NOUR BEHINE GOSTAR KHAVAR MIANEH LTD.

NBG ME Products

Index

Fiber optic connections

Fiber optic distribution equipments

Modular cabling

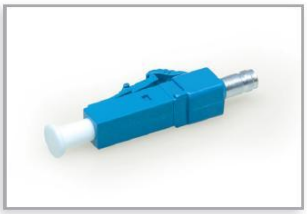
Connector

FEATURES

- PC, UPC, APC polishing
- Various type such as FC, SC, ST, LC, MU, DIN, E2000, MTRJ,...
- Single mode and multi mode available
- 0.9 and 2.0 to 3.0mm cable available
- High return loss and low insertion loss
- Good exchangeability
- High temperature stability

APPLICATION

- Telecommunication network
- Local area network (LAN)
- Metropolitan area network (MAN)
- Wide area network (WAN)
- Optical test equipments
- Data processing network
- Optical communication system
- Active device termination
- Gigabit passive optical network (GPON)
- Cable TV
- FTTX
- Multimedia
- Premise installation



SPECIFICATION

Item	Single mode	Multi mode
Insertion loss (dB)	<0.16	<0.16
Return loss (dB)	PC>45, UPC>50, APC>65	N/A
Repeatability (dB)	1000 times variable<0.2	1000 times variable<0.2
Interchangeability (dB)	<0.2	<0.2
Temperature (C)	-40 ~ +80	-40 ~ +80
Cable diameter	0.9mm , 2.0mm , 3.0mm available	

Fast Connector

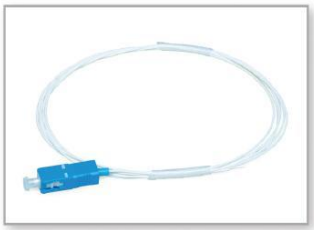
FIELD INSTALLABLE CONNECTORS

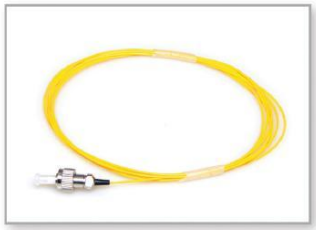
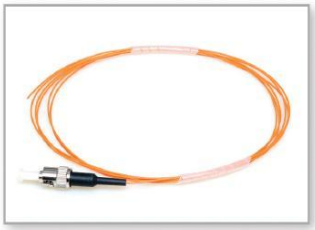
Field installable connector is a perfect solution for field working and FTTH connection. It's widely used where need to quick connection, providing a quickly assembling and stable performance.

FEATURE

- No proxy, no polishing, no adhesive, no electricity required
- Field installable, cost effective and user friendly
- Completely mechanical splice, no electricity required
- Can be assembled in the field in less than 1 minute
- Reliable and superior optical performance
- Connector has a fiber guide to aid insertion, and reduce installation error
- Only the basic fiber termination tools are required
- Connector has fiber already inside, and a pre-polished ferrule for superior result and reliable termination
- Complete with industry standard length strain relief boot

Pigtail

FEATURES

- PC, UPC, APC polishing
- Simplex and duplex available
- Single mode and multi mode available
- 0.9 and 2.0 to 3.0mm cable available
- High return loss and low insertion loss
- High reliability and small bend radius
- Good exchangeability
- Customer's desire length
- High tensile strength
- High temperature stability

APPLICATIONS

- Telecommunication network
- Local area network (LAN)
- Metropolitan area network (MAN)
- Wide area network (WAN)
- Cable TV
- Test equipments
- Data processing network
- Interconnection for O/E modules
- Optical switch interface connection
- Active device termination
- Gigabit Ethernet
- Multimedia
- Premise installation

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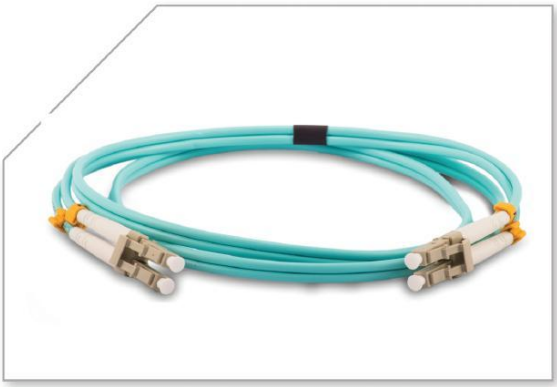
Interchangeability (dB)	<0.2	<0.2
Temperature (C)	-40 ~ +80	-40 ~ +80
Cable diameter	0.9mm , 2.0mm , 3.0mm available	

Ribbon Fan-Out Pigtail

- Typically used for connecting optical cables with ODF.
- Any type of connector is available
- Insertion loss < 0.15 db
- Return loss > 45db
- High interchangeability
- Custom angle polishing available
- Number of fibers: 2, 4, 6, 8, 12, 24, 48,72, 144 cores available.

Patch Cord



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Cable diameter	0.9mm , 2.0mm , 3.0mm available	

Tactical Cable

This cable utilizes several tight buffered fibers surrounded by aramid yarn and a TPU or equivalent jacket. It has good mechanical and environmental performance, robust and light weight, very easy splicing and laying, and supports big capacity data transmission. The mechanical properties of cable jacket meet relevant standards. This cable is ideal for field operation, Special and repeated laying environments.

ARMORED STAINLESS STEEL TUBE

Armored Stainless Steel Cables from AFL are based on our patented tube technology which provides for hermetic seal. The armor wires provide improved crush and tensile performance while maintaining good flexibility. Armored stainless steel tubes can be used in a variety of applications such as temperature sensing and surface cable.

