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FIBER OPTIC TECHNOLOGY
CALIBRATION LABORATORY

STICKLERS

CATALOGO
FIBRA OTTICA
2024 Q2

Fibra Ottica / Strumenti e accessori
2024 Q2

INDICE

NOTE

Splicer Master TMFST18S - Cladding Alignment 4 Motors

4 MOTORS

OSD ITALIANO INGLESE

LCD 5.0”

TOUCH SCREEN

TM SOC
Adattatore connettori rapidi SOC

SPECIFICHE	SPLICER MASTER TMFST18S
Dimension	115 x 160 x 135 mm (excluding rubber bumper) 120 x 165 x 135 mm (including rubber bumper)
Weight	1735 g (with battery) / 1355 g (without battery)
Number of Fiber	Single
Applicable Fibers	SM (ITU-T G.652& G.657) / MM (ITU-T G.651) / DS (ITU-T G.653) / NZDS (ITU-T G.655)
Compatible Fiber/Cable	0.25 ÷ 3.0 mm / Indoor Cable
Cleaved Length	Diameter 0.125 ÷ 1 mm / Cleave Length: 8 ÷ 16 mm
Cladding Diameter	80 ÷ 150 µm
Splicing Mode	Pre-set 41 splicing modes, max 100 modes
Heating Mode	Pre-set 5 heating modes (20/30/40/50/60 mm), max 100 modes
Typical Splice Loss	SM: 0.03 dB / MM 0.02 dB / DS: 0.05 dB I NZDS 0.05 dB / G.657 0.03 dB (ITU-T Standard)
Return Loss	≥ 60 dB
Lighting	3 White LEDs
Splicing Time	Quick mode: 6 s
Estimated Splice Loss	Available
Heating Sleeve Length	20 ÷ 60 mm
Heating Time	Quick heating time: 13 s, typical heating time: 30 s
Results Storage	The last 2000 results
Tension Test	1.96 ÷ 2.25 N
Operating Condition	Altitude 0 ÷ 5000 m above sea level, 0 ÷ 95% relative humidity, temperature -10° ÷ +50° C, max wind 15 m/s
Storage Condition	0 ÷ 95% relative humidity, -40° ÷ +80° C
Display	90° bi-directional view, 4.3” Color High Resolution Display
Fiber View & Magnification	X, Y, XY, X/Y 380x Magnification
Power Supply	Input 100 ÷ 240 Vac, Output 12 ÷ 15 Vdc
N° of Splice / Heating	Typical 250 times (Splice + Heat) with 5200 mAh battery capacity
Operating Methods	Button / Touch Screen
Automatic Calibration	Automatic ARC calibration by air pressure and temperature
Electrode Life	5000 arcs
Terminal	Mini USB 2.0

Standard accessories:

- Fusion splicer TMFST18S
- Fiber cleaver TMA9
- Battery
- Power adapter
- AC power line
- Back-up electrode
- Cooling tray
- Carrying case
- Carrying strap
- User manual
- Splicing test report
- Miller stripper
- Drop cable stripper
- Alcohol bottle

Main features:

- Industriai 4-motors driving, high quality and low loss
- 5” high resolution color LCD touch screen, 380x magnification, visible clearly with bare eyes
- Packed with detachable 5200 mAh battery, more than 250 times of splicing and heating
- Auto-splicing mode, using friendly design
- Integrated fiber-adjust frame, performation is more stable
- High-power LED white light simplifies your work at night
- Detachable multifunction fixture, suitable for various fiber type
- Dust-proof, water-proof, high temperature resistance, adapting to various altitude and harsh environment

Fiber Clever TMA9

Borsa e accessori

Splicer Master TMFST18S

Splicer Master TMFST18H - Cladding Alignment 4 Motors

4 MOTORS

OSD ITALIANO INGLESE

LCD 4.3”

TOUCH SCREEN

TM SOC
Adattatore connettori rapidi SOC

SPECIFICHE	SPLICER MASTER TMFST18H
Dimension	115 x 160 x 135 mm (excluding rubber bumper)
Weight	1735 g (with battery) / 1355 g (without battery)
Number of Fiber	Single
Applicable Fibers	SM (ITU-T G.652& G.657) / MM (ITU-T G.651) / DS (ITU-T G.653) / NZDS (ITU-T G.655)
Compatible Fiber/Cable	0.25 ÷ 3.0 mm / Indoor Cable
Cleaved Length	Diameter 0.125 ÷ 1 mm / Cleave Length: 8 ÷ 16 mm
Cladding Diameter	80 ÷ 150 µm
Splicing Mode	Pre-set 41 splicing modes, max 100 modes
Heating Mode	Pre-set 5 heating modes (20/30/40/50/60 mm), max 100 modes
Typical Splice Loss	SM: 0.03dB / MM 0.02dB/ DS: 0.05dB I NZDS 0.05 dB / G.657 0.03dB (ITU-T Standard)
Return Loss	≥ 60dB
Lighting	3 White LEDs
Splicing Time	Quick mode: 6 s
Estimated Splice Loss	Available
Heating Sleeve Length	20 ÷ 60 mm
Heating Time	Quick heating time: 13 s, typical heating time: 30 s
Results Storage	The last 2000 results
Tension Test	1.96 ÷ 2.25 N
Operating Condition	Altitude: 0 ÷ 5000 m above sea level, 0 ÷ 95% relative humidity, temperature -10°C ÷ +50° C, max wind 15 m/s
Storage Condition	0 ÷ 95% relative humidity, temperature -40° ÷ +80° C
Display	90° bi-directional view, 4.3” Color High Resolution Display
Fiber View & Magnification	X, Y, XY, X/Y 380x Magnification
Power Supply	Input 100 ÷ 240 Vac, Input 12 ÷ 15 Vdc
N°of Splice / Heating	Typical 250 times (Splice + Heat) with 5200 mAh battery capacity
Operating Methods	Button/Touch Screen
Automatic Calibration	Automatic ARC calibration by air pressure and temperature
Electrode Life	5000 arcs
Terminal	Mini USB 2.0

