U can be achieved.

The insertion loss for the Plug&Play module is measured according to standard IEC 61300-3-45. The minimum return loss for a MTP connection is measured according to IEC 61300-3-6.

The modules are available with a straight and a crossed wiring.

For polarity methods A,B and C of standard TIA-568-C following modules and trunks need to be used:

- For a polarity method A implementation with a method A Pre-Term straight modules are used on both sides of the link.
- For a polarity method B implementation with a method B Pre-Term a straight cassette is used on one side of the link and a crossed module on the other side of the link.
- For a polarity method C implementation with a method C Pre-Term straight modules are used on both sides of the link.

The Plug&Play module has standard unpinned (female) connectors. This matches perfectly with the pinned (male) connectors of the MTP-MTP Pre-Term.

Since all connectivity is factory terminated and tested installation times are short facilitating a quick deployment.

\* MTP is a trade name of US Conec



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

## CHARACTERISTICS

### Construction characteristics

Connector type

LC

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The Nexans logo features a stylized red 'N' followed by the word 'Nexans' in a black sans-serif font.



# LANmark-OF Female Plug&Play MTP-LC Module

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Fiber optic type	Wiring type	Number of optical fibres
☎ N441.5L24LC4FS -		LANmark-OF Plug&Play Ultra Low Loss Module Female Straight 24 LC OM4 Aqua	MultiMode 50/125	Straight	24
☎ N441.5L12LC4FS -		LANmark-OF Plug&Play Ultra Low Loss Module Female Straight 12 LC OM4 Aqua	MultiMode 50/125	Straight	12
☎ N441.5L12LC0FS -		LANmark-OF Plug&Play Low Loss Module Female Straight 12 LC SM Blue	SingleMode 9/125	Straight	12
☎ N441.5L24LC0FS -		LANmark-OF Plug&Play Low Loss Module Female Straight 24 LC SM Blue	SingleMode 9/125	Straight	24
☎ N441.5L12LC4FC -		LANmark-OF Plug&Play Ultra Low Loss Module Female Crossed 12 LC OM4 Aqua	MultiMode 50/125	Crossed	12
☎ N441.5L24LC4FC -		LANmark-OF Plug&Play Ultra Low Loss Module Female Crossed 24 LC OM4 Aqua	MultiMode 50/125	Crossed	24
☎ N441.5L12LC0FC -		LANmark-OF Plug&Play Low Loss Module Female Crossed 12 LC SM Blue	SingleMode 9/125	Crossed	12
☎ N441.5L24LC0FC -		LANmark-OF Plug&Play Low Loss Module Female Crossed 24 LC SM Blue	SingleMode 9/125	Crossed	24

☎ = Make to order, 📦 = In stock,

# LANmark-OF Snap-In Adaptor

## Contact

Enquiries  
 Phone: +32 2 3633 800  
 datanetworks.info@nexans.com

## DESCRIPTION

LANmark-OF Snap-In adaptors have been designed for installation into the LANmark-OF snap-in panels, ZD boxes and outlets. They are available in single SC, duplex SC and duplex LC duplex. The multimode adaptors are aqua, the singlemode adaptors are blue while the singlemode APC adaptors are green. Installation time is saved as the snap-in concept replaces the time-consuming screwing attachment of the traditional adaptors.



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Connector type	Colour
N205.624	-	LANmark-OF Duplex SC Snap-In Adaptor Singlemode	SC	Blue
N205.625	-	LANmark-OF Duplex SC Snap-In Adaptor Singlemode APC	SC/APC	Green
N205.617	-	LANmark-OF Duplex LC Snap-In Adaptor Multimode Aqua	LC	Aqua
N205.627	-	LANmark-OF Duplex LC Snap-In Adaptor Singlemode	LC	Blue
N205.628	-	LANmark-OF Duplex LC Snap-In Adaptor Singlemode APC	LC/APC	Green
N205.619	-	LANmark-OF Duplex SC Snap-In Adaptor Multimode Aqua	SC	Aqua

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# LANmark-OF ENSPACE MTP Adaptor Modules

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- ENSPACE module with MTP adaptors in the front
- Module can be easily mounted into Nexans' ENSPACE patch panel
- Modules can be installed from front and rear of panel

## DESCRIPTION

The ENSPACE system consists of 3 sub-components: the patch panels, the modules and the Pre-Terms.