FEATURES

- Hermetic Stainless steel Tube
- High Strength wire
- Jacket option
- Gel option
- Flexible
- Rugged

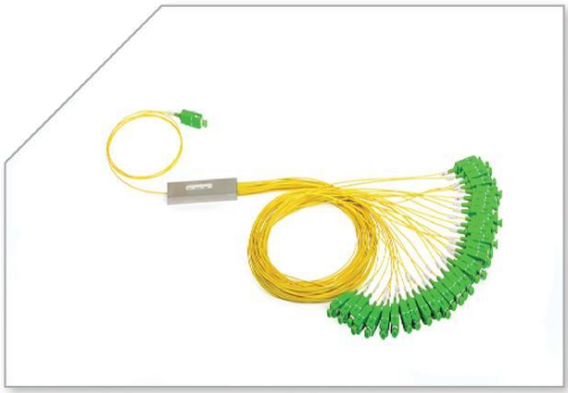
OPTIONS AND SPECIFICATION

Fiber count	Dimension (mm)	Tensile Strength (N) Short term	Tensile Strength (N) Long term	Crush (N/100mm) Short term	Crush (N/100mm) Long term	Min. Bending Radius (mm) Dynamic	Min. Bending Radius (mm) Static	Cable Weight (kg/km)
2	5.2	1500	600	1500	700	20D	10D	24
4	5.2	1500	600	1500	700	20D	10D	26
6	6.0	1500	600	1500	700	20D	10D	31

Fiber count	Tube O.D (mm)	Final O.D (mm)	Weight (kg/km)	Breaking Strenght (kg)	Bend Radius (mm)
4	1.32	2.10	16	222	132
6	2.00	3.20	38	526	200
12	2.40	3.60	45	619	240

Encapsulation Option	
Parameter	Value
Material	Polypropylene, Nylon, PVDF, Hytrel
Diameter	To Customer Specification
Cable Markings	To Customer Specification

Splitter



FEATURES

- Low PDL
- High directivity
- Low insertion loss
- Compact size
- Stable and reliable

APPLICATIONS

- Optical communication system
- Optical power distributor
- Optical testing system
- Fiber optic sensors
- EDFA module
- WDM/DWDM system
- CATV
- FTTH

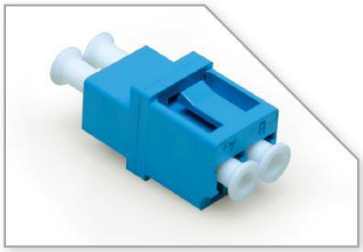
SPECIFICATION

item	Standard
Operating band (nm)	1260 - 1650
Technology	PLC
Configuration	1 x 32
Fiber type	single-mode G.657A
Connectors	SC/APC
Fiber length (m)	1
IL (dB) 1310/1490/1550 nm	≈ 16.4
Directivity(dB)	≥ 55
Division inequality (dB) 1310/1490/1550 nm	≈ 0.25 / 0.27 / 0.27
PDL (dB)	≤ 0.3
Operating temperature range (°C)	-40 ~ +85

Adaptor

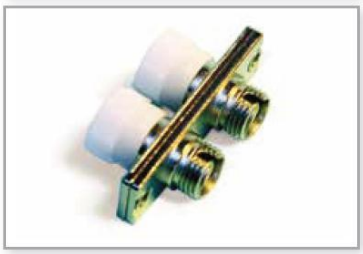
FEATURES

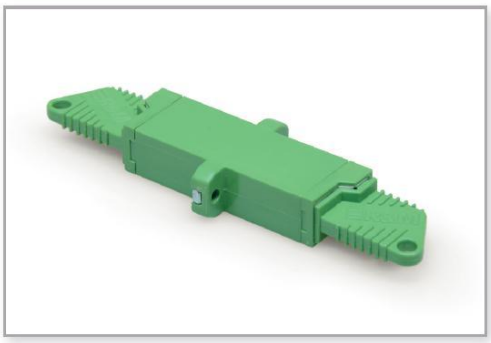
- Wavelength independent (DWDM)
- Durability (well over 100mw)
- Simple and reliable structure
- Modal noise suppression
- Low insertion tolerance
- Easy to install
- Stable environment

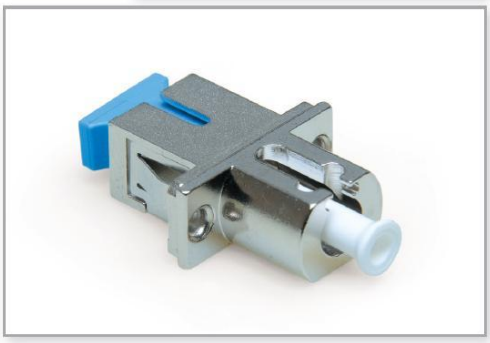


APPLICATIONS

- Telecommunication network
- Cable television networks
- Testing instruments
- Fiber optic sensors
- Local area network
- Data network
- FTTH
- Video

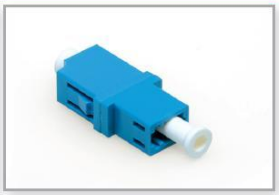






Item	Standard
Insertion Loss (db)	<0.2 db
Return Loss (db)	PC>45db
Durability (db)	1000 Times<0.2db
Temperature Cycle (˚C)	-40 ~ +80
Vibration	10 ~ 55Hz (2hr)<0.2db

Attenuator



FEATURES

- Wavelength independent (DWDM)
- Durability (well over 100mw)
- Simple and reliable structure
- Modal noise suppression
- Low insertion tolerance
- Easy to install
- Stable environment

