



PRODUCT CATALOGUE

# Fiber Solutions for Access and Transport Networks



## A Long Term Investment

The passive infrastructure in any fiber optic network is a long-term investment. It needs to be built on scalable and future-proof technology that is optimized in terms of capacity, quality and operational expenditure.

This catalogue presents an overview of our Passive Fiber Infrastructure offering. All products are designed and tested to meet the highest quality and environmental standards. The catalogue covers the main areas:

**A. Fiber Access Networks** covers the Hexatronic air-blown cabling systems based on micro cables, nano cables and air blown fibers. The cabling systems are used for efficient installation of access networks including Fiber to the Home (FTTH) and similar architectures. These products are also the perfect choice for scalable campus and metro networks.

**B. Fiber Transport Networks** covers products for general network applications such as fiber optic cables for underground and aerial as well as local site cabling installation. This section also includes associated cables and components for splicing and termination of cables.

**C. Submarine Cable Systems** covers a range of cables for submarine installations, based on extensive experience from several submarine cable projects.

**D. Wireless Infrastructure** covers cables and network products for complete Fiber To The Antenna (FTTA), WiFi, 4G, 5G, sensors and surveillance applications etc.

You can find all our products on [www.hexatronic.com](http://www.hexatronic.com).

Contact the Hexatronic sales team to find your nearest wholesaler **+46 (0) 10 - 453 02 00**,  
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# To Build for the Future – The System Solutions



## FIBER ACCESS NETWORKS

Hexatronic's system for Access Networks, includes everything that you need for the passive fiber optic network. The core of the system is based on air blown cabling technology with micro cables, nano cables, blown fibers and microducts. State of the art network products are specially designed to provide fast, efficient and flexible fiber distribution, which makes the system complete.

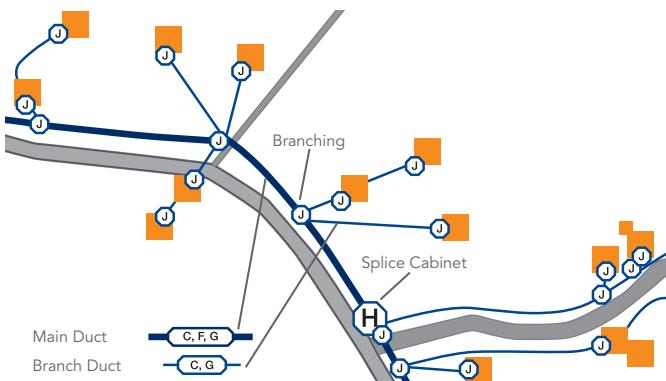
All products are designed with the highest requirements for scalability, performance and reliability and provide the lowest total cost of ownership:

### Low Initial Investment Cost

- Combining Hexatronic micro cables, nano cables and air blown fibers makes it easy to connect new end users. New fiber is simply installed by jetting with air in existing microducts.
- The solution means lower initial cost for optical fiber installation since air blown cabling in microducts enables fiber to be installed only to paying end users. New end users are connected fast, easy and at low cost.

### Flexibility

- Excess fiber capacity is not needed to guarantee future demands since the network can be expanded easily, simply by blowing in more cables. Fiber count can be incrementally increased.
- Repair requirements and other network changes are easy to undertake. Repair is swift and done with minimal interruptions.





## The System Solutions

To simplify design and planning, the Hexatronic fiber access system is divided in three main sections;

- The Drop and Premises Network
- The Feeder and Distribution Network
- The Central Office

### Drop and Premises Network

The Drop Network connects end users to splicing and branching points, or Fiber Access Terminals (FATs) where the ducts or cables are connected to the feeder and distribution network. The Hexatronic Air Blown Fiber (ABF) system and the Hexatronic offering of nano cables are two options for connecting fibers from end users to the FAT. The system, also consisting of microducts forming the infrastructure into which the fiber units are blown, can be used outdoors, indoors and underground, as well as in aerial applications.

The Premises Network refers to the network within a customer's premises such as a home or office environment. Typical products within the premises network are Fiber Access Terminals (FATs) and Fiber Termination Boxes (FTBs).

### Feeder and Distribution Network

The Feeder and Distribution Network is the foundation of any fiber access network. The feeder network connects any central office to Fiber Distribution Hubs (FDHs).

Passive fiber optic devices such as fiber optic splitters and/or cross connection facilities are located in the FDH. The distribution network distributes fiber from the FDH to the drop network.



Hexatronic Viper – high performance micro cables

Air blown micro cable technology offers great benefits when deploying the feeder and distribution network. A microduct system enables quick, easy installation and minimizes the number of fiber splice joints in the network compared to traditional solutions. The network capacity can quickly be increased by inserting new cables in the spare microducts. As an alternative, traditional loose tube and ribbon cables can be used for the feeder and distribution networks.

### Central Office

The Central Office solution features fiber management systems to efficiently and cost-effectively organize and terminate large quantities of fiber. The application in the central office environment is characterized by a minimum footprint in combination with class-leading capacity that allows well-organized and safe fiber termination to minimize operating errors.

Products for the Feeder and Distribution Network as well as the Drop and Premises Network are found in the following sections: Fiber Optic Cables, Microducts, Microduct Accessories, Installation Tools and Accessories and Network Products.

Products for the Central Office are found in the section Fiber Optic Interconnect Products.



## FIBER TRANSPORT NETWORKS

Connecting people, cities and countries through high speed communication channels has become more and more important in the world we are living in today. Depending on different types of terrain there are a number of solutions available. Hexatronic can offer complete solutions covering the needs of fiber transport networks.

Fiber transport network installations demand high quality products capable of withstanding both harsh weather conditions and rough terrain. Hexatronic's fiber transport network solutions includes cables for duct, direct buried and aerial installations together with joint closures and accessories.

### Easy to Install

Thanks to the design and construction of the cables with reinforcement depending on type, the cables can be directly installed together with i.e. power lines and without any additional reinforcements.

Innovative technology such as the Hexatronic DryTech cable design minimizes installation time and cost and also eliminates the need for harmful solvents to be used during cable splicing.

### Reliable With High Quality

Due to reliability and high quality of the components, installation costs can be kept low. The fiber transport system can easily be expanded when connecting more communities to the network.

All products have been designed and tested for optimal installation properties, as well as resistance to fire, chemicals and environmental damage.





## SUBMARINE CABLE SYSTEMS

With a distinguished history of over 25 years, Hexatronic has a unique knowledge and solid experience in worldwide submarine cable projects. Hexatronic's Submarine Cable Systems are highly flexible and can be used for shorter distances as well as longer. Whether it be an inland water project, crossing a river or harbor, between small islands or larger undersea applications, we have the knowledge and experience to ensure your project can be completed quickly and cost effectively.

### Reliable Performance and Excellent Protection

- Hexatronic's submarine cables provide superior mechanical protection, easy handling and reliable performance. All cables have steel wire armoring in one or several layers and an inner water blocking tube that prevents any water ingress.
- The cables are resistant to tensile forces and impact caused by anchoring, recovery operations and handling.
- All cables and joints are built with the highest quality protection to ensure a long life span for maximum efficiency over long distances.

### Cost Effective Customization and Complete Systems

- Hexatronic's submarine cable solutions provide cost effective, time saving installations, with the ability to customize according to the specific requirements.
- Hexatronic Group offer complete submarine systems including in-house developed, state of the art dispersion compensation modules (DCMs) based on Fiber Bragg Gratings. The DCM technology offer superior performance and ultra-low loss. For more information on the DCM modules, contact Hexatronic.

## WIRELESS INFRASTRUCTURE

Hexatronic provides fiber and power connectivity in sites for wireless infrastructure. Configured to meet your needs, hybrid solutions deliver all the fiber and power connectivity, including: hybrid trunk cable, cable assemblies and accessories. For dedicated fiber extensions, chose our multifiber solution to secure easy upgrades of wireless sites.

With our highly reliable and customizable products, you can maximize network uptime, lower total cost of ownership and simplify expansion and upgrades of the network.

Hexatronic offers everything you need for your wireless infrastructure!



# Fiber Optic Cables

## MICRO CABLES

### High Performance Micro Cables, GNHL – The Hexatronic Viper Series

The Hexatronic Viper series of micro cables are characterized by state of the art installation performance when installed by blowing into microducts. Particularly, installations in access networks with difficult routes, which are facilitated by the enhanced performance of the Viper cables.

All parameters such as cable diameter, sheath friction, cable stiffness etc are optimized for best installation performance without compromising mechanical or environmental properties.

The micro cables are based on a slim loose tube design with up to twelve tubes per cable. The

design facilitates fiber preparation and mid-span access. The cables are suitable for long-distance, air blown installation in microducts, with an inner diameter of as little as 5.5 to 12 mm. The cables have excellent bend performance and an extremely wide operational temperature range.

**DESIGN:** Loose tube, micro cable

**TYPE:** Dielectric, for microducts

**DIMENSIONS:** Ø4.0 - 7.9 mm

**CAPACITY:** 2 - 192 fibers

**FIBER TYPE:** G657A1

**LENGTHS:** 2000, 4000, 8000 m

**HEXATRONIC**

VIPER



Product No.	Product Name	Tubes/Fibers		Diameter	Weight	For Microducts ID
		No.	Color Code			
TOL4019033/2C	Micro Cable 2f G657A1 TIA598 - XSlim	1x2 (2f)	TIA598	4.0	11.5	5.5 - 16
TOL4019033/4C	Micro Cable 4f G657A1 TIA598 - XSlim	1x4 (4f)	TIA598	4.0	11.5	5.5 - 16
TOL4019033/8C	Micro Cable 8f G657A1 TIA598 - XSlim	2x4 (8f)	TIA598	4.0	11.5	5.5 - 16
TOL4019033/12C	Micro Cable 12f G657A1 TIA598 - XSlim	3x4 (12f)	TIA598	4.0	11.5	5.5 - 16
TOL4019033/24C	Micro Cable 24f G657A1 TIA598 - XSlim	6x4 (24f)	TIA598	4.0	11.5	5.5 - 16
TOL4019022/12C	Micro Cable 12f G657A1 TIA598	1x12 (12f)	TIA598	5.7	27.5	8 - 16
TOL4019022/24C	Micro Cable 24f G657A1 TIA598	2x12 (24f)	TIA598	5.7	27.5	8 - 16
TOL4019022/48C	Micro Cable 48f G657A1 TIA598	4x12 (48f)	TIA598	5.7	27.5	8 - 16
TOL4019022/72C	Micro Cable 72f G657A1 TIA598	6x12 (72f)	TIA598	5.7	27.5	8 - 16
TOL4019032/96C	Micro Cable 96f G657A1 TIA598	8x12 (96f)	TIA598	5.9	27.5	8 - 16
TOL4019022/144C	Micro Cable 144f G657A1 TIA598	12x12 (144f)	TIA598	8.3	60	(10), 12 - 20
TOL4019032/144C	Micro Cable 144f G657A1 TIA598	6x24 (144f)	TIA598	6.7	35	(8), 10 - 16
TOL4019022/192C	Micro Cable 192f G657A1 TIA598	8x24 (192f)	TIA598	7.9	47	10 - 20

### High Performance, Super Slim High Density Micro Cables, GNHL – The Hexatronic Viper 200 Series

The Hexatronic Viper 200 series of micro cables is the high density version of the class leading Viper series. By using fibers with a reduced diameter of 200 µm the overall dimensions of the cable can be reduced further. This allows high fiber count cables to be blown into extremely slim microducts, lowering the total cost of installation. Like all Hexatronic cables, all parameters such as cable diameter, sheath friction, cable stiffness etc are optimized for best installation performance without compromising mechanical or environmental

properties. The cable has excellent bend performance and an extremely wide operational temperature range.

**DESIGN:** Loose tube, micro cable

**TYPE:** Dielectric, for microducts

**DIMENSIONS:** Ø5.7 - 7.9 mm

**CAPACITY:** 144 - 288 fibers

**FIBER TYPE:** G657A1, 200 µm

**LENGTHS:** 2000, 4000, 8000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight	For Microducts ID
		No.	Color Code			
TOL4019035/144C	Micro Cable 144f G657A1, 200 µm TIA598	6x24 (144f)	TIA598	5.6	26	8 - 16
TOL4019035/192C	Micro Cable 192f G657A1, 200 µm TIA598	8x24 (192f)	TIA598	6.7	37.5	(8), 10 - 16
TOL4019035/288C	Micro Cable 288f G657A1, 200 µm TIA598	12x24 (288f)	TIA598	8.5	57	(10), 12 - 20

## Standard Micro Cables, GNHL

The Hexatronic standard series of micro cables offer good installation performance in most installation environments.

The micro cables are based on a slim loose tube design with up to twelve tubes per cable. The design facilitates fiber preparation and mid-span access. The cables are suitable for long-distance, air blown installation in microducts, with an inner diameter from 8 to 12 mm. The cables have excellent bend

performance and an extremely wide operational temperature range.

**DESIGN:** Loose tube, micro cable

**TYPE:** Dielectric, for microducts

**DIMENSIONS:** Ø 5.7 - 8.3 mm

**CAPACITY:** 12 - 144 fibers

**FIBER TYPE:** G652D

**LENGTHS:** 2000, 4000, 8000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight	For Microducts ID
		No.	Color Code			
TOL4019017/12A	Micro Cable 12f G652D	1x12 (12f)	STD-E	5.7	28	8 - 16
TOL4019017/24A	Micro Cable 24f G652D	2x12 (24f)	STD-E	5.7	28	8 - 16
TOL4019017/48A	Micro Cable 48f G652D	4x12 (48f)	STD-E	5.7	28	8 - 16
TOL4019017/72A	Micro Cable 72f G652D	6x12 (72f)	STD-E	5.7	28	8 - 16
TOL4019017/96A	Micro Cable 96f G652D	8x12 (96f)	STD-E	6.7	39	(8), 10 - 16
TOL4019017/144A	Micro Cable 144f G652D	12x12 (144f)	STD-E	8.3	60	(10), 12 - 20

## Micro Cables for Aerial Applications, GNHL

These micro cables are especially developed for installations with microducts for aerial installations.

The micro cables are based on a slim loose tube design with up to eight tubes per cable. The design facilitates fiber preparation and mid-span access. The cable is suitable for long-distance, air blown installation in microducts, with an inner diameter from 8 to 12 mm. The cable has

enhanced tension resistance and an extremely wide operational temperature range.

**DESIGN:** Loose tube, micro cable

**TYPE:** Dielectric, for aerial applications in microducts

**DIMENSIONS:** Ø 5.7 - 6.7 mm

**CAPACITY:** 12 - 96 fibers

**FIBER TYPE:** G657A1 eller G652D

**LENGTHS:** 2000, 4000, 8000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight	For Microducts ID
		No.	Color Code			
TOL4019024/12C	Micro Cable 12f G652D TIA598, Aerial	1x12 (12f)	TIA598	5.7	28	8 - 10
TOL4019024/24C	Micro Cable 24f G652D TIA598, Aerial	2x12 (24f)	TIA598	5.7	28	8 - 10
TOL4019024/48C	Micro Cable 48f G652D TIA598, Aerial	4x12 (48f)	TIA598	5.7	28	8 - 10
TOL4019024/72C	Micro Cable 72f G652D TIA598, Aerial	6x12 (72f)	TIA598	5.7	28	8 - 10
TOL4019024/96C	Micro Cable 96f G652D TIA598, Aerial	8x12 (96f)	TIA598	6.7	39	(8), 10
TOL4019024/12A	Micro Cable 12f G652D, Aerial	1x12 (12f)	STD-E	5.7	28	8 - 10
TOL4019024/24A	Micro Cable 24f G652D, Aerial	2x12 (24f)	STD-E	5.7	28	8 - 10
TOL4019024/48A	Micro Cable 48f G652D, Aerial	4x12 (48f)	STD-E	5.7	28	8 - 10
TOL4019024/72A	Micro Cable 72f G652D, Aerial	6x12 (72f)	STD-E	5.7	28	8 - 10
TOL4019024/96A	Micro Cable 96f G652D, Aerial	8x12 (96f)	STD-E	6.7	39	(8), 10

**HEXATRONIC**

**VIPER**

# NANO CABLES

## Nano Cables, GAHL and GAL – The Hexatronic Raptor

Nano Cables are extremely robust and slim cables that can be installed in all types of microducts with an inner diameter of 3.5 up to 12 mm.

The cable is normally installed by blowing up to 1 km or more, but short distances can easily be pushed by hand. This enables the nano cable to be blown to fiber optic access cabinets along roads. The connection from the cabinet to the end user can then in many cases be pushed by hand. This procedure enables huge cost savings since a lot of installation steps can be carried out quickly and easily. The cable has excellent bend performance and an extremely wide operational

temperature range, suitable for the harsh Nordic climate, down to -45 °C. All nano cables contain an unique, high performance singlemode G657A2 compliant optical fiber with enhanced low-loss and bend performance that is compatible with both G657A1 and G652D fibers.

**DESIGN:** Acrylate coated fiber, nano cable

**TYPE:** Dielectric, for microducts

**DIMENSIONS:** Ø2,0-2,1 mm

**CAPACITY:** 2-12 fibers

**FIBER TYPE:** G657A2

**LENGTHS:** 2000, 4000, 6000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight	For Microducts ID ≥ ø (mm)
		No.	Color Code			
TOL4019050/2C	Nano Cable 2f G652D/G657A2 TIA598	2f	TIA598	2.0	3.3	(3.5), 5.5 - 12
TOL4019050/4C	Nano Cable 4f G652D/G657A2 TIA598	4f	TIA598	2.0	3.5	(3.5), 5.5 - 12
TOL4019050/6C	Nano Cable 6f G652D/G657A2 TIA598	6f	TIA598	2.0	3.6	(3.5), 5.5 - 12
TOL4019050/8C	Nano Cable 8f G652D/G657A2 TIA598	8f	TIA598	2.0	3.7	(3.5), 5.5 - 12
TOL4019050/12C	Nano Cable 12f G652D/G657A2 TIA598	12f	TIA598	2.1	3.6	(3.5), 5.5 - 12

## Nano Cables, GPL – The Hexatronic Raptor 24

The Hexatronic Raptor 24 is the high density version of the Raptor nano cable series. It offers unique packaging density with up to 24 fibers in a ultra slim cable that enables installation by blowing in all types of microducts down to ID 3.5 mm. The nano cables contain high performance singlemode G657A1 compliant optical fiber with enhanced low-loss and bend performance that is compatible with G652D fibers.

**DESIGN:** Loose tube, nano cable

**TYPE:** Dielectric, for microducts

**DIMENSIONS:** Ø2,4 mm

**CAPACITY:** 24 fibers

**FIBER TYPE:** G657A1

**LENGTHS:** 2000, 4000, 6000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight	For Microducts ID ≥ ø (mm)
		No.	Color Code			
TOL4019070/24	Nano Cable 24f G657A1	24f	TIA598, S12	2.4	3.8	(3.5), 5.5 - 12



# AIR BLOWN FIBERS

## Air Blown Fiber, Singlemode – The Hexatronic Stingray

Air blown fibers (ABF), are installed in slim microducts, typically with an inner diameter of 2-3.5 mm. They consist of fibers encapsulated in a round multi-layer, high performance coating. The ABF is delivered in pans in lengths from 1000 to 6000 m and is available in configurations from 2 to 12 fibers. The fibers are highly bend-resistant type G657A2.

**DESIGN:** Acrylate coated fiber, air blown fiber

**TYPE:** Dielectric, for microducts

**DIMENSIONS:** Ø1.1-1.4 mm

**CAPACITY:** 2-12 fibers

**FIBER TYPE:** G657A2

**LENGTHS:** 1000, 2000,

4000 m (2-12f),

6000 m (2-6f)



Product No.	Product Name	No.	Tubes/Fibers	Dia meter	Weight	For Microducts ID
		No.	Color Code	ø (mm)	kg/km	≥ ø (mm)
KRPM258019/2000M	Air Blown Fiber 2f G657A2, 2000 m	2f	TIA598	1.1	1.0	2 - 6
KRPM258019/4000M	Air Blown Fiber 2f G657A2, 4000 m	2f	TIA598	1.1	1.0	2 - 6
KRPM258019/6000M	Air Blown Fiber 2f G657A2, 6000 m	2f	TIA598	1.1	1.0	2 - 6
KRPM258022/2000M	Air Blown Fiber 4f G657A2, 2000 m	4f	TIA598	1.1	1.0	2 - 6
KRPM258022/4000M	Air Blown Fiber 4f G657A2, 4000 m	4f	TIA598	1.1	1.0	2 - 6
KRPM258022/6000M	Air Blown Fiber 4f G657A2, 6000 m	4f	TIA598	1.1	1.0	2 - 6
KRPM258041/2000M	Air Blown Fiber 6f G657A2, 2000 m	6f	TIA598	1.1	1.0	2 - 6
KRPM258041/4000M	Air Blown Fiber 6f G657A2, 4000 m	6f	TIA598	1.1	1.0	2 - 6
KRPM258041/6000M	Air Blown Fiber 6f G657A2, 6000 m	6f	TIA598	1.1	1.0	2 - 6
KRPM258034/1000M	Air Blown Fiber 8f G657A2, 1000 m	8f	TIA598	1.4	1.8	(2), 3,5 - 6
KRPM258034/2000M	Air Blown Fiber 8f G657A2, 2000 m	8f	TIA598	1.4	1.8	(2), 3,5 - 6
KRPM258034/4000M	Air Blown Fiber 8f G657A2, 4000 m	8f	TIA598	1.4	1.8	(2), 3,5 - 6
KRPM258044/1000M	Air Blown Fiber 12f G657A2, 1000 m	12f	TIA598	1.4	1.8	(2), 3,5 - 6
KRPM258044/2000M	Air Blown Fiber 12f G657A2, 2000 m	12f	TIA598	1.4	1.8	(2), 3,5 - 6
KRPM258044/4000M	Air Blown Fiber 12f G657A2, 4000 m	12f	TIA598	1.4	1.8	(2), 3,5 - 6



## Air Blown Fiber, Multimode – The Hexatronic Stingray

Air blown fibers (ABF), are installed in slim microducts, typically with an inner diameter of 2-3.5 mm. They consist of fibers encapsulated in a round multi-layer, high performance coating. The ABF is delivered in pairs in lengths from 1000 to 6000 m and is available in configurations from 2 to 12 fibers. These versions are with multimode 50 µm OM3 or OM4 fibers.

**DESIGN:** Acrylate coated fiber, air blown fiber  
**TYPE:** Dielectric, for microducts  
**DIMENSIONS:** Ø1.1-1.4 mm  
**CAPACITY:** 2-12 fibers  
**FIBER TYPE:** 50 µm OM3, OM4  
**LENGTHS:** 1000, 2000, 4000 m (2-12f),  
6000 m (2-4f)



Product No.	Product Name	No.	Tubes/Fibers	Diameter	Weight	For Microducts ID
		No.	Color Code	ø (mm)	kg/km	≥ ø (mm)
KRPM258025/2000M	Air Blown Fiber 2f OM3 50µm, 2000 m	2f	STD-E	1.1	1.0	<b>2 - 3.5</b>
KRPM258025/4000M	Air Blown Fiber 2f OM3 50µm, 4000 m	2f	STD-E	1.1	1.0	<b>2 - 3.5</b>
KRPM258025/6000M	Air Blown Fiber 2f OM3 50µm, 6000 m	2f	STD-E	1.1	1.0	<b>2 - 3.5</b>
KRPM258024/2000M	Air Blown Fiber 4f OM3 50µm, 2000 m	4f	STD-E	1.1	1.0	<b>2 - 3.5</b>
KRPM258024/4000M	Air Blown Fiber 4f OM3 50µm, 4000 m	4f	STD-E	1.1	1.0	<b>2 - 3.5</b>
KRPM258024/6000M	Air Blown Fiber 4f OM3 50µm, 6000 m	4f	STD-E	1.1	1.0	<b>2 - 3.5</b>
KRPM258023/1000M	Air Blown Fiber 12f OM3 50µm, 1000 m	12f	STD-E	1.4	1.8	<b>2 - 3.5</b>
KRPM258023/2000M	Air Blown Fiber 12f OM3 50µm, 2000 m	12f	STD-E	1.4	1.8	<b>2 - 3.5</b>
KRPM258023/4000M	Air Blown Fiber 12f OM3 50µm, 4000 m	12f	STD-E	1.4	1.8	<b>2 - 3.5</b>
KRPM258031/4000M	Air Blown Fiber 2f OM4 50µm, 4000 m	4f	STD-E	1.1	1.0	<b>2 - 3.5</b>
KRPM258032/4000M	Air Blown Fiber 4f OM4 50µm, 4000 m	4f	STD-E	1.4	1.8	<b>2 - 3.5</b>
KRPM258030/1000M	Air Blown Fiber 12f OM4 50µm, 1000 m	12f	STD-E	1.4	1.8	<b>2 - 3.5</b>
KRPM258030/2000M	Air Blown Fiber 12f OM4 50µm, 2000 m	12f	STD-E	1.4	1.8	<b>2 - 3.5</b>
KRPM258030/4000M	Air Blown Fiber 12f OM4 50µm, 4000 m	12f	STD-E	1.4	1.8	<b>2 - 3.5</b>



## Pre-connected Air Blown Fiber – The Hexatronic Stingray

Pre-connected air blown fiber (ABF) eliminates the need for fitting of connectors after installation. The ABF is delivered on lightweight reels in lengths from 30 to 1000 m and is available in configurations with 2 or 4 fibers. The fibers are highly bend-resistant type G657A2. The fibers are available with TIA-598 color code.

**DESIGN:** Acrylate coated fiber, air blown fiber

**TYPE:** Dielectric, for microducts

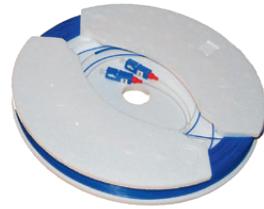
**DIMENSIONS:** Ø1.1 mm

**CAPACITY:** 2-4 fibers

**CONNECTOR OPTIONS:** SC, SC/APC, LC, LC/APC

**FIBER TYPE:** G657A2

**LENGTHS:** 30, 50, 70, 100, 150, 200, 250, 300, 350, 400, 500...1000 m



### Pre-connected Air Blown Fiber, TIA-598 Color Code

Product No.	Product Name
KRPM258018/30M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/50M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/70M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/100M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/150M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/200M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/250M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/300M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/350M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/400M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/500M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/600M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/700M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/800M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/900M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258018/1000M	ABF 2LC/APC 2G657A2 TIA598 Reel
KRPM258021/30M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/50M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/70M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/100M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/150M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/200M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/250M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/300M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/350M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/400M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/500M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/600M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/700M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/800M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/900M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258021/1000M	ABF 2LC/APC 4G657A2 TIA598 Reel
KRPM258029/30M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/50M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/70M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/100M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/150M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/200M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/250M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/300M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/350M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/400M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/500M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/600M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/700M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/800M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/900M	ABF1SC/APC 2G657A2 TIA-598 Reel
KRPM258029/1000M	ABF1SC/APC 2G657A2 TIA-598 Reel

Product No.	Product Name
KRPM258026/30M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/50M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/70M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/100M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/150M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/200M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/250M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/300M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/350M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/400M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/500M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/600M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/700M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/800M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/900M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258026/1000M	ABF 2SC/APC 2G657A2 TIA-598 Reel
KRPM258027/30M	ABF 4SC/APC 4G657A2 TIA598 Reel
KRPM258027/50M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/70M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/100M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/150M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/200M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/250M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/300M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/350M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/400M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/500M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/600M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/700M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/800M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/900M	ABF4SC/APC 4G657A2 TIA-598 Reel
KRPM258027/1000M	ABF4SC/APC 4G657A2 TIA-598 Reel

## DROP CABLES

Designed for quick and easy installation, Hexatronic's Drop Cables are used to connect end users in FTTx networks as well as antenna systems in FTTA applications. Drop cables are usually a good choice for shorter distances and where there is easy access for the cable installation.

To facilitate installation and minimize attenuation when cable is installed around sharp corners, most Hexatronic's drop cables are based on the highly bend-resistant G657A2 fiber.

### Drop Cable for Indoor and Outdoor Use

Halogen-free, flame retardant drop cables with tight secondary coated fiber for quick and easy splicing and fitting of connectors. The cable is designed with G657A2 extra high bend-resistant fiber and a robust design to facilitate mounting with brackets directly on the wall. The cable has a flame retardant and UV protected sheath and is suitable for both indoor and outdoor use.

**DESIGN:** Secondary coated fiber, aramide yarn  
**TYPE:** Indoor and outdoor use, HFFR, IEC60332-3  
**CAPACITY:** 1 - 4 fibers  
**FIBER TYPE:** G657A2  
**DIMENSIONS:** Ø4.8 mm  
**LENGTHS:** 2000, 4000, 6000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight
		No.	Color Code		
TOL4063007/1A	Drop Cable, Indoor/Outdoor, 1f G657A2	1f	STD-E	4.8	25
TOL4063007/2A	Drop Cable, Indoor/Outdoor, 2f G657A2	2f	STD-E	4.8	24.5
TOL4063007/4A	Drop Cable, Indoor/Outdoor, 4f G657A2	4f	STD-E	4.8	23

### Drop Cable, Indoor

Halogen-free, flame retardant drop cable for FTTx applications. The cable is used for both vertical (riser) and horizontal installations in buildings. To facilitate installation, G657A2 extra high bend-resistant fiber is used.

**DESIGN:** Secondary coated fiber, aramide yarn  
**TYPE:** Indoor use, HFFR, IEC60332-3  
**CAPACITY:** 1 - 4 fibers  
**FIBER TYPE:** G657A2  
**DIMENSIONS:** Ø4.8 mm  
**LENGTHS:** 2000, 4000, 6000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight
		No.	Color Code		
TOL4063006/1A	Drop Cable, Indoor, 1f G657A2	1f	STD-E	4.8	25
TOL4063006/2A	Drop Cable, Indoor, 2f G657A2	2f	STD-E	4.8	24.5
TOL4063006/4A	Drop Cable, Indoor, 4f G657A2	4f	STD-E	4.8	23

### Drop Cable, Indoor, Slim

An extra slim drop cable with excellent bend-performance, for indoor installations in cable chutes or directly on the wall with cable clamps. Fits easily to standard connectors bend protection.

**DESIGN:** Secondary coated fiber, aramide yarn  
**TYPE:** Indoor use, HFFR, IEC60332-3  
**CAPACITY:** 1 fiber  
**FIBER TYPE:** G657A2  
**DIMENSIONS:** Ø2.9 mm  
**LENGTHS:** 2000, 4000, 6000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight
		No.	Color Code		
TOL4063005/1A	Drop Cable, Indoor, 1f G657A2	1f	STD-E	2.9	9

## Drop Cable, Outdoor, Duct or Direct Buried

Durable loose tube drop cable for outdoor installation in ducts or controlled direct buried applications. Two fiber reinforced glass rods guarantee the highest crush performance. The cable is longitudinally water blocked.

**DESIGN:** Loose tube  
**TYPE:** Outdoor, direct buried  
**CAPACITY:** 1 - 12 fibers  
**FIBER TYPE:** G657A1 or G657A2  
**DIMENSIONS:** 6.1x3.3 mm  
**LENGTHS:** 2000, 4000, 6000 m

Product No.	Product Name	Tubes/Fibers		Dimensions	Weight
		No.	Color Code		
TOL4069001/1AH	Drop Cable, Outdoor, 6.1x3.3 mm 1f G657A2	1f	S12	6.1x3.3	18.5
TOL4069001/2AH	Drop Cable, Outdoor, 6.1x3.3 mm 2f G657A2	2f	S12	6.1x3.3	18.5
TOL4069001/4AH	Drop Cable, Outdoor, 6.1x3.3 mm 4f G657A2	4f	S12	6.1x3.3	18.5
TOL4069001/12AH	Drop Cable, Outdoor, 6.1x3.3 mm 12f G657A2	12f	S12	6.1x3.3	18.5
TOL4069013/1AH	Drop Cable, Outdoor, 6.1x3.3 mm 1f G657A1	1f	S12	6.1x3.3	18.5
TOL4069013/2AH	Drop Cable, Outdoor, 6.1x3.3 mm 2f G657A1	2f	S12	6.1x3.3	18.5
TOL4069013/4AH	Drop Cable, Outdoor, 6.1x3.3 mm 4f G657A1	4f	S12	6.1x3.3	18.5
TOL4069013/12AH	Drop Cable, Outdoor, 6.1x3.3 mm 12f G657A1	12f	S12	6.1x3.3	18.5



## Drop Cable Fig-8, Aerial

A self-supporting figure-8 drop cable with loose tube design for aerial installation.

**DESIGN:** Loose tube  
**TYPE:** Outdoor, aerial installations  
**CAPACITY:** 1 - 12 fibers  
**FIBER TYPE:** G657A2  
**DIMENSIONS:** 6.1x3.3 mm  
**LENGTHS:** 2000, 4000, 6000 m

Product No.	Product Name	Tubes/Fibers		Diameter	Weight
		No.	Color Code		
TOL4069002/1A	Aerial Drop Cable, 1f G657A2	1f	STD-E	4.8 - 3.6	42
TOL4069002/2A	Aerial Drop Cable, 2f G657A2	2f	STD-E	4.8 - 3.6	42
TOL4069002/4A	Aerial Drop Cable, 4f G657A2	4f	STD-E	4.8 - 3.6	43
TOL4069002/8A	Aerial Drop Cable, 8f G657A2	8f	STD-E	4.8 - 3.6	44
TOL4069002/12A	Aerial Drop Cable, 12f G657A2	12f	STD-E	4.8 - 3.6	45



## Drop Cable FTTA, Indoor/Outdoor High Temperature Performance

Fiber optic cable designed for FTTA applications in both indoor and outdoor environments. This cable has extremely good heat resistance and operates from -40 to +95 °C. The cable is flame resistant so it can be installed indoors at the same time the outer sheath is robust enough to cope with outdoor environments. It is suitable for pre-terminated delivery.

**DESIGN:** Secondary coated fiber, aramide yarn, high temp.  
**TYPE:** Indoor and outdoor use, HFFR, IEC60332-3, UL 1666  
**CAPACITY:** 2 fibers  
**FIBER TYPE:** G657A2  
**DIMENSIONS:** Ø4.8 mm  
**LENGTHS:** 2000, 4000, 6000 m

Product No.	Product Name	Tubes/Fibers		Diameter	Weight
		No.	Color Code		
TOL4059009/2A	GNGQBDUV High Temp, 2 fG657A2	2f	STD-E	4.8	24.5



## Drop Cable FTTA Indoor/Outdoor

Fiber optic cable designed for FTTA applications for both indoor and outdoor environments. Water blocking aramid yarns guarantees that no water can pass through the cable and the outer sheath is specially designed for highest protection in outdoor environments. It is suitable for pre-terminated delivery.

**DESIGN:** Secondary coated fiber, aramide yarn, high temp.

**TYPE:** Indoor and outdoor use, HFFR,

IEC60332-3, UL 1666

**CAPACITY:** 2 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø4.8 mm

**LENGTHS:** 2000, 4000, 6000



Product No.	Product Name	Tubes/Fibers		Diameter	Weight
		No.	Color Code	ø (mm)	kg/km
TOL4063008/2A	GNGQBDUV 2f G652D	2f	STD-E	4.8	24.5

## Drop Cable FTTA Indoor/Outdoor

Fiber optic cable designed for FTTA applications in both indoor and outdoor environments. The cable is flame resistant. Water blocking tape guarantees that no water can pass through the cable and the outer sheath is specially designed to give the highest protection in outdoor environments. The cable is suitable for pre-terminated delivery and has extremely good bending performance due to the use of bend-resistant G657A2 fiber.

**DESIGN:** Secondary coated fiber, aramide yarn, high temp.

**TYPE:** Indoor and outdoor use, HFFR

**CAPACITY:** 2 fibers

**FIBER TYPE:** G657A2

**DIMENSIONS:** 5.9x4 mm

**LENGTHS:** 2000, 4000, 6000



Product No.	Product Name	Tubes/Fibers		Dimensions	Weight
		No.	Color Code	(mm)	kg/km
TOL4063004/2A	GNGQQBDV 2f G657A2	2f	STD-E	5.9x4.0	29

# CABLES FOR DUCT INSTALLATION

The range of cables for duct installation includes all of our three basic designs: concentric core, slotted core ribbon and DryTech.

The duct installation cables include both metallic and dielectric cables with fiber counts of up to several hundred fibers. The fibers can be of different types and different types of fiber can be mixed in the same cable. A non-poison rodent repellent sheath is available on request.

**DryTech** – Cables marked with DryTech are a series of cables where the typical water blocking in-between tubes (jelly or water swelling tape or powder) is replaced with a solid thermoplastic foamed elastomer. This truly unique technology has several benefits over traditional jelly filled cables:

- Increased crush resistance, typically up to 65% better
- Faster and lower cost to install, about 2x faster to prepare cable for splicing
- Environmental friendly, minimum amount of solvents needed for cable preparation and hassle-free cable re-cycling

## Slotted Core Ribbon, Slim, GAHSL

Slim 4-fiber ribbon cable using slotted core design. The design reduces installation costs and gives superior fiber protection. The cable is dielectric, making it suitable for installation where there is electrical interference.