Standard accessories:
- Fusion splicer TMFST18H
- Fiber cleaver TMA9
- Battery
- Power adapter
- AC power line
- Back-up electrode
- Cooling tray
- Carrying case
- Carrying strap
- User manual
- Splicing test report
- Miller stripper
- Drop cable stripper
- Alcohol bottle

Main features:
- Industriai 4-motors driving, high quality and low loss
- 4.3” high resolution color LCD touch screen, 380x magnification, visible clearly with bare eyes
- Auto-splicing mode, using friendly design
- Integrated fiber-adjust frame, performation is more stable
- High-power LED white light simplifies your work at night
- Detachable multifunction fixture, suitable for various fiber type
- Dust-proof, water-proof, high temperature resistance, adapting to various altitude and harsh environment

Splicer Master TMFST18H

Borsa e accessori

Splicer Master TMFST83A - Core Alignment 4 Motors

4 MOTORS

OSD ITALIANO INGLESE

LCD 5.0”

TOUCH SCREEN

TM SOC
Adattatore connettori rapidi SOC

SPECIFICHE	SPLICER MASTER TMFST83A
Dimension	136 x 160 x 148 mm (excluding rubber bumper) 140 x 165 x 148 mm (including rubber bumper)
Weight	2280 g (with battery) / 1900 g (without battery)
Number of Fiber	Single
Applicable Fibers	SM (ITU-T G.652 & G.657) / MM (ITU-T G.651) / DS (ITU-T G.653) / NZDS(ITU-T G.655)
Compatible Fiber/Cable	0.25 ÷ 3.0mm / Indoor Cable
Cleaved Length	Diameter 0.125 ÷ 1 mm / Cleave Length: 8 ÷ 16 mm
Cladding Diameter	80 ÷ 150 µm
Splicing Mode	Pre-set 41 splicing modes, max 100 modes
Heating Mode	Pre-set 5 heating modes (20/30/40/50/60 mm), max 100 modes
Typical Splice Loss	SM: 0.02 dB / MM 0.01 dB / DS: 0.04 dB / NZDS 0.04 dB / G.657 0.02 dB (ITU-T Standard)
Return Loss	≥ 60 dB
Lighting	3 White LEDs
Splicing Time	Quick mode: 6 s
Estimated Splice Loss	Available
Heating Sleeve Length	20 ÷ 60 mm
Heating Time	Quick heating time: 13 s, typical heating time: 30 s
Results Storage	The last 2000 results
Tension Test	1.96 ÷ 2.25 N
Operating Condition	Altitude: 0 ÷ 5000 m above sea level, 0 ÷ 95% relative humidity, temperature -10° ÷ +50° C, max wind 15 m/s
Storage Condition	0 ÷ 95% relative humidity, temperature -40° ÷ +80° C
Display	90° bi-directional view, 5.0” Color High Resolution Display
Fiber View & Magnification	X, Y, XY, X/Y 500x Magnification
Power Supply	Input 100 ÷ 240 Vac, Input 12 ÷ 15 Vdc
N°of Splice / Heating	Typical 250 times (Splice + Heat) with 5200 mAh battery capacity
Operating Methods	Button/Touch Screen
Automatic Calibration	Automatic ARC calibration by air pressure and temperature
Electrode Life	5000 arcs
Terminal	Mini USB 2.0

Standard accessories:

- Fusion splicer TMFST83A
- Fiber cleaver TMA9
- Battery
- Power adapter
- AC power line
- Back-up electrode
- Cooling tray
- Carrying case
- Carrying strap
- User manual
- Splicing test report
- Miller stripper
- Drop cable stripper
- Alcohol bottle

Main features:

- Industriai 4-motors driving, high quality and low loss
- 5” high resolution color LCD touch screen, 500x magnification, visible clearly with bare eyes
- Packed with detachable 5200 mAh battery, more than 250 times of splicing and heating
- Auto-splicing mode, using friendly design
- Integrated fiber-adjust frame, performation is more stable
- High-power LED white light simplifies your work at night
- Detachable multifunction fixture, suitable for various fiber type
- Dust-proof, water-proof, high temperature resistance, adapting to various altitude and harsh environment