APPLICATIONS

- Telecommunication network
- Cable television networks
- Testing instruments
- Fiber optic sensors
- Local area network
- Data network
- FTTH
- Video

Item	Standard
Operation Wavelength (nm)	1310/1550
Connector	FC, SC, ST, LC, MU
Attenuation (db)	1 ~ 30
Return Loss (db)	PC>45, UPC>50, APC>60
Attenuation Accuracy (db)	+/-0.5 (1-10db), +/-1.0 (11-30db)
Polarization Dependent Loss	<0.2db
Operation Temperature (˚C)	-40 ~ +80
Storage Temperature (˚C)	-50 ~ +85

Rack System Management

FEATURES

- 19" fiber optic management system for 2016 fiber termination (per cabinet)
- Cable management for standard fiber optic cables. Mini cables, Modular cables 3, 5, 10mm
- Splice and patch management Max 48 fibers/1 Unit
- Connector type: FC, SC, LC, E2000 and etc.
- Patch cord length management
- High level of operating convenience
- Perfect connector protection
- Tool less system

DESCRIPTION

The Rack system management is an innovative, flexible and modular 19" fiber optic management. Many intelligent detailed solutions make it possible to a expand availability in a fiber optic network. This system permits use of the following cable type: standard fiber optic cable, Mini Cables and Modular Cable.

The network can be expanded without affecting the fibers already in use.

The system consists of the following main components: Rack, Distribution Boxes for the cable management, Splice Shelves and patch cord management module.

The system consists of 2 rack: Rack 1 for cable management and the shelves.

Rack 2 for patch cord management .The tubes of the incoming cables will be divided in distribution boxes. The tube out of a modular cable can be divided directly or after reduction to a smaller diameter of the tube. The splice shelves have an integrated hinging module .Bend radius controllers for guiding the patch cords are integrated in both the splice shelf and the patch cord management module. The patch and splice shelves as well as the arrangement of the patch cord management can be left or right hand orientated.

Street Cabinet

FEATURES

- Stand alone street cabinet system
- Weatherproof
- Impact resistant
- Different sizes available
- Highly flexible
- Suitable for outdoor use
- Storage over-length of cable

APPLICATIONS

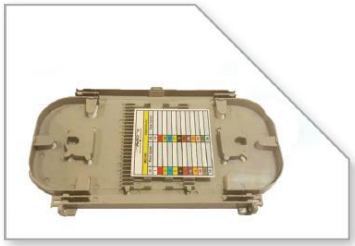
- Used as a tube and/or optic cable distribution point in a access area
- Used as a midpoint blowing for tubes
- Used as a optical distribution cabinet (ODC)

SPECIFICATION

- Contact to NBGME co.

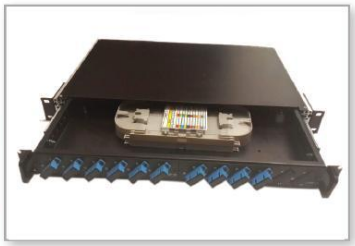
Rack Mount Patch Panel

- Special fiber patch panel for optical cable and pigtail fusion splice
- Termination and excess length of patch cord storing in one rack space
- 19 and 21 inch rack cabinet mountable compact design and flexible installation
- Patch panel is movement by ball-bearing in rail
- Modular coupling panel for easy of installation inspection and testing
- Patch cable protection tray to more safety and protection the front of patch panel
- Slot module panel for loading FC, SC, ST, LC, DIN, ...are available
- Splicing tray and distribution module
- 24 port FC, ST, DIN, and 48 port LC, SC capacity in one unit
- Fiber cable reinforced pressboard
- Fiber cable entry panel of 2 sides



APPLICATIONS

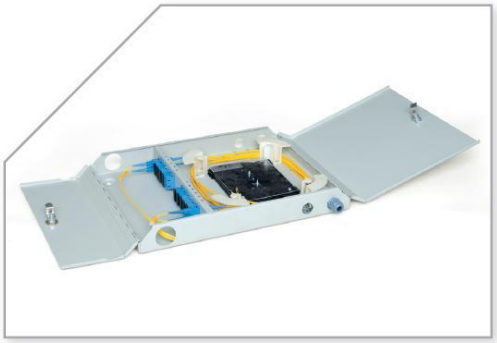
- Telecommunications subscriber loop
- Local area network (LAN)
- Access network
- Optic communication system
- Active device termination
- Gigabit Ethernet
- Cable TV
- FTTH
- Multimedia
- Premise installation



SPECIFICATION

Item	Standard
Usage	Indoor / Rack mount
Housing Material	Aluminum / Metallic Alloy
Size (W,H)	19 or 21 inch - 1 Unit
Max. Core Capacity	48 Core (SC-LC)
Color	Black and RAL 7032
Environmental Temperature	-25 ~ +55
Relative Humidity	<85%
Size (W*H*D)	445*315*40mm

Wall Mount Patch Panel



FEATURES

- Small dimensions and convenient operation
- Multiple patterns and configuration
- With adequate storage and distribution space
- With safe and reliable fiber cable fastening and grounding protection devices
- Applicable to adaptors such as FC, SC, ST, LC
- Applicable to strap-shaped or non-strap shaped optic fiber

APPLICATIONS

- The wiring connecting device used in connection optical cables and optical communication installations
- Suitable for the protective connection between cable and pigtails
- Used for both single core and ribbon optical fiber cable