**DESIGN:** Slotted core, 4-fiber ribbon, slim

**TYPE:** Outdoor, duct install

**CAPACITY:** 4-48 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø9.5 mm

**LENGTHS:** 2000-8000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	ø (mm)	kg/km
TOL4011013/4A	GAHSL 4/C4 G652D S12	1x4 (4f)	S12	9.5	75
TOL4011013/8A	GASLDV-SLIM 8f G652D	2x4 (8f)	S12	9.5	75
TOL4011013/12A	GAHSL 12/C4 G652D S12	3x4 (12f)	S12	9.5	75
TOL4011013/24A	GAHSL 24/C4 G652D S12	6x4 (24f)	S12	9.5	75
TOL4011013/48A	GAHSL 48/C4 G652D S12	12x4 (48f)	S12	9.5	75

## Slotted Core Ribbon, GAHSL

Robust 4-fiber ribbon cable using slotted core design. The design reduces installation costs and gives superior fiber protection. The cable is dielectric, making it suitable for installation where there is electrical interference.

**DESIGN:** Slotted core, 4-fiber ribbon

**TYPE:** Outdoor, duct install

**CAPACITY:** 4-96 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø12.0-13.5 mm

**LENGTHS:** 2000-8000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	ø (mm)	kg/km
TOL4011001/4A	GAHSL 4/C4 G652D S12	1x4 (4f)	S12	12.0	130
TOL4011001/8A	GAHSL 8/C4 G652D S12	2x4 (8f)	S12	12.0	130
TOL4011001/12A	GAHSL 12/C4 G652D S12	3x4 (12f)	S12	12.0	130
TOL4011001/24A	GAHSL 24/C4 G652D S12	6x4 (24f)	S12	12.0	130
TOL4011001/48A	GAHSL 48/C4 G652D S12	12x4 (48f)	S12	12.0	130
TOL4011001/72A	GAHSL 72/C4 G652D S12	18x4 (72f)	S12	13.5	175
TOL4011001/96A	GAHSL 96/C4 G652D S12	24x4 (96f)	S12	13.5	175

## Slotted Core Ribbon, GAHSL

8-fiber ribbon cable using a slotted core design. The design allows high packing density that reduces installation costs and gives superior fiber protection. The cable is dielectric.

**DESIGN:** Slotted core, 8-fiber ribbon

**TYPE:** Outdoor, duct install

**CAPACITY:** 96-192 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø15.5 mm

**LENGTHS:** 2000-8000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight
		No.	Color Code		
TOL4011002/96A	GAHSL 96/B8 G652D S12	12X8 (96f)	S12	15.5	210
TOL4011002/144A	GAHSL 144/B8 G652D S12	18x8 (144f)	S12	15.5	210
TOL4011002/192A	GAHSL 192/B8 G652D S12	24x8 (192f)	S12	15.5	210

## Slotted Core Ribbon, Dry, GAHSL

This is a completely dry ribbon cable using slotted core design. A water swellable tape acts as a longitudinal water blocking element. The design reduces installation costs and gives superior fiber protection. 4 or 8-fiber ribbons are used.

**DESIGN:** Slotted core, 4 or 8 fiber ribbon, dry

**TYPE:** Outdoor, duct install

**CAPACITY:** 24-192 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø9.7-13.5 mm

**LENGTHS:** 2000-8000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight
		No.	Color Code		
TOL4011023/24A	GAHSL 24/C4 G652D S12 (Dry)	6x4 (24f)	S12	9.7	110
TOL4011023/48A	GAHSL 48/C4 G652D S12 (Dry)	12x4 (48f)	S12	9.7	110
TOL4011023/96A	GAHSL 96/B8 G652D S12 (Dry)	12x8 (96f)	S12	13.5	150
TOL4011023/192A	GAHSL 192/B8 G652D S12 (Dry)	24x8 (192f)	S12	13.5	250

## Slotted Core Ribbon, Dry, GAHSL

8-fiber ribbon cable using slotted core design. The design allows high packing density that reduces installation costs and gives superior fiber protection. A water swellable tape acts as a longitudinal water blocking element.

**DESIGN:** Slotted core, 8-fiber ribbon, dry

**TYPE:** Outdoor, duct install

**CAPACITY:** 384-640 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø20-27 mm

**LENGTHS:** 2000-8000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight
		No.	Color Code		
TOL4011020/288A	GAHSL 288/B8 G652D S12	36x8 (384f)	S12	20	280
TOL4011020/384A	GAHSL 384/B8 G652D S12	48x8 (384f)	S12	20	280
TOL4011020/480A	GAHSL 480/B8 G652D S12	60x8 (480f)	S12	22	290
TOL4011020/640A	GAHSL 640/B8 G652D S12	80x8 (640f)	S12	27	370

## Loose Tube DryTech, GRHL

Slim loose tube cable with concentric core design, with up to six tubes per cable and with 4 to 8 fibers per tube. The slim design allows the cable to be installed in small ducts. The cable is all dielectric. DryTech filling compound is used in the cable core.

**DESIGN:** Loose tube, DryTech, Slim

**TYPE:** Outdoor, duct install

**CAPACITY:** 8-48 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø10.1 mm

**LENGTHS:** 2000-12000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	ø (mm)	kg/km
TOL4012084/8A	GRCLDV 8f G652D	2x4 (8f)	STD-E	10.1	85
TOL4012084/12A	GRCLDV 12f G652D	3x4 (12f)	STD-E	10.1	85
TOL4012084/24A	GRCLDV 24f G652D	6x4 (24f)	STD-E	10.1	85
TOL4012084/36A	GRCLDV 36f G652D	6x6 (36f)	STD-E	10.1	85
TOL4012084/48A	GRCLDV 48f G652D	6x8 (48f)	STD-E	10.1	85

## Loose Tube DryTech, GRHL

Robust loose tube cable with concentric core design, with up to 12 tubes per cable and with 12 fibers per tube. The cable is all dielectric. DryTech filling compound is used in the cable core.

**DESIGN:** Loose tube, DryTech

**TYPE:** Outdoor, duct install

**CAPACITY:** 12-192 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø11.2-19.0 mm

**LENGTHS:** 2000-12000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	ø (mm)	kg/km
TOL4012098/12A	GRCLDV 12f G652D	1x12 (12f)	STD-E	11.2	95
TOL4012098/24A	GRCLDV 24f G652D	2x12 (24f)	STD-E	11.2	95
TOL4012098/48A	GRCLDV 48f G652D	4x12 (48f)	STD-E	11.2	95
TOL4012098/72A	GRCLDV 72f G652D	6x12 (72f)	STD-E	11.2	95
TOL4012098/96A	GRCLDV 96f G652D	8x12 (96f)	STD-E	12.4	125
TOL4012098/144A	GRCLDV 144f G652D	12x12 (144f)	STD-E	15.6	190
TOL4012098/192A	GRCLDV 192f G652D	16x12 (192f)	STD-E	19.0	260

## Loose Tube DryTech AI, GRHL

Loose tube cable with concentric core design and aluminum foil, which provides an excellent moisture barrier, making the cable suitable for wet environments. DryTech filling compound is used in the cable core. Maximum capacity is 16 tubes with 12 fibers in each.

**DESIGN:** Loose tube, DryTech, Al-barrier

**TYPE:** Outdoor, duct install

**CAPACITY:** 12-192 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø12.5-20.3 mm

**LENGTHS:** 2000-12000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	ø (mm)	kg/km
TOL4012064/12A	GRCALV 12f G652D	1x12 (12f)	STD-E	12.5	120
TOL4012064/24A	GRCALV 24f G652D	2x12 (24f)	STD-E	12.5	120
TOL4012064/36A	GRCALV 36f G652D	3x12 (36f)	STD-E	12.5	120
TOL4012064/48A	GRCALV 48f G652D	4x12 (48f)	STD-E	12.5	120
TOL4012064/72A	GRCALV 72f G652D	6x12 (72f)	STD-E	12.5	120
TOL4012064/96A	GRCALV 96f G652D	8x12 (96f)	STD-E	13.7	140
TOL4012064/144A	GRCALV 144f G652D	12x12 (144f)	STD-E	16.9	210
TOL4012064/192A	GRCALV 192f G652D	16x12 (192f)	STD-E	20.3	280

## CABLES FOR DIRECT BURIED INSTALLATION

The range of cables for direct buried installation includes all of our three basic designs: concentric core, slotted core ribbon and DryTech. The cables are 100% metal free and can therefore be installed next to power cables without any risk for induced currencies. The cables are reinforced with foamed thermoplastic elastomer, providing excellent mechanical protection. The range of cables covers fiber counts up to several hundred fibers.

**DryTech** – Cables marked with DryTech are a series of cables where the typical water blocking in-between tubes (jelly or water swelling tape or powder) is replaced with a solid thermoplastic foamed elastomer. This truly unique technology has several benefits over traditional cables:

- Increased crush resistance, typically up to 65% better
- Faster and lower cost to install, about 2x faster to prepare cable for splicing
- Environmental friendly, minimum amount of solvents needed for cable preparation and hassle-free cable re-cycling

### Loose Tube DryTech, Dielectric, GRHLOL

Slim loose tube cable with concentric core design, a thermoplastic cushion layer and a second outer sheath. The thermoplastic cushion layer makes the non-metallic cable suitable for installation along power lines, e.g. railway embankments. DryTech filling compound is used in the cable core. Maximum capacity is 6 tubes with 4 or 8 fibers in each.

**DESIGN:** Loose tube, dry, dielectric

**TYPE:** Outdoor, direct buried, railways

**CAPACITY:** 24-48 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø18 mm

**LENGTHS:** 2000-6000 m



Product No.	Product Name	Tubes/Fibers	No.	Color Code	Diameter	Weight
Product No.	Product Name	No.	Color Code	Ø (mm)	kg/km	
TOL4022041/24	GRCLLDV 24f G652D	6x4 (24f)	STD-E	18	230	
TOL4022041/48	GRCLLDV 48f G652D	6x8 (48f)	STD-E	18	230	

### Loose Tube DryTech, Dielectric, Medium Capacity, GRHLOL

Loose tube cable with concentric core design, a thermoplastic cushion layer and a second outer sheath. The thermoplastic cushion layer makes the non-metallic cable suitable for installation along power lines, e.g. railway embankments. DryTech filling compound is used in the cable core. Maximum capacity is 16 tubes with 12 fibers in each.

**DESIGN:** Loose tube, dry, dielectric

**TYPE:** Outdoor, direct buried, railways

**CAPACITY:** 72-192 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø19-26.6 mm

**LENGTHS:** 2000-6000 m



Product No.	Product Name	Tubes/Fibers	No.	Color Code	Diameter	Weight
Product No.	Product Name	No.	Color Code	Ø (mm)	kg/km	
TOL4022042/72A	GRCLLDV 72f G652D	6x12 (72f)	STD-E	19	315	
TOL4022042/96A	GRCLLDV 96f G652D	8x12 (96f)	STD-E	20.2	315	
TOL4022042/144A	GRCLLDV 144f G652D	12x12 (144f)	STD-E	23.4	445	
TOL4022042/192A	GRCLLDV 192f G652D	16x12 (192f)	STD-E	26.6	560	

## Loose Tube DryTech, Dielectric, High Capacity, GRHLOL

Loose tube cable with concentric core design, a thermoplastic cushion layer and a second outer sheath. The thermoplastic cushion layer makes the non-metallic cable suitable for installation along power lines, e.g. railway embankments. DryTech filling compound is used in the cable core. Maximum capacity is 24 tubes with 12 fibers in each tube.

**DESIGN:** Loose tube, dry, dielectric  
**TYPE:** Outdoor, direct buried, railways  
**CAPACITY:** 288 fibers  
**FIBER TYPE:** G652D  
**DIMENSIONS:** Ø27.5 mm  
**LENGTHS:** 2000-4000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	ø (mm)	kg/km
TOL4022043/288	GRCLLDV 288f G652D	24x12 (288f)	STD-E	27.5	510

## Slotted Core Ribbon, Dielectric, GAHSLOL

4-fiber ribbon cable with slotted core design, a thermoplastic cushion layer and a second outer sheath. The thermoplastic cushion layer makes the non-metallic cable suitable for installation along power lines, e.g. railway embankments.

**DESIGN:** Slotted core, 4 or 8 fiber ribbon, dielectric  
**TYPE:** Outdoor, direct buried, railways  
**CAPACITY:** 8-96 fibers  
**FIBER TYPE:** G652D  
**DIMENSIONS:** Ø19.5-21.0 mm  
**LENGTHS:** 2000-6000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	ø (mm)	kg/km
TOL4021001/8A	GASLLDV 8f G652D	2x4 (8f)	S12	19.5	220
TOL4021001/12A	GASLLDV 12f G652D	3x4 (12f)	S12	19.5	220
TOL4021001/24A	GASLLDV 24f G652D	6x4 (24f)	S12	19.5	220
TOL4021001/36A	GASLLDV 36f G652D	9x4 (36f)	S12	19.5	220
TOL4021001/48A	GASLLDV 48f G652D	12x4 (48f)	S12	19.5	220
TOL4021001/72A	GASLLDV 72f G652D	18x4 (72f)	S12	21.0	270
TOL4021001/96A	GASLLDV 96f G652D	24x4 (96f)	S12	21.0	270

## Slotted Core Ribbon, Dielectric, GAHSOL

High capacity 8-fiber ribbon cable with slotted core design, a thermoplastic cushion layer and a second outer sheath. The thermoplastic cushion layer makes the non-metallic cable suitable for installation along power lines, e.g. railway embankments.

**DESIGN:** Slotted core, 8 fiber ribbon, dielectric  
**TYPE:** Outdoor, direct buried, railways  
**CAPACITY:** 192 fibers  
**FIBER TYPE:** G652D  
**DIMENSIONS:** Ø23.0 mm  
**LENGTHS:** 2000-4000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	ø (mm)	kg/km
TOL4021005/192A	GASLLDV 192f G652D	24x (192f)	S12	23.0	310

# CABLES FOR AERIAL INSTALLATIONS

Self-supporting aerial fiber cables. Hexatronic's range of Fiber Optic Cables for aerial installation includes self-supporting All Dielectric Self Support (ADSS) and figure-8 types, designed for pole installation. The cables come in different types for different span lengths.

Hexatronic also offers a complete range of installation support material for aerial cables.

## Loose Tube ADSS, GRHGL

ADSS, non-metallic cable with concentric core design. This extremely slim and low-weight cable, which can be ordered with 4 to 144 fibers, is suitable for span lengths from 60 to 170 m. It can be installed adjacent to power lines with up to 120 kV. It contains aramid yarn to increase strength.

**DESIGN:** Loose Tube, ADSS, dielectric, 4kN

**TYPE:** Outdoor, aerial

**CAPACITY:** 8-144 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø11.7-20.0 mm

**LENGTHS:** 2000-8000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	Ø (mm)	kg/km
TOL4032003/8A	GRHSLDV 8f G652D 4 kN-11.5 mm	2x4 (8f)	STD-E	11.7	100
TOL4032003/12A	GRHSLDV 12f G652D 4 kN-11.5 mm	3x4 (12f)	STD-E	11.7	100
TOL4032003/24A	GRHSLDV 24f G652D 4 kN-11.5 mm	6x4 (24f)	STD-E	11.7	100
TOL4032003/48A	GRHSLDV 48f G652D 4 kN-11.5 mm	4x12 (48f)	STD-E	11.7	100
TOL4032003/72A	GRHSLDV 72f G652D 4 kN-15.5 mm	6x12 (72f)	STD-E	13.4	130
TOL4032003/96A	GRHSLDV 96f G652D 4 kN-19 mm	8x12 (96f)	STD-E	15.4	170
TOL4032003/144A	GRHSLDV 144f G652D 4 kN-19 mm	12x12 (144f)	STD-E	20.0	275

## Loose Tube ADSS, GRHLGL

ADSS, non-metallic cable with concentric core design that utilizes aramid yarn and a second outer sheath for an extra robust cable design. It is suitable for installation in harsh climates with high ice loads and for span lengths of 100-250 m.

**DESIGN:** Loose Tube, ADSS, dielectric, 7kN

**TYPE:** Outdoor, aerial

**CAPACITY:** 8-144 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø13.8-18.8 mm

**LENGTHS:** 2000-8000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	Ø (mm)	kg/km
TOL4032002/8A	GRHSLLDV 8f G652D, 7kN-13.8 mm	2x4 (8f)	STD-E	14.1	150
TOL4032002/12A	GRHSLLDV 12f G652D, 7kN-13.8 mm	3x4 (12f)	STD-E	14.1	150
TOL4032002/24A	GRHSLLDV 24f G652D, 7kN-13.8 mm	6x4 (24f)	STD-E	14.1	150
TOL4032002/48A	GRHSLLDV 48f G652D, 7kN-13. mm	6x8 (48f)	STD-E	14.1	150
TOL4032002/72A	GRHSLLDV 72f G652D, 8kN-15.5 mm	6x12 (72f)	STD-E	15.8	190
TOL4032002/96A	GRHSLLDV 96f G652D, 8kN-15.5 mm	8x12 (96f)	STD-E	17.7	220
TOL4032002/144A	GRHSLLDV 144f G652D, 8kN-15.5 mm	12x12 (144f)	STD-E	19.1	370

## Loose Tube ADSS, GRHLGL

ADSS, non-metallic cable with concentric core design that utilizes aramid yarn and a second outer sheath for an extra robust cable design. It is suitable for installation in harsh climates with high ice loads and for span lengths of 200-500 m.

Like the GRHSLDV, this cable contains standard filling compound and can be ordered with 4 to 144 fibers.

**DESIGN:** Loose Tube, ADSS, dielectric, 14.5kN

**TYPE:** Outdoor, aerial

**CAPACITY:** 12-144 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø15-20 mm

**LENGTHS:** 2000-8000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	Ø (mm)	kg/km
TOL4032008/12A	GRHSLLDV 12f G652D, 14.5kN-15.0 mm	3x4 (12f)	STD-E	15.1	170
TOL4032008/24A	GRHSLLDV 24f G652D, 14.5kN-15.0 mm	6x4 (24f)	STD-E	15.1	170
TOL4032008/36A	GRHSLLDV 36f G652D, 14.5kN-15.0 mm	6x6 (36f)	STD-E	15.1	170
TOL4032008/48A	GRHSLLDV 48f G652D, 14.5kN-15.0 mm	6x8 (48f)	STD-E	15.1	170
TOL4032008/72A	GRHSLLDV 72f G652D, 14.5kN-16.5 mm	6x12 (72f)	STD-E	16.8	210
TOL4032008/96A	GRHSLLDV 96f G652D, 16kN-18.6 mm	8x12 (96f)	STD-E	18.9	245
TOL4032008/144A	GRHSLLDV 144f G652D, 18kN-22.7 mm	12x12 (144f)	STD-E	23.0	370

## Loose Tube Fig-8, GRCFL

Self-supporting figure-8 cable with concentric core design. The cable has patented DryTech filling compound and includes suspension steel wire integrated into the sheath. The cable is suitable for span lengths typically up to 75 m. The GRCLCV can be ordered with 4 to 192 fibers.

**DESIGN:** Loose Tube, Fig-8

**TYPE:** Outdoor, aerial

**CAPACITY:** 12-72 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø11.2 mm

**LENGTHS:** 2000-4000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	Ø (mm)	kg/km
TOL4032024/12A	GRCLCV 12f G652D	3x4 (12f)	STD-E	11.2 - 8.8	260
TOL4032024/24A	GRCLCV 24f G652D	6x4 (24f)	STD-E	11.2 - 8.8	260
TOL4032024/36A	GRCLCV 36f G652D	6x6 (36f)	STD-E	11.2 - 8.8	260
TOL4032024/48A	GRCLCV 48f G652D	6x8 (48f)	STD-E	11.2 - 8.8	260
TOL4032024/72A	GRCLCV 72f G652D	6x12 (72f)	STD-E	11.2 - 8.8	300

## Loose Tube Fig-8, Dielectric, GRCHL

Non-metallic figure-8 cable using concentric core design, with a glass-fiber reinforced plastic rod integrated into the sheath. The self-supporting cable is suitable for span lengths typically up to 75 m. Being dielectric, the cable can be installed adjacent to power lines with up to 120kV. The GRCLCDV can be ordered with 48 to 144 fibers.

**DESIGN:** Loose Tube, Fig-8, dielectric

**TYPE:** Outdoor, aerial

**CAPACITY:** 48-144 fibers

**FIBER TYPE:** G652D

**DIMENSIONS:** Ø11.2-15.6 mm

**LENGTHS:** 2000-4000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	Ø (mm)	kg/km
TOL4032010/48A	GRCLCDV 48f G652D	6x8 (48f)	STD-E	11.2 - 10.0	225
TOL4032010/96A	GRCLCDV 96f G652D	8x12 (96f)	STD-E	12.4 - 10.0	255
TOL4032010/144A	GRCLCDV 144f G652D	12x12 (144f)	STD-E	15.6 - 10.0	320

# CABLES FOR INDOOR AND INDOOR/OUTDOOR INSTALLATION

The cables for indoor or combined indoor/outdoor installation are all halogen-free and flame retardant (HFFR); consequently, no corrosive gases are generated during combustion. The indoor/outdoor cables are often used between a pre-terminated indoor optical distribution frame and an outdoor joint closure as well as for Fiber To The Antenna (FTTA) applications.

The range of indoor installation cables is intended for various telecommunication applications and especially for interconnection between the optical line interface and the optical distribution frames. The indoor cables are also suitable for use in LAN networks or other types of data networks. All indoor cables are halogen-free and flame retardant, and consequently generate no corrosive gases during combustion. All cables are also completely dielectric, verified according to IEC60332 classifications. Cables for permanent installation are also verified according to CE, Construction Products Regulation (CPR) for reaction to fire.



## Micro Cable, Indoor

Micro cable based on a slim loose tube design with up to eight tubes per cable. The design facilitates fiber preparation and mid-span access. The cable is designed for indoor installation and has good bend performance.

**DESIGN:** Loose Tube, micro cable, flame retardant  
**TYPE:** Indoor, CPR-class Eca  
**CAPACITY:** 12-96 fibers  
**FIBER TYPE:** G652D  
**DIMENSIONS:** Ø8.3-8.6 mm  
**LENGTHS:** 2000-6000 m

		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	Ø (mm)	kg/km
TOL4059011/12A	Micro cable 12f HFFR G652D, Green	1x12 (12f)	STD-E	8.3	80
TOL4059011/24A	Micro cable 24f HFFR G652D, Green	2x12 (24f)	STD-E	8.3	80
TOL4059011/48A	Micro cable 48f HFFR G652D, Green	4x12 (48f)	STD-E	8.3	80
TOL4059011/72A	Micro cable 72f HFFR G652D, Green	6x12 (72f)	STD-E	8.3	80
TOL4059011/96A	Micro cable 96f HFFR G652D, Green	8x12 (96f)	STD-E	8.6	81

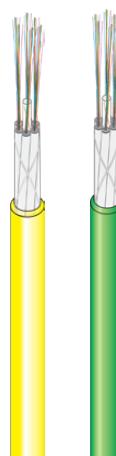


## Micro Cable, Bend-resistant, Indoor

Micro cable based on a slim loose tube design with up to eight tubes per cable. The design facilitates fiber preparation and mid-span access. The cable contains bend-resistant G657A2 fibers that gives the cable excellent bend performance.

**DESIGN:** Loose Tube, micro cable, flame retardant, bend-resistant  
**TYPE:** Indoor, CPR-class Eca  
**CAPACITY:** 12-96 fibers  
**FIBER TYPE:** G657A2  
**DIMENSIONS:** Ø8.3-8.6 mm  
**LENGTHS:** 2000-6000 m

		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	Ø (mm)	kg/km
TOL4059013/12A	Micro cable 12f HFFR G657A2, Yellow	1x12 (12f)	STD-E	8.3	80
TOL4059013/24A	Micro cable 24f HFFR G657A2, Yellow	2x12 (24f)	STD-E	8.3	80
TOL4059013/48A	Micro cable 48f HFFR G657A2, Yellow	4x12 (48f)	STD-E	8.3	80
TOL4059013/72A	Micro cable 72f HFFR G657A2, Yellow	6x12 (72f)	STD-E	8.3	80
TOL4059013/96A	Micro cable 96f HFFR G657A2, Yellow	8x12 (96f)	STD-E	8.6	81
TOL4059014/12A	Micro cable 12f HFFR G657A2, Green	1x12 (12f)	STD-E	8.3	80
TOL4059014/24A	Micro cable 24f HFFR G657A2, Green	2x12 (24f)	STD-E	8.3	80
TOL4059014/48A	Micro cable 48f HFFR G657A2, Green	4x12 (48f)	STD-E	8.3	80
TOL4059014/72A	Micro cable 72f HFFR G657A2, Green	6x12 (72f)	STD-E	8.3	80
TOL4059014/96A	Micro cable 96f HFFR G657A2, Green	8x12 (96f)	STD-E	8.6	81



## Loose Tube, Indoor/Outdoor, GRHQ

Loose tube cable with concentric core design, resulting in a cost-effective solution. Each tube contains up to 12 fibers and the cable contains up to 12 tubes. Dry water blocking makes the cable jointing procedure clean and easy.

**DESIGN:** Loose Tube, flame retardant  
**TYPE:** Indoor/Outdoor, CPR-class Eca  
**CAPACITY:** 12-96 fibers  
**FIBER TYPE:** G652D  
**DIMENSIONS:** Ø12-16 mm  
**LENGTHS:** 2000-8000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight
		No.	Color Code		
TOL4052003/12A	GRHQBDUV 12f G652D	3x4 (12f)	STD-E	12	150
TOL4052003/24A	GRHQBDUV 24f G652D	6x4 (24f)	STD-E	12	150
TOL4052003/48A	GRHQBDUV 48f G652D	6x8 (48f)	STD-E	12	150
TOL4052003/72A	GRHQBDUV 72f G652D	6x12 (72f)	STD-E	14	175
TOL4052003/96A	GRHQBDUV 96f G652D	8x12 (96f)	STD-E	16	220

## Slotted Core Ribbon, Indoor/Outdoor, GAHSQ

Ribbon cable with slotted core design, which reduces installation costs and ensures superior fiber protection. Each of the six slots contains 1-2 ribbons of the 4-fiber ribbon type. The cable is dielectric, and very slim and flexible, making it very versatile. Dry water blocking makes the cable jointing procedure clean and easy.

**DESIGN:** Slotted core, 4-fiber ribbon, flame retardant. CPR Class Eca  
**TYPE:** Indoor/Outdoor, CPR-class Eca  
**CAPACITY:** 12-96 fibers  
**FIBER TYPE:** G652D  
**DIMENSIONS:** Ø13-14.5 mm  
**LENGTHS:** 2000-8000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight
		No.	Color Code		
TOL4051001/12A	GAHSQ 12/C4 G652D S12	3x4 (12f)	S12	13	166
TOL4051001/24A	GAHSQ 24/C4 G652D S12	6x4 (24f)	S12	13	166
TOL4051001/48A	GAHSQ 48/C4 G652D S12	12x4 (48f)	S12	13	166
TOL4051001/72A	GAHSQ 72/C4 G652D S12	18x4 (72f)	S12	14.5	196
TOL4051001/96A	GAHSQ 96/C4 G652D S12	24x4 (96f)	S12	14.5	196

## Slotted Core Ribbon, Indoor/Outdoor, GAHSQ

Ribbon cable with slotted core design, which reduces installation costs and ensures superior fiber protection. Each of the six slots contain 2 ribbons of the 8-fiber ribbon type. The cable is dielectric, and very slim and flexible, making it very versatile. Dry water blocking makes the cable jointing procedure clean and easy.

**DESIGN:** Slotted core, 8-fiber ribbon, flame retardant, CPR Class Eca  
**TYPE:** Indoor/Outdoor, CPR-class Eca  
**CAPACITY:** 96-192 fibers  
**FIBER TYPE:** G652D  
**DIMENSIONS:** Ø13-14.5 mm  
**LENGTHS:** 2000-8000 m



Product No.	Product Name	Tubes/Fibers		Diameter	Weight
		No.	Color Code		
TOL4051027/96A	GAHSQ 96/B8 G652D S12	12x8 (96f)	S12	16.6	239
TOL4051027/192A	GAHSQ 192/B8 G652D S12	24x8 (192f)	S12	16.6	245

## Slotted Core Ribbon, Indoor/Outdoor, Slim, GAHSQ

Ribbon cable with slotted core design which enables a cable design with reduced installation cost and superior fiber protection. Each of the six slots contains 1-2 ribbons of the 4-fiber ribbon type. The cable is dielectric, very slim and flexible, making it very versatile. Dry water blocking makes the cable jointing procedure clean and easy.

**DESIGN:** Slotted core, 4-fiber ribbon, slim, flame retardant, CPR Class Eca  
**TYPE:** Indoor/Outdoor, CPR-class Eca  
**CAPACITY:** 12-48 fibers  
**FIBER TYPE:** G652D  
**DIMENSIONS:** Ø9.9 mm  
**LENGTHS:** 2000-6000 m



## Slotted Core Ribbon, Indoor/Outdoor, High Capacity, GAHSQ

High capacity 8-fiber ribbon cable with slotted-core design providing superior fiber protection and high fiber count. Each of the slots contains ribbons of 4 or 8 fibers. The 8-fiber ribbon can easily be split into two 4-fiber ribbons. The versatility of the cable and the inherent benefits of ribbon fiber technology reduce installation costs.

**DESIGN:** Slotted core, 8-fiber ribbon, flame retardant  
**TYPE:** Indoor/Outdoor  
**CAPACITY:** 288-1000 fibers  
**FIBER TYPE:** G652D  
**DIMENSIONS:** Ø21-28 mm  
**LENGTHS:** 2000-6000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	Ø (mm)	kg/km
TOL4051014/12A	GAHSQ 12/C4 G652D S12	3x4 (12f)	S12	9.9	95
TOL4051014/24A	GAHSQ 24/C4 G652D S12	6x4 (24f)	S12	9.9	95
TOL4051014/48A	GAHSQ 48/C4 G652D S12	12x4 (48f)	S12	9.9	95

## Patch Cable, Indoor, GNGQBDU

Simplex and duplex, buffered patch cord cable, non-jelly filled with an outer diameter of 2.0 mm per element. It can be delivered pre-terminated with a variety of connector types. The cable has low shrinkage of less than 0.5% for reliable high performance. The 2-fiber version has a figure-8 design with single fibers laid in parallel, which makes it easy to split into two simplex patch cables.

**DESIGN:** Tight buffered flame retardant, bend-resistant

**TYPE:** Indoor, IEC60332-3 cat C (LSZH), UL1666

**CAPACITY:** 1-2 fibers

**FIBER TYPE:** G657A2

**DIMENSIONS:** Ø2-2x4 mm

**LENGTHS:** 1000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	Ø (mm)	kg/km
TOL4053033/1A	GNGQBDU 1f G657A2, Blue	1f	STD-E	2.0	4
TOL4053033/1C	GNGQBDU 1f G657A2, Yellow	1f	STD-E	2.0	4
TOL4053033/2A	GNGQBDU 2f G657A2, Blue	2f	STD-E	2.0 + 2.0	8
TOL4053033/2C	GNGQBDU 2f G657A2, Yellow	2f	STD-E	2.0 + 2.0	8

## Breakout Cable, Indoor, GNGQQBDU

Break-out cable where simplex cables are assembled into one cable, with aramid yarn as strength member. The construction results in a robust cable combined with high flexibility. The cable can be delivered pre-terminated with a variety of connector types.

**DESIGN:** Tight buffered flame retardant, breakout

**TYPE:** Indoor, IEC60332-3 cat C (LSZH), UL1666

**CAPACITY:** 4 fibers

**FIBER TYPE:** G657A2

**DIMENSIONS:** 4.8x2.8 mm

**LENGTHS:** 1000 m



		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	Ø (mm)	kg/km
TOL4053035/4A	GNGQQBDU 4f G657A2, Blue	4f	STD-E	7.4	53

# HYBRID FIBER/POWER CABLES

Hybrid fiber/power cables offer the nearly unlimited bandwidth of fiber optic connections in combination with power feeding in the same cable. Typical applications for these hybrid cables are Fiber To The Antenna (FTTA) for cellular systems, WiFi hotspots, sensor networks, surveillance cameras etc.

## Hybrid Fiber/Power Cable

A robust and compact hybrid fiber cable for interconnecting power and optical links between main and remote units for outdoor and indoor radio base stations.

**DESIGN:** Hybrid fiber/power cable, flame Retardant

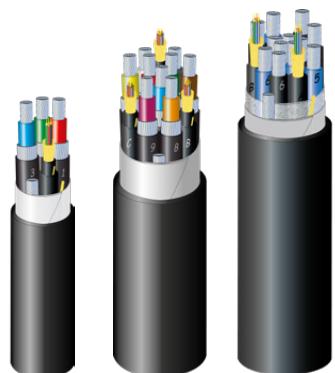
**TYPE:** Pole and tower mounting for RRU

**CAPACITY:** 12 fibers/copper wires

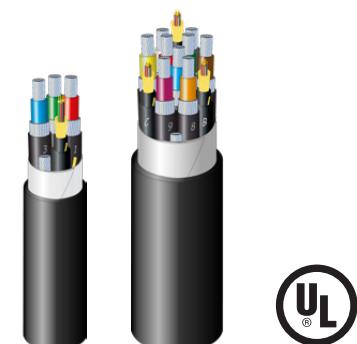
**FIBER TYPE:** G657A2, or MM OM4, bend-resistant

**DIMENSIONS:** Ø18-41 mm

**LENGTHS:** On request



Hybrid Cables		Power Cords	Fibers	Diameter	Weight
Product No.	Product Name	No. x Type	No.	Ø (mm)	kg/km
TOL4077781/30612	Hybrid 3x6 mm <sup>2</sup> , 12f G657A2	3 x 6 mm <sup>2</sup>	12	22	790
TOL4077781/31012	Hybrid 3x10 mm <sup>2</sup> , 12f G657A2	3 x 10 mm <sup>2</sup>	12	22.5	1110
TOL4077782/30612	Hybrid 3x6 mm <sup>2</sup> , 12f G657A2	3 x 6 mm <sup>2</sup>	6	22	790
TOL4077782/31012	Hybrid 3x10 mm <sup>2</sup> , 12f G657A2	3 x 10 mm <sup>2</sup>	6	27	1120
TOL4077782/60612	Hybrid 6x6 mm <sup>2</sup> , 12f G657A2	6 x 6 mm <sup>2</sup>	12	27	1230
TOL4077782/61012	Hybrid 6x10 mm <sup>2</sup> , 12f G657A2	6 x 10 mm <sup>2</sup>	12	32	1820
TOL4077783/0603	Hybrid 3x2x6 mm <sup>2</sup> , 12f MM OM4	3 x 2 x 6 mm <sup>2</sup>	6	18	650
TOL4077783/1204	Hybrid 6x2x4 mm <sup>2</sup> , 12f MM OM4	6 x 2 x 4 mm <sup>2</sup>	12	24	1000
TOL4077783/1206	Hybrid 6x2x6 mm <sup>2</sup> , 12f MM OM4	6 x 2 x 6 mm <sup>2</sup>	12	26	1280
TOL4077783/1210	Hybrid 6x2x10 mm <sup>2</sup> , 12f MM OM4	6 x 2 x 10 mm <sup>2</sup>	12	32	1850
TOL4077784/0603	Hybrid 3x2x6 mm <sup>2</sup> , 12f G657A2	3 x 2 x 6 mm <sup>2</sup>	6	18	650
TOL4077784/1204	Hybrid 6x2x4 mm <sup>2</sup> , 12f G657A2	6 x 2 x 4 mm <sup>2</sup>	12	24	1000
TOL4077784/1206	Hybrid 6x2x6 mm <sup>2</sup> , 12f G657A2	6 x 2 x 6 mm <sup>2</sup>	12	26	1280
TOL4077784/1210	Hybrid 6x2x10 mm <sup>2</sup> , 12f G657A2	6 x 2 x 10 mm <sup>2</sup>	12	32	1850



Hybrid Cables, UL Listed		Power Cords	Fibers	Diameter	Weight
Product No.	Product Name	No. x Type	No.	Ø (mm)	kg/km
TOL4077778/30612	Hybrid 3x10 AWG, 12f G657A2	3 x 10 AWG	12	22	740
TOL4077778/30812	Hybrid 3x8 AWG, 12f G657A2	3 x 8 AWG	12	26	1090
TOL4077778/50612	Hybrid 5x10 AWG, 12f G657A2	5 x 10 AWG	12	27	1070
TOL4077778/50812	Hybrid 5x8 AWG, 12f G657A2	5 x 8 AWG	12	32	1630
TOL4077778/90636	Hybrid 9x10 AWG, 12f G657A2	9 x 10 AWG	36	35	1780
TOL4077778/90836	Hybrid 9x8 AWG, 12f G657A2	9 x 8 AWG	36	41	2880

## SUBMARINE CABLES

Hexatronic's range of cables for submarine installation is based on extensive experience in submarine-cable projects, including design, project management and installation. The offering comprises cables using unitube loose tube design for depths down to 3000 m. Cable parts for integration into power cables are also provided.