Fiber Clever TMA9

Borsa e accessori

Splicer Master TMFST83A

Splicer Master TMV6 - Core Alignment 6 Motors

6 MOTORS

OSD ITALIANO INGLESE

LCD 4.3”

TOUCH SCREEN

TM SOC
Adattatore connettori rapidi SOC

SPECIFICHE	SPLICER MASTER TMV6
Dimension	130 x 170 x 170 mm (excluding rubber bumper) 140 x 170 x 176 mm (including rubber bumper)
Weight	2233 g (with battery) / 1853 g (without battery)
Number of Fiber	Single
Applicable Fibers	SM (ITU-T G.652& G.657) / MM (ITU-T G.651) / DS (ITU-T G.653) / NZDS (ITU-T G.655)
Compatible Fiber/Cable	0.25 ÷ 3.0 mm / Indoor Cable
Cleaved Length	Diameter 0.125 ÷ 1 mm / Cleave Length: 8 ÷ 16 mm
Cladding Diameter	80 ÷ 150 µm
Splicing Mode	Pre-set 41 splicing modes, max 100 modes
Heating Mode	Pre-set 5 heating modes (20/30/40/50/60 mm), max 100 modes
Typical Splice Loss	SM: 0.02 dB/ MM 0.01 dB/ DS: 0.04 dB I NZDS 0.04 dB / G.657 0.02 dB (ITU-T Standard)
Return Loss	≥ 60 dB
Lighting	3 White LEDs
Splicing Time	Quick mode: 6 s
Estimated Splice Loss	Available
Heating Sleeve Length	20 ÷ 60 mm
Heating Time	Quick heating time: 13 s, typical heating time: 30 s
Results Storage	20000 last records & 200 images
Tension Test	1.96 ÷ 2.25 N
Operating Condition	Altitude: 0 ÷ 5000 m above sea level, 0 ÷ 95% relative humidity, temperature -10° ÷ +50° C, Max Wind 15 m/s
Storage Condition	0 ÷ 95% relative humidity, temperature -40° ÷ +80° C
Display	90° bi-directional view, 4.3” Color High Resolution Display
Fiber View & Magnification	X, Y, XY, X/Y 500x Magnification
Power Supply	Input 100 ÷ 240 Vdc, Output 12 ÷ 15 Vdc
N°of Splice / Heating	Typical 250 times (Splice + Heat) with 5200 mAh battery capacity
Operating Methods	Button/Touch Screen
Automatic Calibration	Automatic ARC calibration by air pressure and temperature
Electrode Life	5000 arcs
Terminal	Mini USB 2.0

Standard accessories:

- Fusion splicer TMV6
- Fiber cleaver TMA9
- Battery
- Power adapter
- AC power line
- Back-up electrode
- Cooling tray
- Carrying case
- Carrying strap
- User manual
- Splicing test report
- Miller stripper
- Drop cable stripper
- Alcohol bottle

Main features:

- Industriai 4-motors driving, high quality and low loss
- 4.3” high resolution color LCD touch screen, 500x magnification, visible clearly with bare eyes
- Packed with detachable 5200 mAh battery, more than 250 times of splicing and heating
- Auto-splicing mode, using friendly design
- Integrated fiber-adjust frame, performation is more stable
- Fiber type identification function
- High-power LED white light simplifies your work at night
- Detachable multifunction fixture, suitable for various fiber type
- Dust-proof, water-proof, high temperature resistance, adapting to various altitude and harsh environment

Fiber Clever TMA9

Borsa e accessori

Fusion Splicer TMV6

Splicer Master TMV9 - Core Alignment 6 Motors

6 MOTORS

OSD ITALIANO INGLESE

LCD 5.0”

TOUCH SCREEN

TM SOC
Adattatore connettori rapidi SOC

SPECIFICHE	SPLICER MASTER TMV9
Dimension	130 x 170 x 170 mm (excluding rubber bumper) 140 x 170L x 176 mm (including rubber bumper)
Weight	2233 g (with battery) / 1853 g (without battery)
Number of Fiber	Single
Applicable Fibers	SM (ITU-T G.652& G.657) / MM (ITU-T G.651) / DS (ITU-T G.653) / NZDS (ITU-T G.655)
Compatible Fiber/Cable	0.25 ÷ 3.0mm/Indoor Cable
Cleaved Length	Diameter 0.125 ÷ 1 mm / Cleave Length 8 ÷ 16mm
Cladding Diameter	80 ÷ 150µm
Splicing Mode	Pre-set 41 splicing modes, max 100 modes
Heating Mode	Pre-set 5 heating modes (20/30/40/50/60mm), max 100 modes
Typical Splice Loss	SM: 0.02 dB/ MM 0.01 dB/ DS: 0.04 dB I NZDS 0.04 dB / G.657 0.02 dB (ITU-T Standard)
Return Loss	≥ 60 dB
Lighting	3 White LEDs
Splicing Time	Quick mode: 6 s
Estimated Splice Loss	Available
Heating Sleeve Length	20 ÷ 60 mm
Heating Time	Quick heating time 13s, typical heating time: 30s
Results Storage	The last 2000 results
Tension Test	1.96 ÷ 2.25 N
Operating Condition	Altitude: 0 ÷ 5000 m above sea level, 0 ÷ 95% relative humidity, temperature -10° ÷ +50 °C. Max Wind 15m/s
Storage Condition	0 ÷ 95% relative humidity, temperature -40°C ÷ 80°C
Display	90° bi-directional view, 5.0” Color High Resolution Display
Fiber View & Magnification	X, Y, XY, X/Y 500X Magnification
Power Supply	Input 100 ÷ 240 Vdc, Output 12 ÷ 15 Vdc
N° of Splice/Heating	Typical 250 times (Splice + Heat) with 5200 mAh battery capacity
Operating Methods	Button/Touch Screen
Automatic Calibration	Automatic ARC calibration by air pressure and temperature
Electrode Life	5000 arcs
Terminal	Mini USB 2.0