SPECIFICATION

Item	Standard
Usage	Indoor
Housing Material	Aluminum / Metallic Alloy
Size (W,H,D)	420*320*60 mm
Max. Core Capacity	24 Core (SC,LC,FC,ST)
Color	RAL 7032
Environmental Temperature	-25 ~ +55
Relative Humidity	<85%

Distribution Box

FEATURE

- Designed to house 1*8 or 1*16 PLC splitters
- Capacity 2 inlet and 16 outlet ports
- IP65 rated and anti-UV resistant suitable for outdoor environment
- Wall or pole mountable cater for different installation conditions
- Easy mounting requiring minimal amount of tools for quicker installation
- Lockable door to restrict unauthorized access
- Optimized bend radius protection
- Made of high-quality ABS plastic material with aesthetical design
- Pigtails are available to load separately

APPLICATION

- FTTx series network
- Telecommunication networks
- CATV networks
- Data communication networks
- LAN application

item	Standard
Usage	Outdoor
Inlet Port	2 Port
Size (W,H,D)	181*207*45 mm (8 Core)
	220*300*80 mm (16 Core)
Core Capacity	8, 16 Core

Cable guide

- NBG me co. Produces various type of cable guide .
- These are suitable for use in every cable
- management in rack 19", 21" rack mount is available.

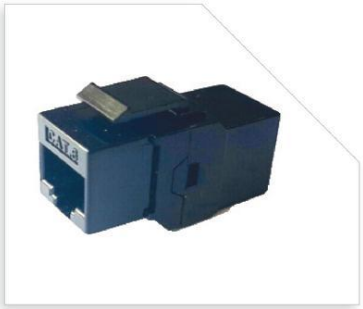
Barrel panel

- 24 port (1-RJ45 to 1-TJ45)/1 unit Barrel panel is another
- production of NBG me co .
- It is suitable for use in servers UTP cable management .
- The number of port is desirable.

Unloaded Patch Panel

Unloaded Patch Panel

- Accepts CAT5e and CAT6 keystone jacks
- With cable management for improved management
- Available in 24(1U) & 48(2U) ports



CATV Network patch cords

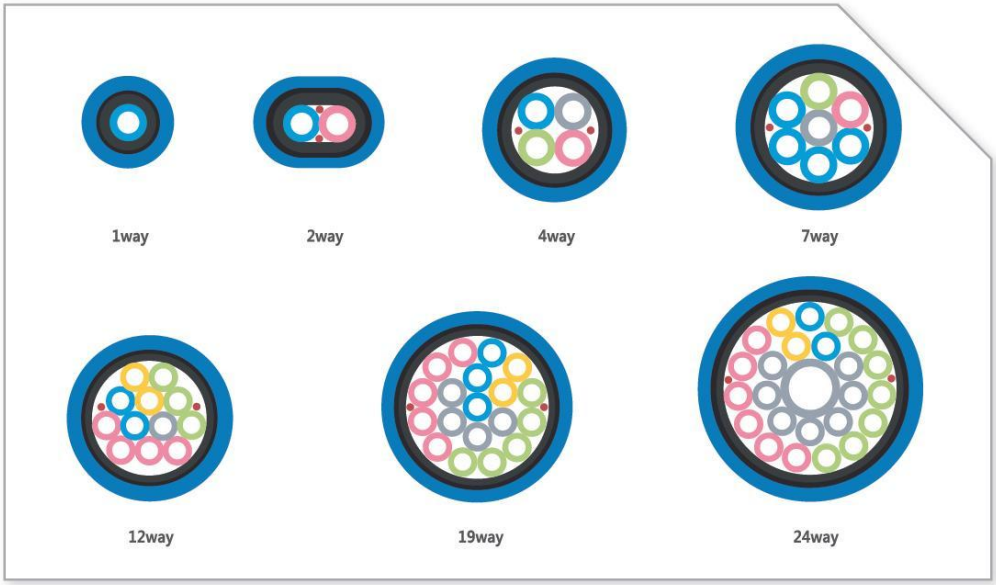
- In UTP, FTP and SFTP types
- Available lengths : 1m,2m,3m , ...
- Available colors :Orange,yellow,blue,red and grey

Hybrid DB

Hybrid DB micro ducts consist of tube with a smooth or ribbed inner surface that enable an air blown installation of micro cable. the micro duct is sheathed with two layers without moisture barrier. it provide excellent protection from the physical environment with – standing significant amount of pressure by pulling, and it is easy to branch off for network expansion.

5/3.5 mm	OD (mm)	Max Tensile (N)	Weight (kg/ km)	Bend Radius (mm)	Crush (N)	Length/ Drum (m)	Drum Size (mm)	Gross Weight (kg)	Number of Drums in 40′
1way	12	960	98	150	3000	2000	455*1100	220	80
2way	12x17	1,370	140	150	3000	2000	550*1330	365	36
4way	19.1	1,960	200	240	3000	2000	720*1400	501	24
7way	22	2,530	259	270	3000	2000	720*1600	645	21
12way	27.9	3,770	385	340	3000	2000	1100*1650	920	14
19way	31.9	4,860	496	390	3000	2000	1100*1850	1176	12
24way	36	5,780	590	440	3000	2000	1100*2120	1455	10

8/6 mm	OD (mm)	Max Tensile (N)	Weight (kg/ km)	Bend Radius (mm)	Crush (N)	Length/ Drum (m)	Drum Size (mm)	Gross Weight (kg)	Number of Drums in 40′
1way	15	1,400	142	180	3000	2000	550*1280	366	36
2way	15x23	2,100	217	180	3000	2000	720*1480	538	24
4way	27.7	2,900	296	330	3000	2000	1100*1620	735	14
7way	32.4	3,500	355	390	3000	2000	1100*1900	902	12
12way	40.8	4,500	461	490	3000	1000	1100*1840	655	12