The modules can be installed in the trays from the rear and from the front of the panel increasing the flexibility of installation.

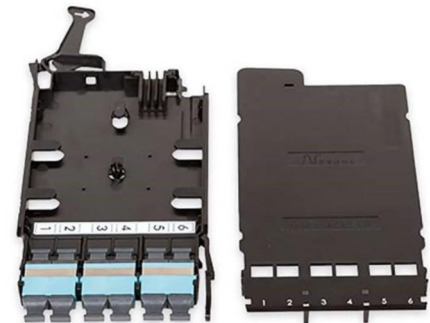
Up to 12 ENSPACE MTP adaptor modules can be installed per 1U into the ENSPACE UHD patch panels.

Up to 8 ENSPACE MTP adaptor modules can be installed per 1U into the ENSPACE HD patch panels.

Port labeling is printed on the cover of the ENSPACE modules.

The fan-out legs of the MTP-MTP Pre-Term enter the modules from the rear and are fixed inside the module for strain relief.

\* MTP is a trade mark of US Conec













**LANmark-OF**

## PRODUCT LIST

## STANDARDS

International ISO/IEC 11801

Nexans Ref.	Country Ref.	Name	Fiber optic type	Number of ports
 NSPACE.PMTP4A -		LANmark-OF ENSPACE Adaptor Module 4x MTP Multimode Key Up Key Down Aqua	MultiMode 50/125	4
 NSPACE.PMTP6G -		LANmark-OF ENSPACE Adaptor Module 6x MTP Singlemode Key Up Key Down Green	SingleMode 9/125	6
 NSPACE.PMTP6U -		LANmark-OF ENSPACE Adaptor Module 6x MTP Multimode Key Up Key Up Grey	MultiMode 50/125	6
 NSPACE.PMTP6A -		LANmark-OF ENSPACE Adaptor Module 6x MTP Multimode Key Up Key Down Aqua	MultiMode 50/125	6
 NSPACE.PMTP4U -		LANmark-OF ENSPACE Adaptor Module 4x MTP Multimode Key Up Key Up Grey	MultiMode 50/125	4
 NSPACE.PMTP4G -		LANmark-OF ENSPACE Adaptor Module 4x MTP Singlemode Key Up Key Down Green	SingleMode 9/125	4
 NSPACE.PMTP4V -		LANmark-OF ENSPACE Adaptor Module 4x MTP Multimode Key Up Key Down Violet	MultiMode 50/125	4
 NSPACE.PMTP6V -		LANmark-OF ENSPACE Adaptor Module 6x MTP Multimode Key Up Key Down Violet	MultiMode 50/125	6

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# LANmark-OF ENSPACE LC Adaptor Modules

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- ENSPACE module with 12 LC adaptors in the front
- Module can be easily mounted into Nexans' ENSPACE patch panel
- Modules can be installed from front and rear of ENSPACE panel
- Integrated inner metal shutters

## DESCRIPTION

The ENSPACE LC-modules have 3 quad LC adaptors in the front allowing for 12 LC connections.

The LC adaptors have high quality zirconia sleeves. Metallic internal shutters are integrated into the adaptors.

The modules can be installed in the trays from the rear and from the front of the ENSPACE panel increasing the flexibility during installation, and for moves, adds and changes.

The ENSPACE UHD panels can accommodate up to 12 modules per 1U. With these 12 modules a Ultra High Density of 144LC within 1U can be achieved.