Hexatronic's loose tube cables provide superior mechanical protection, easy handling and reliable performance. All cables have steel wire armoring in one or several layers and a stainless steel tube to provide the highest protection and water blocking properties.

The cables are resistant to tensile forces and impact caused by anchoring, recovery operations and handling. The loose tube technique results in a high packing density. This permits a small outer diameter and easy handling.

All loose tube cables and joints are built with the highest quality protection to ensure a long life span for maximum efficiency.

This design includes a hermetically sealed stainless tube. Inside the tube the fibers are free to move in the thixotropic water-blocking compound. The tube is protected by a polyethylene sheath, one or two layers of galvanized steel wires flooded in bitumen and then wrapped in a layer of polypropylene yarn.

Cable parts for power cable integration. Throughout our history of supplying high quality, reliable cable solutions, we have developed a long track record with leading power cable suppliers. Fiber optic submarine cable parts for integration into power cables, enables global suppliers to meet the growing need for more power over greater distances.

Cable up to 24 km can be installed without a factory joint. Cables that are longer than 24 km require factory joints. Repair joints can also be provided.

### Single Armored

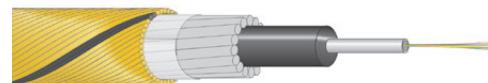
#### Loose Tube, GJLTM 5 ton SAL

Lightweight protected, loose tube cable for water depths greater than 1000 m.

**DESIGN:** Loose tube, lightweight protected

**TYPE:** 5 ton, ≤ 5000 m

**CAPACITY:** 12-192 fibers



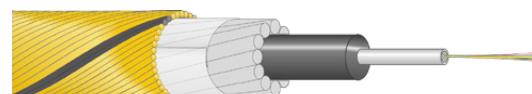
#### Loose Tube, GJLTM 10 ton SA

Single armored, loose tube cable where moderate protection is required.

**DESIGN:** Loose tube, single armor

**TYPE:** 10 ton, ≤ 3000 m

**CAPACITY:** 12-192 fibers



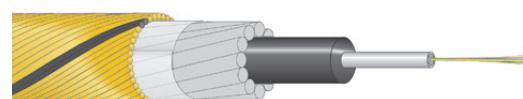
#### Loose Tube, GJLTM 15 ton SAH

Single armored, loose tube cable where high protection is required. This cable has the same principal design as the GJLTM 10 ton SA.

**DESIGN:** Loose tube, single armor

**TYPE:** 15 ton, ≤ 3000 m

**CAPACITY:** 12-192 fibers



## Double Armored

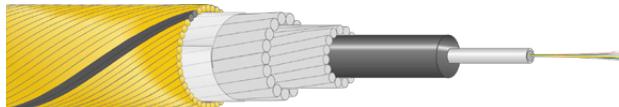
### Loose Tube, GJLTTM 15 ton DAL

Double armored, loose tube cable where high protection is required.

**DESIGN:** Loose tube, double armor

**TYPE:** 15 ton, ≤ 3000 m

**CAPACITY:** 12-192 fibers



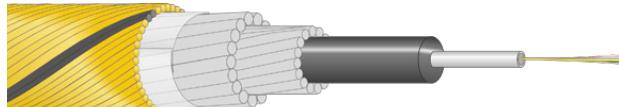
### Loose Tube, GJLTTM 25 ton DA

Double armored, loose tube cable where very high protection is required. This cable has the same principal design as the GJLTTM 15 ton DAL.

**DESIGN:** Loose tube, double armor

**TYPE:** 25 ton, ≤ 3000 m

**CAPACITY:** 12-192 fibers



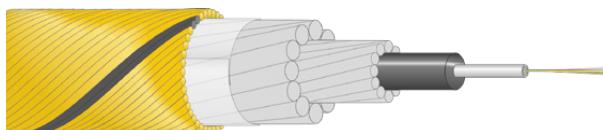
### Loose Tube, GJLTTM 40 ton DAH

Double armored, loose tube cable where ultimate protection is required. This cable has the same principal design as the GJMLTV 15 ton DAL.

**DESIGN:** Loose tube, double armor

**TYPE:** 40 ton, ≤ 3000 m

**CAPACITY:** 12-192 fibers



## Electroding – Single Armored

### Loose Tube, GJZLTM 5 ton SAL

Lightweight protected, loose tube cable for water depths greater than 1000 m. The cable incorporates a copper layer wrapped around the steel tube for electroding.

**DESIGN:** Loose tube, lightweight protected, electroding

**TYPE:** 5 ton, ≤ 3000 m

**CAPACITY:** 12-48 fibers



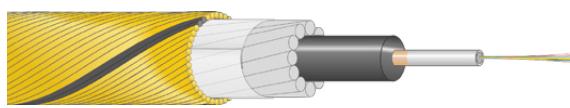
### Loose Tube, GJZLTM 10 ton SA

Single armored, loose tube cable where moderate protection is required. The cable incorporates a copper layer around the stainless steel tube for electroding.

**DESIGN:** Loose tube, single armor, electroding

**TYPE:** 10 ton, ≤ 3000 m

**CAPACITY:** 12-48 fibers



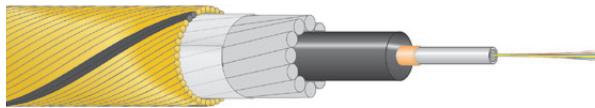
### Loose Tube, GJZLTM (GJMMLTV) 15 ton SAH

Single armored, loose tube cable where higher protection is required. This cable has the same principal design as the GJZLTM 10 ton SA.

**DESIGN:** Loose tube, single armor, electroding

**TYPE:** 15 ton, ≤ 3000 m

**CAPACITY:** 12-48 fibers



## Electroding – Double Armored

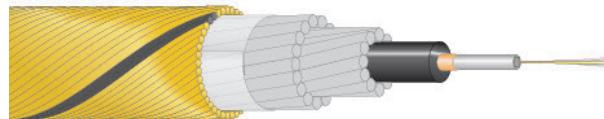
### Loose Tube, GJZLTTM 15 ton DAL

Double armored, loose tube cable where high protection is required. The cable incorporates a copper layer around the steel tube for electroding.

**DESIGN:** Loose tube, single armor, electroding

**TYPE:** 15 ton, ≤ 3000 m

**CAPACITY:** 12-48 fibers



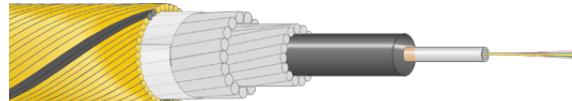
### Loose Tube, GJZLTTM 25 ton DA

Double armored, loose tube cable where very high protection is required. This cable has the same principal design as GJJZ-TTM 15 ton DAL.

**DESIGN:** Loose tube, double armor, electroding

**TYPE:** 25 ton, ≤ 3000 m

**CAPACITY:** 12-48 fibers



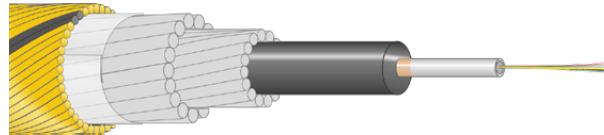
### Loose Tube, GJZLTTM 40 ton DAH

Double armored, loose tube cable where ultimate protection is required. This cable has the same principal design as GJMLTV 15 ton DAL.

**DESIGN:** Loose tube, double armor, electroding

**TYPE:** 40 ton, ≤ 3000 m

**CAPACITY:** 12-48 fibers



## Submarine Joints for Loose Tube Cables

### Submarine Joint Closure

Closure made of heavy-duty stainless steel and hermetically sealed cable joints for loose tube fiber optic submarine cables. The joint can host up to 192 fibers.

**DESIGN:** Submarine joint for GJMLTV

**CAPACITY:** 12-192 fibers



### Universal Joint/Universal Quick Joint for Submarine Cables

UJ/UQJ are technologies developed by the Universal Joint Consortium to facilitate efficient maintenance of installed submarine cable systems. Most of Hexatronic's submarine cables are qualified for this technology and for some cable types this joint type is used in installation projects of new systems.

**DESIGN:** UJ/UQJ for 10-, 15, 25-, 40 ton submarine cables

**CAPACITY:** 12-192 fibers



## Underwater Cable

### Underwater Cable, GAHSALJL, Ribbon

GASALTLV is a single armored, ribbon cable for shallow submarine installations where moderate protection is required. The cable is suitable for lakes and river crossings in all types of networks such as trunk, metropolitan and fiber access networks



**DESIGN:** Slotted core ribbon

**TYPE:** ≤ 100 m

**CAPACITY:** 12-192 fibers

**FIBER TYPE:** G652D

		Tubes/Fibers		Diameter	Weight
Product No.	Product Name	No.	Color Code	Ø (mm)	kg/km
TOL4043001/12A	Underwater Cable, 12f G652D	12f	S12/STD-E	20	800
TOL4043001/24A	Underwater Cable, 24f G652D	24f	S12/STD-E	20	800
TOL4043001/48A	Underwater Cable, 48f G652D	48f	S12/STD-E	20	800
TOL4043001/96A	Underwater Cable, 96f G652D	96f	S12/STD-E	22	1000
TOL4043002/144A	Underwater Cable, 144f G652D	144f	S12/STD-E	24	1100
TOL4043002/192A	Underwater Cable, 192f G652D	192f	S12/STD-E	24	1100

## Submarine Optical Cable Parts

### Submarine Optical Cable Part 12-96 Fibers, GJL

The cable part is based on a hermetically sealed stainless tube. Inside the tube the fibers are free to move in thixotropic water blocking compound. The steel tube is protected by a semiconductive polyethylene sheath. The fibers are easy to identify due to color and the colored yarns. The cable part is designed to be integrated in submarine electrical power cables.



**DESIGN:** Loose tube

**TYPE:** For integration, ≤ 3000 m

**CAPACITY:** 12-96 fibers

# Microducts and Microduct Assemblies

Microducts and microduct assemblies are available for several installation environments such as direct buried installation, into existing pipes or for indoor installation.

Basically two type of microduct assemblies are available:

- Thick Walled Ducts (TWD)
- Tight Protected Ducts (TPD)

Thick Walled Ducts (TWD) are characterized by heavy wall microducts and a relatively thin outer sheath. The microducts themselves are rugged enough to protect the fiber cables inside.

Typical dimensions for TWD are (OD/ID):

5/2.5, 7/3.5, 7/4, 8/4, 8/5, 10/6, 12/8, 14/10, 16/10, 16/12, 18/12, 20/15, 20/16 and 25/19 mm. The most common types are listed in this catalogue. Contact Hexatronic for more dimensions and color versions.

Tight Protected Ducts (TPD) are characterized by one or several sheets that protect the relatively thin walled microducts. The sheets form a thick protective layer that in combination with the microducts protect the fiber cable or blown fiber.

Typical dimensions for TPD are (OD/ID):

3/2 mm, 5/3.5 mm, 10/8 mm and 12/10 mm

Tight protected ducts have a substantially higher impact resistance compared to thick walled ducts and are therefore a safer choice in many installations. Thick walled ducts simplify jointing and branching of ducts which results in a slightly lower installation cost.

Microducts and microduct assemblies for certain installation types, e.g. aerial installation and indoor installation are only available as TPD. However, TWD and TPD may be connected in the same network using reduction connectors.

## THICK WALLED MICRODUCTS

### Thick Walled Microducts and Microduct Assemblies, 7/3.5 mm

The ducts have an outer/inner diameter of 7/3.5 mm and are suitable for installation of air blown fiber and nano cables. The ducts are made of HDPE with anti static agents and have a low friction inner surface for best blowing performance. Assemblies have a thin outer sheath of HDPE that is easily removed when splicing or branching.

**DESIGN:** Thick walled ducts

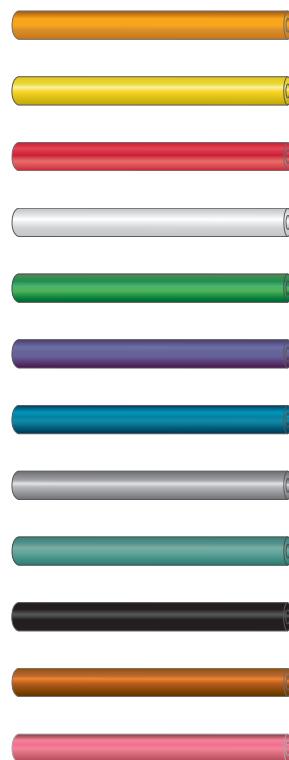
**TYPE:** Direct buried or installation in existing pipes

**CAPACITY:** single ducts, 1, 2, 4, 7 and 12-way

**DIMENSIONS:** OD/ID Ø7/3.5 mm

**LENGTHS:** 500 or 1000 m drum, 100 m coil

Microducts, 7/3.5 mm		Diameter	Weight	Length
Product No.	Product Name	OD/ID ø (mm)	kg/km	m
MPB30284/OG1-1	Microduct 7/3.5 mm, Orange	7/3.5	29	1000
MPB30284/OG1-2	Microduct 7/3.5 mm, Orange	7/3.5	29	500
MPB30284/OG1-10	Microduct 7/3.5 mm, Orange	7/3.5	29	100
MPB30284/YE1-1	Microduct 7/3.5 mm, Yellow	7/3.5	29	1000
MPB30284/YE1-2	Microduct 7/3.5 mm, Yellow	7/3.5	29	500
MPB30284/YE1-10	Microduct 7/3.5 mm, Yellow	7/3.5	29	100
MPB30284/RD1-1	Microduct 7/3.5 mm, Red	7/3.5	29	1000
MPB30284/RD1-2	Microduct 7/3.5 mm, Red	7/3.5	29	500
MPB30284/RD1-10	Microduct 7/3.5 mm, Red	7/3.5	29	100
MPB30284/WH1-1	Microduct 7/3.5 mm, White	7/3.5	29	1000
MPB30284/WH1-2	Microduct 7/3.5 mm, White	7/3.5	29	500
MPB30284/WH1-10	Microduct 7/3.5 mm, White	7/3.5	29	100
MPB30284/GN1-1	Microduct 7/3.5 mm, Green	7/3.5	29	1000
MPB30284/GN1-2	Microduct 7/3.5 mm, Green	7/3.5	29	500
MPB30284/GN1-10	Microduct 7/3.5 mm, Green	7/3.5	29	100
MPB30284/VT1-1	Microduct 7/3.5 mm, Violet	7/3.5	29	1000
MPB30284/VT1-2	Microduct 7/3.5 mm, Violet	7/3.5	29	500
MPB30284/VT1-10	Microduct 7/3.5 mm, Violet	7/3.5	29	100
MPB30284/BU1-1	Microduct 7/3.5 mm, Blue	7/3.5	29	1000
MPB30284/BU1-2	Microduct 7/3.5 mm, Blue	7/3.5	29	500
MPB30284/BU1-10	Microduct 7/3.5 mm, Blue	7/3.5	29	100
MPB30284/GY1-1	Microduct 7/3.5 mm, Grey	7/3.5	29	1000
MPB30284/GY1-2	Microduct 7/3.5 mm, Grey	7/3.5	29	500
MPB30284/GY1-10	Microduct 7/3.5 mm, Grey	7/3.5	29	100



Continues on next page

<b>Micrducts, 7/3.5 mm, continuing from previous page</b>		Diameter	Weight	Length
Product No.	Product Name	OD/ID ø (mm)	kg/km	m
MPB30284/TQ1-1	Micrduct 7/3.5 mm, Turquoise	7/3.5	29	1000
MPB30284/TQ1-2	Micrduct 7/3.5 mm, Turquoise	7/3.5	29	500
MPB30284/TQ1-10	Micrduct 7/3.5 mm, Turquoise	7/3.5	29	100
MPB30284/BK1-1	Micrduct 7/3.5 mm, Black	7/3.5	29	1000
MPB30284/BK1-2	Micrduct 7/3.5 mm, Black	7/3.5	29	500
MPB30284/BK1-10	Micrduct 7/3.5 mm, Black	7/3.5	29	100
MPB30284/BN1-1	Micrduct 7/3.5 mm, Brown	7/3.5	29	1000
MPB30284/BN1-2	Micrduct 7/3.5 mm, Brown	7/3.5	29	500
MPB30284/BN1-10	Micrduct 7/3.5 mm, Brown	7/3.5	29	100
MPB30284/PK1-1	Micrduct 7/3.5 mm, Pink	7/3.5	29	1000
MPB30284/PK1-2	Micrduct 7/3.5 mm, Pink	7/3.5	29	500
MPB30284/PK1-10	Micrduct 7/3.5 mm, Pink	7/3.5	29	100



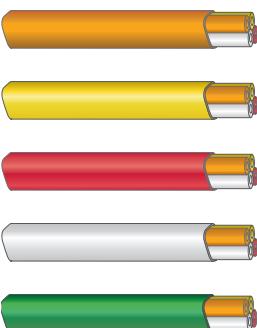
<b>Sheathed micrducts, 7/3.5 mm</b>			Diameter Micro- ducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	ø (mm)	kg/km	m
MPB30278/1	Micrduct Assembly 1x7/3.5 mm STD, Orange	Orange - STD	7/3.5	9	53	1000



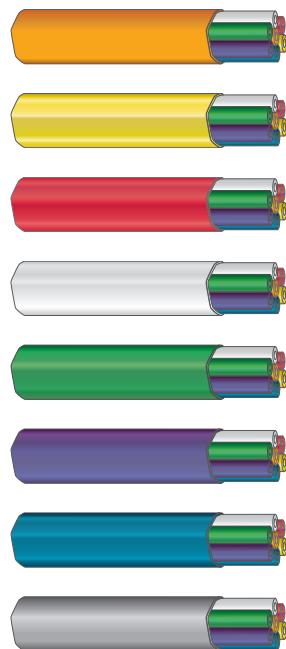
<b>Assemblies with 2 micrducts, 7/3.5 mm</b>			Diameter Micro- ducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	ø (mm)	kg/km	m
MPB30278/2	Micrduct Assembly 2x7/3.5 mm STD, Orange	Orange - STD	7/3.5	16x9	105	1000



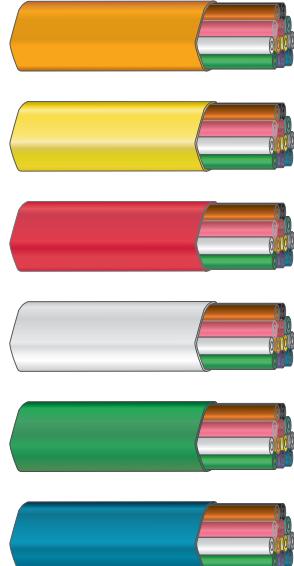
<b>Assemblies with 4 micrducts, 7/3.5 mm</b>			Diameter Micro- ducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	ø (mm)	kg/km	m
MPB30278/4M-1	Micrduct Assembly 4x7/3.5 mm S12, Orange	Orange - S12	7/3.5	16x16	175	1000
MPB30278/4M-2	Micrduct Assembly 4x7/3.5 mm S12, Orange	Orange - S12	7/3.5	16x16	175	500
4/MPB30278/4M-1	Micrduct Assembly 4x7/3.5 mm S12, Yellow	Yellow - S12	7/3.5	16x16	175	100
4/MPB30278/4M-2	Micrduct Assembly 4x7/3.5 mm S12, Yellow	Yellow - S12	7/3.5	16x16	175	500
2/MPB30278/4M-1	Micrduct Assembly 4x7/3.5 mm S12, Red	Red - S12	7/3.5	16x16	175	1000
2/MPB30278/4M-2	Micrduct Assembly 4x7/3.5 mm S12, Red	Red - S12	7/3.5	16x16	175	500
5/MPB30278/4M-1	Micrduct Assembly 4x7/3.5 mm S12, White	White - S12	7/3.5	16x16	175	1000
5/MPB30278/4M-2	Micrduct Assembly 4x7/3.5 mm S12, White	White - S12	7/3.5	16x16	175	500
1/MPB30278/4M-1	Micrduct Assembly 4x7/3.5 mm S12, Green	Green - S12	7/3.5	16x16	175	1000
1/MPB30278/4M-2	Micrduct Assembly 4x7/3.5 mm S12, Green	Green - S12	7/3.5	16x16	175	500
6/MPB30278/4M-1	Micrduct Assembly 4x7/3.5 mm S12, Violet	Violet - S12	7/3.5	16x16	175	1000
6/MPB30278/4M-2	Micrduct Assembly 4x7/3.5 mm S12, Violet	Violet - S12	7/3.5	16x16	175	500
3/MPB30278/4M-1	Micrduct Assembly 4x7/3.5 mm S12, Blue	Blue - S12	7/3.5	16x16	175	1000
3/MPB30278/4M-2	Micrduct Assembly 4x7/3.5 mm S12, Blue	Blue - S12	7/3.5	16x16	175	500
9/MPB30278/4M-1	Micrduct Assembly 4x7/3.5 mm S12, Grey	Grey - S12	7/3.5	16x16	175	1000
9/MPB30278/4M-2	Micrduct Assembly 4x7/3.5 mm S12, Grey	Grey - S12	7/3.5	16x16	175	500



Assemblies with 7 microducts, 7/3.5 mm			Diameter Micro-ducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	ø (mm)	kg/km	m
MPB30278/7M-1	Microduct Assembly 7x7/3.5 mm S12, Orange	Orange - S12	7/3.5	23	250	1000
MPB30278/7M-2	Microduct Assembly 7x7/3.5 mm S12, Orange	Orange - S12	7/3.5	23	250	500
4/MPB30278/7M-1	Microduct Assembly 7x7/3.5 mm S12, Yellow	Yellow - S12	7/3.5	23	250	100
4/MPB30278/7M-2	Microduct Assembly 7x7/3.5 mm S12, Yellow	Yellow - S12	7/3.5	23	250	500
2/MPB30278/7M-1	Microduct Assembly 7x7/3.5 mm S12, Red	Red - S12	7/3.5	23	250	1000
2/MPB30278/7M-2	Microduct Assembly 7x7/3.5 mm S12, Red	Red - S12	7/3.5	23	250	500
5/MPB30278/7M-1	Microduct Assembly 7x7/3.5 mm S12, White	White - S12	7/3.5	23	250	1000
5/MPB30278/7M-2	Microduct Assembly 7x7/3.5 mm S12, White	White - S12	7/3.5	23	250	500
1/MPB30278/7M-1	Microduct Assembly 7x7/3.5 mm S12, Green	Green - S12	7/3.5	23	250	1000
1/MPB30278/7M-2	Microduct Assembly 7x7/3.5 mm S12, Green	Green - S12	7/3.5	23	250	500
6/MPB30278/7M-1	Microduct Assembly 7x7/3.5 mm S12, Violet	Violet - S12	7/3.5	23	250	1000
6/MPB30278/7M-2	Microduct Assembly 7x7/3.5 mm S12, Violet	Violet - S12	7/3.5	23	250	500
3/MPB30278/7M-1	Microduct Assembly 7x7/3.5 mm S12, Blue	Blue - S12	7/3.5	23	250	1000
3/MPB30278/7M-2	Microduct Assembly 7x7/3.5 mm S12, Blue	Blue - S12	7/3.5	23	250	500
9/MPB30278/7M-1	Microduct Assembly 7x7/3.5 mm S12, Grey	Grey - S12	7/3.5	23	250	1000
9/MPB30278/7M-2	Microduct Assembly 7x7/3.5 mm S12, Grey	Grey - S12	7/3.5	23	250	500
7/MPB30278/7M-1	Microduct Assembly 7x7/3.5 mm S12, Pink	Pink - S12	7/3.5	23	250	1000
7/MPB30278/7M-2	Microduct Assembly 7x7/3.5 mm S12, Pink	Pink - S12	7/3.5	23	250	500



Assemblies with 12 microducts, 7/3.5 mm			Diameter Micro-ducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	ø (mm)	kg/km	m
MPB30278/12M-1	Microduct Assembly 12x7/3.5 mm S12, Orange	Orange - S12	7/3.5	30x27.3	455	1000
MPB30278/12M-2	Microduct Assembly 12x7/3.5 mm S12, Orange	Orange - S12	7/3.5	30x27.3	455	500
4/MPB30278/12M-1	Microduct Assembly 12x7/3.5 mm S12, Yellow	Yellow - S12	7/3.5	30x27.3	455	100
4/MPB30278/12M-2	Microduct Assembly 12x7/3.5 mm S12, Yellow	Yellow - S12	7/3.5	30x27.3	455	500
2/MPB30278/12M-1	Microduct Assembly 12x7/3.5 mm S12, Red	Red - S12	7/3.5	30x27.3	455	1000
2/MPB30278/12M-2	Microduct Assembly 12x7/3.5 mm S12, Red	Red - S12	7/3.5	30x27.3	455	500
5/MPB30278/12M-1	Microduct Assembly 12x7/3.5 mm S12, White	White - S12	7/3.5	30x27.3	455	1000
5/MPB30278/12M-2	Microduct Assembly 12x7/3.5 mm S12, White	White - S12	7/3.5	30x27.3	455	500
1/MPB30278/12M-1	Microduct Assembly 12x7/3.5 mm S12, Green	Green - S12	7/3.5	30x27.3	455	1000
1/MPB30278/12M-2	Microduct Assembly 12x7/3.5 mm S12, Green	Green - S12	7/3.5	30x27.3	455	500
6/MPB30278/12M-1	Microduct Assembly 12x7/3.5 mm S12, Violet	Violet - S12	7/3.5	30x27.3	455	1000
6/MPB30278/12M-2	Microduct Assembly 12x7/3.5 mm S12, Violet	Violet - S12	7/3.5	30x27.3	455	500
3/MPB30278/12M-1	Microduct Assembly 12x7/3.5 mm S12, Blue	Blue - S12	7/3.5	30x27.3	455	1000
3/MPB30278/12M-2	Microduct Assembly 12x7/3.5 mm S12, Blue	Blue - S12	7/3.5	30x27.3	455	500
9/MPB30278/12M-1	Microduct Assembly 12x7/3.5 mm S12, Grey	Grey - S12	7/3.5	30x27.3	455	1000
9/MPB30278/12M-2	Microduct Assembly 12x7/3.5 mm S12, Grey	Grey - S12	7/3.5	30x27.3	455	500
7/MPB30278/12M-1	Microduct Assembly 12x7/3.5 mm S12, Pink	Pink - S12	7/3.5	30x27.3	455	1000
7/MPB30278/12M-2	Microduct Assembly 12x7/3.5 mm S12, Pink	Pink - S12	7/3.5	30x27.3	455	500



Assemblies with 19 and 24 microducts, 7/3.5 mm			Diameter Micro-ducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	ø (mm)	kg/km	m
MPB30278/19M	Microduct Assembly 19x7/3.5 mm S12, Orange	Orange - S12	7/3.5	ø 36	600	1000
MPB30278/24M	Microduct Assembly 24x7/3.5 mm S12, Orange	Orange - S12	7/3.5	44x33	785	1000

## Thick Walled Microducts and Microduct Assemblies, 14/10 mm

The ducts have an outer/inner diameter of 14/10mm and are suitable for installation of micro cables and nano cables. The ducts are made of HDPE and have a low friction inner surface for best blowing performance. Assemblies have a thin outer sheath of HDPE that is easily removed when splicing or branching.

**DESIGN:** Thick walled ducts

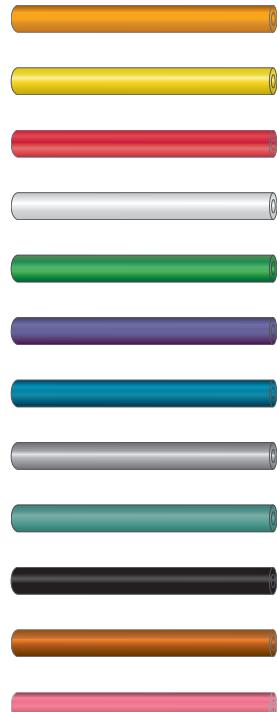
**TYPE:** Direct buried or installation in existing pipes

**CAPACITY:** single ducts, 2, 4 and 7-way

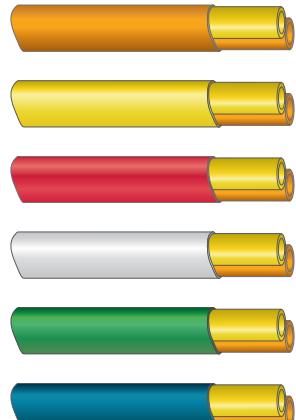
**DIMENSIONS:** OD/ID Ø14/10 mm

**LENGTHS:** 500, 680 or 1000 m

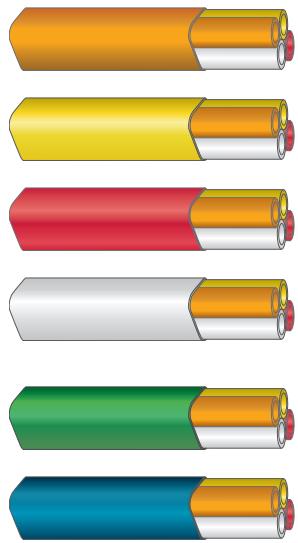
Microducts ,14/10 mm		Diameter	Weight	Length
Product No.	Product Name	OD/ID ø (mm)	kg/km	m
MPB30285/OG1-1	Microduct 14/10 mm, Orange	14/10	72	1000
MPB30285/OG1-5	Microduct 14/10 mm, Orange	14/10	72	680
MPB30285/YE1-1	Microduct 14/10 mm, Yellow	14/10	72	1000
MPB30285/YE1-5	Microduct 14/10 mm, Yellow	14/10	72	680
MPB30285/RD1-1	Microduct 14/10 mm, Red	14/10	72	1000
MPB30285/RD1-5	Microduct 14/10 mm, Red	14/10	72	680
MPB30285/WH1-1	Microduct 14/10 mm, White	14/10	72	1000
MPB30285/WH1-5	Microduct 14/10 mm, White	14/10	72	680
MPB30285/GN1-1	Microduct 14/10 mm, Green	14/10	72	1000
MPB30285/GN1-5	Microduct 14/10 mm, Green	14/10	72	680
MPB30285/VT1-1	Microduct 14/10 mm, Violet	14/10	72	1000
MPB30285/VT1-5	Microduct 14/10 mm, Violet	14/10	72	680
MPB30285/BU1-1	Microduct 14/10 mm, Blue	14/10	72	1000
MPB30285/BU1-5	Microduct 14/10 mm, Blue	14/10	72	680
MPB30285/GY1-1	Microduct 14/10 mm, Grey	14/10	72	1000
MPB30285/GY1-5	Microduct 14/10 mm, Grey	14/10	72	1000
MPB30285/TQ1-1	Microduct 14/10 mm, Turquoise	14/10	72	1000
MPB30285/TQ1-5	Microduct 14/10 mm, Turquoise	14/10	72	680
MPB30285/BK1-1	Microduct 14/10 mm, Black	14/10	72	1000
MPB30285/BK1-5	Microduct 14/10 mm, Black	14/10	72	680
MPB30285/BN1-1	Microduct 14/10 mm, Brown	14/10	72	1000
MPB30285/BN1-5	Microduct 14/10 mm, Brown	14/10	72	680
MPB30285/PK1-1	Microduct 14/10 mm, Pink	14/10	72	1000
MPB30285/PK1-5	Microduct 14/10 mm, Pink	14/10	72	680



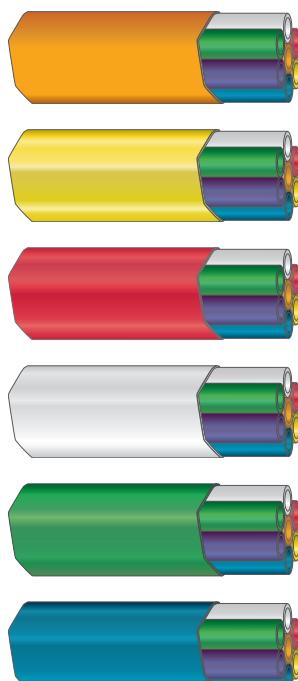
Assemblies with 2 microducts, 14/10 mm			Diameter Micro-ducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	ø (mm)	kg/km	m
MPB30281/2M-1	Microduct Assembly 2x14/10 mm S12, Orange	Orange - S12	14/10	30x16	218	1000
MPB30281/2M-2	Microduct Assembly 2x14/10 mm S12, Orange	Orange - S12	14/10	30x16	218	500
4/MPB30281/2M-1	Microduct Assembly 2x14/10 mm S12, Yellow	Yellow - S12	14/10	30x16	218	100
4/MPB30281/2M-2	Microduct Assembly 2x14/10 mm S12, Yellow	Yellow - S12	14/10	30x16	218	500
2/MPB30281/2M-1	Microduct Assembly 2x14/10 mm S12, Red	Red - S12	14/10	30x16	218	1000
2/MPB30281/2M-2	Microduct Assembly 2x14/10 mm S12, Red	Red - S12	14/10	30x16	218	500
5/MPB30281/2M-1	Microduct Assembly 2x14/10 mm S12, White	White - S12	14/10	30x16	218	1000
5/MPB30281/2M-2	Microduct Assembly 2x14/10 mm S12, White	White - S12	14/10	30x16	218	500
1/MPB30281/2M-1	Microduct Assembly 2x14/10 mm S12, Green	Green - S12	14/10	30x16	218	1000
1/MPB30281/2M-2	Microduct Assembly 2x14/10 mm S12, Green	Green - S12	14/10	30x16	218	500
6/MPB30281/4M-1	Microduct Assembly 2x14/10 mm S12, Violet	Violet - S12	14/10	30x16	218	1000
6/MPB30281/4M-2	Microduct Assembly 2x14/10 mm S12, Violet	Violet - S12	14/10	30x16	218	500
3/MPB30281/4M-1	Microduct Assembly 2x14/10 mm S12, Blue	Blue - S12	14/10	30x16	218	1000
3/MPB30281/4M-2	Microduct Assembly 2x14/10 mm S12, Blue	Blue - S12	14/10	30x16	218	500



Assemblies with 4 microducts, 14/10 mm			Diameter Micro-ducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	ø (mm)	kg/km	m
MPB30277/4M-1	Microduct Assembly 4x14/10 mm S12, Orange	Orange - S12	14/10	30x30	360	1000
MPB30277/4M-2	Microduct Assembly 4x14/10 mm S12, Orange	Orange - S12	14/10	30x30	360	500
4/MPB30277/4M-1	Microduct Assembly 4x14/10 mm S12, Yellow	Yellow - S12	14/10	30x30	360	100
4/MPB30277/4M-2	Microduct Assembly 4x14/10 mm S12, Yellow	Yellow - S12	14/10	30x30	360	500
2/MPB30277/4M-1	Microduct Assembly 4x14/10 mm S12, Red	Red - S12	14/10	30x30	360	1000
2/MPB30277/4M-2	Microduct Assembly 4x14/10 mm S12, Red	Red - S12	14/10	30x30	360	500
5/MPB30277/4M-1	Microduct Assembly 4x14/10 mm S12, White	White - S12	14/10	30x30	360	1000
5/MPB30277/4M-2	Microduct Assembly 4x14/10 mm S12, White	White - S12	14/10	30x30	360	500
1/MPB30277/4M-1	Microduct Assembly 4x14/10 mm S12, Green	Green - S12	14/10	30x30	360	1000
1/MPB30277/4M-2	Microduct Assembly 4x14/10 mm S12, Green	Green - S12	14/10	30x30	360	500
6/MPB30277/4M-1	Microduct Assembly 4x14/10 mm S12, Violet	Violet - S12	14/10	30x30	360	1000
6/MPB30277/4M-2	Microduct Assembly 4x14/10 mm S12, Violet	Violet - S12	14/10	30x30	360	500
3/MPB30277/4M-1	Microduct Assembly 4x14/10 mm S12, Blue	Blue - S12	14/10	30x30	360	1000
3/MPB30277/4M-2	Microduct Assembly 4x14/10 mm S12, Blue	Blue - S12	14/10	30x30	360	500



Assemblies with 7 microducts, 14/10 mm			Diameter Micro-ducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	ø (mm)	kg/km	m
MPB30277/7M-1	Microduct Assembly 7x14/10 mm S12, Orange	Orange - S12	14/10	ø44	648	1000
MPB30277/7M-2	Microduct Assembly 7x14/10 mm S12, Orange	Orange - S12	14/10	ø44	648	500
4/MPB30277/7M-1	Microduct Assembly 7x14/10 mm S12, Yellow	Yellow - S12	14/10	ø44	648	1000
4/MPB30277/7M-2	Microduct Assembly 7x14/10 mm S12, Yellow	Yellow - S12	14/10	ø44	648	500
2/MPB30277/7M-1	Microduct Assembly 7x14/10 mm S12, Red	Red - S12	14/10	ø44	648	1000
2/MPB30277/7M-2	Microduct Assembly 7x14/10 mm S12, Red	Red - S12	14/10	ø44	648	500
5/MPB30277/7M-1	Microduct Assembly 7x14/10 mm S12, White	White - S12	14/10	ø44	648	1000
5/MPB30277/7M-2	Microduct Assembly 7x14/10 mm S12, White	White - S12	14/10	ø44	648	500
1/MPB30277/7M-1	Microduct Assembly 7x14/10 mm S12, Green	Green - S12	14/10	ø44	648	1000
1/MPB30277/7M-2	Microduct Assembly 7x14/10 mm S12, Green	Green - S12	14/10	ø44	648	500
6/MPB30277/7M-1	Microduct Assembly 7x14/10 mm S12, Violet	Violet - S12	14/10	ø44	648	1000
6/MPB30277/7M-2	Microduct Assembly 7x14/10 mm S12, Violet	Violet - S12	14/10	ø44	648	500
3/MPB30277/7M-1	Microduct Assembly 7x14/10 mm S12, Blue	Blue - S12	14/10	ø44	648	1000
3/MPB30277/7M-2	Microduct Assembly 7x14/10 mm S12, Blue	Blue - S12	14/10	ø44	648	500



## Thick Walled Microducts and Microduct Assemblies, 16/12 mm

Thick walled microducts to be used in combination with thick walled microduct assemblies. The ducts have an outer/inner diameter of 16/12 mm and are suitable for installation of micro cables. The ducts are made of HDPE and have a low friction inner surface for best blowing performance. Assemblies have a thin outer sheath of HDPE that is easily removed when splicing or branching.