10/8 mm	OD (mm)	Max Tensile (N)	Weight (kg/ km)	Bend Radius (mm)	Crush (N)	Length/ Drum (m)	Drum Size (mm)	Gross Weight (kg)	Number of Drums in 40′
1way	17	1,620	166	210	3000	2000	550*1450	435	32
2way	17x27	2,530	259	210	3000	2000	720*1680	658	21
4way	32.5	4,490	459	400	3000	2000	1100*1880	1107	12
7way	38.4	5,990	612	470	3000	2000	1100*2230	1528	10

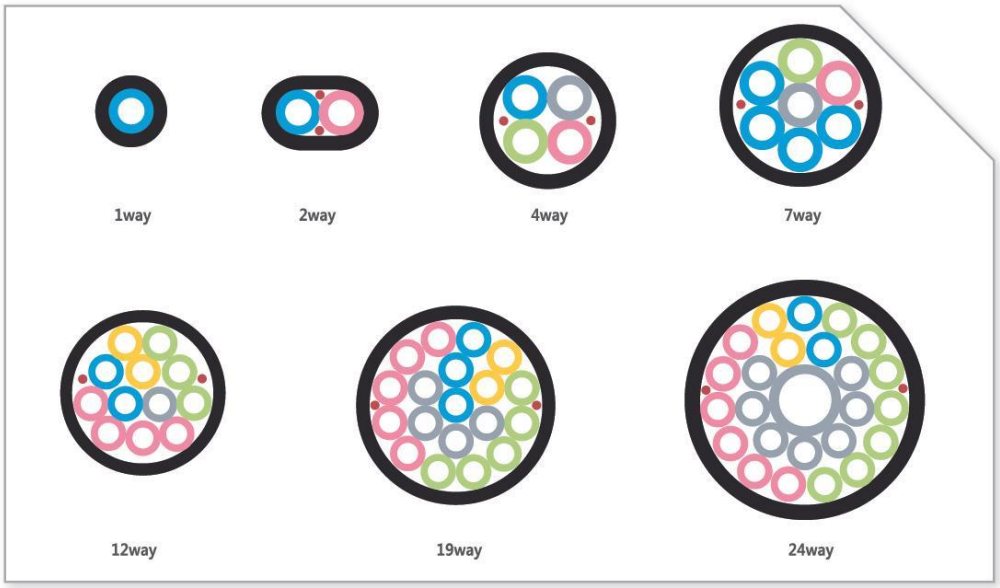
12/10 mm	OD (mm)	Max Tensile (N)	Weight (kg/ km)	Bend Radius (mm)	Crush (N)	Length/ Drum (m)	Drum Size (mm)	Gross Weight (kg)	Number of Drums in 40′
1way	19	1,890	193	240	3000	2000	720*1400	487	24
2way	19x31	2,980	305	240	3000	2000	1100*1520	739	15
4way	37.4	5,320	543	460	3000	2000	1100*2170	1372	10
7way	44.4	7,130	728	540	3000	1000	1100*1980	948	12

Hybrid DI

Hybrid DI micro duct consist of tubes with a smooth or ribbed inner surface that enable an air blown installation of micro cables. The micro duct is sheathed with one layer without moisture barrier. Hybrid DI is designed for installation inside existing pipe or sub ducts.

5/3.5 mm	OD (mm)	Max Tensile (N)	Weight (kg/ km)	Bend Radius (mm)	Crush (N)	Length/ Drum (m)	Drum Size (mm)	Gross Weight (kg)	Number of Drums in 40′
1way	8	370	38	100	2000	2000	373*900	89	130
2way	8x13	600	62	100	2000	2000	448*1050	145	88
4way	15.1	960	98	190	2000	2000	550*1250	259	36
7way	18	1,360	139	220	2000	2000	550*1500	386	29
12way	23.3	2,040	209	280	2000	2000	720*1680	558	21
19way	27.3	2,870	293	330	2000	2000	1100*1600	726	14
24way	31.4	3,500	358	380	2000	1000	1100*1820	895	12

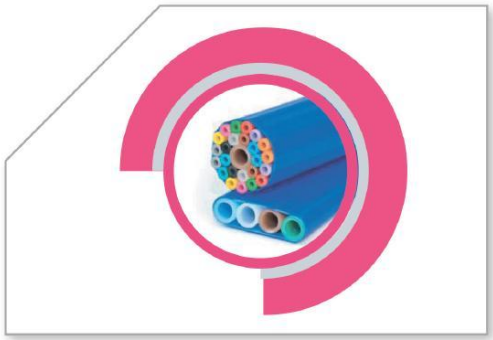
8/6 mm	OD (mm)	Max Tensile (N)	Weight (kg/ km)	Bend Radius (mm)	Crush (N)	Length/ Drum (m)	Drum Size (mm)	Gross Weight (kg)	Number of Drums in 40′
1way	11	600	65	130	2000	2000	429*1050	150	88
2way	11x19	1,100	109	230	2000	2000	550*1280	283	36
4way	22.3	1,800	179	270	2000	2000	720*1600	485	21
7way	27	2,600	262	320	2000	2000	1100*1600	667	14
12way	35.4	4,000	404	420	2000	2000	1100*2070	1037	11