Standard accessories:
- Fusion splicer TMV9
- Fiber cleaver TMA9
- Battery
- Power adapter
- AC power line
- Back-up electrode
- Cooling tray
- Carrying case
- Carrying strap
- User manual
- Splicing test report
- Miller stripper
- Drop cable stripper
- Alcohol bottle

Main features:
- Backbone Core Alignment Fusion Splicer
- DACAS - Digitai Analysis Core Alignment Systems
- Integrateci fiber-adjust frame, performation is more stable
- Fiber type identification function
- V-groove precise alignment, high quality and low loss
- Auto-splicing mode, using friendly design
- 5” high resolution color LCD touch screen, 500x magnification, visible clearly with bare eyes
- Packed with detachable 5200 mAh battery, more than 250 times of splicing and heating
- High-power 3 white LEDs simplifies your work at night
- Detachable multifunction fixture, suitable for various fiber type
- Fiber endface melter & fusion splicer 2 in 1
- Dust-proof, water-proof, high temperature resistance, adapting to various altitude and harsh environment

Fiber Clever TMA9

Borsa e accessori

Fusion Splicer TMV9

Splicer Master TMFSTV5N - Core Alignment 4 Motors

4 MOTORS

OSD ITALIANO INGLESE

LCD 3.5”

TOUCH SCREEN

SPECIFICHE	SPLICER MASTER TMFSTV5N
Dimension	200 x 230 x 120 mm (including rubber bumper)
Weight	1200 g (including rubber bumper)
Operating Methods	Button / Touch Screen
Applicable Fibers	SM (ITU-T G.652&G.657) / MM (ITU-T G.651) / DS (ITU-T G.653) / NZDS (ITU-T G.655)
Compatible Fiber/Cable	0.25 ÷ 3.0 mm / Indoor Cable
Cleaved Length	Coating Diameter 0.125 ÷ 1 mm / Cleave Length: 8 ÷ 16 mm
Automatic Calibration	Automatic ARC calibration by air pressure and temperature
Splicing Mode	Preset 41 splicing modes, max 100 modes
Heating tank	Preset 5 kinds of thermal heating tube (20/30/40/50/60 mm), max 100 modes
Typical Splice Loss	SM: 0.03dB / MM: 0.02dB / DS: 0.05dB / NZDS 0.05dB / G.657 0.03 dB (ITU-T Standard)
Return Loss	≥ 60dB
Lighting	2 powerful white LEDs
Splicing Time	SM fast mode: 6 s
Estimated Splice Loss	Yes
Protection Sleeve Length	20 ÷ 60 mm
Heating Time	Fast heating time: 13 s, typical heating time: 30 s
Results Storage	2000 latest records & 200 images
Tension Test	1.5 ÷ 2.0 N
Operating Condition	Operating Altitude: 0 ÷ 5000 m above sea level, 0 ÷ 95% relative humidity, temperature -10° ÷ 50° C, max wind 15 m/s
Storage Condition	0 ÷ 95% relative humidity, temperature -40° ÷ +80° C
Display	3.5” Color High Resolution display with touch screen
Fiber View & Magnification	X, Y, XY, X/Y 380x Magnification
Power Supply	Input 100 ÷ 240 Vac, Output 12 ÷ 15 Vdc
Battery Capacity	4000 mAh
Heating times	Typical 120 times (Splicing + Heating)
Fiber alignment	Core alignment
Electrode Life	5000 arcs
Terminal	Mini USB 2.0

Standard accessories:

- Fusion splicer TMFSTV5N
- Fiber cleaver TMA9
- Battery
- Power adapter
- AC power line
- Back-up electrode
- Cooling tray
- Carrying case
- Carrying strap
- User manual
- Splicing test report
- Miller stripper
- Drop cable stripper
- Alcohol bottle

Main features:

- Industrial 4-motors driving, high quality and low loss
- 3,5” high resolution LCD touch screen, 380x magnification, visible clearly with bare eyes
- Packed with detachable 4000 mAh battery, more than 200 times of splicing and heating
- Auto-splicing mode, with integrated fiber-adjust frame, for more stable performance
- 2 high-power white leds and illuminated keypads simplifies your work at night
- Smart connecting with Internet
- Dust-proof, water-proof, high temperature resistance, adapting to various altitude and harsh environment

Fiber Clever TMA9

Borsa e accessori

Fiber Splicer TMFSTV5N

TMA8

Taglierina professionale mod. A8 per giuntatrice. Nuovo modello, compatta e leggera.