**DESIGN:** Thick walled ducts

**TYPE:** Direct buried or installation in existing pipes

**CAPACITY:** single ducts, 2 and 4-way

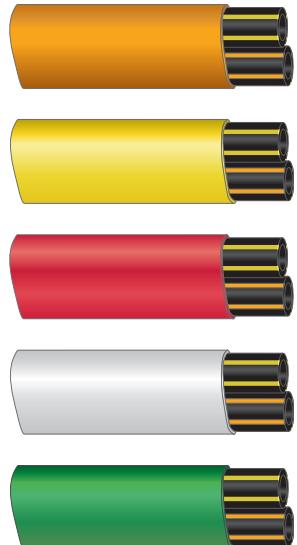
**DIMENSIONS:** OD/ID Ø16/12 mm

**LENGTHS:** 1000, 2000 m

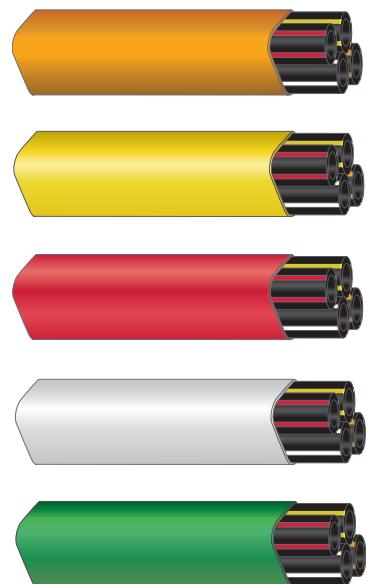
Microducts, 16/12 mm		Diameter	Weight	Length
Product No.	Product Name	OD/ID Ø (mm)	kg/km	m
MPB30218/OG1-1	Microduct 16/12 mm, Orange Stripes	16/12	83	1000
MPB30218/OG1-3	Microduct 16/12 mm, Orange Stripes	16/12	83	2000
MPB30218/YE1-1	Microduct 16/12 mm, Yellow Stripes	16/12	83	1000
MPB30218/YE1-3	Microduct 16/12 mm, Yellow Stripes	16/12	83	2000
MPB30218/RD1-1	Microduct 16/12 mm, Red Stripes	16/12	83	1000
MPB30218/RD1-3	Microduct 16/12 mm, Red Stripes	16/12	83	2000
MPB30218/WH1-1	Microduct 16/12 mm, White Stripes	16/12	83	1000
MPB30218/WH1-3	Microduct 16/12 mm, White Stripes	16/12	83	2000
MPB30218/GN1-1	Microduct 16/12 mm, Green Stripes	16/12	83	1000
MPB30218/GN1-3	Microduct 16/12 mm, Green Stripes	16/12	83	2000
MPB30218/VT1-1	Microduct 16/12 mm, Violet Stripes	16/12	83	1000
MPB30218/VT1-3	Microduct 16/12 mm, Violet Stripes	16/12	83	2000
MPB30218/BU1-1	Microduct 16/12 mm, Blue Stripes	16/12	83	1000
MPB30218/BU1-3	Microduct 16/12 mm, Blue Stripes	16/12	83	2000
MPB30218/GY1-1	Microduct 16/12 mm, Grey Stripes	16/12	83	1000
MPB30218/GY1-3	Microduct 16/12 mm, Grey Stripes	16/12	83	2000
MPB30218/TQ1-1	Microduct 16/12 mm, Turquoise Stripes	16/12	83	1000
MPB30218/TQ1-3	Microduct 16/12 mm, Turquoise Stripes	16/12	83	2000
MPB30218/BK1-1	Microduct 16/12 mm, Black	16/12	83	1000
MPB30218/BK1-3	Microduct 16/12 mm, Black	16/12	83	2000
MPB30218/BN1-1	Microduct 16/12 mm, Brown Stripes	16/12	83	1000
MPB30218/BN1-3	Microduct 16/12 mm, Brown Stripes	16/12	83	2000
MPB30218/PK1-1	Microduct 16/12 mm, Pink Stripes	16/12	83	1000
MPB30218/PK1-3	Microduct 16/12 mm, Pink Stripes	16/12	83	2000



Assemblies with 2 microducts, 16/12 mm			Diameter Microducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID Ø (mm)	(mm)	kg/km	m
MPB30218/2M-1	Microduct Assembly 2x16/12 mm S12	Orange - S12	16/12	34x18	180	1000
4/MPB30218/2M-1	Microduct Assembly 2x16/12 mm S12	Yellow - S12	16/12	34x18	180	1000
2/MPB30218/2M-1	Microduct Assembly 2x16/12 mm S12	Red - S12	16/12	34x18	180	1000
5/MPB30218/2M-1	Microduct Assembly 2x16/12 mm S12	White - S12	16/12	34x18	180	1000
1/MPB30218/2M-1	Microduct Assembly 2x16/12 mm S12	Green - S12	16/12	34x18	180	1000



Assemblies with 4 microducts, 16/12 mm			Diameter Microducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID Ø (mm)	(mm)	kg/km	m
MPB30218/4M-1	Microduct Assembly 4x16/12 mm S12	Orange - S12	16/12	34x34	360	1000
4/MPB30218/4M-1	Microduct Assembly 4x16/12 mm S12	Yellow - S12	16/12	34x34	360	1000
2/MPB30218/4M-1	Microduct Assembly 4x16/12 mm S12	Red - S12	16/12	34x34	360	1000
5/MPB30218/4M-1	Microduct Assembly 4x16/12 mm S12	White - S12	16/12	34x34	360	1000
1/MPB30218/4M-1	Microduct Assembly 4x16/12 mm S12	Green - S12	16/12	34x34	360	1000



Assemblies with 7 microducts, 16/12 mm			Diameter Microducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID Ø (mm)	Ø (mm)	kg/km	m
MPB30218/7M-1	Microduct Assembly 7x16/12 mm S12	Orange - S12	16/12	ø50	640	1000
MPB30218/47M-2	Microduct Assembly 7x16/12 mm S12	Orange - S12	16/12	ø50	640	1000

## Thick Walled Microducts 16/10 mm

Thick walled microducts to be used in combination with thick walled microduct assemblies. The ducts have an outer/inner diameter of 16/10 mm and are suitable for installation of micro cables. The ducts are made of HDPE and have a low friction inner surface for best blowing performance.

**DESIGN:** Thick walled ducts  
**TYPE:** Direct buried or installation in existing pipes  
**CAPACITY:** single ducts  
**DIMENSIONS:** OD/ID Ø16/10 mm  
**LENGTHS:** 1000 m

Microducts, 16/10 mm		Diameter	Weight	Length
Product No.	Product Name	OD/ID Ø (mm)	kg/km	m
MPB30241/OG1-1	Microduct 16/10 mm, Orange Stripes	16/10	117	1000
MPB30241/YE1-1	Microduct 16/10 mm, Yellow Stripes	16/10	117	1000
MPB30241/RD1-1	Microduct 16/10 mm, Red Stripes	16/10	117	1000
MPB30241/WH1-1	Microduct 16/10 mm, White Stripes	16/10	117	1000
MPB30241/GN1-1	Microduct 16/10 mm, Green Stripes	16/10	117	1000
MPB30241/VT1-1	Microduct 16/10 mm, Violet Stripes	16/10	117	1000
MPB30241/BU1-1	Microduct 16/10 mm, Blue Stripes	16/10	117	1000
MPB30241/GY1-1	Microduct 16/10 mm, Gray Stripes	16/10	117	1000
MPB30241/TQ1-1	Microduct 16/10 mm, Turquoise Stripes	16/10	117	1000
MPB30241/BK1-1	Microduct 16/10 mm, Black	16/10	117	1000
MPB30241/BN1-1	Microduct 16/10 mm, Brown Stripes	16/10	117	1000
MPB30241/PK1-1	Microduct 16/10 mm, Pink Stripes	16/10	117	1000



# THIN WALLED MICRODUCTS – SLIM

## Thin Walled Microducts and Microduct Assemblies, 5/3.5 mm

Thin walled microducts are normally installed in existing pipes with limited space and where thick walled ducts will not fit. They are easily connected to 7/3.5 mm thick walled ducts with reduction connectors.

The ducts have an outer/inner diameter of 5/3.5mm and are suitable for installation of air blown fiber and nano cables. The ducts are made of HDPE with anti static agents and have a low

friction inner surface for best blowing performance. Assemblies have a thin outer sheath of HDPE that is easily removed when splicing or branching.

**DESIGN:** Thin walled ducts

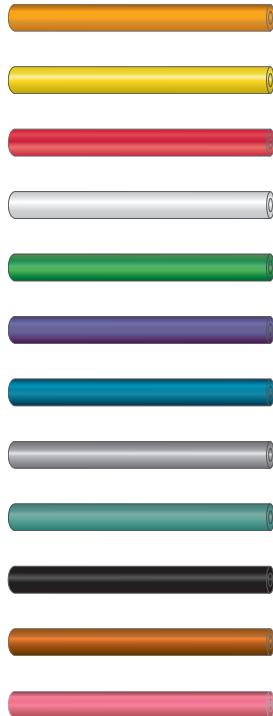
**TYPE:** Installation in existing pipes

**CAPACITY:** single ducts, 1, 4, 7 and 12-way

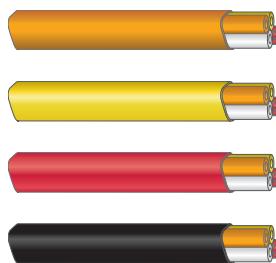
**DIMENSIONS:** OD/ID Ø5/3.5 mm

**LENGTHS:** 500 or 1000 m

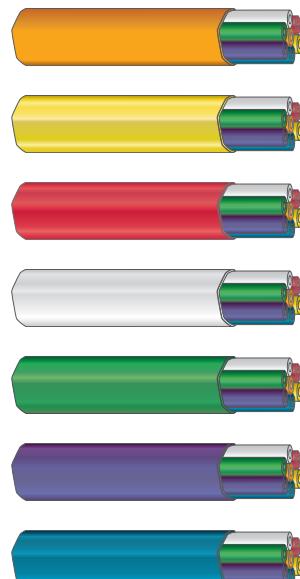
Microducts, 5/3.5 mm		Diameter	Weight	Length
Product No.	Product Name	OD/ID ø (mm)	kg/km	m
MPB30220/OG1-1	Microduct 5/3.5 mm, Orange	5/3.5	9	1000
MPB30220/OG1-2	Microduct 5/3.5 mm, Orange	5/3.5	9	500
MPB30220/YE1-1	Microduct 5/3.5 mm, Yellow	5/3.5	9	1000
MPB30220/YE1-2	Microduct 5/3.5 mm, Yellow	5/3.5	9	500
MPB30220/RD1-1	Microduct 5/3.5 mm, Red	5/3.5	9	1000
MPB30220/RD1-2	Microduct 5/3.5 mm, Red	5/3.5	9	500
MPB30220/WH1-1	Microduct 5/3.5 mm, White	5/3.5	9	1000
MPB30220/WH1-2	Microduct 5/3.5 mm, White	5/3.5	9	500
MPB30220/GN1-1	Microduct 5/3.5 mm, Green	5/3.5	9	1000
MPB30220/GN1-2	Microduct 5/3.5 mm, Green	5/3.5	9	500
MPB30220/VT1-1	Microduct 5/3.5 mm, Violet	5/3.5	9	1000
MPB30220/VT1-2	Microduct 5/3.5 mm, Violet	5/3.5	9	500
MPB30220/BU1-1	Microduct 5/3.5 mm, Blue	5/3.5	9	1000
MPB30220/BU1-2	Microduct 5/3.5 mm, Blue	5/3.5	9	500
MPB30220/GY1-1	Microduct 5/3.5 mm, Grey	5/3.5	9	1000
MPB30220/GY1-2	Microduct 5/3.5 mm, Grey	5/3.5	9	500
MPB30220/TQ1-1	Microduct 5/3.5 mm, Turquoise	5/3.5	9	1000
MPB30220/TQ1-2	Microduct 5/3.5 mm, Turquoise	5/3.5	9	500
MPB30220/BK1-1	Microduct 5/3.5 mm, Black	5/3.5	9	1000
MPB30220/BK1-2	Microduct 5/3.5 mm, Black	5/3.5	9	500
MPB30220/BN1-1	Microduct 5/3.5 mm, Brown	5/3.5	9	1000
MPB30220/BN1-2	Microduct 5/3.5 mm, Brown	5/3.5	9	500
MPB30220/PK1-1	Microduct 5/3.5 mm, Pink	5/3.5	9	1000
MPB30220/PK1-2	Microduct 5/3.5 mm, Pink	5/3.5	9	500



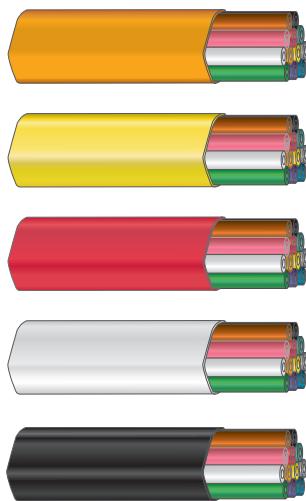
Assemblies with 4 microducts , 5/3.5 mm			Diameter Microducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km	m
MPB30293/4M-1	Microduct Assembly 4x5/3.5 mm S12, Orange	Orange - S12	5/3.5	14.3x10.6	38	1000
MPB30293/4M-2	Microduct Assembly 4x5/3.5 mm S12, Orange	Orange - S12	5/3.5	14.3x10.6	38	500
4/MPB30293/4M-1	Microduct Assembly 4x5/3.5 mm S12, Yellow	Yellow - S12	5/3.5	14.3x10.6	38	1000
4/MPB30293/4M-2	Microduct Assembly 4x5/3.5 mm S12, Yellow	Yellow - S12	5/3.5	14.3x10.6	38	500
2/MPB30293/4M-1	Microduct Assembly 4x5/3.5 mm S12, Red	Red - S12	5/3.5	14.3x10.6	38	1000
2/MPB30293/4M-2	Microduct Assembly 4x5/3.5 mm S12, Red	Red - S12	5/3.5	14.3x10.6	38	500
5/MPB30293/4M-1	Microduct Assembly 4x5/3.5 mm S12, White	White - S12	5/3.5	14.3x10.6	38	1000
5/MPB30293/4M-2	Microduct Assembly 4x5/3.5 mm S12, White	White - S12	5/3.5	14.3x10.6	38	500
8/MPB30293/4M-1	Microduct Assembly 4x5/3.5 mm S12, Black	Black - S12	5/3.5	14.3x10.6	38	1000
8/MPB30293/4M-2	Microduct Assembly 4x5/3.5 mm S12, Black	Black - S12	5/3.5	14.3x10.6	38	500



Assemblies with 7 microducts , 5/3.5 mm			Diameter Microducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km	m
MPB30293/7M-1	Microduct Assembly 7x5/3.5 mm S12, Orange	Orange - S12	5/3.5	ø 15.6	68	1000
MPB30293/7M-2	Microduct Assembly 7x5/3.5 mm S12, Orange	Orange - S12	5/3.5	ø 15.6	68	500
4/MPB30293/7M-1	Microduct Assembly 7x5/3.5 mm S12, Yellow	Yellow - S12	5/3.5	ø 15.6	68	1000
4/MPB30293/7M-2	Microduct Assembly 7x5/3.5 mm S12, Yellow	Yellow - S12	5/3.5	ø 15.6	68	50
2/MPB30293/7M-1	Microduct Assembly 7x5/3.5 mm S12, Red	Red - S12	5/3.5	ø 15.6	68	1000
2/MPB30293/7M-2	Microduct Assembly 7x5/3.5 mm S12, Red	Red - S12	5/3.5	ø 15.6	68	500
5/MPB30293/7M-1	Microduct Assembly 7x5/3.5 mm S12, White	White - S12	5/3.5	ø 15.6	68	1000
5/MPB30293/7M-2	Microduct Assembly 7x5/3.5 mm S12, White	White - S12	5/3.5	ø 15.6	68	500
1/MPB30293/7M-1	Microduct Assembly 7x5/3.5 mm S12, Green	White - S12	5/3.5	ø 15.6	68	1000
1/MPB30293/7M-2	Microduct Assembly 7x5/3.5 mm S12, Green	White - S12	5/3.5	ø 15.6	68	500
6/MPB30293/7M-1	Microduct Assembly 7x5/3.5 mm S12, Violet	White - S12	5/3.5	ø 15.6	68	1000
6/MPB30293/7M-2	Microduct Assembly 7x5/3.5 mm S12, Violet	White - S12	5/3.5	ø 15.6	68	500
3/MPB30293/7M-1	Microduct Assembly 7x5/3.5 mm S12, Blue	Black - S12	5/3.5	ø 15.6	68	1000
3/MPB30293/7M-2	Microduct Assembly 7x5/3.5 mm S12, Blue	Black - S12	5/3.5	ø 15.6	68	500



Assemblies with 12 microducts , 5/3.5 mm			Diameter Microducts	Dimension Assembly	Weight	Length
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km	m
MPB30293/12M-1	Microduct Assembly 12x5/3.5 mm S12, Orange	Orange - S12	5/3.5	20.6x18.6	114	1000
MPB30293/12M-2	Microduct Assembly 12x5/3.5 mm S12, Orange	Orange - S12	5/3.5	20.6x18.6	114	500
12/MPB30293/12M-1	Microduct Assembly 12x5/3.5 mm S12, Yellow	Yellow - S12	5/3.5	20.6x18.6	114	1000
12/MPB30293/12M-2	Microduct Assembly 12x5/3.5 mm S12, Yellow	Yellow - S12	5/3.5	20.6x18.6	114	500
2/MPB30293/12M-1	Microduct Assembly 12x5/3.5 mm S12, Red	Red - S12	5/3.5	20.6x18.6	114	1000
2/MPB30293/12M-2	Microduct Assembly 12x5/3.5 mm S12, Red	Red - S12	5/3.5	20.6x18.6	114	500
5/MPB30293/12M-1	Microduct Assembly 12x5/3.5 mm S12, White	White - S12	5/3.5	20.6x18.6	114	1000
5/MPB30293/12M-2	Microduct Assembly 12x5/3.5 mm S12, White	White - S12	5/3.5	20.6x18.6	114	500
8/MPB30293/12M-1	Microduct Assembly 12x5/3.5 mm S12, Black	Black - S12	5/3.5	20.6x18.6	114	1000
8/MPB30293/12M-2	Microduct Assembly 12x5/3.5 mm S12, Black	Black - S12	5/3.5	20.6x18.6	114	500



## Thin Walled Microducts, 10/8 mm

Thin walled microducts are normally installed in existing pipes with limited space and where thick walled ducts will not fit.

The ducts have an outer/inner diameter of 10/8mm and are suitable for installation of micro cables and nano cables. The ducts are made of HDPE with and have a low friction inner surface for best blowing performance.

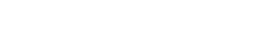
**DESIGN:** Thin walled ducts

**TYPE:** Installation in existing pipes

**CAPACITY:** single ducts

**DIMENSIONS:** OD/ID Ø10/8 mm

**LENGTHS:** 2100 m

Microducts, 10/8 mm		Diameter	Weight	Length	
Product No.	Product Name	OD/ID ø (mm)	kg/km	m	
MPB30260/OG1	Microduct 10/8 mm, Orange	10/8	27	2100	
MPB30260/YE1	Microduct 10/8 mm, Yellow	10/8	27	2100	
MPB30260/RD1	Microduct 10/8 mm, Red	10/8	27	2100	
MPB30260/WH1	Microduct 10/8 mm, White	10/8	27	2100	
MPB30260/GN1	Microduct 10/8 mm, Green	10/8	27	2100	
MPB30260/VT1	Microduct 10/8 mm, Violet	10/8	27	2100	
MPB30260/BU1	Microduct 10/8 mm, Blue	10/8	27	2100	
MPB30260/GY1	Microduct 10/8 mm, Grey	10/8	27	2100	
MPB30260/TQ1	Microduct 10/8 mm, Turquoise	10/8	27	2100	
MPB30260/BK1	Microduct 10/8 mm, Black	10/8	27	2100	
MPB30260/BN1	Microduct 10/8 mm, Brown	10/8	27	2100	
MPB30260/PK1	Microduct 10/8 mm, Pink	10/8	27	2100	

## Thin Walled Microducts, 12/10 mm

Thin walled microducts are normally installed in existing pipes with limited space and where thick walled ducts will not fit.

The ducts have an outer/inner diameter of 12/10 mm and are suitable for installation of micro cables and nano cables. The ducts are made of HDPE with and have a low friction inner surface for best blowing performance.

**DESIGN:** Thin walled ducts

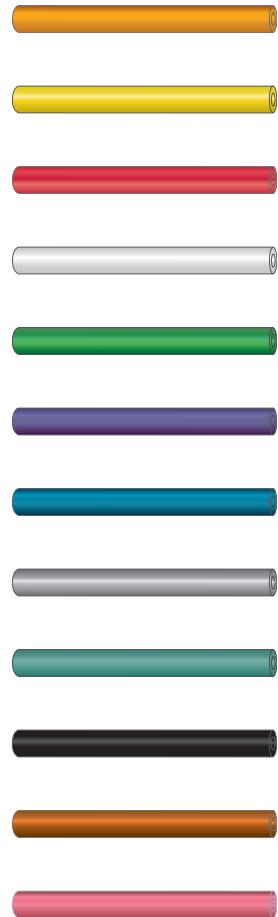
**TYPE:** Installation in existing pipes

**CAPACITY:** single ducts

**DIMENSIONS:** OD/ID Ø12/10 mm

**LENGTHS:** 2100 m

<b>Microducts, 12/10mm</b>		Diameter	Weight	Length
<b>Product No.</b>	<b>Product Name</b>	<b>OD/ID Ø (mm)</b>	<b>kg/km</b>	<b>m</b>
MPB30262/OG1	Microduct 12/10 mm, Orange	12/10	42	2100
MPB30262/YE1	Microduct 12/10 mm, Yellow	12/10	42	2100
MPB30262/RD1	Microduct 12/10 mm, Red	12/10	42	2100
MPB30262/WH1	Microduct 12/10 mm, White	12/10	42	2100
MPB30262/GN1	Microduct 12/10 mm, Green	12/10	42	2100
MPB30262/VT1	Microduct 12/10 mm, Violet	12/10	42	2100
MPB30262/BU1	Microduct 12/10 mm, Blue	12/10	42	2100
MPB30262/GY1	Microduct 12/10 mm, Grey	12/10	42	2100
MPB30262/TQ1	Microduct 12/10 mm, Turquoise	12/10	42	2100
MPB30262/BK1	Microduct 12/10 mm, Black	12/10	42	2100
MPB30262/BN1	Microduct 12/10 mm, Brown	12/10	42	2100
MPB30262/PK1	Microduct 12/10 mm, Pink	12/10	42	2100



# TIGHT PROTECTED MICRODUCTS

## Protected Micrduct Assemblies, Direct Buried, 5/3.5 mm

Ducts composed of 5/3.5 mm micrducts with a double, heavy-duty sheath that enables direct buried installation. The ducts are available dielectric or with a moisture barrier of aluminum foil to prevent water diffusion when permanently submersed. The micrducts have a solid, low-friction inner surface coating for best installation performance.

**DESIGN:** Tight protected ducts  
**TYPE:** Direct buried installation  
**CAPACITY:** 1, 2, 4, 7, 12, 19, 24-way  
**DIMENSIONS:** OD/ID Ø5/3.5 mm  
**LENGTHS:** 500, 1000, 2000, 4000 m



Sheathed micrducts, 5/3.5 mm			Diameter Micrducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30244/1	Microduct Assembly 1x5/3.5 mm STD, Orange	Orange - STD	5/3.5	10.0	65

Assemblies with 2 micrducts, 5/3.5 mm			Diameter Micrducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30244/2M	Microduct Assembly 2x5/3.5 mm S12, Orange	Orange - S12	5/3.5	15x10	95
2/MPB30244/2M	Microduct Assembly 2x5/3.5 mm S12, Red	Red - S12	5/3.5	15x10	95
1/MPB30244/2M	Microduct Assembly 2x5/3.5 mm S12, Green	Green - S12	5/3.5	15x10	95
3/MPB30244/2M	Microduct Assembly 2x5/3.5 mm S12 Blue	Blue - S12	5/3.5	15x10	95
MPB30244/2	Microduct Assembly 2x5/3.5 mm STD, Orange	Orange - STD	5/3.5	15x10	95

Assemblies with 4 micrducts, 5/3.5 mm			Diameter Micrducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30244/4M	Microduct Assembly 4x5/3.5 mm S12, Orange	Orange - S12	5/3.5	19.3	230
2/MPB30244/4M	Microduct Assembly 4x5/3.5 mm S12, Red	Red - S12	5/3.5	19.3	230
1/MPB30244/4M	Microduct Assembly 4x5/3.5 mm S12, Green	Green - S12	5/3.5	19.3	230
3/MPB30244/4M	Microduct Assembly 4x5/3.5 mm S12, Blue	Blue - S12	5/3.5	19.3	230
MPB30244/4	Microduct Assembly 4x5/3.5 mm STD, Orange	Orange - STD	5/3.5	19.3	230



Assemblies with 7 micrducts, 5/3.5 mm			Diameter Micrducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30244/7M	Microduct Assembly 7x5/3.5 mm S12, Orange	Orange - S12	5/3.5	22.2	290
2/MPB30244/7M	Microduct Assembly 7x5/3.5 mm S12, Red	Red - S12	5/3.5	22.2	290
1/MPB30244/7M	Microduct Assembly 7x5/3.5 mm S12, Green	Green - S12	5/3.5	22.2	290
3/MPB30244/7M	Microduct Assembly 7x5/3.5 mm S12, Blue	Blue - S12	5/3.5	22.2	290
MPB30244/7	Microduct Assembly 7x5/3.5 mm STD, Orange	Orange - STD	5/3.5	22.2	290

Assemblies with 12 microducts, 5/3.5 mm			Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30244/12M	Microduct Assembly 12x5/3.5 mm S12, Orange	Orange - S12	5/3.5	28.8	380
2/MPB30244/12M	Microduct Assembly 12x5/3.5 mm S12, Red	Red - S12	5/3.5	28.8	380
1/MPB30244/12M	Microduct Assembly 12x5/3.5 mm S12, Green	Green - S12	5/3.5	28.8	380
3/MPB30244/12M	Microduct Assembly 12x5/3.5 mm S12, Blue	Blue - S12	5/3.5	28.8	380
MPB30244/12	Microduct Assembly 12x5/3.5 mm STD, Orange	Orange - STD	5/3.5	28.8	380

Assemblies with 19 microducts, 5/3.5 mm			Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30244/19M	Microduct Assembly 19x5/3.5 mm S12, Orange	Orange - S12	5/3.5	32.1	550
2/MPB30244/19M	Microduct Assembly 19x5/3.5 mm S12, Red	Red - S12	5/3.5	32.1	550
1/MPB30244/19M	Microduct Assembly 19x5/3.5 mm S12, Green	Green - S12	5/3.5	32.1	550
MPB30244/19	Microduct Assembly 19x5/3.5 mm STD, Orange	Orange - STD	5/3.5	32.1	550

Assemblies with 24 microducts, 5/3.5 mm			Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30244/24M	Microduct Assembly 24x5/3.5 mm S12, Orange	Orange - S12	5/3.5	38.0	690
2/MPB30244/24M	Microduct Assembly 24x5/3.5 mm S12, Red	Red - S12	5/3.5	38.0	690
1/MPB30244/24M	Microduct Assembly 24x5/3.5 mm S12, Green	Green - S12	5/3.5	38.0	690
MPB30244/24	Microduct Assembly 24x5/3.5 mm STD, Orange	Orange - STD	5/3.5	38.0	690

## Protected Microduct Assemblies, Direct Buried Al-barrier, 5/3.5 mm

Ducts composed of 5/3.5 mm microducts with a double, heavy-duty sheath that enables direct buried installation. The ducts have a moisture barrier of aluminum foil to prevent water diffusion when permanently submerged. The microducts have a solid, low-friction inner surface coating for best installation performance.

**DESIGN:** Tight protected ducts, Al-barrier

**TYPE:** Direct buried installation

**CAPACITY:** 1, 2, 4, 7, 12, 19, 24-way

**DIMENSIONS:** OD/ID Ø5/3.5 mm

**LENGTHS:** 500, 1000, 2000, 4000 m



Sheathed microducts, Al, 5/3.5 mm			Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30230/1M	Microduct Assembly 1x5/3.5 mm Al, S12, Orange	Orange - S12	5/3.5	12.2	110
MPB30230/1	Microduct Assembly 1x5/3.5 mm Al, STD, Orange	Orange - STD	5/3.5	12.2	110

Assemblies with 2 microducts, Al, 5/3.5 mm			Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30231/2M	Microduct Assembly 2x5/3.5 mm S12, Orange	Orange - S12	5/3.5	17.2x12.2	160
MPB30231/2	Microduct Assembly 2x5/3.5 mm STD, Orange	Orange - STD	5/3.5	17.2x12.2	160



Assemblies with 4 microducts, Al, 5/3.5 mm			Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30232/4M	Microduct Assembly 4x5/3.5 mm Al, S12, Orange	Orange - S12	5/3.5	19.3	230
MPB30232/4	Microduct Assembly 4x5/3.5 mm Al, STD, Orange	Orange - STD	5/3.5	19.3	230



Assemblies with 7 microducts, Al, 5/3.5 mm			Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30233/7M	Microduct Assembly 7x5/3.5 mm Al, S12, Orange	Orange - S12	5/3.5	22.2	290
MPB30233/7	Microduct Assembly 7x5/3.5 mm Al, STD Orange	Orange - STD	5/3.5	22.2	290



Assemblies with 12 microducts, Al, 5/3.5 mm			Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30234/12M	Microduct Assembly 12x5/3.5 mm Al, S12, Orange	Orange - S12	5/3.5	28.8	380
MPB30234/12M	Microduct Assembly 12x5/3.5 mm Al, STD, Orange	Orange - STD	5/3.5	28.8	380

Assemblies with 19 microducts, Al, 5/3.5 mm			Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30235/19M	Microduct Assembly 19x5/3.5 mm Al, S12 Orange	Orange - S12	5/3.5	32.1	550
MPB30235/12	Microduct Assembly 19x5/3.5 mm Al, STD, Orange	Orange - STD	5/3.5	32.1	550

Assemblies with 24 microducts, Al, 5/3.5 mm			Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30236/24M	Microduct Assembly 24x5/3.5 mm Al, S12, Orange	Orange - S12	5/3.5	38.0	710
MPB30236/24	Microduct Assembly 24x5/3.5 mm Al, STD, Orange	Orange - STD	5/3.5	38.0	710

## Protected Micromoduct Assemblies, Installation in Pipes, 5/3.5 mm

Ducts composed of 5/3.5 mm micromoducts. The ducts are designed for installation in existing pipes or cable shafts. The micromoducts have a solid, low-friction inner surface coating for best installation performance.

**DESIGN:** Tight protected ducts  
**TYPE:** Installation in existing pipes  
**CAPACITY:** 1, 2, 4, 7, 12, 19, 24-way  
**DIMENSIONS:** OD/ID Ø5/3.5 mm  
**LENGTHS:** 500, 1000, 2000, 4000 m



Sheathed micromoduct assemblies 1-24-way, 5/3.5 mm			Diameter Micromoducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID Ø (mm)	(mm)	kg/km
MPB30245/1M	Microduct Assembly 1x5/3.5 mm S12, Black	Black - S12	5/3.5	7.2	60
MPB30245/1	Microduct Assembly 1x5/3.5 mm STD, Black	Black - STD	5/3.5	7.2	60
MPB30245/2M	Microduct Assembly 2x5/3.5 mm S12, Black	Black - S12	5/3.5	12.4x7.4	90
MPB30245/2	Microduct Assembly 2x5/3.5 mm STD, Black	Black - STD	5/3.5	12.4x7.4	90
MPB30245/4M	Microduct Assembly 4x5/3.5 mm S12, Black	Black - S12	5/3.5	14.9	120
MPB30245/4	Microduct Assembly 4x5/3.5 mm STD, Black	Black - STD	5/3.5	14.9	120
MPB30245/7M	Microduct Assembly 7x5/3.5 mm Al, S12 Black	Black - S12	5/3.5	17.8	160
MPB30245/7	Microduct Assembly 7x5/3.5 mm Al, STD Black	Black - STD	5/3.5	17.8	160
MPB30245/12M	Microduct Assembly 12x5/3.5 mm S12, Black	Black - S12	5/3.5	23.1	240
MPB30245/12	Microduct Assembly 12x5/3.5 mm STD, Black	Black - STD	5/3.5	23.1	240
MPB30245/19M	Microduct Assembly 19x5/3.5 mm S12, Black	Black - S12	5/3.5	27.5	330
MPB30245/19	Microduct Assembly 19x5/3.5 mm STD, Black	Black - STD	5/3.5	27.5	330
MPB30245/24M	Microduct Assembly 24x5/3.5 mm S12, Black	Black - S12	5/3.5	33.2	440
MPB30245/24	Microduct Assembly 24x5/3.5 mm STD, Black	Black - STD	5/3.5	33.2	440

## Protected Micromoduct Assemblies, Installation in Pipes, Al Barrier, 5/3.5 mm

Ducts composed of 5/3.5 mm micromoducts. The ducts are designed for installation in existing pipes or cable shafts. The ducts have a moisture barrier of aluminum foil to prevent water diffusion when permanently submerged. The micromoducts have a solid, low-friction inner surface coating for best installation performance.

**DESIGN:** Tight protected ducts, Al-barrier  
**TYPE:** Installation in existing pipes  
**CAPACITY:** 1, 2, 4, 7, 12, 19, 24-way  
**DIMENSIONS:** OD/ID Ø5/3.5 mm  
**LENGTHS:** 500, 1000, 2000, 4000 m



Sheathed micromoduct assemblies 1-24-way, Al, 5/3.5 mm			Diameter Micromoducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID Ø (mm)	(mm)	kg/km
MPB30210/1	Microduct Assembly 1x5/3.5 mm STD, Black	Black - STD	5/3.5	8.8	60
MPB30211/2	Microduct Assembly 2x5/3.5 mm STD, Black	Black - STD	5/3.5	13.8x8.8	90
MPB30212/4	Microduct Assembly 4x5/3.5 mm STD, Black	Black - STD	5/3.5	14.9	120
MPB30213/7	Microduct Assembly 7x5/3.5 mm STD, Black	Black - STD	5/3.5	17.8	160
MPB30214/12	Microduct Assembly 12x5/3.5 mm STD, Black	Black - STD	5/3.5	22.9	240
MPB30215/19	Microduct Assembly 19x5/3.5 mm STD, Black	Black - STD	5/3.5	27.1	330
MPB30215/24	Microduct Assembly 24x5/3.5 mm STD, Black	Black - STD	5/3.5	32.8	440

## Protected Micromoduct Assemblies, Direct Buried, 10/8 mm

Ducts composed of 10/8 mm micromoducts with a double, heavy-duty sheath that enables direct buried installation. The micromoducts have a solid, low-friction inner surface coating for best installation performance.

**DESIGN:** Tight protected ducts

**TYPE:** Direct buried installation

**CAPACITY:** 1, 4, 7-way

**DIMENSIONS:** OD/ID Ø10/8 mm

**LENGTHS:** 500, 1000, 2000 m



Sheathed micromoduct assemblies 1, 4 and 7-way, 10/8 mm			Diameter Micromoducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30270/1	Microduct Assembly 1x10/8 mm STD, Orange	Orange - STD	10/8	15.0	150
MPB30270/4	Microduct Assembly 4x10/8 mm STD, Orange	Orange - STD	10/8	30.5	340
MPB30270/7	Microduct Assembly 7x10/8 mm STD, Orange	Orange - STD	10/8	38.4	550

## Protected Micromoduct Assemblies, Installation in Pipes, 10/8 mm

Ducts composed of 10/8 mm micromoducts. The ducts are designed for installation in existing pipes or cable shafts. The micromoducts have a solid, low-friction inner surface coating for best installation performance.