10/8 mm	OD (mm)	Max Tensile (N)	Weight (kg/ km)	Bend Radius (mm)	Crush (N)	Length/ Drum (m)	Drum Size (mm)	Gross Weight (kg)	Number of Drums in 40′
1way	13	750	77	160	2000	2000	479*1150	178	80
2way	13x23	1,290	132	160	2000	2000	550*1550	379	29
4way	27.5	2,300	235	330	2000	2000	1100*1600	610	14
7way	33.4	3,370	344	410	2000	2000	1100*1920	884	12

12/10 mm	OD (mm)	Max Tensile (N)	Weight (kg/ km)	Bend Radius (mm)	Crush (N)	Length/ Drum (m)	Drum Size (mm)	Gross Weight (kg)	Number of Drums in 40′
1way	15	890	91	180	2000	2000	550*1250	244	36
2way	15x27	1,540	158	180	2000	2000	720*1560	437	22
4way	32.4	2,760	282	390	2000	2000	1100*1870	751	12
7way	39.4	4,060	415	480	2000	1000	1100*1760	593	13

TWD



Thick walled micro ducts are designed for direct burial and have superior blowing characteristic. Thanks to the sufficient thickness of the wall, it exempt this type of micro duct from additional protective ducts. Thick walled micro ducts can be branched off easily and the primary tube can be directly buried as a single micro duct. Also this solution makes networks. distribution possible with a simple connector. Any size and color are available on request.

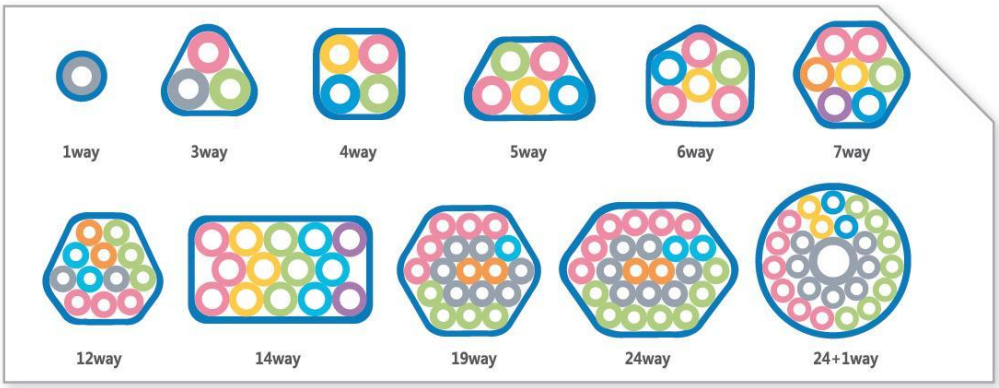
FEATURES

- Robust, highly resistance to crushing
- Simple line of connectivity products
- Designed for slots and micro-trenches
- Nominal sheath thickness is 1.0 mm

BENEFITS

- Can be used in any environment
- Ducts are future proof
- Required less technical skills and time in the field to make connections

MULTI TYPE



7/3.5 mm	OD (mm)	Max Tensile (N)	Weight (kg/ km)	Bend Radius (mm)	Crush (N)	Length/ Drum (m)	Drum Size (mm)	Gross Weight (kg)	Number of Drums in 40′
1way	9.0	500	52	110	1000	2000	450*880	121	104
3way	15.1x16.0	1,240	127	190	2000	2000	550*1440	359	32
4way	16.0x16.0	1,580	161	200	2000	2000	550*1400	395	33
5way	15.1x23.0	1,910	195	190	2000	2000	720*1400	465	25
6way	19.5x21.1	2,300	228	240	2000	2000	720*1500	540	22
7way	21.1x23.0	2,510	257	260	2000	2000	720*1580	610	22
12way	27.2x30.0	4,050	414	330	2000	2000	1100*1640	935	14
14way	21.1x37.0	4,800	485	250	2000	2000	1100*1670	1120	14
19way	33.2x37.0	6,130	626	400	2000	2000	1100*2050	1460	11
24way	33.2x44.0	7,600	776	400	2000	1000	1100*1660	930	14
24+1way	43.6x43.6	8,440	862	530	2000	1000	1100*1950	1067	12

10/6 mm	OD (mm)	Max Tensile (N)	Weight (kg/ km)	Bend Radius (mm)	Crush (N)	Length/ Drum (m)	Drum Size (mm)	Gross Weight (kg)	Number of Drums in 40′
1way	12	790	81	150	1,000	2000	1050*454	182	88
3way	20.7x22	2,000	205	250	2,000	2000	1600*720	540	21
4way	22	2,560	262	270	2,000	2000	1700*720	667	19
5way	20.7x32	3,130	320	250	2000	2000	1600*1100	780	14
6way	27x29.4	3,660	374	330	2,000	2000	1650*1100	898	14
7way	29.4x32	4,160	425	360	2,000	2000	1820*1100	1032	12

DBR

The tube bundle is surrounded by a filler and a flexible sheath. The outer sheath is PE providing excellent protection from the physical environment. DBR provides better water blocking and low thermal length changes.