The ENSPACE HD panels can accommodate up to 8 modules per 1U. With these 8 modules a High Density of 96LC within 1U can be achieved.

Fibre labeling is printed on the cover of the ENSPACE modules.

The ENSPACE Pre-Terms enter the module at the rear with a 2,8mm tube containing 12 fibres. This tube is fixed inside the module for strain relief. Inside the module this tube is split into 12x 900um buffered fibres. With the fibre management inside the modules the 12 fibres can be easily installed and connected to LC adaptors in the front.

Inside the module a strip with colour coding is installed just after the adaptors. When matching the colours on this strip with the corresponding coloured boot of the LC connector of the ENSPACE Pre-Term the required fibre "pair flip" inside the channel is obtained.

The ENSPACE LC adaptors modules can also be used for splicing. Splice holders for 12 splice protectors with heat shrink or Aluminum are included as accessories. Due to space constraints the fibres of the cables need to be 250 µm and the pigtails need to be LANmark-OF Maxistrip pigtails.









**LANmark-OF**

## STANDARDS

International ISO/IEC 11801

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Colour
 NSPACE.PLC12AS -		LANmark-OF ENSPACE Adaptor Module 12 LC Multimode Aqua Shutters Integrated	Aqua
 NSPACE.PLC12BS -		LANmark-OF ENSPACE Adaptor Module 12 LC Singlemode Blue Shutters Integrated	Blue
 NSPACE.PLC12GS -		LANmark-OF ENSPACE Adaptor Module 12 LC/APC Singlemode Green Shutters Integrated	Green
 NSPACE.PLC12VS -		LANmark-OF ENSPACE Adaptor Module 12 LC Multimode Violet Shutters Integrated	Violet

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# LANmark-OF ENSPACE LC Adaptor Modules

Contact  
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Nexans Ref.	Country Ref.	Name	Colour
📦 NSPACE.PLC12LS -		LANmark-OF ENSPACE Adaptor Module 12 LC Multimode Lime Green Shutters Integrated	Lime green

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# LANmark-OF ENSPACE MTP-LC Modules

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- ENSPACE module with 12 LC adaptors in the front and 1 MTP adaptor in the rear
- Low loss performance for multimode and for singlemode for MTP-12LC fibre assembly inside module
- Straight or crossed wiring
- Module can be easily mounted into Nexans' ENSPACE patch panel
- Modules can be installed from front and rear of panel

## DESCRIPTION

The ENSPACE MTP-modules have 3 quad LC adaptors in the front and one MTP adaptor in the back. Inside a fibre assembly connects the LC- and MTP-adaptors.

The sleeve of the LC adaptor is made of high quality zirconia. Metallic shutters are integrated into the LC adaptors.

The modules can be installed in the trays from the rear and from the front of the ENSPACE panel increasing the flexibility during installation, and for moves, adds and changes.

Up to 12 ENSPACE MTP-modules can be installed quickly into the ENSPACE UHD 1U patch panel. With these 12 modules a Ultra High Density of 144 LC within 1U can be achieved.

Up to 8 ENSPACE MTP-modules can be installed quickly into the ENSPACE HD 1U patch panel. With these 8 modules a High Density of 96 LC within 1U can be achieved.

Fibre labeling is printed on the cover of the ENSPACE modules.

For polarity methods A,B and C of standard TIA-568-C following modules and trunks need to be used:

- For a polarity method A implementation with a method A Pre-Term straight modules are used on both sides of the link.
- For a polarity method B implementation with a method B Pre-Term a straight cassette is used on one side of the link and a crossed module on the other side of the link.
- For a polarity method C implementation with a method C Pre-Term straight modules are used on both sides of the link.

The ENSPACE module has standard un-pinned (female) connectors. This matches perfectly with the pinned (male) connectors of the male MTP-connector of the ENSPACE MTP Pre-Term.

The insertion loss of the modules is measured according to IEC 61300-3-45. The minimum return loss of the module is measured according to IEC 61300-3-6.