**DESIGN:** Tight protected ducts

**TYPE:** Installation in existing pipes

**CAPACITY:** 4, 7-way

**DIMENSIONS:** OD/ID Ø10/8 mm

**LENGTHS:** 500, 1000, 2000 m

Sheathed micromoduct assemblies 4 and 7-way, 10/8 mm			Diameter Micromoducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30290/4	Microduct Assembly 4x10/8 mm STD, Black	Black - STD	10/8	27.6	260
MPB30290/7	Microduct Assembly 7x10/8 mm STD, Black	Black - STD	10/8	33.4	370



## Protected Microduct Assemblies, Direct Buried, 12/10 mm

Ducts composed of 12/10 mm microducts with a double, heavy-duty sheath that enables direct buried installation. The microducts have a solid, low-friction inner surface coating for best installation performance.

**DESIGN:** Tight protected ducts

**TYPE:** Direct buried installation

**CAPACITY:** 1, 4, 7-way

**DIMENSIONS:** OD/ID Ø12/10 mm

**LENGTHS:** 500, 1000, 2000 m



<b>Sheathed microducts 12/10 mm</b>			Diameter Microducts	Dimension Assembly	Weight
<b>Product No.</b>	<b>Product Name</b>	<b>Sheath - Color Code</b>	<b>OD/ID Ø (mm)</b>	<b>(mm)</b>	<b>kg/km</b>
MPB30272/1M	Microduct Assembly 1x12/10 mm S12, Orange	Orange - S12	12/10	15.0	150
2/MPB30272/1M	Microduct Assembly 1x12/10 mm S12, Red	Red - S12	12/10	15.0	150
1/MPB30272/1M	Microduct Assembly 1x12/10 mm S12, Green	Green - S12	12/10	15.0	150
3/MPB30272/1M	Microduct Assembly 1x12/10 mm S12, Blue	Blue - S12	12/10	15.0	150
MPB30272/1	Microduct Assembly 1x12/10 mm STD, Orange	Orange - STD	12/10	15.0	150

<b>Sheathed microduct assemblies 2-way, 12/10 mm</b>			Diameter Microducts	Dimension Assembly	Weight
<b>Product No.</b>	<b>Product Name</b>	<b>Sheath - Color Code</b>	<b>OD/ID Ø (mm)</b>	<b>(mm)</b>	<b>kg/km</b>
MPB30272/2	Microduct Assembly 1x12/10 mm STD, Orange	Orange - STD	12/10	19.2x31.2	310

<b>Sheathed microduct assemblies 4-way, 12/10 mm</b>			Diameter Microducts	Dimension Assembly	Weight
<b>Product No.</b>	<b>Product Name</b>	<b>Sheath - Color Code</b>	<b>OD/ID Ø (mm)</b>	<b>(mm)</b>	<b>kg/km</b>
MPB30272/4M	Microduct Assembly 4x12/10 mm S12, Orange	Orange - S12	12/10	36.4	556
2/MPB30272/4M	Microduct Assembly 4x12/10 mm S12, Red	Red - S12	12/10	36.4	556
1/MPB30272/4M	Microduct Assembly 4x12/10 mm S12, Green	Green - S12	12/10	36.4	556
3/MPB30272/4M	Microduct Assembly 4x12/10 mm S12, Blue	Blue - S12	12/10	36.4	556
MPB30272/4	Microduct Assembly 4x12/10 mm STD, Orange	Orange - STD	12/10	36.4	556

<b>Sheathed microduct assemblies 7-way, 12/10 mm</b>			Diameter Microducts	Dimension Assembly	Weight
<b>Product No.</b>	<b>Product Name</b>	<b>Sheath - Color Code</b>	<b>OD/ID Ø (mm)</b>	<b>(mm)</b>	<b>kg/km</b>
MPB30272/7M	Microduct Assembly 7x12/10 mm S12, Orange	Orange - S12	12/10	44.2	760
2/MPB30272/7M	Microduct Assembly 7x12/10 mm S12, Red	Red - S12	12/10	44.2	760
1/MPB30272/7M	Microduct Assembly 7x12/10 mm S12, Green	Green - S12	12/10	44.2	760
3/MPB30272/7M	Microduct Assembly 7x12/10 mm S12, Blue	Blue - S12	12/10	44.2	760
MPB30272/7	Microduct Assembly 7x12/10 mm STD, Orange	Orange - STD	12/10	44.2	760

## Protected Microduct Assemblies, Installation in Pipes, 12/10 mm

Ducts composed of 12/10 mm microducts. The ducts are designed for installation in existing pipes or cable shafts. The microducts have a solid, low-friction inner surface coating for best installation performance.

**DESIGN:** Tight protected ducts  
**TYPE:** Installation in existing pipes  
**CAPACITY:** 4, 7 -way  
**DIMENSIONS:** OD/ID Ø12/10 mm  
**LENGTHS:** 500, 1000, 2000 m



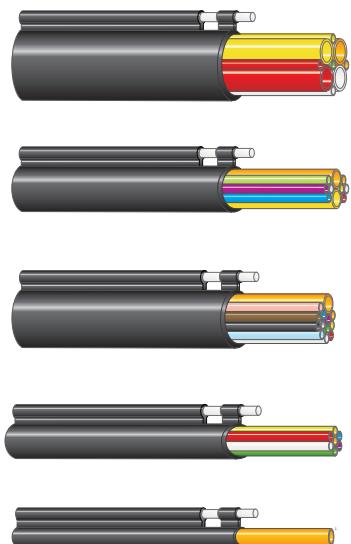
Sheathed microduct assemblies 2, 4 and 7-way, 12/10 mm			Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	Sheath - Color Code	OD/ID ø (mm)	(mm)	kg/km
MPB30292/2	Microduct Assembly 1x12/10 mm STD, Black	Black - STD	12/10	15.2x27.2	120
MPB30292/4M	Microduct Assembly 4x12/10 mm S12, Black	Black - S12	12/10	33.0	310
MPB30292/4	Microduct Assembly 4x12/10 mm STD, Black	Black - STD	12/10	33.0	310
MPB30292/7M	Microduct Assembly 7x12/10 mm S12, Black	Black - S12	12/10	41	430
MPB30292/7	Microduct Assembly 7x12/10 mm STD, Black	Black - STD	12/10	41	430

# MICRODUCTS FOR AERIAL APPLICATIONS

## Protected Microducts, Aerial

Microducts for aerial installation on poles. The microducts are self-supporting, non-metallic and lightweight to ensure quick and easy installation. The assemblies have a stabilized sheath to resist the aging effects of UV radiation. The ducts are part of the Hexatronic's Aerial Air Blown Fiber System and include both 5, 10 and 12 mm ducts.

**DESIGN:** Tight protected ducts  
**TYPE:** Aerial installation  
**CAPACITY:** 1-14-way  
**DIMENSIONS:** OD/ID Ø5/3.5, 10/8, 12/10 mm  
**LENGTHS:** 500, 1000, 2000 m



Aerial microduct assemblies			Diameter Microducts	Strength Member	Dimension Assembly	Weight
Product No.	Product Name	Color Code	OD/ID ø (mm)	ø (mm) - Type	ø or h/w (mm)	kg/km
MPB30222/1M	1x5/3.5 mm ADSS	S12	5/3.5	Yarn	8	35
1/MPB30222/1M	1x5/3.5 mm Hi Strength ADSS	S12	5/3.5	Yarn	9	45
MPB30224/1M	1x5/3.5 mm Fig-8	S12	5/3.5	7.0 - FRP 3.5	15x7	77
MPB30224/4M	4x5/3.5 mm Fig-8	S12	5/3.5	7.5 - FRP 3.5	24x12	120
MPB30224/7M	7x5/3.5 mm Fig-8	S12	5/3.5	8.5 - FRP 4.5	30x16	190
MPB30224/12M	12x5/3.5 mm Fig-8	S12	5/3.5	8.5 - FRP 4.5	33x22	255
MPB30225/8M	8x5/3.5 mm + 2x10/8 mm Fig-8	S12	5/3.5-12/10	8.5 - FRP 4.5	36x27	285
1/MPB30225/8M	8x5/3.5 mm + 2x10/8 mm Hi Strength Fig-8	S12	5/3.5 - 10/8	10.0 - FRP 7.0	38x27	340
MPB30225/9M	9x5/3.5 mm + 1x10/8 mm Fig-8	S12	5/3.5 - 10/8	8.5 - FRP 4.5	35x22	255
MPB30228/1M	1x12/10 mm Fig-8	S12	12/10	8.0 - FRP 4.5	25x14	110
MPB30228/5M	5x5/3.5 mm + 4x12/10 mm Fig-8	S12	5/3.5 - 12/10	8.0 - FRP 4.5	44x31	350
MPB30228/8M	8x5/3.5 mm + 2x12/10 mm Fig-8	S12	5/3.5 - 12/10	8.0 - FRP 4.5	39x29	300
MPB30228/12M	12x5/3.5 mm + 1x12/10 mm Fig-8	S12	5/3.5 - 12/10	8.0 - FRP 4.5	41x21	300
MPB30228/10M	10x5/3.5 mm + 1x12/10 mm Fig-8	S12	5/3.5 - 12/10	8.0 - FRP 4.5	37x23	275
MPB30228/4M	4x12/10 mm Fig-8	S12	12/10	8.0 - FRP 4.5	48x26	300

Other microduct assemblies used for aerial installations			Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	Color Code	OD/ID ø (mm)	ø or h/w (mm)	kg/km
MPB30227/1M	1x10/8 mm, bypass (not self-supporting)	S12	10/8	13	80
MPB30229/1M	1x12/10 mm, ascending pipe (not self-supporting)	S12	12/10	17	140

# MICRODUCTS FOR INDOOR INSTALLATIONS

## **Microducts, Indoor, High Grade or UL Riser, 5/3.5 mm**

Microducts with a sheath made of halogen-free, flame retardant material. The ducts are also available in a UL Riser rated series. The microducts have a solid, low-friction inner surface coating for best installation performance. There is also a single microduct available with an extra protection sheath for mounting directly onto walls with cable clamps. All flame retardant microduct assemblies are halogen-free (HFFR).

**DESIGN:** Tight protected ducts, HFFR High Grade  
**TYPE:** Indoor installation, IEC 60332-3-24 or UL 1666 OFNR  
**CAPACITY:** 1-24-way  
**DIMENSIONS:** OD/ID Ø5/3.5 mm  
**LENGTHS:** 500, 1000, 2000 m



<b>Sheathed microduct assemblies, Indoor, 1-24-way, High Grade, 5/3.5 mm</b>		Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	OD/ID ø (mm)	ø (mm)	kg/km
MPB30201/1	Microduct Sheathed 1x5/3.5 mm HFFR, High Grade	5/3.5	6.0	30
MPB30202/1	Microduct UnSheathed 5/3.5 mm HFFR, High Grade	5/3.5	5.0	16
MPB30203/4	Microduct Assembly 4x5/3.5 mm HFFR, High Grade	5/3.5	12.2x12.2	130
MPB30204/7	Microduct Assembly 7x5/3.5 mm HFFR, High Grade	5/3.5	17.2	200
MPB30205/12	Microduct Assembly 12x5/3.5 mm HFFR, High Grade	5/3.5	22.9	310
MPB30206/19	Microduct Assembly 19x5/3.5 mm HFFR, High Grade	5/3.5	26.9	440
MPB30207/24	Microduct Assembly 24x5/3.5 mm HFFR, High Grade	5/3.5	32.5	590

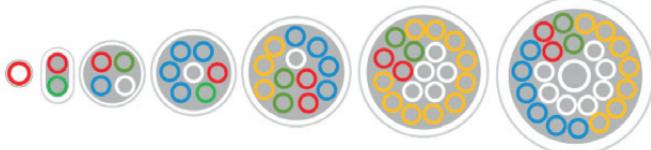
<b>Sheathed microduct assemblies, Indoor, 1-12-way, UL 1666 OFNR, 5/3.5 mm</b>		Diameter Microducts	Dimension Assembly	Weight
Product No.	Product Name	OD/ID ø (mm)	ø (mm)	kg/km
MPB30208/1	Microduct UnSheathed 5/3.5 mm HFFR, OFNR	5/3.5	5.0	16
MPB30208/4	Microduct Assembly 4x5/3.5 mm HFFR, OFNR	5/3.5	12.2x12.2	130
MPB30208/7	Microduct Assembly 7x5/3.5 mm HFFR, OFNR	5/3.5	17.2	200
MPB30208/12	Microduct Assembly 12x5/3.5 mm HFFR, OFNR	5/3.5	22.9	310



## Micrducts, Indoor, Standard Grade, 5/3.5 mm

Micrducts with a sheath made of halogen-free, flame retardant material with Standard Grade classification for installations with normal fire requirements. There is also a single micrduct available with an extra protection sheath for mounting directly onto walls with cable clamps. All flame retardant micrduct assemblies are halogen-free (HFFR).

**DESIGN:** Tight protected ducts, HFFR Standard Grade  
**TYPE:** Indoor installation, IEC 60332-1  
**CAPACITY:** 1-24-way  
**DIMENSIONS:** OD/ID Ø5/3.5 mm  
**LENGTHS:** 500, 1000, 2000 m



### Sheathed micrduct assemblies, Indoor, 1-24-way, Standard Grade, 5/3.5 mm

Product No.	Product Name	Diameter Micrducts	Dimension Assembly	Weight
		OD/ID ø (mm)	ø (mm)	kg/km
MPB30251/1	Micrduct Sheathed 1x5/3.5 mm HFFR, Standard Grade	5/3.5	8.0	60
MPB30209/2	Micrduct Assembly 2x5/3.5 mm HFFR, Standard Grade	5/3.5	12.2x7.2	90
MPB30209/4	Micrduct Assembly 4x5/3.5 mm HFFR, Standard Grade	5/3.5	12.2x12.2	120
MPB30209/7	Micrduct Assembly 7x5/3.5 mm HFFR, Standard Grade	5/3.5	17.2	160
MPB30209/12	Micrduct Assembly 12x5/3.5 mm HFFR, Standard Grade	5/3.5	22.5	240
MPB30209/19	Micrduct Assembly 19x5/3.5 mm HFFR, Standard Grade	5/3.5	26.5	330
MPB30209/24	Micrduct Assembly 24x5/3.5 mm HFFR, Standard Grade	5/3.5	32.2	440

## Micrducts, Indoor, High Grade, 3/2 mm

Extra slim micrducts with a sheath made of halogen-free, flame retardant material. The micrducts have a solid, low-friction inner surface coating for best installation performance. These ducts are especially suitable when installing in buildings with limited space in racers. All flame retardant micrduct assemblies are halogen-free (HFFR).

**DESIGN:** Tight protected ducts, HFFR High Grade  
**TYPE:** Indoor installation, IEC 60332-3-24  
**CAPACITY:** 1-24-way  
**DIMENSIONS:** OD/ID Ø3/2 mm  
**LENGTHS:** 500, 1000, 2000 m



### Sheathed micrduct assemblies, Indoor, 1-24-way, High Grade, 3/2 mm

Product No.	Product Name	Diameter Micrducts	Dimension Assembly	Weight
		OD/ID ø (mm)	ø (mm)	kg/km
MPB30246/01	Micrduct UnSheathed 3/2 mm HFFR, High Grade	3/2	3.0	5.6
MPB30246/1	Micrduct Sheathed 1x3/2 mm HFFR, High Grade	3/2	5.6	14
MPB30246/2	Micrduct Assembly 2x3/2 mm HFFR, High Grade	3/2	7.4x4.4	26
MPB30246/4	Micrduct Assembly 4x3/2 mm HFFR, High Grade	3/2	7.4x7.4	60
MPB30246/7	Micrduct Assembly 7x3/2 mm HFFR, High Grade	3/2	11	77
MPB30246/12	Micrduct Assembly 12x3/2 mm HFFR, High Grade	3/2	14x12.9	90
MPB30246/24	Micrduct Assembly 24x3/2 mm HFFR, High Grade	3/2	15.6x19.1	185

## Micrducts, Indoor, Standard Grade, 3/2 mm

Extra slim micrducts with a sheath made of halogen-free, flame retardant material with Standard Grade classification for installations with normal fire requirements. These ducts are especially suitable when installing in buildings with limited space in racers. All flame retardant micrduct assemblies are halogen-free (HFFR).

**DESIGN:** Tight protected ducts, HFFR Standard Grade  
**TYPE:** Indoor installation, IEC 60332-1  
**CAPACITY:** 1-24-way  
**DIMENSIONS:** OD/ID Ø3/2 mm  
**LENGTHS:** 500, 1000, 2000 m



<b>Sheathed micrduct assemblies, Indoor, 1-24-way, Standard Grade, 3/2 mm</b>		Diameter Micrducts	Dimension Assembly	Weight
Product No.	Product Name	OD/ID ø (mm)	ø (mm)	kg/km
MPB30243/01	Micrduct UnSheathed 3/2 mm, Standard Grade	3/2	3.0	3
MPB30243/1	Micrduct Sheathed 1x3/2 mm HFFR, Standard Grade	3/2	5.4	20
MPB30243/7	Micrduct Assembly 7x3/2 mm HFFR, Standard Grade	3/2	11	60
MPB30243/12	Micrduct Assembly 12x3/2 mm HFFR, Standard Grade	3/2	14x12.9	95
MPB30243/24	Micrduct Assembly 24x3/2 mm HFFR, Standard Grade	3/2	15.6x19.1	195

## Micrducts, Indoor, 10/8 mm and 12/10 mm

Micrducts with a sheath made of halogen-free, flame retardant material for installations with normal fire requirements. Fiber splicing between indoor and outdoor environments can therefore be eliminated. All flame retardant micrduct assemblies are halogen-free (HFFR).

**DESIGN:** Tight protected ducts, HFFR Standard Grade  
**TYPE:** Indoor installation, IEC 60332-1  
**CAPACITY:** 1-7-way  
**DIMENSIONS:** OD/ID Ø10/8 or 12/10 mm  
**LENGTHS:** 500, 1000, 2000 m



<b>Sheathed micrduct assemblies, Indoor, 1-7-way, Standard Grade, 10/8 mm</b>		Diameter Micrducts	Dimension Assembly	Weight
Product No.	Product Name	OD/ID ø (mm)	ø (mm)	kg/km
MPB30271/1	Micrduct Sheathed 1x10/8 mm HFFR, Standard Grade	10/8	11.8	75
MPB30271/4	Micrduct Assembly 4x10/8 mm HFFR, Standard Grade	10/8	27.5	345
MPB30271/7	Micrduct Assembly 7x10/8 mm HFFR, Standard Grade	10/8	33.4	477

<b>Sheathed micrduct assemblies, Indoor, 1-7-way, Standard Grade, 12/10 mm</b>		Diameter Micrducts	Dimension Assembly	Weight
Product No.	Product Name	OD/ID ø (mm)	ø (mm)	kg/km
MPB30273/1	Micrduct Sheathed 1x12/10 mm HFFR, Standard Grade	12/10	14	97
MPB30273/4	Micrduct Assembly 4x12/10 mm HFFR, Standard Grade	12/10	33	475
MPB30273/7	Micrduct Assembly 7x12/10 mm HFFR, Standard Grade	12/10	41	743



# Microduct Accessories

## MICRODUCT CONNECTORS AND END PLUGS

### High Grade Series, Direct Buried or Above Ground Use

The "Crystal Clear" range of connectors are high grade connectors that offer reliable performance in all environments. The connectors are 100% metal-free and can be used directly into ground with salt water. The connectors are also highly resistant to chemicals, oil, gasoline etc. A crystal clear body facilitates fault location during installation. The connectors are available as straight connectors for splicing of microducts with the same dimensions, or as reducers for splicing of ducts with different dimensions, as well as end stops for

terminating duct ends to avoid water and dirt from entering the duct. The connectors can be installed directly into ground or above ground without additional protection

**DESIGN:** Microduct Connector and End Stops, re-openable

**TYPE:** Direct buried, Above ground use or in closures, metal-free, chemical resistant

**DIMENSIONS:** OD/ID Ø3/2 to 20/16 mm

Microduct Connectors – High Grade, Straight		For Microducts	Pack qty
Product No.	Product Name	OD/ID ø (mm)	pcs
HMPB30601/3	Microduct Connector, Straight 3/2 mm	3/2	100
HMPB30601/52	Microduct Connector, Straight 5/2.5 mm	5/2.5	100
HMPB30601/5	Microduct Connector, Straight 5/3.5 mm	5/3.5	100
HMPB30601/7	Microduct Connector, Straight 7/4 mm	7/4	100
HMPB30601/74	Microduct Connector, Straight 7/3.5 mm	7/3.5	100
HMPB30601/8	Microduct Connector, Straight 8/4.4 mm	8/4.4	100
HMPB30601/84	Microduct Connector, Straight 8/4 mm	8/4	100
HMPB30601/105	Microduct Connector, Straight 10/5.5 mm	10/5.5	100
HMPB30601/106	Microduct Connector, Straight 10/6 mm	10/6	100
HMPB30601/10	Microduct Connector, Straight 10/8 mm	10/8	100
HMPB30601/128	Microduct Connector, Straight 12/8 mm	12/8	100
HMPB30601/12	Microduct Connector, Straight 12/10 mm	12/10	100
HMPB30601/14	Microduct Connector, Straight 14/10 mm	14/10	100
HMPB30601/16	Microduct Connector, Straight 16/12 mm	16/12	10
HMPB30601/1610	Microduct Connector, Straight 16/10 mm	16/10	10
HMPB30601/18	Microduct Connector, Straight 18/12 mm	18/12	10
HMPB30601/2015	Microduct Connector, Straight 20/15 mm	20/15	10
HMPB30601/2016	Microduct Connector, Straight 20/16 mm	20/16	10



Microduct Connectors – High Grade, Reduction Connectors		For Microducts	Pack qty
Product No.	Product Name	OD/ID ø (mm)	pcs
HMPB30603/7	Microduct Connector, Reduction 7/3.5 to 5/3.5 mm	7/3.5 to 5/3.5	10
HMPB30603/12	Microduct Connector, Reduction 14/10 to 12/10 mm	12/10 to 10/8	10
HMPB30603/14	Microduct Connector, Reduction 14/10 to 12/10 mm	14/10 to 12/10	10
HMPB30603/160	Microduct Connector, Reduction 16/12 to 14/10 mm	16/12 to 14/10	10



Microduct End Stop – High Grade		For Microducts	Pack qty
Product No.	Product Name	OD/ID ø (mm)	pcs
HMPB30606/3	Microduct End Stop 3 mm	3	100
HMPB30606/5	Microduct End Stop 5 mm	5	100
HMPB30606/7	Microduct End Stop 7 mm	7	100
HMPB30606/10	Microduct End Stop 10 mm	10	100
HMPB30606/12	Microduct End Stop 12 mm	12	100
HMPB30606/14	Microduct End Stop 14 mm	14	100
HMPB30606/16	Microduct End Stop 16 mm	16	10
HMPB30606/18	Microduct End Stop 18 mm	18	10



## Micrduct Connectors - Special Applications

Micrduct connectors and end stops for special applications are available in a variety of variants. Contact Hexatronic for more options.

**DESIGN:** Micrduct Connector and End Stops, re-openable

**TYPE:** Above ground use or in closures

**DIMENSIONS:** OD/ID Ø3/2 to 16/12 mm



Micrduct Connectors – Reduction Connectors		For Micrducts	Pack qty
Product No.	Product Name	OD/ID ø (mm)	pcs
HMPB30603/16	Micrduct Connector, Reduction 16/12 to 12/10 mm	16/12 to 12/10	10

## Divisible repair kit for 5-16 mm Micrducts

The divisible repair kit for 5-16 mm Micrducts provide a gas and watertight seal. It is used for repair of damaged micrducts. It can also be used as a temporary and removable connector for applications where bypass ducts are used to create cable overlengths in manholes and cabinets.

**DESIGN:** Divisible repair kit for Micrducts

**TYPE:** Underground or above ground in closures

**DIMENSIONS:** OD Ø5 to 16 mm



Divisible Repair Kit for Micrducts		For Micrducts
Product No.	Product Name	OD ø (mm)
HMPB30621/5	Divisible duct repair kit 5mm	5
HMPB30621/7	Divisible duct repair kit 7mm	7
HMPB30621/12	Divisible duct repair kit 12mm	12
HMPB30621/14	Divisible duct repair kit 14mm	14
HMPB30621/16	Divisible duct repair kit 16mm	16

## Gas Block Connectors

The gas block micrduct snap-in connector is normally used between indoor and outdoor environments to prevent air flow that may result in condensed water getting into ducts. After cable installation, the connector can be gas sealed by turning a ring on the body or by pushing the connector ends together.

**DESIGN:** Micrduct Gasblock Connector and End Stops, re-openable

**TYPE:** Above ground use

**DIMENSIONS:** OD/ID Ø5/3.5 to 14/10 mm



Micrduct Connectors – Gas Block, Straight		For Micrducts	For Cables/ Blown Fiber	Pack qty
Product No.	Product Name	OD/ID ø (mm)	ø (mm)	pcs
MPB30602	Gas Block Connector 5/3.5 mm 1.0 - 1.6 mm	5/3.5	1.0 - 1.6 mm	100
MPB30607/7	Gas Block Connector, 7/3.5 mm 1.0 - 1.6 mm	7/3.5	1.0 - 1.6 mm	100
MPB30607/10A	Gas Block Connector 10/8 mm 5.5 - 6.6 mm	10/8	5.5 - 6.6 mm	100
MPB30607/10B	Gas Block Connector 10/8 mm 6.5 - 7.2 mm	10/8	6.5 - 7.2 mm	100
MPB30607/12A	Gas Block Connector 12/10 mm 5.5 - 6.6 mm	12/10	5.5 - 6.6 mm	100
MPB30607/12B	Gas Block Connector 12/10 mm 6.5 - 7.2 mm	12/10	6.5 - 7.2 mm	100
MPB30607/12C	Gas Block Connector 12/10 mm 7.2 - 8.2 mm	12/10	7.2 - 8.2 mm	100
MPB30607/14A	Gas Block Connector 14/10 mm 6.5 - 7.2 mm	14/10	6.5 - 7.2 mm	100
MPB30607/14B	Gas Block Connector 14/10 mm 7.6 - 8.2 mm	14/10	7.6 - 8.2 mm	100

Micrduct Connectors – Gas Block, Reduction Connector		For Micrducts	For Cables/ Blown Fiber	Pack qty
Product No.	Product Name	OD/ID ø (mm)	ø (mm)	pcs
MPB30607/75	Micrduct Connector, Reduction 7/3.5 to 5/3.5 mm	5/3.5	1.0 - 2.1 mm	100



## End Caps for Microducts

The end caps are used for temporarily seal open duct ends to avoid water and dirt from entering the microducts.

**DESIGN:** End caps for microducts

**TYPE:** Above ground use

**DIMENSIONS:** OD Ø3 to 18 mm

<b>End Caps</b>		For Microducts	Pack qty
<b>Product No.</b>	<b>Product Name</b>	<b>OD ø (mm)</b>	<b>pcs</b>
SRS10617/62	End Cap 3 mm	3	100
MPB30609/5	End Cap 5 mm	5	250
MPB30609/7	End Cap 7 mm	7	250
MPB30609/10	End Cap 10 mm	10	250
MPB30609/12	End Cap 12 mm	12	250
MPB30609/14	End Cap 14 mm	14	250
MPB30609/16	End Cap 16 mm	16	250
MPB30609/18	End Cap 18 mm	18	250



## End Sleeves for Microduct Assemblies

Rubber end sleeves used for temporary sealing of unused microduct assemblies to prevent water and dust from getting into the ducts. The end sleeves are available in several versions for different types of microduct assemblies.

**DESIGN:** End sleeves for microduct assemblies

**TYPE:** Temporary use

**DIMENSIONS:** OD Ø3 to 18 mm

<b>End Caps</b>		For Microducts	Pack qty
<b>Product No.</b>	<b>Product Name</b>	<b>OD/ID ø (mm)</b>	<b>pcs</b>
SRS10617/1	End Sleeve for 10-16 mm	10-16	100
SRS10617/2	100xEnd Sleeve for 15-21 mm	15-21	100
SRS10617/3	50xEnd sleeve for 21-29 mm	21-29	50
SRS10617/4	20xEnd Sleeve for 29-38 mm	29-38	20
SRS10617/5	10xEnd Sleeve for 38-45 mm	38-45	10



# DIVISIBLE SEALS

## Divisible Seals for Microducts

The divisible seals for microducts provide a gas and watertight seal for open duct ends installed with air blown fiber, nano cables or micro cables. The seals are designed to be installed after the fiber or cable has been blown in to the microduct.

**DESIGN:** Divisible seals for microducts

**TYPE:** End sealing above ground and in manholes

**DIMENSIONS:** OD Ø5 to 25 mm



Divisible Seals, for 10-18 mm Microducts		For Microducts	For Cables/ Blown Fiber	Pack qty
Product No.	Product Name	OD ø (mm)	ø (mm)	pcs
MPB30608/10A	10 mm Divisible Seal 2.5-3.5 mm	10	2.5 - 3.5	25
MPB30608/10B	10 mm Divisible Seal 5.0-6.5 mm	10	5.0 - 6.5	25
MPB30608/10C	10 mm Divisible Seal 6.5-7.5 mm	10	6.5 - 7.5	25
MPB30608/10D	10 mm Divisible Seal 3.5-5.0 mm	10	3.5 - .5.0	25
MPB30608/10F	10 mm Divisible Seal 1.5-.2.5 mm	10	1.5 - .2.5	25
MPB30608/12A	12 mm Divisible Seal 2.5-3.5 mm	12	2.5 - 3.5	25
MPB30608/12B	12 mm Divisible Seal 5.0-6.5 mm	12	5.0 - 6.5	25
MPB30608/12C	12 mm Divisible Seal 6.5-8.0 mm	12	6.5 - 8.0	25
MPB30608/12D	12 mm Divisible Seal 7.0-8.5 mm	12	7.0 - 8.5	25
MPB30608/12E	12 mm Divisible Seal 3.5-5.0 mm	12	3.5 - 5.0	25
MPB30608/12F	12 mm Divisible Seal 1.5-2.5 mm	12	1.5 - 2.5	25
MPB30608/14A	14 mm Divisible Seal 5.0-6.5 mm	14	5.0 - 6.5	25
MPB30608/14B	14 mm Divisible Seal 8.0-10.0 mm	14	8.0 - 10.0	25
MPB30608/14C	14 mm Divisible Seal 6.5-8.0 mm	14	6.5 - 8.0	25
MPB30608/14F	14 mm Divisible Seal 1.5-2.5 mm	14	1.5 - 2.5	25
MPB30608/14G	14 mm Divisible Seal 3.5-5.0 mm	14	3.5 - 5.0	25
MPB30608/16A	16 mm Divisible Seal 1.5-2.5 mm	16	1.5 - 2.5	25
MPB30608/16B	16 mm Divisible Seal 3.5-5.0 mm	16	3.5 - 5.0	25
MPB30608/16C	16 mm Divisible Seal 5.0-6.5 mm	16	5.0 - 6.5	25
MPB30608/16D	16 mm Divisible Seal 6.5-8.0 mm	16	6.5 - 8.0	25
MPB30608/18A	18 mm Divisible Seal 8.0-9.5 mm	18	8.0 - 9.5	25
MPB30608/18B	18 mm Divisible Seal 6.5-8.0 mm	18	6.5 - 8.0	25
MPB30608/18C	18 mm Divisible Seal 5.0-6.5 mm	18	5.0 - 6.5	25
MPB30608/20A	20 mm Divisible Seal 9.4-12 mm	20	9.4-12	25
MPB30608/20B	20 mm Divisible Seal 8.0-10 mm	20	8.0-10	25
MPB30608/20C	20 mm Divisible Seal 6.5-8.0 mm	20	6.5-8.0	25
MPB30608/20D	20 mm Divisible Seal 3.5-5.0 mm	20	3.5-5.0	25
MPB30608/20E	20 mm Divisible Seal 5.0-6.5 mm	20	5.0-6.5	25
MPB30608/25A	25 mm Divisible Seal 7.0-12 mm	25	7.0 - 12	25

<b>Divisible Seals, for 5-10 mm Microducts</b>		For Microducts	For Cables/ Blown Fiber	Pack qty
Product No.	Product Name	OD ø (mm)	ø (mm)	pcs
MPB30608/5A	5 mm Miniduct Seal 0.9 mm	5	1.0 - 1.6	100
MPB30608/5B	5 mm Miniduct Seal 1.25 mm	5	1.25-1.6	100
MPB30608/5C	5 mm Miniduct Seal 1.6 mm	5	1.6 - 2.1	100
MPB30608/5D	5 mm Miniduct Seal 2.1 mm	5	2.1 - 2.5	100
MPB30608/7A	7 mm Miniduct Seal 0.9 mm	7	1.0 - 1.6	100
MPB30608/7B	7 mm Miniduct Seal 1.25 mm	7	1.25 - 1.6	100
MPB30608/7C	7 mm Miniduct Seal 1.6 mm	7	1.6 - 2.1	100
MPB30608/7D	7 mm Miniduct Seal 2.1 mm	7	2.1 - 2.5	100
MPB30608/100A	10 mm Miniduct Seal 0.9 mm	10	1.0 - 1.6	100
MPB30608/100C	10 mm Miniduct Seal 1.6 mm	10	1.6 - 2.1	100



## Divisible Seals/End Caps for Air Blown Fiber

Extremely slim divisible seals that can also be used as end caps for microducts to prevent dirt and moisture entering the tubes. The end cap also locks the installed fiber to prevent it from moving in the tube. The seal is made of rubber and has a slit that allows the fiber unit to pass through. To avoid the fiber moving in the seal, an additional crimp sleeve can be used to increase

the pressure. The crimp sleeve is recommended for aerial applications.

**DESIGN:** Divisible seal/End Cap for microducts

**TYPE:** End sealing above ground

**DIMENSIONS:** ID Ø3,5 mm  
(fits 7/3.5 and 5/3.5 mm ducts)



<b>Divisible Seal/End Cap Slim, for 5-7 mm Microducts</b>		For Microducts	For Cables/ Blown Fiber	Pack qty
Product No.	Product Name	OD/ID ø (mm)	ø (mm)	pcs
NDK12103	100x Microduct End Cap, Strain Relief	7/3.5, 5/3.5	1.0 - 1.6	1x100
NDK12104	Crimp Sleeve	5/3.5	n/a	100



# DUCT JOINTS AND DUCT BRANCHES

## Duct Branch Closure, Gel

Easy-to-use fast to install closure for branching microduct assemblies to individual microducts. The closure can be used underground or for aerial installations. The closure uses "gel-seal" technology for quick and safe installation.

**DESIGN:** Duct branch closure, gel  
**TYPE:** Aerial or underground branching, IP67  
**CAPACITY:** Up to 4x1-way branch off (aerial), up to 2x1-way branch off (underground)  
**LENGTH:** 250 or 350 mm



Divisible Seals, for 5-7 mm Microducts		For Microduct Assemblies	Application	Pack qty
Product No.	Product Name	Ø (mm)		pcs
NDE45122/1	12x Duct Branch, Gel, 250 mm	20 - 38	Aerial	1x12
NDE45122/3	12x Duct Branch, Gel, 350 mm	20 - 38	Aerial or underground	1x12

## Duct Joint Closure

A series of cylindrical straight duct closures for quick and easy installation without the need for heat. This design is extremely robust and can be installed directly into the ground. The closure is available in several sizes.

**DESIGN:** Duct straight joint closure, cold seal  
**TYPE:** Underground branching, IP68  
**DIMENSIONS:** Ducts Ø7-46 mm



Duct Joint Closure		For Microduct Assemblies	Diameter x Length	Pack qty
Product No.	Product Name	OD Ø (mm)	Ø (mm) x mm	pcs
NDE45125/11	Duct Joint, Straight, 7-12.5 mm	7-12.5	18.9 x 162	10
NDE45125/13	Duct Joint, Straight, 14.9-18 mm	14.9-18	35 x 380	10
NDE45125/14	Duct Joint, Straight, 19-24 mm	19-24	35 x 380	10
NDE45125/15	Duct Joint, Straight, 26.5-29 mm	26.5-29	63 x 630	10
NDE45125/16	Duct Joint, Straight, 31-33 mm	31-33	63 x 630	10
NDE45125/17	Duct Joint, Straight, 36.7-40 mm	36.7-40	63 x 630	10
NDE45125/18	Duct Joint, Straight, 44-46 mm	44-46	63 x 630	10

## Duct Joint and Branch Kit

Flexible kit including materials for jointing, and branching of microduct assemblies. A vulcanizing cloth is used for sealing, and strong and flexible PVC tape provides mechanical protection.