TMA9PRO

Taglierina professionale mod. A9+ Pro per giuntatrice, con apertura automatica coperchio raccogli spezzoni fibre.

TMSOC

Fusion splicer holder per connettori rapidi SOC.

TMBATT52

Pacco batterie aggiuntivo da 5200 mAh.

TMDSS48

Caricabatterie per giuntatrici modello TMFST18H, TMFST18S, TMFST83A, TMV6, TMV9.

TMELECTRODE

Coppia elettrodi di ricambio per giuntatrici.

TMBLADE

Lama di ricambio per taglierina professionale, vari modelli.

TMSTBAGS

Borsa rigida piccola per giuntatrici con display da 4,3” (TMFST18H, TMFSTV5N).

TMSTBAG

Borsa rigida grande per giuntatrici con display da 5,0” (TMFST18S, TMFST83A, TMV6, TMV9).

NVCOPMV26-10 - Optical Power Meter

SPECIFICHE	NVCOPMV26-10
Display Range	-70 ÷ + 25dBm
Accuracy	±0.2 dB
Calibrated Wavelenghts	850 / 1300 / 1310 / 1490 / 1550 / 1625 nm
Resolution	0.01 dB
OPM Connector	2.5 mm universal
Wavelenghts Response Range	700 ÷ 1700 nm
PD Type	InGaAs
Modulation Test	270 Hz /1 KHz / 2 Khz
Data Storage	Yes
Battery	Rechargeable Li-ion
VFL Connector	2.5 mm
VFL Power LED	10 mW
Automatic shutdown	10 min
Size	89 x 180 x 42 mm
Storage Temperature	-25° ÷ +70° C, < 90% RH
Operating Temperature	-10° ÷ +60° C, < 90% RH

Main features:
- OPM with trace data storage
- 10 mW VFL for fast fault location
- Automatic standby
- Build in lithium-ion battery

Input adapters:
- FC adaptor
- SC adaptor

YOPM58+ - Multi-Function Optical Power Meter

SPECIFICHE	YOPM58+
Display Range	-50 ÷ +26dBm
Accuracy*	±0.2 dB
Calibrated Wavelenghts	850 / 1300 / 1310 / 1490 / 1550 / 1625 nm
Resolution	0.01 dB
OPM Connector	2.5 mm universal
Wavelenghts Response Range	700 ÷ 1700 nm
PD Type	InGaAs
Modulation Test	270 Hz / 1KHz / 2 Khz
Data Storage	Yes
Battery	450 mAh
VFL Connector	2.5 mm
VFL Power LED	10 mW
RJ-45 Cable Test	Yes
Size	59 x 98 x 27 mm
Weight	100 g
Storage Temperature	-20° ÷ 60° C, < 90% RH
Operating Temperature	-10° ÷ 50° C, < 90% RH

*at 20° ±3° C, CW, with FC connector, -10dBm

Main features:
- OPM with 500 trace data storage
- 10 mW VFL for fast fault location
- LED light for dark environment, RJ-45 net cable testing
- Micro USB charging, build in lithium-ion battery

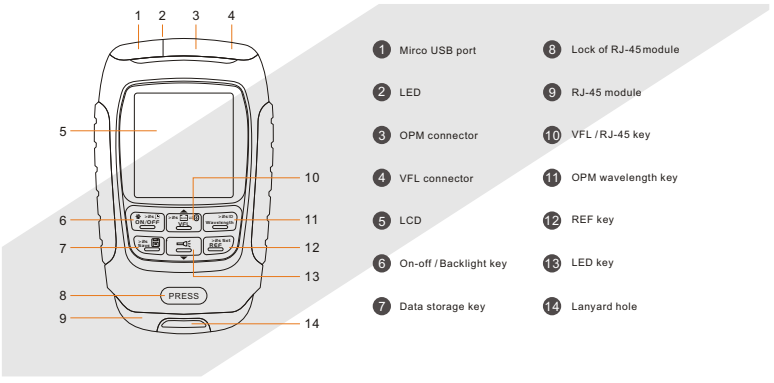
Accessories:


Host


Box


USB cable

Structure:



YAOP100C-V10, YAOP110C-V10 - Optical Power Meter

SPECIFICHE	YAOP100C-V10	YAOP110C-V10
Display Range	1310 / 1490 / 1550 / 1625: +26 ÷ -50 dBm 850 / 1300: +26 ÷ -40 dBm	1310 / 1490 / 1550 / 1625: +26 ÷ -50 dBm 850 / 1300: +26 ÷ -40 dBm
Accuracy	±0.2 dB	
Calibrated Wavelenghts	850 / 1300 / 1310 / 1490 / 1550 / 1625 nm	
Resolution	0.01 dB	
Connector	FC & 2.5 mm UPP (option: SC, ST)	
REF	Yes	
Automatic Power Off	No operation in 10 minutes (can be canceled), low battery energy	
Build in VFL	1 or 10 mW	
Data Storage	1000 traces	
Threshold setting	10 sets (colorful reading for pass/fail)	
User defined wavelenghts	10	
Manual Calibration	Yes	
Wave ID Detect	Yes (work with AOS210 laser source)	
Battery Charge	Yes	
Data Transfer	USB	
Real Time Monitor	10 minutes to 360 days. Interval: 0.5, 2, 15, 60, 180, 600s	
Battery Life	Above 50 hours	
Power Supply	AA x 3 batteries or AC/DC power supply by USB cable	
Size	170 x 97 x 38 mm	
Weight	About 380 g	
Storage Temperature	-20° ÷ +60° C, < 90% RH	
Operating Temperature	-10° ÷ +50° C, < 90% RH	