Since all connectivity is factory terminated and tested installation times are short facilitating a quick deployment.

\* MTP is a trade name of US Conec



**LANmark-OF**









## STANDARDS



International ISO/IEC 11801

# LANmark-OF ENSPACE MTP-LC Modules

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datanetworks.info@nexans.com

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Colour	Fiber optic type	Wiring type
 NSPACE.MCLC12AS -		LANmark-OF Ultra Low Loss ENSPACE MTP-Module Crossed 12 LC Multimode Aqua Shutters Integrated	Aqua	Multimode	Crossed
 NSPACE.MSLC12BS -		LANmark-OF ENSPACE MTP-Module Straight 12 LC Singlemode Blue Shutters Integrated	Blue	SingleMode 9/125	Straight
 NSPACE.MCLC12BS -		LANmark-OF ENSPACE MTP-Module Crossed 12 LC Singlemode Blue Shutters Integrated	Blue	SingleMode 9/125	Crossed
 NSPACE.MSLC12LS -		LANmark-OF Ultra Low Loss ENSPACE MTP-Module Straight 12 LC Multimode OM5 Lime Green Shutters Integrated	Lime green	OM5 50/125 Wideband	Straight
 NSPACE.MSLC12AS -		LANmark-OF Ultra Low Loss ENSPACE MTP-Module Straight 12 LC Multimode Aqua Shutters Integrated	Aqua	Multimode	Straight
 NSPACE.MCLC12LS -		LANmark-OF Ultra Low Loss ENSPACE MTP-Module Crossed 12 LC Multimode OM5 Lime Green Shutters Integrated	Lime green	OM5 50/125 Wideband	Crossed
 NSPACE.MCLC12VS -		LANmark-OF Ultra Low Loss ENSPACE MTP-Module Crossed 12 LC Multimode Violet Shutters Integrated	Violet	Multimode	Crossed
 NSPACE.MSLC12VS -		LANmark-OF Ultra Low Loss ENSPACE MTP-Module Straight 12 LC Multimode Violet Shutters Integrated	Violet	Multimode	Straight

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# LANmark-OF Plug&Play MTP Adaptor Plates

Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com

- MTP Adaptor Plate for in Plug&Play Optical Patch Panel

## DESCRIPTION

The Nexans' Plug and Play patch panel can hold up to 4 MTP\* adaptor plates.

The adaptor plate contains 6 MTP adaptors. For multimode key up/key down and key up/ key up versions are available. For singlemode only key up / key down adaptors.

The adaptors connect a male and female MTP connector.

\* MTP is a trade name of US Conec



**LANmark-OF**

## STANDARDS

International ISO/IEC 11801



# Tools and accessories

## Contact

Enquiries

Phone: +32 2 3633 800

[datanetworks.info@nexans.com](mailto:datanetworks.info@nexans.com)

# LANmark-OF MTP PRO Tools and Accessories





Contact  
Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com



- Tools and accessories for MTP PRO connectivity

## DESCRIPTION

With MTP PRO connectors gender and polarity can be changed easily in the field. This requires a MTP PRO field tool. As accessories pin exchangers are available.

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name
 N890.163	-	LANmark-OF MTP PRO Pin Exchanger Male Singlemode Yellow 10X
 N890.165	-	LANmark-OF MTP PRO Gendre and Polarity Field Tool
 N890.161	-	LANmark-OF MTP PRO Pin Exchanger Male Multimode Aqua 10X
 N890.160	-	LANmark-OF MTP PRO Sample Box

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## STANDARDS

International ISO/IEC 11801

# LANmark-OF Fibre Accessories

## Contact

Enquiries

Phone: +32 2 3633 800

datanetworks.info@nexans.com

- OF-LANmark accessories to complete the whole system.
- OF splice trays
- SC & ST connectors
- SC & ST couplers
- Fusion splice protection & Tool
- Cable gland & splitter tube
- Micro tube

## DESCRIPTION

### Application

- Optical fibre accessories to complete all Nexans OF products, patch panels, ZD boxes, splitter box.
- Designed for the installation of zone wiring, fibre to the office, fibre to the desk and backbone connections.