10/8 mm	OD (mm)	Max Tensile (N)	Weight (kg/ km)	Bend Radius (mm)	Crush (N)	Length/ Drum (m)	Drum Size (mm)	Gross Weight (kg)	Number of Drums in 40′
1way	17.0x27.0	3,100	314	320x200	3500	2000	720*1670	765	21
2way	17.0x37.0	4,300	443	440x200	3500	2000	720*1900	1060	18
4way	31.1	5,800	590	370	3500	2000	1100*1780	1350	13
7way	37.0	7,400	753	440	3500	1000	720*1940	940	12

12/10 mm	OD (mm)	Max Tensile (N)	Weight (kg/ km)	Bend Radius (mm)	Crush (N)	Length/ Drum (m)	Drum Size (mm)	Gross Weight (kg)	Number of Drums in 40′
2way	19x31	3,690	377	230	4500	2000	720*1870	920	18
3way	19.0x43.0	5,300	539	520x230	3500	2000	1100*1750	1240	13
4way	36	7,280	743	440	1000	36	1100*1590	885	14
7way	43	9,240	943	520	4500	1000	1100*1890	1170	12

16/13.5 mm	OD (mm)	Max Tensile (N)	Weight (kg/ km)	Bend Radius (mm)	Crush (N)	Length/ Drum (m)	Drum Size (mm)	Gross Weight (kg)	Number of Drums in 40′
4way	46.7	9,890	1,010	940	4,000	1000	2100*1100	1252	10
7way	56	12,340	1,260	1,120	4,000	500	2000*1100	1510	12

2way 3way 4way 7way

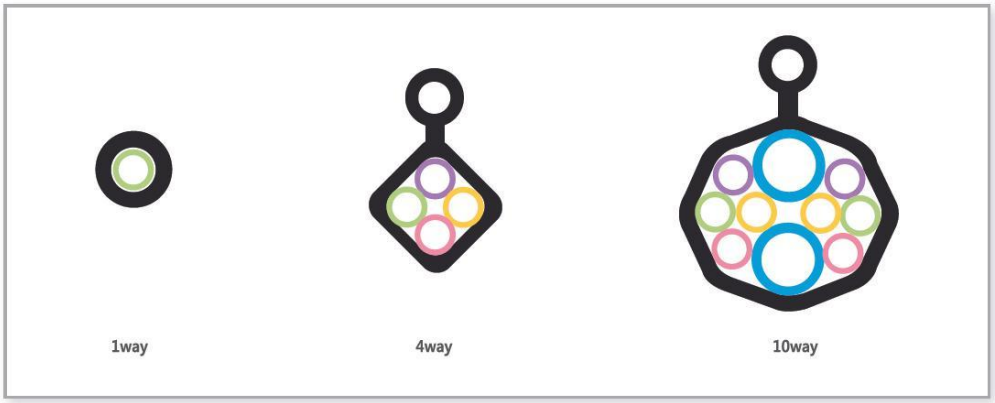
Note: color of primary tubes can be changed

Aerial

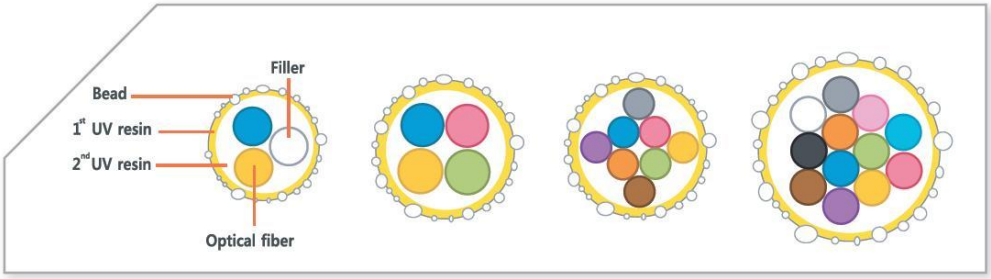
Aerial micro ducts have been developed to facilitate the use of optical fiber subscriber drop cables. Arial ducts can withstand their stringing tension before breaking and resist serious overloads due to unfavorable conditions.

- High UV resistance for outdoor use
- Figure-8 design keeps the strength member and tube bundle separate from each other
- Two types of strength members are available: metal and non-metal
- Tube dimension (OD/ID) 5/3.5, 8/6, 10/8, 12/10 mm

Item	Nominal Outer Diameter (mm)	Nominal Weight (kg/km)
10 Tubes Cable	27x36	280
4 Tube Cable	12x24	120
1 Tube Cable	8	35



ABF/ABC

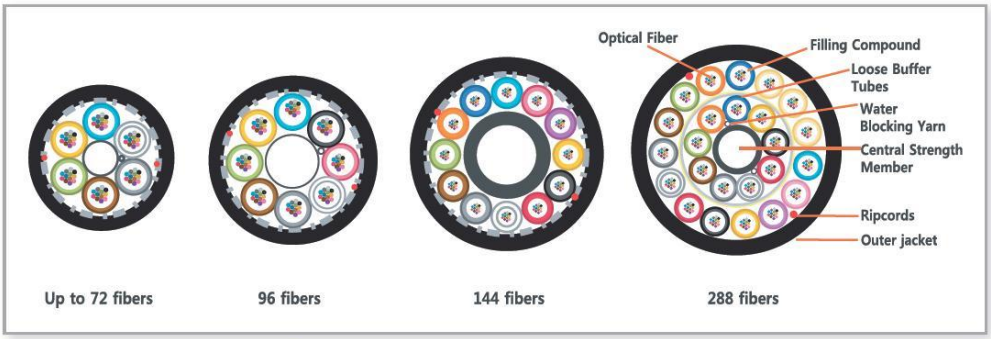


AIR BLOWN FIBER

- Single-mode, Multimode 50/125,Multimode 62.5/125
- Hybrid (SMF+MMF) and special fibers, including fibers with high bending performance
- Other configurations are also available

Units	2 Fiber	4 Fiber	8 Fiber	12 Fiber
Diameter	1.02+0.06mm	1.02+0.06mm	1.40+0.05mm	1.60+0.10mm

AIR BLOWN CABLE

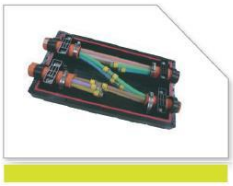


Items		Specifications			
Fiber Counts		72	96	144	288
Max. Outer Diameter (mm)		6.0	6.8	7.9	10.9
Cable Weight (kg/km)		30	40	50	90
Min. Bending Radius	Under Load	120	140	160	260
Tensile Loading (N)	Under Load	550	750	950	2000
Applicable Microduct Inner Diameter (mm)	Over	8	10	10	13

Tube Distribution Closure

TUBE DISTRIBUTION CLOSURE

Water proof closures are designed for blown fiber tube cable connection application. A micro duct can be easily connected and distributed from the closure with the use of the connecting side ports. It is a direct bury sealed closure designed for intercepting a micro duct assembly to allow multiple spur-offs to smaller blown fiber tube cables d cts.