Main features 100C:

- FC, SC, ST adapters and 2.5mm UPP
- Data storage
- 7x24 real-time test on PC (optional)
- Built-in VFL
- Energy save mode
- Data transfer (optional)
- Reference value storage
- Power autonomy of 100 hours
- Wavelenghts 850 / 1300 / 1310 / 1490 / 1550 / 1625 nm
- One-year warranty and Three-year recommended calibration interval

Main features 110C:

- Normal OPM mode and AUTO TEST OPM mode
- WAVE ID mode and AUTO WAVE ID mode
- Multi-wavelengths display in AUTO TEST mode
- 10 sets of user defined wavelengths
- Thereshold setting (colorful reading for Pass/Fail)
- Manual calibration
- USB connect opm amd 7x24 real-time test on PC
- 1000 traces of Data Storage
- Built-in VFL
- Wavelenghts 850 / 1300 / 1310 / 1490 / 1550 / 1625 nm
- One-year warranty and Three-year recommended calibration interval

YBML-21LIV10, YBML-21LIV30 Multi-Function VFL

SPECIFICHE	YBML-21LIV10 / YBML-21LIV30
Output Power	>10 mW / >30 mW
Dynamic Distance	>8 ÷ 10 Km
Wavelength	650 nm ±15 nm
Operation Mode	Pulsed (2 Hz) and CW
Connector	2.5 mm UPP (or customize 1.25 mm UPP)
VFL Output Power	10 mW / 10, 20, 30 mW
VFL Glint	Yes
LED Light	6 Led
Power Bank	LG 3350 mAh Rechargeable battery
Power Bank Output	5 Vdc - 1 A
Size	131 x 27 x 27 mm
Weight	113 g

Main features:

- Bright red laser at 650 nm
- Pulsed and CW operation
- Multi-wavelength testing and display
- LG 3350 mAh Rechargeable Battery
- Fast locate the broken point
- Aluminium Alloy Body
- 2.5 mm universal connector

Accessories

Soft Bag

USB cable

Led ight

Power Bank

Anti-misoperation

Rechargeable Battery

YAOS200 - Optical Laser Source MM-SM

Main features:

- 1 ÷ 3 wavelengths + VFL
- High stabilization, built-in optic isolator
- 270 Hz, 1 Khz, 2 Khz modulation output
- Wave ID output, work with Tribrer YAOP100-YAOP110
- Built in VFL (optional)
- Energy save mode
- One-year warranty and Three-year recommended calibration interval

SPECIFICHE	M8	M3	S3	S4	S5	S6	V01	V10
Wavelenghts (nm)	850	1300	1310	1490	1550	1625	1 mW VFL	10 mW VFL
Stabilization	±0.05 dB / 1 hour; ±0.1 dB / 8 hours							
Output Power	> -6 dBm@1310 / 1490 / 1550 / 1625 nm / > -10 dBm@850 / 1300 nm							
Modulation	270 Hz, 1 Khz, 2 Khz							
Connector	FC / PC (or customize)							
Automatic Power Off	No operation in 10 minutes (can be canceled), low battery energy							
Build in VFL (Optional)	1 or 10 mW or customize							
Wave ID	Yes							
Battery Charge	Yes							
Operate Time	Above 16 hours							
Power Supply	AA x 2 batteries or AC/DC power supply adapter							
Size	170 x 97 x 38 mm							
Weight	About 380 g							
Storage Temperature	-20° ÷ +60° C, < 90% RH							
Operating Temperature	-10° ÷ +50° C, < 90% RH							

YAPA-L500SSC, YAPA-L500MSC - Fiber Launch Cable

SPECIFICHE	YAPA-L500
Fiber Type	SM / G.657A / MM OM3
Connector Type	FC / SC
Polishing Type	APC / UPC selectable
Material	SR Polypropylene
Color	Yellow
Weight	1 Kg (package included)
Size	27.5 x 15.3 x 7.6 cm
Operating Temperature	-40° ÷ +55° C
Typical Loss	<0.5 dB@1310 nm for 100 m