### Compatibility

Suitable for tight buffer cable (direct termination) or loose tube using splice tray and pigtailed

Compatible with all Nexans ST or SC patch panels, zone distribution boxes and splice box

### Installation

- The ST and SC connectors are in both versions hot melt or epoxy field installable for easy installing.
- The single ST and dual SC couplers are available in single mode and mono mode to complete all OF structural hardware.
- The splice trays are easy to fix in all Nexans OF patch panels, OF ZD boxes and can distribute 12 optical fibres.
- Cable glands can be useful for entering cables or distributing fibres in to the OF patch panels and OF ZD boxes.
- Aluminium fusion splice protection protect the spliced fibres and are easily manageable in the splice tray.
- A tool is offered for easy installing the aluminium fusion splice protection.
- Splitter tube aloud to split up your cable into different patch panels.
- A blind plate completes the e-ssential patch panel when used as splice patch panel.
- Micro tubes of 0.9mm can be used to install a hot melt connector on a loose tube fibre.












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## STANDARDS

International ISO/IEC 11801

## PRODUCT LIST

Nexans Ref.	Country Ref.	Name
 N890.100HP	-	LANmark-OF Detachable pulling eye-with Protection Tube
 N890.147	-	LANmark-OF Cable gland 20mm
 N890.146	-	LANmark-OF Cable gland 25mm
 N890.170	-	LANmark-OF Mini RouteFloor 5mm
 N890.148	-	LANmark-OF Cable Gland Rubber Boot 20 mm 10X
 N890.070	-	LANmark-OF Fibre Organiser 10X
 N890.100EP	-	LANmark-OF Detachable Pulling Eye

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# LANmark-OF Cleaning Tools

## Contact

Enquiries  
Phone: +32 2 3633 800  
datanetworks.info@nexans.com




- Cleaning tools for cleaning fibre connector and adaptors
- Cleaning tools for single connectors:SC,ST and LC
- Cleaning tools for male and female array connectors



## DESCRIPTION

Cleaning op fibre connectors and adaptors is extremely important to achieve optimal optical performance and low loss connectivity. The Nexans' cleaning tools allow cleaning unmated connectors and can also clean connectors that are installed in a patch panel. The cassette MPO cleaner allows cleaning effectively unmated male MPO connectors.



## PRODUCT LIST

Nexans Ref.	Country Ref.	Name
 N890.121	-	LANmark-OF SC/ST Cleaning Tool
 N890.120	-	LANmark-OF MPO Cleaning Tool
 N890.122	-	LANmark-OF LC Cleaning Tool

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## STANDARDS

International ISO/  
IEC 11801:2002/Amd 1:2008/  
Cor 1:2008

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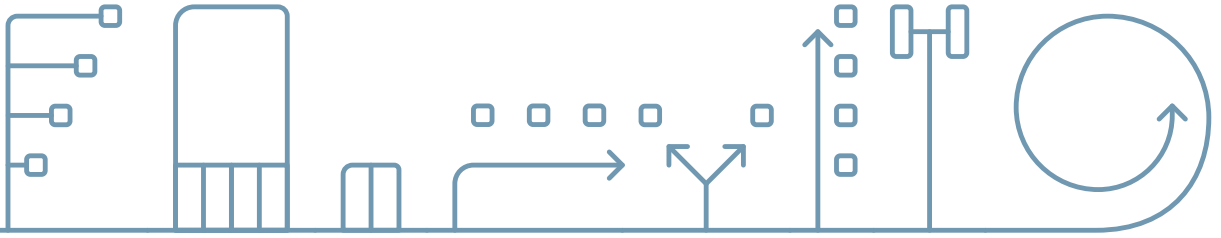
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