**DESIGN:** Duct j branch kit, mastic  
**TYPE:** Underground branching, IP68  
**CAPACITY:** Approx. 10-15 joints/kit



Divisible Seals, for 5-7 mm Microducts		For Microduct Assemblies, OD
Product No.	Product Name	Ø (mm)
NDE45140/2	Duct Branch Kit, Mastic	5 - 50

## Duct Joint and Branch Closures

Closure suitable for branching as well as jointing ducts. The closure provides mechanical protection of the duct joints. The closures are sealed by snapping in the two body halves together. For each body closure, the suitable sealings (2 or 3 per closure) should be ordered.

**DESIGN:** Duct joint and branch closure

**TYPE:** Underground jointing, for tight protected ducts

**CAPACITY:** Ø 9.9-45.5 mm assemblies  
(7 x 10/8 or 12/10 mm)



Closures – Main Bodies		Adapter Size	Pack qty
Product No.	Product Name	Ø (mm)	pcs
NDE45126/01	Closure Straight 25-25	25 - 25	8
NDE45126/02	Closure Straight 32-32	32 - 32	8
NDE45126/03	Closure Straight 50-50	50 - 50	8
NDE45126/04	Closure Straight 25-32	25 - 32	8
NDE45126/05	Closure Straight 32-50	32 - 50	8
NDE45126/08	Closure Branch-Off 50-50-25	50 - 50 -25	8
NDE45126/09	Closure Branch-Off 32-32-25	32 -32 -25	8
NDE45126/15	Closure Fork 50-32-25	50 - 32 -25	4
NDE45126/16	Closure Fork 50-32-32	50 - 32 -32	4
NDE45126/19	Closure Fork 50-50-50	50 - 50 -50	4

Sealings for Closures		Adapter Size	For Microduct Assemblies	Pack qty
Product No.	Product Name	Ø (mm)	Ø (mm)	pcs
SCG200001	Sealing Kit, 9.9 - 10.1 mm	25	9.9 - 10.1	10
SCG200002	Sealing Kit, 11.8 - 14.0 mm	25	11.8 - 14.0	10
SCG200003	Sealing Kit, 14.5 - 15.1 mm	25	14.5 - 15.1	10
SCG200004	Sealing Kit, 15.5 - 17.6 mm	25	15.5 - 17.6	10
SCG200005	Sealing Kit, 26.5 - 29.0 mm	32	26.5 - 29.0	10
SCG200006	Sealing Kit, 29.5 - 31.5 mm	32	29.5 - 31.5	10
SCG200007	Sealing Kit, 32.0 - 34.7 mm	50	32.0 - 34.7	10
SCG200008	Sealing Kit, 37.1 - 39.7 mm	50	37.1 - 39.7	10
SCG200009	Sealing Kit, 38.3 - 41.5 mm	50	38.3 - 41.5	10
SCG200010	Sealing Kit, 43.0 - 45.5 mm	50	43.0 - 45.5	10

## Heat Shrink Duct Joint Kit

A series of heat shrink duct closures for maximum protection of duct joints for direct buried applications. Heat shrink technology is used for maximum protection. The closure is available in several sizes and also includes microduct snap-in connectors.

**TYPE:** Heat shrink, straight joint  
**DESIGN:** Duct joint kit, heat shrink  
**TYPE:** Underground jointing, IP68  
**CAPACITY:** 1-7 x 10/8 mm or 1-12 x 5/3.5 mm



Closures – Main Bodies		For Microduct Assemblies
Product No.	Product Name	ø (mm)
NDE45115/1	Straight Joint for 1x5/3.5 mm Assembly	1x5/3.5
NDE45115/2	Straight Joint for 2-7x5/3.5 mm Assembly	7x5/3.5
NDE45115/3	Straight Joint for 12-24x5/3.5 mm Assembly	24x5/3.5
NDE45115/4	Straight Joint for 1x10/8 Assembly	1x10/8
NDE45115/5	Straight Joint for 4x10/8 Assembly	4x10/8
NDE45115/6	Straight Joint for 7x10/8 Assembly	7x10/8

## Duct Branch Closure – Compact

This closure is intended for fast and easy branching of direct buried microduct assemblies for air-blown fiber. The typical application is to branch out 1 to 4 drop ducts to connect single family units from a main duct assembly. The closure is intended for mounting directly into the ground or in manholes, but can also be installed above ground.

**DESIGN:** Duct branch closure  
**TYPE:** Underground branching, IP68  
**CAPACITY:** 1-24 way 5/3.5 mm ducts, up to 4x1-way branch off



### Duct Branch Closure

Product No.	Product Name
3/NDE451200	Duct branch off closure, small

## Duct Branch Closure – High Capacity

Branch joint closure suitable for microduct assemblies in direct buried applications. It can be used for a large number of duct branches. The box has alternative entrances, allowing a large number of possible joint combinations, as well as mid-span access.

**DESIGN:** Duct branch closure  
**TYPE:** Underground branching, IP68  
**CAPACITY:** 1-24 way ducts, up to 12x1-way branch off



### Duct Branch Closure

Product No.	Product Name
NDE451100	Duct branch off closure, Universal configuration
NDE451100/1	Duct branch off closure, Modular 12 configuration

# ACCESSORIES FOR AERIAL INSTALLATION

## Anchoring Clamp

Designed for ducts with a Fiber Reinforced Plastic (FRP) messenger figure-8 shaped duct assembly. The 701 can also be mounted directly on aerial drop ducts.

**DESIGN:** Anchoring Clamp  
**TYPE:** Pole Mounting  
**CAPACITY:** 8-10 mm FRP or 6-8 mm FRP or reinforced duct



Product No.	Product Name	For FRP ø (mm)
NSF151601	Anchoring Clamp For FRP messenger figure-8 fiber	8 - 10
NSF151701	Anchoring Clamp For FRP messenger figure-8 or self supporting single duct	6 - 8

## Suspension Clamp

Designed for ducts with a Fiber Reinforced Plastic (FRP) messenger figure-8 shaped duct assembly.

**DESIGN:** Suspension Clamp  
**TYPE:** Pole Mounting on Hook  
**CAPACITY:** 7-11 mm FRP



Product No.	Product Name	For FRP ø (mm)
NSF151502	Suspension Clamp for figure-8 cable	7 - 11

## Hook for Suspension Clamp

This hook is designed for the NSF151502 suspension clamp and enables a secure fastening of the clamp when mounted on wooden poles.

**DESIGN:** Suspension Clamp  
**TYPE:** Pole Mounting



Product No.	Product Name
NSF151100	Hook for suspension clamp

## Universal Pole Bracket

Designed for securing cable or ducts on wooden, concrete or metallic poles.

**DESIGN:** Pole Bracket  
**TYPE:** Pole Mounting



Product No.	Product Name
NSF151611	Universal Pole Bracket, for all types of poles

# WARNING NETS AND TRACER WIRES

## Warning Nets

Warning nets are used when installing ducts or optical cables. The net is normally placed approx 30 cm above the duct system in the trench. An integrated tracer wire of high grade stainless steel is used to trace the dust system. Each delivery length of 500 m is packed with three snap-fit wire connectors. A warning text is printed on the net (Swedish). For other languages, contact Hexatronic.

**DESIGN:** Warning net with tracer wire  
**TYPE:** Integrated tracer wire, 0.8 mm SS  
**DIMENSIONS:** Width, 100 mm  
**LENGTHS:** 500 m



		Print
Product No.	Product Name	
MPB31000/100M	Warning net with tracer wire, Green	Svagström/Optokabel
MPB31000/100S	Warning net with tracer wire, Orange	Telekabel
1/MPB31000	Set of wire connectors (Extra)	

# Installation Tools and Accessories

## AIR BLOWN INSTALLATION TOOLS

### Air Blown Fiber (ABF) Installation Tool

The Air Blown Fiber Installation Tool is used for the installation of Air Blown Fibers into microducts. This unique, easy-to-handle and lightweight tool is designed for optimal performance in combination with all available air blown fiber units and microducts from Hexatronic. The tool uses both compressed air and an electric motor to feed the fiber. An adjustable magnetic coupling limits feeding force on fiber, to avoid damage in the event of a sudden stop. The motor speed and direction is controlled by a trigger switch on the handle.

The tool is delivered with a case including nozzles for 3/2 mm, 5/3.5 mm and 7/3.5 mm microducts.

This new version of the tool features steel armoured plastic parts for increased robustness and an OLED display with length, speed and battery status indicators.

**TYPE:** Air blown fiber (ABF) installation

**SUPPORTED PRODUCTS:** Hexatronic ABF

2 - 12 fiber ( $\varnothing$ 1.1-1.6 mm),

3 - 7 mm microducts

**CAPACITY:**  $\leq$ 150 m/min



Product No.	Product Name
LTT1792040	Air Blown Fiber Installation Tool
NTB101116	Tripod with ball joint

### Miniature Compressor for Air Blown Fiber Installation

This unique, extremely compact compressor is especially developed for air blown fiber installation with Hexatronic blowing tool LTT1792040. The compressor design, without a tank, offers a constant and high capacity air-flow without interruptions for pressure-build up. The oil-free design eliminates problems with leaking oil that can permanently damage microducts.

The super silent operation with a noise pressure level of less than 70 dB makes the daily work enjoyable.

**DESIGN:** Miniature compressor for air blown fiber installation

**TYPE:** Oil-free, extremely silent

**CAPACITY:** Up to 8.5 bar, 100l/min, 370W



Product No.	Product Name
HLTT179004	Miniature compressor for ABF installation

### Nano Cable Installation Tool

The Nano Cabler Installation Tool is used for the installation of Nano Cables into microducts. This tool is calibration-free and designed for optimal performance in combination with all available nano cables from Hexatronic.

The tool is powered by a separate electrical drill or screwdriver (not included). Most types with an output torque exceeding 0.3 Nm at 250-500 RPM can be used. In addition, compressed air is used for long distance installations.

An adjustable magnetic coupling limits feeding force on the cable, to avoid damage in the event of a sudden stop.

The tool is delivered with a case including nozzles for 5/3.5 mm 7/3.5 mm 12/10 mm and 14/10 mm microducts.

**TYPE:** Air blown fiber (ABF) installation

**SUPPORTED PRODUCTS:** Hexatronic Nano Cable

2 - 12 fiber ( $\varnothing$ 2.0-2.1 mm),

5/3.5 mm to 16/12 mm microducts

**CAPACITY:**  $\leq$ 150 m/min



Product No.	Product Name
LTT1792020	Nano Cable Installation Tool
LTT1792020/10	Tripod for Nano Cable Installation Tool

# TOOLS FOR MICRODUCTS AND FIBER CABLES

## Microduct Assembly Cutter

Microduct Assembly Cutter, which cuts microduct assemblies up to Ø42 mm.

**DESIGN:** Microduct assembly cutter

**TYPE:** For all type of ducts

**CAPACITY:** Up to Ø42 mm assemblies

Product No.	Product Name
LDK19501/04	Microduct assembly cutter



## Double Sheath Cutter

Cutter to use when dismantling the outer sheath of a double-sheathed HDPE multiduct (direct buried).

**DESIGN:** Sheath cutter for microduct assemblies

**CAPACITY:** >Ø25 mm assemblies

Product No.	Product Name
LDK19501	Double sheath cutter for microduct assemblies
1/LDK19501/03	Spare cutting blades, 10 pcs



## Single Sheath Cutter - Small

A small and handy tool primarily for removing single-sheathed tight protected ducts. The tool is also useful for removing the sheath from most traditional fiber optic cables. The cutting depth can be adjusted from 0 to 2.5 mm

**DESIGN:** Single sheath cutter for microduct assemblies and cables

**CAPACITY:** Ø6-28 mm assemblies

Product No.	Product Name
LDK1951	Sheath cutter, 6-28 mm



## Single Sheath Cutter

A universal tool primarily for removing single-sheathed tight protected ducts. The tool is also useful for removing the sheath from most traditional fiber optic cables.

**DESIGN:** Single sheath cutter for microduct assemblies and cables

**CAPACITY:** <Ø40 mm assemblies

Product No.	Product Name
LDK19501/05	Inner sheath cutter



## Duct Sheath Cutter

Used for quick and easy removal of any sheath from tight protected microduct assemblies. This is an excellent tool, particularly for performing mid-span access.

**DESIGN:** Sheath cutter for microduct assemblies

**CAPACITY:** Up to Ø50 mm assemblies

Product No.	Product Name
LDK19502	Sheath cutter for microduct assemblies



## Knife for Sheath Removal of Thick Walled Ducts

This knife is especially suitable for safe sheath removal on thick walled duct assemblies. The tip is rounded to avoid the blade cutting the microducts inside the assembly. It is also safe to use since the risk of accidentally cutting hands is minimized.

**DESIGN:** Knife for sheath removal  
**TYPE:** For thick walled duct assemblies



Product No.	Product Name
LDK19501/01	Knife for sheath removal

## Multi Purpose Knife for Cables and Ducts

This handy knife is suitable for a variety of operations.

**DESIGN:** Multi-purpose Knife w. hook



Product No.	Product Name
LDK19501/09	Multi-purpose Knife

## Tool for Tearing up Microducts Longitudinally - The "Snail"

Ideal tool for removal of temporary microducts. Temporary microducts are typically used to create a continuous blow path through closures or similar.

**DESIGN:** Micro cable slit cutter  
**TYPE:** For temporary microducts

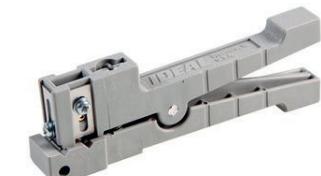


Product No.	Product Name
LDK19501/02	Longitudinal slit cutter

## Micro Cable Inner Tube Opener

The sheath cutter is intended for cutting the inner tube of a micro cable. The cutter is delivered with three straight blades and one round blade. It is possible to adjust the cutting depth with a small Phillips screwdriver.

**TYPE:** Micro cable inner tube opener  
**CAPACITY:** Up to Ø3 mm tubes



Product No.	Product Name
LDK19503/1	Micro Cable Inner Tube Opener

## Micro Cable Sheath Cutter

Used for removal of the sheath on micro cables. The tool is delivered with three straight blades and one round blade. Adjustable cutting depth.

**TYPE:** Micro cable sheath cutter



Product No.	Product Name
LDK19503	Sheath cutter for micro cable

## Micromoduct Cutter – Small

Provides a clean and straight cut necessary to perform a smooth duct splice prior to the mounting of micromoduct snap-in connectors. The cutter is locked in its closed position for safe handling.

**DESIGN:** Micromoduct Cutter

**TYPE:** Compact

**CAPACITY:** Ø3-12 mm



Product No.	Product Name
LDK20803	Micromoduct cutter 3-12 mm

## Micromoduct Cutter – Pliers

This micromoduct cutter is used for cutting micromoducts prior to the mounting of micromoduct snap-in connectors. The tool can cut ducts with dimensions up to 20 mm.

**DESIGN:** Micromoduct cutter

**TYPE:** Blade pliers

**CAPACITY:** Ø3-20 mm



Product No.	Product Name
LDK19501/03	Micromoduct cutter, pliers 3-20 mm
1/LDK19501/03	Spare blades 10 pcs for LDK19501/03

## ABF Stripping Tool

This compact and low-cost tool is used for safe, quick and easy removal of the coating on air blown fiber (ABF).

**DESIGN:** ABF stripper

**TYPE:** Compact

**CAPACITY:** Ø1-1.4 mm (2-12 fibers)



Product No.	Product Name
LDK19501/08	ABF Stripping Tool

## ABF Stripping Scissors

Used for removal of the outer sheath on air blown fiber (ABF). The scissors are also a handy tool for various applications. The two grooves on the upper side of the scissors are used for sheath removal.

**DESIGN:** ABF stripper

**TYPE:** Scissors

**CAPACITY:** Ø1-1.4 mm (2-12 fibers)



Product No.	Product Name
LDK19501/07	ABF Scissors

## Duct Expander

The tool is used to expand the microduct ends. The expansion facilitates proper mounting of microduct end caps, NDK12103. The expander has a slit to be able to expand the duct even after the installation of an air blown fiber in the duct. For better grip the duct expander can be mounted on any handle that holds hex head bits.

**DESIGN:** Duct expander

**TYPE:** Hex head bits

**CAPACITY:** For microducts ID Ø3.5 mm



Product No.	Product Name
HLDK19505/1	Duct Expander

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## Duct Shaper

The tool is used to make the duct end perfectly round before assembly of microduct connectors. This will minimize the risk of fibers or cables get stuck in the connector.

**DESIGN:** Duct Shaper

**TYPE:** Plastic

**CAPACITY:** For microducts ID Ø2-10 mm



Product No.	Product Name
LDK19501/10	Duct Shaper/Expander

# ACCESSORIES FOR BLOWING, LUBRICATION AND CLEANING

## Micro Cable End Caps

Brass end caps should be mounted on the cable end before blowing the micro cable into the microduct. The end cap forms a rounded tip that facilitates blowing through duct joints. They also prevent air from penetrating through the open cable end into the cable. These end caps are extra slim to enable blowing into slim microducts.

An inner thread makes them easy to mount on the cable tip. The end caps can be re-used.

**DESIGN:** Brass end caps

**TYPE:** For micro cables

**CAPACITY:** 2-8 mm



		Thread Diameter	For Cable Diameter/Cable Type	Pack qty
Product No.	Product Name	ø (mm)	ø (mm) (Type)	pcs
HSXA136108/5	Micro Cable End Cap 2mm	2	2 (Nano 2-8f)	10
HSXA136108/4	Micro Cable End Cap 4mm	4	4 (Viper Slim 2-24f)	10
HSXA136108/1	Micro Cable End Cap 6mm	6	5.7-6.3 (Viper 24-96f)	10
HSXA136108/2	Micro Cable End Cap 7mm	7	6.7-7.3 (Viper 144f)	10
HSXA136108/3	Micro Cable End Cap 8mm	8	7.7-8.3 (Viper 192ff)	10
HSXA136108/6	Micro Cable End Cap 8.4 mm	8.4	8.3-8.7 (Viper 200 - 288f)	10

## Blowing Beads

Beads that can be mounted on the tip of the air blown fiber unit for optimal blowing performance. This is recommended for long installation distances with many duct connectors or sharp bends. The beads come in two different sizes to

suit the different blown fiber units. Blowing beads are sold in bags with 100 pcs.

**DESIGN:** Blowing beads

**TYPE:** For air blown fibers

**CAPACITY:** 2-12f ABF



## Cleaning Sponges

Cleaning sponges are used when cleaning dust or moisture from a microduct. The sponge is simply blown through the microduct by the air pressure from the installation tool. The sponges are also used to smear out cable blowing lubricant in microducts. Cleaning sponges are sold in bags with 100 pcs.

**DESIGN:** Cleaning sponges

**TYPE:** For microducts

**CAPACITY:** For microducts ID Ø3.5-10 mm



## Lubricant for Cable Installation into Microducts - The Viper Venom

Hexatronic Viper Venom is a lubricant for cable installation into microducts. It is especially suitable for micro cable and nano cable installations. The lubricant is non-toxic, easy clean up and non-flammable.

**DESIGN:** Lubricant for microducts

**CAPACITY:** 0,24l per bottle



		Pack qty
Product No.	Product Name	pcs/box
MTV11001/1	Lubricant for microducts	24

# Network Products

## FIBER ACCESS TERMINALS AND FIBER TERMINATION BOXES

Hexatronic Fiber Splicing Cabinets and Fiber Access Terminals (FAT) are designed for Air Blown Fibers, nano cables, micro cables and for change over from fibers emerging from microducts or drop cables to all types of fiber optic distribution cables. The cabinets consist of jointing cabinets and joint closures that are designed for easy access and good protection of fibers. Products for direct splicing of distribution and drop cabling sections as well as closure with connection panels are available.

### Fiber Splicing Cabinet – FAT, Small

Small sized cabinet intended for fiber splicing and termination of up to 48 microducts (subscribers) or drop cables. The supplied fiber organizers can typically handle up to 96 fibers. 5 mm duct holders are included. 3mm or 7 mm microducts can be installed by using an optional accessory.

**DESIGN:** Indoor splicing cabinet

**TYPE:** Metal, 19", ETSI or wall mount, IP45

**DIMENSIONS:** 350x300x120 mm

**CAPACITY:** 96 splices, 48 microducts 5/3.5 mm



Product No.	Product Name
NCD5188002	Fiber Jointing Cabinet for up to 48 microducts

### Fiber Splicing Cabinet – FAT, Medium

Medium-sized cabinet designed for fiber splicing and termination of up to 96 microducts (5 mm) or drop cables. The organizers typically handle up to 192 fibers. 5 mm duct organizers are included. 3mm or 7 mm microducts can be installed by using an optional accessory.

**DESIGN:** Indoor splicing cabinet

**TYPE:** Metal, 19", ETSI or wall mount, IP45

**DIMENSIONS:** 440x300x160 mm

**CAPACITY:** 192 splices, 96 microducts 5/3.5 mm



Product No.	Product Name
NCD5188004/3	Fiber jointing cabinet for up to 96 microducts, wall mounting or 19" rack, 8 small organizers
NCD5188004/2	Fiber jointing cabinet for up to 96 microducts, wall mounting or 19" rack, 4 large organizers

### Fiber Splicing Cabinet – FAT, Large

Large cabinet suitable for fiber splicing and termination of up to 192 microducts (5 mm) or drop cables. The supplied fiber organizers can typically handle up to 384 fibers. 5 mm duct organizers are included. 3 mm or 7 mm microducts can be installed by using an optional accessory.

**DESIGN:** Indoor splicing cabinet

**TYPE:** Metal, 19", ETSI or wall mount, IP45

**DIMENSIONS:** 440x600x220 mm

**CAPACITY:** 384 splices, 192 microducts 5/3.5



Product No.	Product Name
NCD5188003	Fiber Jointing Cabinet for up to 192 microducts, wall mounting or 19" rack

### Accessories for Fiber Splicing Cabinets NCD518 8+

Product No.	Product Name
SXA1139515/1	3mm duct organizer for NCD518, for 28 microducts each
HSXA136103/1	7mm duct organizer for NCD 518, for 96 microducts each



## Fiber Jointing Cabinet – High Capacity

This high capacity cabinet is intended for handling cable splices between incoming cables entering the central office and the cables from pre-terminated ODFs. The cabinet can be wall mounted or mounted in a 19" or ETSI rack.

**DESIGN:** Indoor splicing cabinet  
**TYPE:** Metal, 19", ETSI or wall mount, cable installation  
**DIMENSIONS:** 440x600x220 mm  
**CAPACITY:** 768 splices (single fiber) or 2600 splices (8-f ribbon)



Product No.	Product Name
NCD5188005	Fiber Jointing Cabinet 786
NTM503023	External strain relief kit

## Fiber Jointing Cabinet – Small

This extra small cabinet is useful for smaller sites. It is intended for wall mounting. The cabinet includes 2 splice trays. To increase the splice capacity, 6 additional trays can be added (optional accessories).

**DESIGN:** Indoor splicing cabinet  
**TYPE:** Metal, wall mount, cable installation  
**DIMENSIONS:** 350x300x130 mm  
**CAPACITY:** 24 to 96\* splices (single fiber)  
or 48 to 192\* splices (4-f ribbon)

\* With additional splice trays (optional)



Product No.	Product Name
NCD5181098	Cabinet for fiber splicing only, wall mount, incl. 2 splice trays and solid panel

## Fiber Splicing Cabinet

This is a medium sized cabinet for both traditional 5 mm microducts and 7 mm thick walled ducts. The closure is intended for mounting inside an outer protective cabinet or for indoor use.

**DESIGN:** Splicing cabinet for indoor or outdoor use  
**TYPE:** Metal, in cabinet or wall mount  
**DIMENSIONS:** 289x493x140 mm  
**CAPACITY:** 96 (single)/192 (ribbon) splices,  
96 microducts, 5/3.5 or 7/3.5 mm



Product No.	Product Name
NCD5188006	Fiber jointing cabinet for up to 96 microducts, for cabinet or wall mounting

## Fiber Access Terminal, Indoor or Outdoor

FATs for indoor or outdoor applications with up to 24 end-user connections. It can handle air-blown fiber in microducts, micro cables as well as drop cables and other fiber optic cables. It can also be used as a fiber optic splice box for various applications. The closure handles both 5 mm and 7 mm microducts. 3 mm microducts can be installed using the optional accessory.

**DESIGN:** Splicing cabinet for indoor or outdoor use  
**TYPE:** Plastic, wall or pole mount, IP 54 (Indoor), IP56 (Outdoor)  
**DIMENSIONS:** 368x275x114 mm  
**CAPACITY:** 24 microducts/Splices/Connectors (SC)



Product No.	Product Name
1/NCD507200/1	FAT 24 Indoor excluding adapters
1/NCD507200/2	FAT 24 Indoor with 24 SC/APC adapters
2/NCD507200/1	FAT 24 Outdoor excluding adapters
2/NCD507200/2	FAT 24 Outdoor with 24 SC/APC adapters
SXA1139518/1	3mm duct organizer for FAT 24, for 24 microducts

## Fiber Splicing Cabinet FAT – Street Cabinet

Outdoor street cabinet designed for blown fiber or cable splicing. It consists of an outer cabinet and can be equipped with an inner splice closure compartment, complete with splice trays and organizers for 5 mm and 7 mm microducts. The cabinet is made of aluminum or AluZinc. The cabinet can be used with traditional microducts, thick walled ducts or any type of fiber optic cables.

**DESIGN:** Splicing cabinet for outdoor use

**TYPE:** Aluminium or AluZinc,

above ground, IP54

**DIMENSIONS:** 480x225x1050 mm

or 680x225x1050 mm

(above ground)

**CAPACITY:** 96/192 microducts,

96/288 splices



Product No.	Product Name	Capacity (ducts/fibers)	Size (wx dx h, mm)	Weight (Kg)
HNBD116300/1	FAT Cabinet Medium, Grey, Al, with inner splice closure	96/96	480x225x1050	19
HNBD116301/1	FAT Cabinet Medium, Green, Al, with inner splice closure	96/96	480x225x1050	19
HNBD116302/1	FAT Cabinet Medium, Grey, AluZinc, with inner splice closure	96/96	480x225x1050	19
HNBD116303/1	FAT Cabinet Large, Grey, Al, with inner splice closure	192/288	680x225x1050	26
HNBD116304/1	FAT Cabinet Large, Grey, Al, with inner splice closure	192/288	680x225x1050	26
HNBD116300	FAT Cabinet Medium, Grey, Al, Basic Outer Cabinet Only	-	480x225x1050	18
HNBD116301	FAT Cabinet Medium, Green, Al, Basic Outer Cabinet Only	-	480x225x1050	18
HNBD116302	FAT Cabinet Medium, Grey, AluZinc, Basic Outer Cabinet Only	-	480x225x1050	18
HNBD116303	FAT Cabinet Large, Grey, Al, Basic Outer Cabinet Only	-	680x225x1050	25
HNBD116304	FAT Cabinet Large, Green, Al, Basic Outer Cabinet Only	-	680x225x1050	25

## Fiber Splicing Cabinet – FAT, for Aerial Installations

This Fiber Access Terminal (FAT) is designed for splicing of air blown fibers and micro cables in aerial installations. The FAT consists of a well ventilated outer protective cabinet and an inner cable management section with splice trays. Cables are held in place with dynamic strain reliefs that allow natural cable movement present in aerial air blown installations. Duct holders secure the mounting of microducts for air blown fiber installations.

**DESIGN:** Splicing cabinet for outdoor use

**TYPE:** Sheet steel, pole mounting, IP54

**DIMENSIONS:** 650x340x170 mm

**CAPACITY:** 64 microducts, 144 splices



Product No.	Product Name
NCD5072000	Fiber Access Terminal for Aerial Applications
NBL504506	Splice trays, pack of two

# FIBER DISTRIBUTION HUBS

The Fiber Distribution Hub (FDH) is the location of passive fiber optic devices such as fiber optic splitters and/or cross connection facilities. In this section, FDH's for cable and microduct systems are presented with associated accessories.

## Fiber Distribution Hub, Outdoor Cabinet

This FDH combines unique features in a compact cabinet. The FDH handles in-cabinet splicing of cable as well as incremental installation of air blown micro cable or air blown fiber. The FDH is designed for both PON and P2P FTTx connections and is designed for the RDJ 901 + splitter modules.

**DESIGN:** Fiber Distribution Hub for outdoor use

**TYPE:** Aluminium, above ground, IP54

**DIMENSIONS:** 830 (1080\*)x700x426 mm

**CAPACITY:** up to 288 end users

\* Height including pad



Product No.	Product Name
2/NBD116200/1	FDH 288 Street cabinet, Beige, basic for 5 mm Microducts
2/NBD116200/100	FDH 288 Street cabinet, Beige, basic for 7 mm Microducts
2/NBD116200/10	FDH 288 Street cabinet, Beige, basic for 5 mm Microducts, for ASSA Scandinavian Cylinder
2/NBD116200/201	FDH 288 Street cabinet, Green, basic for 7 mm Microducts, for ASSA Scandinavian Cylinder
NBL9012001/1	Fiber adapter tray, empty
NBL9012001/10	Fiber adapter tray with 24 x SC/APC pigtailed
NBL9012001/11	Fiber adapter tray with 24 x SC pigtailed
NBL9012001/12	Fiber adapter tray with 24 x LC/APC pigtailed
NBL9012001/13	Fiber adapter tray with 24 x LC pigtailed

For splitter modules, see section *Fiber Optic Interconnect Products / Splitters and Other Passive Optical Devices*

## Fiber Distribution Hub, Indoor

The indoor FDH, for up to 64 end-users, is designed to handle fiber optic terminations and passive optical splitters in PON FTTx networks but can also be used for Point to Point (P2P) applications or combinations of the both. The FDH can handle air-blown fiber in microducts, micro cables as well as drop cables and other fiber optic cables. It can also be used as a medium sized fiber optic splice box for various applications.

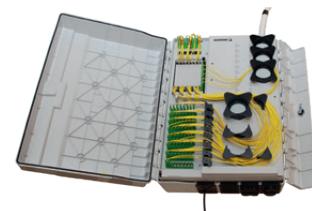
The closure handles both 5 mm and 7 mm microducts. 3 mm microducts can be installed using the optional accessory.

**DESIGN:** Fiber Distribution Hub for indoor use

**TYPE:** Plastic, wall mount, IP54

**DIMENSIONS:** 500x 76x182 mm

**CAPACITY:** up to 64 end users (SC)



Product No.	Product Name
1/NBD116200/1	FDH cabinet basic, empty
1/NBD116200/2	FDH cabinet prepared 64 + 8 SC/APC
1/NBD116200/3	FDH cabinet prepared 64 + 8 SC
1/NBD116200/4	FDH cabinet prepared 64 + 8 LC/APC
1/NBD116200/5	FDH cabinet prepared 64 + 8 LC
SXA1139517/1	3mm duct organizer for FDH 64, for 96 microducts

For splitter modules, see section *Fiber Optic Interconnect Products / Splitters and Other Passive Optical Devices*

## Fiber Distribution Hub – Underground Closure

The main application for this closure is fiber distribution in PON networks with optical splitters, but it can also be used in a P2P system as a cross connection distribution point. The closure is designed for outdoor, underground installation in manholes, above ground installation on poles or installations inside pedestals. The closure can handle air-blown fibers in microducts, micro cables and traditional cables. The closure is equipped with a holder for up to three RDJ 901+ splitter modules. The closure is delivered with

heat shrink sealings for traditional cables. For installation of micro cables and microducts, use the optional cold seals.

**DESIGN:** Fiber Distribution Hub for underground use

**TYPE:** Plastic, IP68

**DIMENSIONS:** 520x280 mm

**CAPACITY:** up to 96 end users (SC)



Product No.	Product Name
NCD507500	FAT/FDH for underground use
NSD515201	Swing-up arm for NCD507500/550
NDM11016/1	10x Round Micro cable entrance, for up to 6 micro cables
NDM11017/1	5x Oval Micro cable entrance kit, for up to 11 micro cables
NDM11018/1	10x Round Microduct entrance kit, for up to 18x5 mm microducts

For splitter modules, see section *Fiber Optic Interconnect Products / Splitters and Other Passive Optical Devices*

## JOINT CLOSURES FOR FIBER OPTIC CABLES

Joint closures for optimal protection. Hexatronic has developed a range of cost-effective joint closures for every installation environment.

The offering, for both indoor and outdoor installation, includes boxes optimized for virtually all conditions, and for small, medium and large fiber counts. Made in a variety of materials to suit environments ranging from simple to very demanding, the boxes are designed to join most types of fiber cables.

Hexatronic offers a complete line of accessories, including tool kits, protection sleeves, shrink-on hoses, mounting brackets and expansion kits, suitable for various types of installation.

### Fiber Joint Closure – High Capacity

This compact, high capacity joint closure handles up to 576 fiber splices. The closure is designed for outdoor underground installation in manholes but can also be mounted above ground on poles or inside pedestals. The closure can handle air-blown fibers in microducts, micro cables and traditional cable. The closure is delivered with heat shrink

sealings for traditional cables. For installation of micro cables and microducts, use the optional cold seals.

**DESIGN:** Fiber joint closure, dome

**TYPE:** Plastic, IP68

**DIMENSIONS:** 520x280 mm

**CAPACITY:** up to 576 splices



Product No.	Product Name
NCD507550	Fiber Joint Closure 576
NSD515201	Swing-up arm for NCD507500/550
NDM11016/1	10x Round Micro cable entrance, for up to 6 micro cables
NDM11017/1	5x Oval Micro cable entrance kit, for up to 11 micro cables
NDM11018/1	10x Round Microduct entrance kit, for up to 18x5 mm microducts

## Fiber Joint Closure

Versatile fiber closure made of durable plastic to meet most environmental demands. The standard box can handle up to 96 single fibers or 48 ribbon sleeves. The closure can also handle mid-span access.

**DESIGN:** Fiber joint closure, butt end  
**TYPE:** Plastic, IP68  
**DIMENSIONS:** 520x280 mm  
**CAPACITY:** up to 96 single fiber splices or 48 ribbon fiber splices with 4 extra tray



Product No.	Product Name
NCD5045004	Plastic Joint Closure, no open entrance, 4 organizers
NCD5046004	Plastic Joint Closure, 2xØ24 entrances opened+1xMulti entrance not opened, 4 organizers
NCD5047004	Plastic Joint Closure, 2xØ24 entrances not opened+1xMulti entrance opened, 4 organizers
NCD5048004	Plastic Joint Closure, 2xØ24 entrances opened+1xMulti entrance opened, 4 organizers
NTM504001	Installation kit for 10 joint closures NCD 504
NBL504021	2 organizers, cover, for NCD 504
NBL504041	4 organizers, cover, for NCD 504
SXK1101050/2	Locking screw for 8 organizers, for NCD 503/504
NSD51521	Mounting bracket set for wall mounting NCD 504
NSD51523/3	Mounting bracket including bracket for slack cable NCD 503/504
NSD51522/1	Bracket for pole mounting for NCD 504
NSD51522	Mounting bracket for pole and wall mounting NCD 504
NTM504002	Kit for sealing of the single cable inlet NCD 504
NTM504003	Kit for sealing of the multi cable inlet NCD 504
NTM504010	Installation kit for mid-span access, NCD 504
NTM504005/1	Kit for sealing of microcables for the multi cable inlet NCD 504
NTM504005/2	Kit for sealing of microcables for the single cable inlet NCD 504
NTM504012	Earthing screw NCD 504
SXA1139183	Rubber seal (spare part)
NDM501205	End plug for extension ring (spare part)
NTM504004	10xArmoured Cable Bridging Wire Kit
NTV90303	Cleaning cloth
SVB92401	Warning label, english
SVB92402	Identification label, english

# Fiber Optic Interconnect Products

## EQUIPMENT RACK SYSTEMS

The Central Office range features fiber management systems to efficiently and cost-effectively organize and terminate large quantities of fiber. The application in the central office environment is characterized by a minimum footprint in combination with class-leading capacity that allows well-organized and safe fiber termination to minimize operating errors.

### 19" Rack System

The 19" standard Rack System offers high-capacity, easy installed fiber management to organize and terminate large quantities of fibers such as in FTTH networks.

**DESIGN:** 19" Rack, floor standing  
**TYPE:** Metal frame, floor standing  
**DIMENSIONS:** 2100x600x400 mm  
**CAPACITY:** 42 U

Product No.	Product Name
MT-5211S	19" rack, Black
MT-5446/40S	Radius limiter
MT-5446/08S	Patch cable management
MT-5446/01S	Cable channel
MT-5211/61	Floor attachment



### Mounting Frame System

The mounting rack system is a multi-purpose, wall mounted frame system for smaller sites. The frame is designed for 19" equipment. The depth of the frame can be adjusted with brackets.