YAPL-2-8335 OTDR Platform

SPECIFICHE	YAPL-2-8335
LCD	7“ color LCD, multi-touch screen
Connector	FC / PC (850 / 1300 / 1310 / 1550), FC / APC (1625) interchangeable adapter or customize
Pulse Width	5, 10, 25, 100, 250, 500 ns / 1, 2.5, 5, 10, 20 us
Attenuation Dead Zone	7.0 m
Event Dead Zone	1.5 m
Min. Distance Resolution	0.1 m
Loss Resolution	0.001 dB
Distance Uncertainly (m)	± (0.8 + 0.005% * Testing Distance + Resolution)
OPM Function	+26 ÷ -50 dBm, 850 / 1300 / 1310 / 1490 / 1550 / 1625 nm, FC or SC adapter
VFL Function	10 mW
Storage	> 10000 results (SOR or PDF)
Battery	7.4 Vdc - 4.6 Ah Rechargeable lithium-ion batteries
Size (HxWxD)	246.5 x 173.5 x 70 mm
Weight	About 1.55 Kg
Storage Temperature	-20° ÷ +60° C, < 90% RH
Operating Temperature	-10° ÷ +50° C, < 90% RH

Main features:

- Built-in VFL and OPM
- 7 inch color LCD, Multi-touch screen
- Multi-wavelength testing and display
- User-friendly OTDR simulation software shows details of events
- Max. 5 wavelengths, 850 / 1300 / 1310 / 1550 / 1625 nm
- Input laser signal auto detection and self-protection function

EXTENDABLE OPTIONAL FUNCTIONS	
Function code	Function description
GPS	Display the longitude and latitude position outdoor
VIP	Display the surface of connector by video inspection probe
OLA	Multipulse test using a mix of short, medium and long pulses
TA	Triaxial accelerometer
TH	Hygrothermograph
WF	Wi-Fi
BT	Bluetooth

Accessories:

YAPL-2-8335

Instruction CD (M700)

Calibration Certificate

AC Cable (ACC-700)

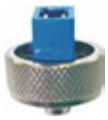
AC/DC Adapter (ADC-700)

Carrying Bag (CBG-700)

Optional:

FCU = FC/UPC
FCA = FC/APC

SCU = SC/UPC
LCU = LC/UPC



LCU = LC/UPC

OTDR MODULE				
850 / 1300 nm	AOR502M1	26 / 26 dB	1.5 / 7 m	5 ns ÷ 1 µs / 5 ns ÷ 5 µs
850 / 1300 / 1310 / 1550 nm	AOR502A-M1	26 / 26 / 40 / 38 dB	MM: 1.5 / 7 m SM: 1 / 6 m	5 ns ÷ 1 µs / 5 ns ÷ 5 µs@MM 5ns ÷ 20 µs@SM

YAOT600 - OPTICAL TALK SET

SPECIFICHE	YAPL-2-8335
Wavelenght	A: 1310 nm - B: 1550 nm
Operating style	Full duplex communication
Output power	> -5 dBm
Fiber type	SM
Dynamic range	SM fiber 45 dB
Dynamic distance	SM fiber > 120Km
Connecting adapter	FC / PC
Battery charge	Optional
Operate time	Above 12 hours
Power supply	2x AA batteries or AC adapter
Size (HxWxD)	170 x 97 x 38 mm
Weight	About 380 g
Storage Temperature	-20° ÷ +60° C, < 90% RH
Operating Temperature	-10° ÷ +50° C, < 90% RH

Main features:

- Talk by connecting with fiber
- High quality Full-duplex communication
- Light source capabilities
- Wide dynamic range: 45dB
- Large dynamic distance: >120km
- Long/short mode for different distance

The optical fiber telephone achieves Full-duplex communication in single fiber by using WDM (Wavelength Division Multiplex) Technology. Optical Talk Set YAOT600 is designed to help technicians keep communication during optic fiber installation and maintenance via fiber optic cable.

Accessories standard:

YAOT600

Earphone and mic

Carrying Bag

Calibration Certificate

User manual

Optional:

AC/DC Adapter

OPPM800 - Power Meter

SPECIFICHE	OPPM800
Generali	
Dimensions	165 x 80 x 40 mm (with TEADP-250 adapter)
Weight	240 g (with battery)
Operation Temperature	-10° ÷ +50° C
Storage Temperature	-40° ÷ +70° C
Humidity (non-condensating)	0% ÷ 95%
Power Meter	
Detector	InGeAs
Detector Size	1 mm
Wavelength Range	850 ÷ 1625 nm
Calibrated Wavelengths	850 / 1300 / 1310 / 1490 / 1550 / 1625 nm
Dynamic Range	-65 ÷ +10 dBm
Uncertainty	±5 % 1310 / 1550 nm at -20 dBm
Resolution	0.01
Tone Detection	0.270 Khz / 1 Khz / 2 Khz
Auto Switching (AWD)	Yes
Data Storage	Up tp 3000
AWD /Modulation Detection	-50 ÷ -45 dBm / 1300 ÷ 1625 nm
Display Units	dBm, dB, W

The **OPPM800** is a part pf Optokon test equipment designed for through fiber line diagnostic. It is designed to measure absolute or relative optical power in optical networks. It can be used as portable power meter or as a USB probe. The changeable adaptor design allows the simple exchange of optical connectors according to actual need.

Automatic Wavelength Detection
Automatic Wavelength Detection (AWD) Mode allows using Optokon Light source and Power meter without manually switching the measured wavelength and decreases the possibility of faulty measurement.