FEATURES

- Robust IP68 construction ensures suitability for direct bury applications
- Can accommodate an in-line micro duct up to 45 mm in outer diameter
- Can be re-entered
- Can be retro-fitted to existing tube bundle/sub ducts

NBG FIBER OPTIC CLOSURE (12 CORE)

1. Insert FO Cable-Ends through the cable glands from outside to inside of both closure parts. Slide the closure parts away from
the splice area to have enough space to splice all fibers according to specs.
2. Prepare fiber ends for splicing, specify over lengths and store in splice-tray.
3. Place cable ties over FO cable on both sides of splice tray as strain relief (through the two openings left and right outside
the splice area). Pull strongly!
4. If it is necessary to use both sides of the splice-tray please push fibers through the openings of the tray (middle left and middle right)
5. Make splices and protection according to splicing specifications .The splice-tray can be used with max. 2 x 6 splice-holders for Crimp- or Heat Shrink Protection. Heat Shrink tubes will be stacked.(2 x 6 tubes will be put on top of each other)
6. Put splice tray in one closure part and screw the second closure part together strongly.
7. Closing the cable glands on the outside of the closure parts will seal the closure and make the strain relief over both cable ends.

Diameter of Cable Glands: Cable Ø : min. 4,5 mm max. 10,0 mm

Part List		
2	Pc	Closure parts with M 16 cable glands
1	Pc	Splice tray with 1x12
2	Pc	Cable ties 140 mm
2	Pc	Tool for closure closing / opening (per box)
1	Pc	Instruction sheet

Tube Distribution Closure

BRANCH UNIT

Duct branch closures are intended for fast and easy branching of micro duct or air blown cables. The typical application is to branch out ducts to connect each home. Closure minimize installation costs by removing the need for time consuming fiber splicing in various branch points.

Type	Size
In - Line	32mm, 40mm, 50mm
T - Closure	25mm, 40mm, 50mm
Y - Closure	25mm, 40mm, 50mm, 60mm
H - Closure	32mm, 40mm, 50mm

Connectors

STRAIGHT CONNECTOR

A connector is a clip-in duct connector unused for jointing two micro ducts. The installation is simple and can be carried out in a few second. The connector is transparent to allow a visual inspection of a micro cable passing through. To enable cable blowing, the connector is designed to operate at 15 bars without leakage.

- **Size:** 5/3.5mm, 7/3.5mm, 7/5.5mm, 8/6mm, 10/8mm, 12/10mm, 14/10mm, 14/12mm, 16/12mm

END CAP

End caps are used to tighten the ends of un used primary tubes to avoid water and dust from emerging into ducts.They are also used in combination with the valve and stop connector during installation of micro ducts into existing cable ducts.

- **Size:** 5mm, 7mm, 8mm, 10mm, 12mm, 14mm, 16mm

REDUCING CONNECTOR

Push-fit reducing connectors make micro duct splicing fast and easy. Simply push the micro duct into the center of the connector, No tools are required. The reducers can be connected and disconnected 10 times and still maintain the high performance requirements for air blown installation systems.

- **Size:** outer diameter 5mm~16mm

GAS BLOCK

Gas block connectors are used when it is necessary to block moisture(avoiding condensation) or to block gas passing freely into different micro duct sections. This could be necessary when changing from outdoor to indoor installation, for example. The connector works in a similar way to the standard connector when jointing micro ducts but has a compressible rubber gasket that is sealed after the cable has been installed.

- **Size:** Outer diameter 5mm~16mm

DBL CONNECTOR / END CAP

DBL straight connectors are suitable for the jointing of direct buried thick-walled micro ducts. DBL End caps are designed for sealing the end of direct buried thick-walled micro ducts. Both items are permanently jointed.

- **Size:** 7/3.5mm, 10/6mm, 12/8mm, 14/10mm

Implementation services

NBGme Company along with the development of new methods cabling and updating equipment including shooting fiber optics in to micro and mini tubes, air compressor, OTDR instrument capable of measuring signal through splitter, fusion splicer, micro and mini tubes and connections, multi tube cable and EPFU cables proudly announce its readiness to consult, design and implementation

This compressor is specifically for use with the airstream , Mini-jet, Micro-jet and Breeze .35.3cfm)flow)liters /m 1000 15bar pressure with cable Blowing machines ,having

This Micro-jet is designed for the installation of fiber micro/mini cables into ducts ,either by the
Push-pull method ,or by polling with the traction line .Other telecom cables(copper pairs)-can be installed with micro jet .The jetting method consist in simultaneously mechanically pushing with the fiber units and cro/mini-cables in to a microduct route assisted by a drag force generated to a fiber units and icro /mini- cable by a high velocity air flow through the micro duct . The jetting method allows installation of fiber units and micro/mini-cable into meters .The microjet is mainly 2000 to 500 microduct routes over distances ranging from . used on or campus and distribution network construction sites

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