**DESIGN:** 19" frame,  
**TYPE:** Metal frame, wall mounted  
**CAPACITY:** 48 U  
**SIZE:** 500x2200x240 mm  
**CAPACITY, EQUIPMENT:** 48 U

Product No.	Product Name
NBF11003	Mounting Frame System, Set
N-675073	Vertical Bar
N-675074	Cable Support
N-675075	Wire Guide
N-675076	Top and Bottom Iron
NBH10201	Mounting Frame
NBH10202	Mounting Set
NBH10401	Mounting Bar
NBH10402	Mounting Set
NSD60101	Fixing Iron, 240 mm
NSD60102	Fixing Iron, 500 mm
NSG20701	Wire Guide
NSV45101	Washer
NSV61101	Screw



# OPTICAL DISTRIBUTION FRAMES

Optical Distribution Frames (ODFs) are integrated components in any fiber management system. They are available as rack-mounted units for 19" or ETSI racks, or as wall-mounted cabinets. The ODFs are available in a range of configurations depending on application:

**Pre-terminated ODFs** with stub cables are pre-installed with connectors and cables for quick and easy installation. Units with pre-terminated cables offer advantages such as faster installation, resulting in shorter time and therefore cost revenue as well as guaranteed quality and performance. Several cable options are available. ODFs with stub micro cables are especially suitable for high packing density applications.

**ODFs for cable installation** are intended for installation and termination of all kinds of fiber optic cables. The units are suitable for splicing pigtails or fiber ribbon fanouts as well as field-installable connectors. The ODFs are delivered empty, allowing the customer to order the pigtails/fanouts, adapters, splice protection sleeves and installation kit that best suit the specific application. The units can also be installed with pre-connectorized cable assemblies.

**ODFs for air blown fiber** are designed to handle termination of microducts for air blown fibers. They are typically used in FTTx applications when blowing fibers directly to a central office or other distribution point. The air blown technology enables incremental installation when needed.

## ODF Pre-terminated, with Stub Cable, 2U

Pre-terminated ODF with a capacity from 24 to 96 connectors. Options include: halogen-free, flame-retardant, loose tube, ribbon or micro cable. Optional accessories include horizontal patch cord guides for space-saving mounting directly onto the front of the ODF.

**DESIGN:** ODF, pre-terminated

**TYPE:** 19" or ETSI mount, 2U

**DIMENSIONS:** 400x249x86 mm

**CAPACITY:** 24-96 SC, SC/APC, LC or LC/APC



Product No.	Product Name
NCD5138051/010D	48xSC ODF 2U, Micro Cable GNHQBDUV 10m
NCD5138051/020D	48xSC ODF 2U, Micro Cable GNHQBDUV 20m
NCD5138051/050D	48xSC ODF 2U, Micro Cable GNHQBDUV 50m
NCD5138051/100D	48xSC ODF 2U, Micro Cable GNHQBDUV 100m
NCD5138050/010D	96xSC ODF 2U, Micro Cable GNHQBDUV 10m
NCD5138050/020D	96xSC ODF 2U, Micro Cable GNHQBDUV 20m
NCD5138050/050D	96xSC ODF 2U, Micro Cable GNHQBDUV 50m
NCD5138050/100D	96xSC ODF 2U, Micro Cable GNHQBDUV 100m
NCD5138040/010D	96xSC/APC ODF 2U, Micro Cable GNHQBDUV 10m
NCD5138040/020D	96xSC/APC ODF 2U, Micro Cable GNHQBDUV 20m
NCD5138040/050D	96xSC/APC ODF 2U, Micro Cable GNHQBDUV 50m
NCD5138040/100D	96xSC/APC ODF 2U, Micro Cable GNHQBDUV 100m
NCD5138047/010D	96xLC ODF 2U, Micro Cable GNHQBDUV 10m
NCD5138047/020D	96xLC ODF 2U, Micro Cable GNHQBDUV 20m
NCD5138047/050D	96xLC ODF 2U, Micro Cable GNHQBDUV 50m
NCD5138047/100D	96xLC ODF 2U, Micro Cable GNHQBDUV 100m
NCD5138053/010D	24xSC ODF 2U, Micro Cable GNHQBDUV 10m
NCD5138053/020D	24xSC ODF 2U, Micro Cable GNHQBDUV 20m
NCD5138053/050D	24xSC ODF 2U, Micro Cable GNHQBDUV 50m
NCD5138053/100D	24xSC ODF 2U, Micro Cable GNHQBDUV 100m
NCD5138094/010D	24xSC/APC ODF 2U, Micro Cable GNHQBDUV 10m
NCD5138094/020D	24xSC/APC ODF 2U, Micro Cable GNHQBDUV 20m
NCD5138094/050D	24xSC/APC ODF 2U, Micro Cable GNHQBDUV 50m
NCD5138094/100D	24xSC/APC ODF 2U, Micro Cable GNHQBDUV 100m
NCD5138095/010D	48xSC/APC ODF 2U, Micro Cable GNHQBDUV 10m
NCD5138095/020D	48xSC/APC ODF 2U, Micro Cable GNHQBDUV 20m
NCD5138095/050D	48xSC/APC ODF 2U, Micro Cable GNHQBDUV 50m
NCD5138095/100D	48xSC/APC ODF 2U, Micro Cable GNHQBDUV 100m

Product No.	Product Name
NCD5138079/010D	24xSC ODF 2U, Indoor/Outdoor Sheath GRHQBDUV 10m
NCD5138079/020D	24xSC ODF 2U, Indoor/Outdoor Sheath GRHQBDUV 20m
NCD5138079/050D	24xSC ODF 2U, Indoor/Outdoor Sheath GRHQBDUV 50m
NCD5138079/100D	24xSC ODF 2U, Indoor/Outdoor Sheath GRHQBDUV 100m
NCD5138078/010D	48xSC ODF 2U, Indoor/Outdoor Sheath GRHQBDUV 10m
NCD5138078/020D	48xSC ODF 2U, Indoor/Outdoor Sheath GRHQBDUV 20m
NCD5138078/050D	48xSC ODF 2U, Indoor/Outdoor Sheath GRHQBDUV 50m
NCD5138078/100D	48xSC ODF 2U, Indoor/Outdoor Sheath GRHQBDUV 100m
NCD5138077/010D	96xSC ODF 2U, Indoor/Outdoor Sheath GRHQBDUV 10m
NCD5138077/020D	96xSC ODF 2U, Indoor/Outdoor Sheath GRHQBDUV 20m
NCD5138077/050D	96xSC ODF 2U, Indoor/Outdoor Sheath GRHQBDUV 50m
NCD5138077/100D	96xSC ODF 2U, Indoor/Outdoor Sheath GRHQBDUV 100m

### Accessories for Pre-terminated ODFs

Product No.	Product Name
NTM50211	Horizontal cable guide for mounting on ODF

## ODF for Cable Installation, 2U

High capacity ODF with up to 96 connectors. Optional accessories include horizontal patch cord guides for space-saving mounting directly onto the front of the ODF, pigtailed, fanouts, adapters, splice sleeves, etc. Installation kit is included. Cable guide is ordered separately.

**DESIGN:** ODF, for cable installation  
**TYPE:** 19" or ETSI mount, 2U  
**SIZE:** 400x249x86 mm  
**CAPACITY:** 24-96 SC, SC/APC, LC or LC/APC



Product No.	Product Name
NCD5139215	ODF box with 24 SC duplex cut out (48-fiber)
NCD5139216	ODF box with 48 SC duplex cut out (96-fiber)
NCD5139305	ODF box with 48 slots for FC or ST adapters (48-fiber)
NCD5139218	ODF box with 24 LC quad cut out (96-fiber)
NTM50211	Horizontal cable guide for mounting on ODF

## ODF for Cable Installation, 1.5U

ODF with a capacity of up to 48/96 connectors. Optional accessories include horizontal patch cord guides for rack mounting directly under the ODF, pigtailed, fanouts, adapters, splice sleeves etc. Cable guide is ordered separately.

**DESIGN:** ODF, for cable installation  
**TYPE:** 19" or ETSI mount, 1,5U  
**SIZE:** 440x247x66 mm  
**CAPACITY:** 24-48 SC, SC/APC, LC, LC/APC, FC or ST



Product No.	Product Name
NCD5130303	ODF box 1,5U with 24 slots for FC or ST
NCD5130211	ODF box 1,5U with 12 SC duplex cut out
NCD5130213	ODF box 1,5U with 24 SC duplex cut out
NTM50383	Installation kit for one ODF
NTM504036	Horizontal cable guide for mounting under the ODF, 1U-19"
02/NCD513	Horizontal cable guide for mounting under the ODF, 0,5U-19"

## ODF for Air Blown Fiber installation, 1U

Compact ODF with front access for simplified incremental installation of air blown fiber. The ODF has a capacity up to 48 SC (96 LC) connectors and clamps for up to 48 microducts (5mm). Optional accessories include horizontal patch cord guides, pigtailed, fanouts, adapters, splice sleeves etc.

**DESIGN:** ODF, for air blown fiber installation  
**TYPE:** 19", 1U  
**SIZE:** 450x280x44 mm  
**CAPACITY:** 48 -96 SC, SC/APC, LC, LC/APC



Product No.	Product Name
NCD5200013	ODF for microduct access in the front, 24SC duplex cut-out

## ODF Patch Panels

This is a multi-purpose patch panel system when no or limited access from the rear of the rack is allowed. The panel offers total front access for both incoming and outgoing cables. The light-weight panel is divided in a left and right swiveling section. It is designed for pre-connected incoming cable assemblies.

**DESIGN:** ODF, for patching  
**TYPE:** 19", 1U  
**SIZE:** 485x200x43 mm  
**CAPACITY:** 6 basic versions with 48 or 32 SC adapters



Product No.	Product Name
NCD5205000/1	ODF box1U with 48 SC-simplex adapters (included)
NCD5205000/2	ODF box1U with 16 SC-duplex adapters (for 32 connectors, included)
NCD5205000/3	ODF box1U with 48 SC/APC-simplex adapters (included)
1NCD5205000/4	ODF box1U with 16 SC/APC-duplex adapters (for 32 connectors, included)
NCD5205000/10	ODF box 1U with 48 slots for SC-simplex
NCD5205000/20	ODF box 1U with 16 slots for SC-duplex

## ODF for Cable Installation, Wall Mounted

Two-sided wall mounted ODF with a capacity of up to 48 SC or 96 LC connectors. The ODF consists of two compartments with separate locks and is therefore suitable as a demarcation cabinet between different network owners. The cabinet can also be used as a jointing box.

**DESIGN:** ODF cabinet for cable installation  
**TYPE:** Wall mount  
**SIZE:** 475x300x130 mm  
**CAPACITY:** 48 -96 SC, SC/APC, LC, LC/APC



Product No.	Product Name
NCD5181200	ODF Cabinet for fiber termination, panel 24 SC-Duplex cutout, side section, 4 splice trays

## Patch Handling Unit

This patch handling unit stores excess lengths of patch cords connected to ODF:s. 24 slots provide storage of up to 6 m of cable in each slot.

**DESIGN:** Patch handling unit  
**TYPE:** 19" mount  
**SIZE:** 482x234x88 mm  
**CAPACITY:** 24 slots



Product No.	Product Name
NBL32301	Storage unit ETSI/19" (vertical storage)

## PATCH CORDS, PIGTAILS AND CABLE ASSEMBLIES

The range of fiber optic patch cords, pigtails and cable assemblies cover all interconnect needs in any kind of environment. We provide virtually any type of fiber optic connector. Some examples are shown below.



SC



SC/APC



SC Multimode



LC



LC/APC



FC

Supported fiber types are singlemode G.657A2 (compatible with G.652), and multimode 50 $\mu$ m OM3 and OM4. The product range is divided into four main categories:

**Patch cords** that are used for quick and easy interconnect between line equipment or for cross connection between network interface equipment such as ODFs. Patch cords are available as simplex (1 fiber), duplex (2 fiber).



**Pigtails**, stub fibers with a fitted connector on one end, are normally spliced towards a cable or other type of fiber unit inside an ODF, wall outlet or other type of network equipment. The standard pigtail is made of a 0.9 mm tight secondary protected fiber. Pigtails are available for all connector options.



**Fanouts**, fiber ribbons that are branched out in one end and fitted with connectors, enable ribbon-fiber splicing, minimize splice cost and increase packing density in network equipment.



**Multifiber cable assemblies**, or fiber optic patch cables, for interconnect applications are preferred when a high number of interconnections and a high packing density is required. The cable assemblies are available with 4-48 fibers and are delivered pre-terminated in one or both ends. To facilitate installation and to maximize packing density, the multifiber cable assemblies use extra-slim micro cables, typically 8mm in diameter.

## Patch Cords, Pigtails and Fanouts – Singlemode G657A2

A series of high performance patch cords, pigtails and fanouts for demanding telecom applications with high requirements for low-loss and stability. The products are made of highly bend-resistant G657A2 fibers to minimize operating errors and enable the highest packing density in interconnect applications. All patch cords are UL 1666 rated and available in blue or yellow color.

**DESIGN:** Patch cords, pigtails and fan-outs

**TYPE:** G657A2 bend-resistant

**DIMENSIONS:** Cable Ø2 mm, pigtail Ø0.9 mm

**CONNECTOR OPTIONS:** SC, SC/APC, LC, LC/APC

**PERFORMANCE:** IL\*≤0.30, RL (PC)≥50, RL (APC)≥60

**STANDARD LENGTH:** 1, 2, 3, 5, 7, 10 m



\* Insertion Loss according to IEC 61300-3-4 method B

Blue Series, G657A2		Blue Series, G657A2	
Product No.	Product Name	Product No.	Product Name
<b>Patch Cords, Singlemode, Simplex (1-fiber SM)</b>			
HTSR3952024/1000	Patchcord SM, SC - SC, G657A2, Blue, 1 m	HTSR3953012/1000	Duplex-Patchcord 2xSM, LC - LC, G657A2, Blue, 1 m
HTSR3952024/2000	Patchcord SM, SC - SC, G657A2, Blue, 2 m	HTSR3953012/2000	Duplex-Patchcord 2xSM, LC - LC, G657A2, Blue, 2 m
HTSR3952024/3000	Patchcord SM, SC - SC, G657A2, Blue, 3 m	HTSR3953012/3000	Duplex-Patchcord 2xSM, LC - LC, G657A2, Blue, 3 m
HTSR3952024/5000	Patchcord SM, SC - SC, G657A2, Blue, 5 m	HTSR3953012/5000	Duplex-Patchcord 2xSM, LC - LC, G657A2, Blue, 5 m
HTSR3952024/7000	Patchcord SM, SC - SC, G657A2, Blue, 7 m	HTSR3953012/7000	Duplex-Patchcord 2xSM, LC - LC, G657A2, Blue, 7 m
HTSR3952024/10M	Patchcord SM, SC - SC, G657A2, Blue, 10 m	HTSR3953012/10M	Duplex-Patchcord 2xSM, LC - LC, G657A2, Blue, 10 m
HTSR3952027/1000	Patchcord SM, SC/APC - SC/APC, G657A2, Blue, 1 m	HTSR3953015/1000	Duplex-Patchcord 2xSM, LC - SC, G657A2, Blue, 1 m
HTSR3952027/2000	Patchcord SM, SC/APC - SC/APC, G657A2, Blue, 2 m	HTSR3953015/2000	Duplex-Patchcord 2xSM, LC - SC, G657A2, Blue, 2 m
HTSR3952027/3000	Patchcord SM, SC/APC - SC/APC, G657A2, Blue, 3 m	HTSR3953015/3000	Duplex-Patchcord 2xSM, LC - SC, G657A2, Blue, 3 m
HTSR3952027/5000	Patchcord SM, SC/APC - SC/APC, G657A2, Blue, 5 m	HTSR3953015/5000	Duplex-Patchcord 2xSM, LC - SC, G657A2, Blue, 5 m
HTSR3952027/7000	Patchcord SM, SC/APC - SC/APC, G657A2, Blue, 7 m	HTSR3953015/7000	Duplex-Patchcord 2xSM, LC - SC, G657A2, Blue, 7 m
HTSR3952027/10M	Patchcord SM, SC/APC - SC/APC, G657A2, Blue, 10 m	HTSR3953015/10M	Duplex-Patchcord 2xSM, LC - SC, G657A2, Blue, 10 m
HTSR3952012/1000	Patchcord SM, LC - LC, G657A2, Blue, 1 m	HTSR3953044/1000	Duplex-Patchcord 2xSM, SC/APC - LC/APC, G657A2, Blue, 1 m
HTSR3952012/2000	Patchcord SM, LC - LC, G657A2, Blue, 2 m	HTSR3953044/2000	Duplex-Patchcord 2xSM, SC/APC - LC/APC, G657A2, Blue, 2 m
HTSR3952012/3000	Patchcord SM, LC - LC, G657A2, Blue, 3 m	HTSR3953044/3000	Duplex-Patchcord 2xSM, SC/APC - LC/APC, G657A2, Blue, 3 m
HTSR3952012/5000	Patchcord SM, LC - LC, G657A2, Blue, 5 m	HTSR3953044/5000	Duplex-Patchcord 2xSM, SC/APC - LC/APC, G657A2, Blue, 5 m
HTSR3952012/7000	Patchcord SM, LC - LC, G657A2, Blue, 7 m	HTSR3953044/7000	Duplex-Patchcord 2xSM, SC/APC - LC/APC, G657A2, Blue, 7 m
HTSR3952012/10M	Patchcord SM, LC - LC, G657A2, Blue, 10 m	HTSR3953044/10M	Duplex-Patchcord 2xSM, SC/APC - LC/APC, G657A2, Blue, 10 m
HTSR3952034/1000	Patchcord SM, LC/APC - LC/APC, G657A2, Blue 1 m	<b>Pigtails, Singlemode</b>	
HTSR3952034/2000	Patchcord SM, LC/APC - LC/APC, G657A2, Blue, 2 m	HTSR3950423/2000	Pigtail SM (0.9 mm), SC - open end, G657A2, 2 m
HTSR3952034/3000	Patchcord SM, LC/APC - LC/APC, G657A2, Blue, 3 m	HTSR3950426/2000	Pigtail SM (0.9 mm), SC/APC - open end, G657A2, 2 m
HTSR3952034/5000	Patchcord SM, LC/APC - LC/APC, G657A2, Blue, 5 m	HTSR3950414/2000	Pigtail SM (0.9 mm), LC - open end, G657A2, 2 m
HTSR3952034/7000	Patchcord SM, LC/APC - LC/APC, G657A2, Blue, 7 m	HTSR3950433/2000	Pigtail SM (0.9 mm), LC/APC - open end, G657A2, 2 m
HTSR3952034/10M	Patchcord SM, LC/APC - LC/APC, G657A2, Blue, 10 m	<b>Patch Cords, Singlemode, Duplex (2-fiber SM)</b>	
HTSR3952015/1000	Patchcord SM, LC - SC, G657A2, Blue, 1 m	HTSR3953024/1000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Blue, 1 m
HTSR3952015/2000	Patchcord SM, LC - SC, G657A2, Blue, 2 m	HTSR3953024/2000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Blue, 2 m
HTSR3952015/3000	Patchcord SM, LC - SC, G657A2, Blue, 3 m	HTSR3953024/3000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Blue, 3 m
HTSR3952015/5000	Patchcord SM, LC - SC, G657A2, Blue, 5 m	HTSR3953024/5000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Blue, 5 m
HTSR3952015/7000	Patchcord SM, LC - SC, G657A2, Blue, 7 m	HTSR3953024/7000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Blue, 7 m
HTSR3952015/10M	Patchcord SM, LC - SC, G657A2, Blue, 10 m	HTSR3953024/10M	Duplex-Patchcord 2xSM, SC - SC, G657A2, Blue, 10 m
<b>Patch Cords, Singlemode, Duplex (2-fiber SM)</b>			
HTSR3953024/1000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Blue, 1 m	HTSR3953027/1000	Duplex-Patchcord 2xSM, SC/APC - SC/APC, Blue, 1 m
HTSR3953024/2000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Blue, 2 m	HTSR3953027/2000	Duplex-Patchcord 2xSM, SC/APC - SC/APC, Blue, 2 m
HTSR3953024/3000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Blue, 3 m	HTSR3953027/3000	Duplex-Patchcord 2xSM, SC/APC - SC/APC, Blue, 3 m
HTSR3953024/5000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Blue, 5 m	HTSR3953027/5000	Duplex-Patchcord 2xSM, SC/APC - SC/APC, Blue, 5 m
HTSR3953024/7000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Blue, 7 m	HTSR3953027/7000	Duplex-Patchcord 2xSM, SC/APC - SC/APC, Blue, 7 m
HTSR3953024/10M	Duplex-Patchcord 2xSM, SC - SC, G657A2, Blue, 10 m	HTSR3953027/10M	Duplex-Patchcord 2xSM, SC/APC - SC/APC, Blue, 10 m



### Yellow Series, G657A2

Product No.	Product Name
<b>Patch Cords, Singlemode, Simplex (1-fiber SM)</b>	
TSR3950124/1000	Patchcord SM, SC - SC, G657A2, Yellow, 1 m
TSR3950124/2000	Patchcord SM, SC - SC, G657A2, Yellow, 2 m
TSR3950124/3000	Patchcord SM, SC - SC, G657A2, Yellow, 3 m
TSR3950124/5000	Patchcord SM, SC - SC, G657A2, Yellow, 5 m
TSR3950124/10M	Patchcord SM, SC - SC, G657A2, Yellow, 10 m
TSR3950127/1000	Patchcord SM, SC/APC - SC/APC, G657A2, Yellow, 1 m
TSR3950127/2000	Patchcord SM, SC/APC - SC/APC, G657A2, Yellow, 2 m
TSR3950127/3000	Patchcord SM, SC/APC - SC/APC, G657A2, Yellow, 3 m
TSR3950127/5000	Patchcord SM, SC/APC - SC/APC, G657A2, Yellow, 5 m
TSR3950127/10M	Patchcord SM, SC/APC - SC/APC, G657A2, Yellow, 10 m
TSR3950112/1000	Patchcord SM, LC - LC, G657A2, Yellow, 1 m
TSR3950112/2000	Patchcord SM, LC - LC, G657A2, Yellow, 2 m
TSR3950112/3000	Patchcord SM, LC - LC, G657A2, Yellow, 3 m
TSR3950112/5000	Patchcord SM, LC - LC, G657A2, Yellow, 5 m
TSR3950112/10M	Patchcord SM, LC - LC, G657A2, Yellow, 10 m
TSR3950134/1000	Patchcord SM, LC/APC - LC/APC, G657A2, Yellow, 1 m
TSR3950134/2000	Patchcord SM, LC/APC - LC/APC, G657A2, Yellow, 2 m
TSR3950134/3000	Patchcord SM, LC/APC - LC/APC, G657A2, Yellow, 3 m
TSR3950134/5000	Patchcord SM, LC/APC - LC/APC, G657A2, Yellow, 5 m
TSR3950134/10M	Patchcord SM, LC/APC - LC/APC, G657A2, Yellow, 10 m
<b>Patch Cords, Singlemode, Duplex (2-fiber SM)</b>	
TSR3950224/1000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Yellow, 1 m
TSR3950224/2000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Yellow, 2 m
TSR3950224/3000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Yellow, 3 m
TSR3950224/5000	Duplex-Patchcord 2xSM, SC - SC, G657A2, Yellow, 5 m
TSR3950224/10M	Duplex-Patchcord 2xSM, SC - SC, G657A2, Yellow, 10 m
TSR3950227/1000	Duplex-Patchcord 2xSM, SC/APC - SC/APC, Yellow, 1 m
TSR3950227/2000	Duplex-Patchcord 2xSM, SC/APC - SC/APC, Yellow, 2 m
TSR3950227/3000	Duplex-Patchcord 2xSM, SC/APC - SC/APC, Yellow, 3 m
TSR3950227/5000	Duplex-Patchcord 2xSM, SC/APC - SC/APC, Yellow, 5 m
TSR3950227/10M	Duplex-Patchcord 2xSM, SC/APC - SC/APC, Yellow, 10 m
TSR3950212/1000	Duplex-Patchcord 2xSM, LC - LC, G657A2, Yellow, 1 m
TSR3950212/2000	Duplex-Patchcord 2xSM, LC - LC, G657A2, Yellow, 2 m
TSR3950212/3000	Duplex-Patchcord 2xSM, LC - LC, G657A2, Yellow, 3 m
TSR3950212/5000	Duplex-Patchcord 2xSM, LC - LC, G657A2, Yellow, 5 m
TSR3950212/10M	Duplex-Patchcord 2xSM, LC - LC, G657A2, Yellow, 10 m
TSR3950234/1000	Duplex-Patchcord 2xSM, LC/APC-LC/APC, G657A2, Yellow, 1 m
TSR3950234/2000	Duplex-Patchcord 2xSM, LC/APC-LC/APC, G657A2, Yellow, 2 m
TSR3950234/3000	Duplex-Patchcord 2xSM, LC/APC-LC/APC, G657A2, Yellow, 3 m
TSR3950234/5000	Duplex-Patchcord 2xSM, LC/APC-LC/APC, G657A2, Yellow, 5 m
TSR3950234/10M	Duplex-Patchcord 2xSM, LC/APC-LC/APC, G657A2, Yellow, 10 m

### Yellow Series, G657A2

Product No.	Product Name
<b>continuing Patch Cords, Singlemode, Duplex (2-fiber SM)</b>	
TSR3950215/1000	Duplex-Patchcord 2xSM, LC - SC, G657A2, Yellow, 1 m
TSR3950215/2000	Duplex-Patchcord 2xSM, LC - SC, G657A2, Yellow, 2 m
TSR3950215/3000	Duplex-Patchcord 2xSM, LC - SC, G657A2, Yellow, 3 m
TSR3950215/5000	Duplex-Patchcord 2xSM, LC - SC, G657A2, Yellow, 5 m
TSR3950215/10M	Duplex-Patchcord 2xSM, LC - SC, G657A2, Yellow, 10 m
TSR3950237/1000	Duplex-Patchcord 2xSM, SC - SC/APC, G657A2, Yellow, 1 m
TSR3950237/2000	Duplex-Patchcord 2xSM, SC - SC/APC, G657A2, Yellow, 2 m
TSR3950237/3000	Duplex-Patchcord 2xSM, SC - SC/APC, G657A2, Yellow, 3 m
TSR3950237/5000	Duplex-Patchcord 2xSM, SC - 2SC/APC, G657A2, Yellow, 5 m
TSR3950237/10M	Duplex-Patchcord 2xSM, SC - 2SC/APC, G657A2, Yellow, 10 m
TSR3950243/1000	Duplex-Patchcord 2xSM, SC - LC/APC, G657A2, Yellow, 1 m
TSR3950243/2000	Duplex-Patchcord 2xSM, SC - LC/APC, G657A2, Yellow, 2 m
TSR3950243/3000	Duplex-Patchcord 2xSM, SC - LC/APC, G657A2, Yellow, 3 m
TSR3950243/5000	Duplex-Patchcord 2xSM, SC - LC/APC, G657A2, Yellow, 5 m
TSR3950243/10M	Duplex-Patchcord 2xSM, SC - LC/APC, G657A2, Yellow, 10 m
TSR3950240/1000	Duplex-Patchcord 2xSM, SC/APC - LC, G657A2, Yellow, 1 m
TSR3950240/2000	Duplex-Patchcord 2xSM, SC/APC - LC, G657A2, Yellow, 2 m
TSR3950240/3000	Duplex-Patchcord 2xSM, SC/APC - LC, G657A2, Yellow, 3 m
TSR3950240/5000	Duplex-Patchcord 2xSM, SC/APC - LC, G657A2, Yellow, 5 m
TSR3950240/10M	Duplex-Patchcord 2xSM, SC/APC - LC, G657A2, Yellow, 10 m
TSR3950115/1000	Duplex-Patchcord 2xSM, LC - SC, G657A2, Yellow, 1 m
TSR3950115/2000	Duplex-Patchcord 2xSM, LC - SC, G657A2, Yellow, 2 m
TSR3950115/3000	Duplex-Patchcord 2xSM, LC - SC, G657A2, Yellow, 3 m
TSR3950115/5000	Duplex-Patchcord 2xSM, LC - SC, G657A2, Yellow, 5 m
TSR3950115/10M	Duplex-Patchcord 2xSM, LC - SC, G657A2, Yellow, 10 m
<b>Pigtails, Singlemode</b>	
TSR3950423/2000	Pigtail SM (0.9 mm), SC - open end, G657A2, 2 m, Yellow
TSR3950426/2000	Pigtail SM (0.9 mm), SC/APC - open end, G657A2, 2 m, Yellow
TSR3950414/2000	Pigtail SM (0.9 mm), LC - open end, G657A2, 2 m, Yellow
TSR3950433/2000	Pigtail SM (0.9 mm), LC/APC - open end, G657A2, 2 m, Yellow
<b>Fanouts, Singlemode</b>	
TSR3950623/2800	Fanout tail SM, 4 SC, G657A2, 2.8 m
TSR3950626/2800	Fanout tail SM, 4 SC/APC, G657A2, 2.8 m
TSR3950614/2800	Fanout tail SM, 4 LC, G657A2, 2.8 m
TSR3950633/2800	Fanout tail SM, 4 LC/APC, G657A2, 2.8 m
HTSR3950723/2800	Fanout tail SM, 8 SC , G657A2, 2.8 m
HTSR3950726/2800	Fanout tail SM, 8 SC/APC, G657A2, 2.8 m

## Patch Cords and Pigtails – Multimode OM3 and OM4

Multimode patch cords, pigtails and fanouts for various applications such as telecommunication equipment, and data communication networks. All multimode patch cords and pigtails are manufactured from high grade 50µm OM3 or OM4 fiber.

**DESIGN:** Patch cords, pigtails and fan-outs

**TYPE:** MM OM3 or OM4

**DIMENSIONS:** Cable Ø2 mm, pigtail Ø0.9 mm

**CONNECTOR OPTIONS:** SC, LC

**PERFORMANCE:** IL Max\*≤ 0.3, RL ≥ 30

**STANDARD LENGTH:** 1, 2, 3, 5, 7, 10 m



\* Insertion Loss according to IEC 61300-3-4 method B.

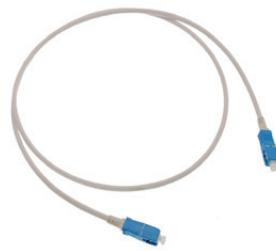
Turquoise Series, 50µm OM3		Violet Series, 50µm OM4	
Product No.	Product Name	Product No.	Product Name
<b>Patch Cords, Multimode, Simplex (1-fiber MM OM3)</b>			
HTSR3940512/1000	Patchcord MM 1x50/125 OM3 LC/PC-LC/PC (Turquoise) 1m	HTSR3940712/1000	Patchcord MM 1x50/125 OM4 LC/PC-LC/PC (Violet) 1m
HTSR3940512/2000	Patchcord MM 1x50/125 OM3 LC/PC-LC/PC (Turquoise) 2m	HTSR3940712/2000	Patchcord MM 1x50/125 OM4 LC/PC-LC/PC (Violet) 2m
HTSR3940512/3000	Patchcord MM 1x50/125 OM3 LC/PC-LC/PC (Turquoise) 3m	HTSR3940712/3000	Patchcord MM 1x50/125 OM4 LC/PC-LC/PC (Violet) 3m
HTSR3940512/5000	Patchcord MM 1x50/125 OM3 LC/PC-LC/PC (Turquoise) 5m	HTSR3940712/5000	Patchcord MM 1x50/125 OM4 LC/PC-LC/PC (Violet) 5m
HTSR3940512/7000	Patchcord MM 1x50/125 OM3 LC/PC-LC/PC (Turquoise) 7m	HTSR3940712/7000	Patchcord MM 1x50/125 OM4 LC/PC-LC/PC (Violet) 7m
HTSR3940512/10M	Patchcord MM 1x50/125 OM3 LC/PC-LC/PC (Turquoise) 10m	HTSR3940712/10M	Patchcord MM 1x50/125 OM4 LC/PC-LC/PC (Violet) 10m
HTSR3940524/1000	Patchcord MM 1x50/125 OM3 SC/PC-SC/PC (Turquoise) 1m	HTSR3940812/1000	Patchcord MM 2x50/125 OM4 LC/PC-LC/PC (Violet) 1m
HTSR3940524/2000	Patchcord MM 1x50/125 OM3 SC/PC-SC/PC (Turquoise) 2m	HTSR3940812/2000	Patchcord MM 2x50/125 OM4 LC/PC-LC/PC (Violet) 2m
HTSR3940524/3000	Patchcord MM 1x50/125 OM3 SC/PC-SC/PC (Turquoise) 3m	HTSR3940812/3000	Patchcord MM 2x50/125 OM4 LC/PC-LC/PC (Violet) 3m
HTSR3940524/5000	Patchcord MM 1x50/125 OM3 SC/PC-SC/PC (Turquoise) 5m	HTSR3940812/5000	Patchcord MM 2x50/125 OM4 LC/PC-LC/PC (Violet) 5m
HTSR3940524/7000	Patchcord MM 1x50/125 OM3 SC/PC-SC/PC (Turquoise) 7m	HTSR3940812/7000	Patchcord MM 2x50/125 OM4 LC/PC-LC/PC (Violet) 7m
HTSR3940524/10M	Patchcord MM 1x50/125 OM3 SC/PC-SC/PC (Turquoise) 10m	HTSR3940812/10M	Patchcord MM 2x50/125 OM4 LC/PC-LC/PC (Violet) 10m
HTSR3940515/1000	Patchcord MM 1x50/125 OM3 SC/PC-LC/PC (Turquoise) 1m	HTSR3940724/1000	Patchcord MM 1x50/125 OM4 SC/PC-SC/PC (Violet) 1m
HTSR3940515/2000	Patchcord MM 1x50/125 OM3 SC/PC-LC/PC (Turquoise) 2m	HTSR3940724/2000	Patchcord MM 1x50/125 OM4 SC/PC-SC/PC (Violet) 2m
HTSR3940515/3000	Patchcord MM 1x50/125 OM3 SC/PC-LC/PC (Turquoise) 3m	HTSR3940724/3000	Patchcord MM 1x50/125 OM4 SC/PC-SC/PC (Violet) 3m
HTSR3940515/5000	Patchcord MM 1x50/125 OM3 SC/PC-LC/PC (Turquoise) 5m	HTSR3940724/5000	Patchcord MM 1x50/125 OM4 SC/PC-SC/PC (Violet) 5m
HTSR3940515/7000	Patchcord MM 1x50/125 OM3 SC/PC-LC/PC (Turquoise) 7m	HTSR3940724/7000	Patchcord MM 1x50/125 OM4 SC/PC-SC/PC (Violet) 7m
HTSR3940515/10M	Patchcord MM 1x50/125 OM3 SC/PC-LC/PC (Turquoise) 10m	HTSR3940724/10M	Patchcord MM 1x50/125 OM4 SC/PC-SC/PC (Violet) 10m
<b>Patch Cords, Multimode, Duplex (2-fiber MM OM3)</b>			
HTSR3940612/1000	Patchcord MM 2x50/125 OM3 LC/PC-LC/PC (Turquoise) 1m	HTSR3940824/1000	Patchcord MM 2x50/125 OM4 SC/PC-SC/PC (Violet) 1m
HTSR3940612/2000	Patchcord MM 2x50/125 OM3 LC/PC-LC/PC (Turquoise) 2m	HTSR3940824/2000	Patchcord MM 2x50/125 OM4 SC/PC-SC/PC (Violet) 2m
HTSR3940612/3000	Patchcord MM 2x50/125 OM3 LC/PC-LC/PC (Turquoise) 3m	HTSR3940824/3000	Patchcord MM 2x50/125 OM4 SC/PC-SC/PC (Violet) 3m
HTSR3940612/5000	Patchcord MM 2x50/125 OM3 LC/PC-LC/PC (Turquoise) 5m	HTSR3940824/5000	Patchcord MM 2x50/125 OM4 SC/PC-SC/PC (Violet) 5m
HTSR3940612/7000	Patchcord MM 2x50/125 OM3 LC/PC-LC/PC (Turquoise) 7m	HTSR3940824/7000	Patchcord MM 2x50/125 OM4 SC/PC-SC/PC (Violet) 7m
HTSR3940612/10M	Patchcord MM 2x50/125 OM3 LC/PC-LC/PC (Turquoise) 10m	HTSR3940824/10M	Patchcord MM 2x50/125 OM4 SC/PC-SC/PC (Violet) 10m
HTSR3940624/1000	Patchcord MM 2x50/125 OM3 SC/PC-SC/PC (Turquoise) 1m	HTSR3940715/1000	Patchcord MM 1x50/125 OM4 SC/PC-LC/PC (Violet) 1m
HTSR3940624/2000	Patchcord MM 2x50/125 OM3 SC/PC-SC/PC (Turquoise) 2m	HTSR3940715/2000	Patchcord MM 1x50/125 OM4 SC/PC-LC/PC (Violet) 2m
HTSR3940624/3000	Patchcord MM 2x50/125 OM3 SC/PC-SC/PC (Turquoise) 3m	HTSR3940715/3000	Patchcord MM 1x50/125 OM4 SC/PC-LC/PC (Violet) 3m
HTSR3940624/5000	Patchcord MM 2x50/125 OM3 SC/PC-SC/PC (Turquoise) 5m	HTSR3940715/5000	Patchcord MM 1x50/125 OM4 SC/PC-LC/PC (Violet) 5m
HTSR3940624/7000	Patchcord MM 2x50/125 OM3 SC/PC-SC/PC (Turquoise) 7m	HTSR3940715/7000	Patchcord MM 1x50/125 OM4 SC/PC-LC/PC (Violet) 7m
HTSR3940624/10M	Patchcord MM 2x50/125 OM3 SC/PC-SC/PC (Turquoise) 10m	HTSR3940715/10M	Patchcord MM 1x50/125 OM4 SC/PC-LC/PC (Violet) 10m
HTSR3940615/1000	Patchcord MM 2x50/125 OM3 SC/PC-LC/PC (Turquoise) 1m	HTSR3940815/1000	Patchcord MM 2x50/125 OM4 SC/PC-LC/PC (Violet) 1m
HTSR3940615/2000	Patchcord MM 2x50/125 OM3 SC/PC-LC/PC (Turquoise) 2m	HTSR3940815/2000	Patchcord MM 2x50/125 OM4 SC/PC-LC/PC (Violet) 2m
HTSR3940615/3000	Patchcord MM 2x50/125 OM3 SC/PC-LC/PC (Turquoise) 3m	HTSR3940815/3000	Patchcord MM 2x50/125 OM4 SC/PC-LC/PC (Violet) 3m
HTSR3940615/5000	Patchcord MM 2x50/125 OM3 SC/PC-LC/PC (Turquoise) 5m	HTSR3940815/5000	Patchcord MM 2x50/125 OM4 SC/PC-LC/PC (Violet) 5m
HTSR3940615/7000	Patchcord MM 2x50/125 OM3 SC/PC-LC/PC (Turquoise) 7m	HTSR3940815/7000	Patchcord MM 2x50/125 OM4 SC/PC-LC/PC (Violet) 7m
HTSR3940615/10M	Patchcord MM 2x50/125 OM3 SC/PC-LC/PC (Turquoise) 10m	HTSR3940815/10M	Patchcord MM 2x50/125 OM4 SC/PC-LC/PC (Violet) 10m
<b>Pigtails, Multimode, Simplex (1-fiber MM OM3)</b>			
HTSR3941114/2000	Pigtail MM 1x50/125 OM3 LC/PC (Turquoise) 2m	HTSR3941223/2000	Pigtail MM 1x50/125 OM4 SC/PC (Violet) 2m
HTSR3941123/2000	Pigtail MM 1x50/125 OM3 SC/PC (Turquoise) 2m	HTSR3941214/2000	Pigtail MM 1x50/125 OM4 LC/PC (Violet) 2m
<b>Pigtails, Multimode, Simplex (1-fiber MM OM4)</b>			

## Rugged Patch Cords - Singlemode G657A2

These patch cords are designed to be extremely rugged and are therefore the best option for customer premises connections. The products are made of highly bend-resistant G657A2 fibers to minimize operating errors and enable the highest packing density in interconnect applications. The patch cords have extra crush resistance and are white to blend in into a home environment.

**DESIGN:** Patch cords  
**TYPE:** G657A2 bend-resistant, rugged  
**DIMENSIONS:** Cable Ø4 mm  
**CONNECTOR OPTIONS:** SC, LC  
**PERFORMANCE:** IL\* $\leq$ 0.30, RL (PC) $\geq$ 50  
 standard length: 0.5, 1, 2, 3, 5, 7, 10, 15, 20 m

\* Insertion Loss according to IEC 61300-3-4 method B



Product No.	Product Name
<b>Patch Cords, Singlemode, Simplex (1-fiber SM)</b>	
HTSR3954024/500	Patchcord 4mm G657A2 SC/UPC-SC/UPC 0.5m
HTSR3954024/1000	Patchcord 4mm G657A2 SC/UPC-SC/UPC 1m
HTSR3954024/2000	Patchcord 4mm G657A2 SC/UPC-SC/UPC 2m
HTSR3954024/3000	Patchcord 4mm G657A2 SC/UPC-SC/UPC 3m
HTSR3954024/5000	Patchcord 4mm G657A2 SC/UPC-SC/UPC 5m
HTSR3954024/7000	Patchcord 4mm G657A2 SC/UPC-SC/UPC 7m
HTSR3954024/10M	Patchcord 4mm G657A2 SC/UPC-SC/UPC 10m
HTSR3954024/15M	Patchcord 4mm G657A2 SC/UPC-SC/UPC 15m
HTSR3954024/20M	Patchcord 4mm G657A2 SC/UPC-SC/UPC 20m
HTSR3954015/500	Patchcord 4mm G657A2 LC/UPC-SC/UPC .5m
HTSR3954015/1000	Patchcord 4mm G657A2 LC/UPC-SC/UPC 1m
HTSR3954015/2000	Patchcord 4mm G657A2 LC/UPC-SC/UPC 2m
HTSR3954015/3000	Patchcord 4mm G657A2 LC/UPC-SC/UPC 3m
HTSR3954015/5000	Patchcord 4mm G657A2 LC/UPC-SC/UPC 5m
HTSR3954015/7000	Patchcord 4mm G657A2 LC/UPC-SC/UPC 7m
HTSR3954015/10M	Patchcord 4mm G657A2 LC/UPC-SC/UPC 10m
HTSR3954015/15M	Patchcord 4mm G657A2 LC/UPC-SC/UPC 15m
HTSR3954015/20M	Patchcord 4mm G657A2 LC/UPC-SC/UPC 20m

## Multifiber Cable Assemblies

Multifiber cable assemblies facilitate interconnection between racks since they replaces the need for large amounts of patch cords. These multifiber patch cables are manufactured with extra slim micro cables.

**DESIGN:** Multifiber cable assemblies

**TYPE:** G657A2 bend-resistant

**DIMENSIONS:** Cable Ø8.3-8.6 mm

**CONNECTOR OPTIONS:** 24 or 48x SC, SC/APC, LC, LC/APC

**PERFORMANCE:** IL\* $\leq$ 0.30, RL (PC) $\geq$ 50, RL (APC) $\geq$ 60

**STANDARD LENGTH:** 10, 15, 20, 30 m,

tail lenght 1500/700 mm



\* Insertion Loss according to IEC 61300-3-4 method B

Product No.	Product Name
RPM2530769/10M	Multifiber Patch Cable 24f SC-SC SM 10 m (1500/700)
RPM2530769/15M	Multifiber Patch Cable 24f SC-SC SM 15 m (1500/700)
RPM2530769/20M	Multifiber Patch Cable 24f SC-SC SM 20 m (1500/700)
RPM2530769/30M	Multifiber Patch Cable 24f SC-SC SM 30 m (1500/700)
RPM2533069/10M	Multifiber Patch Cable 24f LC-LC SM 10 m (1500/700)
RPM2533069/15M	Multifiber Patch Cable 24f LC-LC SM 15 m (1500/700)
RPM2533069/20M	Multifiber Patch Cable 24f LC-LC SM 20 m (1500/700)
RPM2533069/30M	Multifiber Patch Cable 24f LC-LC SM 30 m (1500/700)
RPM253509/10M	Multifiber Patch Cable 48f SC-SC SM 10 m (1500/700)
RPM253509/15M	Multifiber Patch Cable 48f SC-SC SM 15 m (1500/700)
RPM253509/20M	Multifiber Patch Cable 48f SC-SC SM 20 m (1500/700)
RPM253509/30M	Multifiber Patch Cable 48f SC-SC SM 30 m (1500/700)
RPM253519/10M	Multifiber Patch Cable 48f LC-LC SM 10 m (1500/700)
RPM253519/15M	Multifiber Patch Cable 48f LC-LC SM 15 m (1500/700)
RPM253519/20M	Multifiber Patch Cable 48f LC-LC SM 20 m (1500/700)
RPM253519/30M	Multifiber Patch Cable 48f LC-LC SM 30 m (1500/700)
RPM253506/10M	Multifiber Patch Cable 48f SC/APC-LC SM 10 m (1500/700)
RPM253506/15M	Multifiber Patch Cable 48f SC/APC-LC SM 15 m (1500/700)
RPM253506/20M	Multifiber Patch Cable 48f SC/APC-LC SM 20 m (1500/700)
RPM253506/30M	Multifiber Patch Cable 48f SC/APC-LC SM 30 m (1500/700)
RPM253507/10M	Multifiber Patch Cable 48f SC/APC-LC/APC SM 10 m (1500/700)
RPM253507/15M	Multifiber Patch Cable 48f SC/APC-LC/APC SM 105m (1500/700)
RPM253507/20M	Multifiber Patch Cable 48f SC/APC-LC/APC SM 20 m (1500/700)
RPM253507/30M	Multifiber Patch Cable 48f SC/APC-LC/APC SM 30 m (1500/700)

# SPLITTERS AND OTHER PASSIVE OPTICAL DEVICES

Fiber optic splitters or couplers provide division of optical power from one or two input ports into several output ports. Symmetric optical power splitters are used for fiber optic communication systems such as PON FTTx networks.

## Fiber Optic Splitter Shelf

Splitter shelf for 19" rack mounting with pre-installed fiber optic splitters. The shelves are available in different configurations with split ratios of 1x2 to 1x64. The standard connector option is SC/APC.

**DESIGN:** Splitter shelf  
**TYPE:** 19" mount, 1U, PLC  
**DIMENSIONS:** 410x195x44 mm  
**CAPACITY:** 1x2 to 2x64 SC/APC



Product No.	Product Name
NCD5200022/10	Splitter shelf 19" 1x16 SC/APC
NCD5200023/10	Splitter shelf 19" 1x32 SC/APC
NCD5200024/10	Splitter shelf 19" 8x(1x4) SC/APC
NCD5200025/10	Splitter shelf 19" 4x(1x4) SC/APC
NCD5200026/10	Splitter shelf 19" 16x(1x2) SC/APC
NCD5200027/10	Splitter shelf 19" 8x(1x2) SC/APC
NCD5200028/10	Splitter shelf 19" 4x(1x8) SC/APC
NCD5200029/10	Splitter shelf 19" 1x64 SC/APC
NCD5200042/10	Splitter shelf 19" 2x16 SC/APC
NCD5200043/10	Splitter shelf 19" 2x32 SC/APC
NCD5200044/10	Splitter shelf 19" 8x(2x4) SC/APC
NCD5200045/10	Splitter shelf 19" 4x(2x4) SC/APC
NCD5200046/10	Splitter shelf 19" 16x(2x2) SC/APC
NCD5200047/10	Splitter shelf 19" 8x(2x2) SC/APC
NCD5200048/10	Splitter shelf 19" 4x(2x8) SC/APC
NCD5200049/10	Splitter shelf 19" 1x(2x64) SC/APC

## Splitter Frames

The splitter frames are designed for compact mounting of the RDJ 901 series of splitter modules. The most common use is for central office applications or larger distributed PON sites. There are two frame heights available.

**DESIGN:** Splitter frame  
**TYPE:** 19" mount, (04) Splitter frame 1U for up to 9 Splitter modules, (05) Splitter frame 4U for up to 35 splitter modules  
**CAPACITY:** 1U, up to 9 modules, 4U, up to 35 modules



Product No.	Product Name
NBA30104	Splitter Frame 1U (9 positions)
NBA30105	Splitter Frame 4U (35 positions)

For splitter modules, see next page.

## Splitter Modules

Splitters to be used for splitter frames in central office applications or in various fiber distribution hubs for outside plant use. The splitters are pre-terminated with protected fanouts and with fitted connectors.

**DESIGN:** Splitter modules

**TYPE:** PLC splitter in plastic cartridge, G657A1

**DIMENSIONS:** Long tail: 900/1500 mm, short tail: 180/730 mm

**CAPACITY:** 1x2 to 2x64 SC, SC/APC, LC, LC/APC



### Splitters, Long Tail (900/1500 mm)

Suitable for 2/NBD116200 FDH Cabinet and NBA301 Splitter Frames

Product No.	Product Name
RDJ901200/85	SPLM 1:2, SC/APC, 900/1500
RDJ901200/86	1:2 splitter, SC
RDJ901200/87	1:2 splitter, LC/APC
RDJ901200/88	1:2 splitter, LC/AP
RDJ901200/1	1:4 splitter, SC/APC
RDJ901200/2	1:4 splitter, SC
RDJ901200/3	1:4 splitter, LC/APC
RDJ901200/4	1:4 splitter, LC
RDJ901200/9	1:8 splitter, SC/APC
RDJ901200/10	1:8 splitter, SC
RDJ901200/11	1:8 splitter, LC/APC
RDJ901200/12	1:8 splitter, LC
RDJ901200/17	1:16 splitter, SC/APC
RDJ901200/18	1:16 splitter, SC
RDJ901200/19	1:16 splitter, LC/APC
RDJ901200/20	1:16 splitter, LC
RDJ901200/25	1:24 splitter, SC/APC
RDJ901200/26	1:24 splitter, SC
RDJ901200/27	1:24 splitter, LC/APC
RDJ901200/28	1:24 splitter, LC
RDJ901200/33	1:32 splitter, SC/APC
RDJ901200/34	1:32 splitter, SC
RDJ901200/35	1:32 splitter, LC/APC
RDJ901200/36	1:32 splitter, LC
RDJ901200/41	1:64 splitter, SC/APC
RDJ901200/42	1:64 splitter, SC
RDJ901200/43	1:64 splitter, LC/APC
RDJ901200/44	1:64 splitter, LC
RDJ901200/93	2:2 splitter, SC/APC
RDJ901200/94	2:2 splitter, SC
RDJ901200/95	2:2 splitter, LC/APC
RDJ901200/96	2:2 splitter, LC
RDJ901200/45	2:4 splitter, SC/APC
RDJ901200/46	2:4 splitter, SC
RDJ901200/47	2:4 splitter, LC/APC
RDJ901200/48	2:4 splitter, LC
RDJ901200/53	2:8 splitter, SC/APC
RDJ901200/54	2:8 splitter, SC
RDJ901200/55	2:8 splitter, LC/APC
RDJ901200/56	2:8 splitter, LC
RDJ901200/61	2:16 splitter, SC/APC
RDJ901200/62	2:16 splitter, SC
RDJ901200/63	2:16 splitter, LC/APC
RDJ901200/64	2:16 splitter, LC
RDJ901200/69	2:32 splitter, SC/APC
RDJ901200/70	2:32 splitter, SC
RDJ901200/71	2:32 splitter, LC/APC
RDJ901200/72	2:32 splitter, LC
RDJ901200/77	2:64 splitter, SC/APC
RDJ901200/78	2:64 splitter, SC
RDJ901200/79	2:64 splitter, LC/APC
RDJ901200/80	2:64 splitter, LC

### Splitters, Short Tail (180/730 mm)

Suitable for NCD507500 FDH Closure, 3/NBD116200 Indoor FDH Cabinet and NBA301 Splitter Frames

Product No.	Product Name
RDJ901200/81	1:2 splitter, SC/APC
RDJ901200/82	1:2 splitter, SC
RDJ901200/83	1:2 splitter, LC/APC
RDJ901200/84	1:2 splitter, LC
RDJ901200/5	1:8 splitter, SC/APC
RDJ901200/6	1:8 splitter, SC
RDJ901200/7	1:8 splitter, LC/APC
RDJ901200/8	1:8 splitter, LC
RDJ901200/13	1:8 splitter, LC
RDJ901200/14	1:16 splitter, SC/APC
RDJ901200/15	1:16 splitter, SC
RDJ901200/16	1:16 splitter, LC/APC
RDJ901200/21	1:24 splitter, SC/APC
RDJ901200/22	1:24 splitter, SC
RDJ901200/23	1:24 splitter, LC/APC
RDJ901200/24	1:24 splitter, LC
RDJ901200/29	1:32 splitter, SC/APC
RDJ901200/30	1:32 splitter, SC
RDJ901200/31	1:32 splitter, LC/APC
RDJ901200/32	1:32 splitter, LC
RDJ901200/37	1:64 splitter, SC/APC
RDJ901200/38	1:64 splitter, SC
RDJ901200/39	1:64 splitter, LC/APC
RDJ901200/40	1:64 splitter, LC
RDJ901200/89	2:2 splitter, SC/APC
RDJ901200/90	2:2 splitter, SC
RDJ901200/91	2:2 splitter, LC/APC
RDJ901200/92	2:2 splitter, LC
RDJ901200/49	2:8 splitter, SC/APC
RDJ901200/50	2:8 splitter, SC
RDJ901200/51	2:8 splitter, LC/APC
RDJ901200/52	2:8 splitter, LC
RDJ901200/57	2:16 splitter, SC/APC
RDJ901200/58	2:16 splitter, SC
RDJ901200/59	2:16 splitter, LC/APC
RDJ901200/60	2:16 splitter, LC
RDJ901200/65	2:32 splitter, SC/APC
RDJ901200/66	2:32 splitter, SC
RDJ901200/67	2:32 splitter, LC/APC
RDJ901200/68	2:32 splitter, LC
RDJ901200/73	2:64 splitter, SC/APC
RDJ901200/74	2:64 splitter, SC
RDJ901200/75	2:64 splitter, LC/APC
RDJ901200/76	2:64 splitter, LC

# FIBER OPTIC ACCESSORIES

Typical accessories for fiber optic interconnect and splicing applications include various essential and optional products such as fiber optic adapters for Optical Distribution Frames (ODFs), splice sleeves and connector cleaners.

## Adapters

Fiber optic adapters for ODFs and termination units, all of premium grade to fit any kind of application. Simplex, duplex and quadruplex connector options. Adapters with shutters provide a safe mechanism for protecting laser radiation from harming eyes.

**DESIGN:** Fiber optic connector adapters  
**TYPE:** SC, SC/APC, SC/MM LC, LC/APC, FC



SC-D



SC-D/APC



SC-D/MM



LC-Quad/APC



LC-Quad



FC

Product No.	Product Name
RNT99210/12	Adapter SC simplex, flange, Blue
RNT99211/12	Adapter SC duplex, flange, Blue
RNT99211/13	Adapter SC duplex, no flange, Blue
RNT99211/23	Adapter SC duplex, no flange, Green
RNT99210/22	Adapter SC/APC simplex, flange, Green
RNT99211/22	Adapter SC/APC duplex, flange, Green
RNT99215/11	Adapter SC duplex, flange, Beige
RNT99210/13	Adapter SC simplex, no flange, Blue
RNT99210/23	Adapter SC/APC simplex, no flange, Green
RNT99210/14	Adapter SC simplex, with shutter, no flange, Blue
RNT99210/24	Adapter SC/APC simplex, with shutter, no flange, Green
RNT99222/13	Adapter LC/APC duplex, no flange, Green, (SC-simplex cut-out)
RNT99222/15	Adapter LC quadruplex, no flange, Blue, (SC-duplex cut-out)
RNT99222/16	Adapter LC/APC quadruplex, no flange, Green, (SC-duplex cut-out)
RNT99222/2	Adapter LC duplex, no flange, Blue, (SC-simplex cut-out)
RNT99222/4	Adapter LC duplex (Square Profile), Blue
RNT99222/5	Adapter LC quadruplex, flange, Blue, (SC-duplex cut-out)
RNT99222/9	Adapter LC/APC quadruplex, flange, Green (SC-duplex cut-out)
RNT99222/14	Adapter LC duplex, with shutter, no flange (SC-simplex cut-out)
RNT99222/12	Adapter LC/APC duplex, with shutter, no flange (SC-simplex cut-out)
RNT99220/2	Adapter MU duplex, Brown, (SC-simplex cut-out)
RNT99290/1	Adapter ST
RNT99201/1	Adapter FC (D-shape cut-out)
RNT99201/2	Adapter FC/APC, (D-shape cut-out)

## End Plugs

Plugs to cover unused slots in ODF panels.

**SLOT OPTIONS:** SC, SC-duplex, FC, ST cut-out



Product No.	Product Name
NDM501901	6 x plugs for SC slots
NDM501902	6 x plugs for SCD slots
NDM501903	6 x plugs for FC, ST slots

## Splice Protection Sleeves

Sleeves for protection of fiber optic fusion splices, available as single fiber sleeves or as fiber ribbon sleeves.

**DESIGN:** Fiber optic splice sleeves

**TYPE:** Single fiber 40 mm or 60 mm, ribbon fiber 40 mm, Ribbon 2-12 fiber



Product No.	Product Name	Pack qty
NTA16212/2	Splice Sleeve 1f, l=60 mm	100
NTA16212/4	Splice Sleeve 2-8f, l=40 mm	50
NTA16212/7	Splice Sleeve 1f, l=40 mm	100
NTA16212/8	Splice Sleeve 2f ABF	100

## Cleaning Sticks

Dust free, high-grade cleaning sticks especially developed to minimize the risk of cotton nap getting onto connectors during cleaning. The sticks are suitable for 2.5 mm respectively 1.25 mm adapter types. The sticks are delivered in packages with 200 pcs.

**DESIGN:** Cleaning stick for connectors

**TYPE:** High-grade, dust-free, for SC, FC, ST, E2000 LC, MU connector and adapter cleaning



Product No.	Product Name
LFS150101	200xCleaning stick 2,5 mm for SC, FC or ST connectors
LFS150102	200xCleaning stick 1,25 mm for LC, E200 or MU connectors

## Connector Cleaner

This handy tool contains a dust removal tape for quick and easy cleaning of connector tips. For each cleaning cycle, a new section of tape is dispensed. Refill tapes are available.

**APPLICATION:** Connector top cleaning

**DESIGN:** Connector cleaner

**TYPE:** High-grade, dust free tape



Product No.	Product Name
LT179001	Connector cleaner
1/LT179001	6x Clean refill for LTT179001

# Wireless Infrastructure Products

## HYBRID FIBER/POWER CABLE ASSEMBLIES

### Hybrid Fiber/Power Cable Assemblies

A robust and compact hybrid fiber cable assembly for interconnecting power and optical links between main and remote units for outdoor and indoor radio base stations. It is pre-terminated with outdoor rated RDC connectors, to be extended by fiber jumper cables to a desired length.

**DESIGN:** Hybrid fiber/power cable assembly  
**TYPE:** Pole and tower mounting for RRU  
**CAPACITY:** 12 fibers/copper wires  
**FIBER TYPE:** SM G657A2, MM on request  
**DIMENSIONS:** Ø23.7-30.0 mm  
**LENGTHS:** On request, typically 20-90 m



Hybrid Cable Assemblies		No of Fiber and Power Pairs	Power Cords Area	Dimension Cable	Length
Product No.	Product Name	No	mm <sup>2</sup>	Ø (mm)	m
2/HRPM254110/20M	Hybrid 6+6 6 mm <sup>2</sup> , SM G657A2, 20 m	6 x 6	6	26.0	20
2/HRPM254110/30M	Hybrid 6+6 6 mm <sup>2</sup> , SM G657A2, 30 m	6 x 6	6	26.0	30
2/HRPM254110/40M	Hybrid 6+6 6 mm <sup>2</sup> , SM G657A2, 40 m	6 x 6	6	26.0	40
2/HRPM254110/50M	Hybrid 6+6 6 mm <sup>2</sup> , SM G657A2, 50 m	6 x 6	6	26.0	50
2/HRPM254110/60M	Hybrid 6+6 6 mm <sup>2</sup> , SM G657A2, 60 m	6 x 6	6	26.0	60
2/HRPM254110/70M	Hybrid 6+6 6 mm <sup>2</sup> , SM G657A2, 70 m	6 x 6	6	26.0	70
2/HRPM254110/80M	Hybrid 6+6 6 mm <sup>2</sup> , SM G657A2, 80 m	6 x 6	6	26.0	80
2/HRPM254110/90M	Hybrid 6+6 6 mm <sup>2</sup> , SM G657A2, 90 m	6 x 6	6	26.0	90
3/HRPM254110/20M	Hybrid 6+6 10 mm <sup>2</sup> , SM G657A2, 20 m	9 x 9	6	30	20
3/HRPM254110/30M	Hybrid 6+6 10 mm <sup>2</sup> , SM G657A2, 30 m	9 x 9	6	30	30
3/HRPM254110/40M	Hybrid 6+6 10 mm <sup>2</sup> , SM G657A2, 40 m	9 x 9	6	30	40
3/HRPM254110/50M	Hybrid 6+6 10 mm <sup>2</sup> , SM G657A2, 50 m	9 x 9	6	30	50
3/HRPM254110/60M	Hybrid 6+6 10 mm <sup>2</sup> , SM G657A2, 60 m	9 x 9	6	30	60
3/HRPM254110/70M	Hybrid 6+6 10 mm <sup>2</sup> , SM G657A2, 70 m	9 x 9	6	30	70
3/HRPM254110/80M	Hybrid 6+6 10 mm <sup>2</sup> , SM G657A2, 80 m	9 x 9	6	30	80
3/HRPM254110/90M	Hybrid 6+6 10 mm <sup>2</sup> , SM G657A2, 90 m	9 x 9	6	30	90

Fiber Optic Jumper Cables		Fibers	Length
Product No.	Product Name	No	m
HRPM254112/1000	Fiber Optic Jumper Cable RDC(m) - LC Duplex, SM G657A2, 1 m	2	1
HRPM254112/2000	Fiber Optic Jumper Cable RDC(m) - LC Duplex, SM G657A2, 2 m	2	2
HRPM254112/3000	Fiber Optic Jumper Cable RDC(m) - LC Duplex, SM G657A2, 3 m	2	3
HRPM254112/4000	Fiber Optic Jumper Cable RDC(m) - LC Duplex, SM G657A2, 4 m	2	4
HRPM254112/5000	Fiber Optic Jumper Cable RDC(m) - LC Duplex, SM G657A2, 5 m	2	5
HRPM254112/6000	Fiber Optic Jumper Cable RDC(m) - LC Duplex, SM G657A2, 6 m	2	6
HRPM254112/7000	Fiber Optic Jumper Cable RDC(m) - LC Duplex, SM G657A2, 7 m	2	7
HRPM254112/8000	Fiber Optic Jumper Cable RDC(m) - LC Duplex, SM G657A2, 8 m	2	8
HRPM254112/10M	Fiber Optic Jumper Cable RDC(m) - LC Duplex, SM G657A2, 10 m	2	10



Accessories for Hybrid Fiber/Power Cable Assemblies	
Product No.	Product Name
HSXA136104/11	Clamps kit for 6xRDC connectors
HSXA136100/11	Canister clamp kit



# FIBER FEEDER CABLE ASSEMBLIES

## Cable Assemblies

The fiber feeder cable assembly is based on a thin, but robust micro cable, pre-terminated in a outdoor rated and highly UV resistant termination box. The assembly is used for Fiber To The Antenna applications (FTTA), more specifically for fiber optic interconnections between Radio Remote Units (RRU) and Radio Base Stations (RBS).

**DESIGN:** Fiber cable assembly . termination box

**TYPE:** Pole and tower mounting for RRU, IP54

**CAPACITY:** 24 or 48 fibers

**FIBER TYPE:** G657A2, bend-resistant

**DIMENSIONS:** Box: 300x240x110, Cable Ø5.7 mm

**LENGTHS:** On request, typically 25-130 m



Product No.	Product Name	No of Fibers	Diameter Cable	Length
		No		m
NTM5041136/25M	FTTA Feeder, 24f, LC, 25 m	24	5.7	25
NTM5041136/50M	FTTA Feeder, 24f, LC, 50 m	24	5.7	50
NTM5041136/65M	FTTA Feeder, 24f, LC, 65 m	24	5.7	65
NTM5041136/80M	FTTA Feeder, 24f, LC, 80 m	24	5.7	80
NTM5041136/95M	FTTA Feeder, 24f, LC, 95 m	24	5.7	95
NTM5041136/130M	FTTA Feeder, 24f, LC, 130 m	24	5.7	130
NTM5041135/25M	FTTA Feeder, 48f, LC, 25 m	48	5.7	25
NTM5041135/50M	FTTA Feeder, 48f, LC, 50 m	48	5.7	50
NTM5041135/65M	FTTA Feeder, 48f, LC, 65 m	48	5.7	65
NTM5041135/80M	FTTA Feeder, 48f, LC, 80 m	48	5.7	80
NTM5041135/95M	FTTA Feeder, 48f, LC, 95 m	48	5.7	95
NTM5041135/130M	FTTA Feeder, 48f, LC, 130 m	48	5.7	130



# Fiber Optic Training

Together with our training providers Edugrade, PQMS, Smart Awards and Gordon Franks Training, Hexatronic offers a wide range of training and certifications for FTTx.



## TRAINING AND CERTIFICATION

Our offering includes generic and customer adapted training and certification within project management, detailed design, installation and maintenance of broadband networks for stakeholders within FTTx.

Our courses combine theory with a high degree of hands-on skills labs and are fully adapted to the local conditions of the market. We teach structured and efficient working methods that meet current requirements and enhance the quality of the networks.

### Competence Areas:

- Detailed Design and Documentation
- Project Management
- Civil Works and Deployment
- Installation
- Maintenance and Fault Management

### Selected Courses:

- Project Management for FTTx Networks, 10 days
- Detailed Design, 10 days
- Fiber Technician's Basics, 7 days
- Access Network Installer, 2 days
- Test and Verification via OTDR and Light Source & Power Meter, 3 days



## HEXATRONIC CERTIFICATION TRAINING

Certification training on Hexatronic products and supported installation methods are available. A certified installer has the opportunity to gain a system warranty of 20 years when performing installations with Hexatronic products.

### Air Blown Fiber and Nano Cable – Certified Installer Training, 2 days

This 2-day course gives a comprehensive overview of the Hexatronic Air Blown Fiber and Nano Cable system. The successful student will be certified as an approved Hexatronic air blown fiber and nano cable installer.

### Hexatronic Micro Cable – Certified Installer Training, 2 days

This 2 day course gives a comprehensive overview of the Hexatronic micro cable system. The successful student will be certified as an approved Hexatronic micro cable installer.

### Hexatronic Aerial Air Blown Fiber – Certified Installer Training, 1 day

This course focuses on the air blown installation of fibers in aerial ducts for access networks.



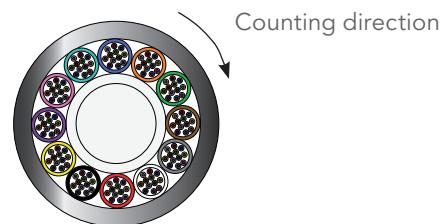
# Useful Information

## COLOR CODE SYSTEMS FOR FIBER OPTIC CABLES

Fibers, tubes and ribbons in fiber optic cables are marked with different colors and bar codes to facilitate identification. Hexatronic offers cables with color code systems according to all national and international standards and for all types of fiber optic cables. Custom specific color code systems are available on request. Below, are charts for the most common color code standards for fiber optic cables.

All systems are characterized by using 12 different colors to identify fibers that are grouped together in a common bundle such as a tube, ribbon, yarn wrapped bundle or other types of bundle. In the charts, all types of bundles are referred to as "tubes". If more than 12 fibers or tubes are to

be separated, the color sequence is normally repeated, but with ring marks or lines on the colored fibers and tubes. Some systems such as the Standard Type E, use only a few tube colors and the tube is instead identified by its position in the cable.



	1	2	3	4	5	6	7	8	9	10	11	12
TIA-598 Fibers and Tubes	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Turquoise
	13	14	15	16	17	18	19	20	21	22	23	24
	Blue —	Orange —	Green —	Brown —	Grey —	White —	Red —	Clear —	Yellow —	Violet —	Pink —	Turquoise —

	1	2	3	4	5	6	7	8	9	10	11	12
S12 Fibers and Tubes	Red	Blue	White	Green	Yellow	Grey	Brown	Black	Violet	Orange	Turquoise	Pink
	13	14	15	16	17	18	19	20	21	22	23	24
	Red —	Blue —	White —	Green —	Yellow —	Grey —	Brown —	Clear —	Violet —	Orange —	Turquoise —	Pink —

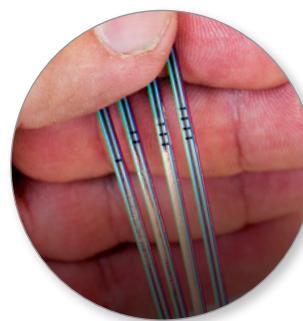
	1	2	3	4	5	6	7	8	9	10	11	12
Standard Type E - Fibers	Red	Blue	White	Green	Yellow	Grey	Brown	Black	Orange	Violet	Pink	Turquoise
	13	14	15	16	17	18	19	20	21	22	23	24
	Red —	Blue —	White —	Green —	Yellow —	Grey —	Brown —	Clear —	Orange —	Violet —	Pink —	Turquoise —
Standard Type E - Tubes	1	2	3-6						7	8-16		
	Red	Blue	White						Blue	White		

The above chart is a quick reference guide for identification of fibers and tubes in the most common cable designs. For detailed information about the color code systems, please contact Hexatronic.

### Unique Ribbon Marking

Fiber ribbons in ribbon cables are marked with stripes. This unique and reliable method makes it easy to identify ribbons in slotted core cables in seconds. The individual fibers in the ribbons are separated by the color code systems shown above.

For detailed information about color code systems in ribbon cables, please contact Hexatronic.



# CABLE DRUM TABLES

K = drum type

a = flange diameter, lags excluded, [mm]

b = drum barrel diameter, [mm]

d = total width including bolls, [mm]

e = drum barrel width, [mm]

f = spindle hole diameter, [mm]

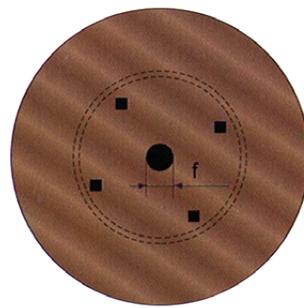
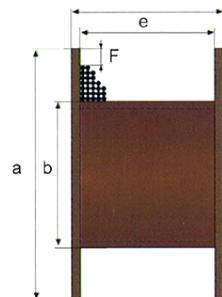
v = weight, lags excluded, [kg]

F = calculated clearance under lags, [mm]

T = standard thickness of lags, [mm]

V = weight, lags included, [kg]

L = shipping space (rectangular dimensions), ( $m^3$ )



Drum dimensions in mm. Drum weight in kg.

Shipping space in  $m^3$ .

	<b>K5</b>	<b>K6</b>	<b>K7</b>	<b>K8</b>	<b>K9</b>	<b>K10</b>	<b>K12</b>	<b>K14</b>	<b>K16</b>	<b>K18</b>	<b>K20</b>	<b>K22</b>	<b>K24</b>	<b>K26</b>	<b>K28</b>	<b>K30</b>
a	500	600	700	800	900	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000
b	200	250	325	375	425	500	675	800	950	1100	1300	1400	1400	1500	1500	1500
d	364	464	576	576	626	710	982	982	1016	1016	1190	1190	1204	1452	1654	1804
e	300	400	500	500	550	600	850	850	850	850	1000	1000	1000	1200	1350	1500
f	75	75	75	75	75	106	106	106	106	132	132	132	132	132	132	132
v	9.5	12	20	25	34	46	90	115	195	230	340	410	450	900	1180	1500
F	30	30	55	55	55	55	55	60	60	70	70	80	90	100	110	110
T	19	19	19	19	19	22	22	22	22	22	22	22	22	34	34	34
V	16	21	45	58	64	79	136	169	259	302	460	543	595	1162	1548	1921
L	0.105	0.189	0.314	0.404	0.551	0.783	1.53	2.06	2.77	3.48	5.13	6.16	7.38	10.4	13.7	17.1

## OUR COMMITMENT TO QUALITY AND THE ENVIRONMENT

Hexatronic is committed to contributing to sustainable developments not only in our products but also in the way we do business. One of our core values is to improve the environment and the communities where we operate. Hexatronic is certified according to the ISO 9001, ISO 14001 and OHSAS 18001 certificates. We also employ an Environment Health and Safety Process Manager who ensures that these values are always implemented in everything that we do.

All products are designed to minimize the environmental impact, from the manufacturing phase and through the whole lifecycle of the products. Total RoHS compliance and halogen-free materials are features of the entire product range. Packing materials are minimized or fully recyclable. Hexatronic Cables & Interconnect Systems AB is certified according to Intertek.



**Intertek**



# Industry Leading System Solutions for Fiber Optic Communications

Hexatronic Cables & Interconnect Systems develops, manufactures, markets and provides solutions within fiber optic based networks, for telecom companies, installation companies and network owners.

Hexatronic Cables & Interconnect Systems manufactures fiber optic cable, duct, copper cable and network accessories. Our products are developed and manufactured by Swedish specialists, with many years of experience and unique expertise in fiber optics, with the focus of giving our clients the best possible total cost of ownership

## A part of Hexatronic Group

Hexatronic Group specializes in product and system solutions primarily within fiber communications. The Group offers a broad range of products and system solutions with a focus on infrastructure for passive fiber optics. Hexatronic has the stability and resources of a large Group, combined with the flexibility and speed of a small company.

Hexatronic is based in Sweden, but operates in a global market. Our customers are companies in the telecommunications industry, such as telecom operators, network owners, distributors and systems integrators. The Groups headquarters are in Sweden with sales offices and subsidiaries in Sweden, Norway, Finland, Great Britain, Germany, New Zealand, the United States and China. The Hexatronic share is listed on Nasdaq Stockholm.

For more information about Hexatronic Group:

[www.hexatronicgroup.com](http://www.hexatronicgroup.com)



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