Cycle Mode
Cycle Mode allows the device to automatically toggle between available wavelengths.

ACCESSORIES	
OPADPFC	FC output adaptor
OPADPLC	LC output adaptor
OPADPSC	SC output adaptor
OPADP250	2.5 mm universal adaptor
OPADP125	1.25 mm universal adaptor
OPHC03	Rigid carrying case
OPHP27/NPC	High power probe, FC / APC connectors

Features:
- Standalone Power Meter
- InGaAs or Si photo detector
- CW, 270 Hz, 1 Khz, 2Khz Modulation
- Auto Wavelength Detection (AWD) Mode
- Changeable input adaptors
- Absolute and relative optical power measurement
- Cycle Mode
- USB probe mode
- Two levels high capacity memory

Application:
- Link Loss Characterization
- Measurement of optical power
- Output power of transceivers
- Fiber Detection
- Continuous fiber testing
- Signal detection
- USB probe

Standard accessories:
- Power Meter
- Universal 2.5 mm testing adaptor
- USB cable
- NiMH batteries
- Power charging adapter 220 Vac / 5 Vdc
- Calibration certificate
- Hard carrying case
- Smart Protocol PC software
- Data Exporter PC software

Input adapters:


OPADPFC (FC adaptor)


OPADPLC (LC adaptor)


OPADPSC (SC adaptor)


OPADP250 (2.5 mm)


OPADP125 (1.25 mm)

OPLS800MS4 - Light Source

The **OPLS800MS4** is Optokon test equipment designed for thorough fiber line diagnostics. The laser source is available in various wavelengths. The model with one or two outputs with two light sources on each port provides a maximum of 4 wavelengths in one device.
The changeable adaptor design allows the simple exchange of optical connectors according to actual needs.

Automatic Wavelength Detection
Automatic Wavelength Detection (AWD) Mode enables to use the Optokon Light Source and Power Meter without manually switching the measured wavelength and prevents faulty measurement.

Cycle Mode
Cycle Mode allows the device to automatically toggle between available wavelengths.

Features:
- Standalone light source
- Up to 4 channel light source
- Modulation CW, 270 Hz, 1 kHz, 2 kHz
- Auto Wavelength Detection (AWD) Mode
- Changeable output adaptors
- Auto Off feature
- Cycle mode

Standard accessories:
- Light source
- FC adapter
- USB cable
- Calibration certificate
- Power charging adapter 220 Vac / 5 Vdc
- Hard carrying case
- Rubble cover
- NiMH batteries

Application:
- Link Loss Characterization
- Fiber Detection
- Continuous fiber testing
- Visual fault locator

Output adapters:


OPALSFC


OPALSSC


OPALSST

TECHNICAL SPECIFICATIONS	OPLS800MS4
Generali	
Dimensions	165 x 80 x 40 mm (with OPASPFC adapter)
Weight	340 g (with battery)
Operation Temperature	-10° ÷ +50° C
Storage Temperature	-40° ÷ +70° C
Humidity (non-condensating)	0% ÷ 95%

TRANSMITTER SPECIFICATIONS

Code marketing	Wavelength	Output Power	Stability	Note
LD650	650 nm	0 dBm	N/A	Visible light
LD850	850 nm	0 dBm	± 0.03 dB	Laser
LD31	1310 nm	0 dBm	± 0.05 dB	Laser
LD49	1490 nm	0 dBm	± 0.05 dB	Laser
LD55	1550 nm	0 dBm	± 0.05 dB	Laser
LD62	1625 nm	0 dBm	± 0.05 dB	Laser

ACCESSORIES	
OPALSFC	FC output adaptor
OPALSSC	SC output adaptor
OPALSST	ST output adaptor
OPHC03	Hard carrying case

STANDARD MODELS	
OPLS800-P2-FC-LD850-30 / LD31-55	FC adaptor, Port 1: 850 nm + 1300 nm laser Port 2: 1310 nm + 1550 nm laser
OPLS800-P2-FC-LD31	FC adaptor, Port 1: 1310 nm laser
OPLS800-P2-SC-LD55	SC adaptor, Port 1: 1550 nm laser
OPLS800-P2-SC-LD850-LD30 / LD31-55	SC adaptor, Port 1: 850 nm + 1300 nm laser Port 2: 1310 nm + 1550 nm laser

OPPM215-G - Power Meter

Right-Left hander change

SPECIFICATIONS	OPPM215-G
General	
Dimensions	95 x 47 x 27 mm (with output adapter)
Weight	150 g (with battery)
Operation Temperature	-10° ÷ +60° C
Storage Temperature	-40° ÷ +70° C
Humidity (non-condensating)	0 ÷ 95 %
Power Meter	
Detector	InGaAs
Wavelength Range	850 ÷ 1700 nm
Calibrated Wavelengths	850 / 1300 / 1310 / 1490 / 1550 / 1625 nm
Dynamic Range	-60 ÷ +16 dBm
Accuracy	±5 % (1310 / 1550 nm at -20 dBm)
Resolution	0.01 dB
Data Storage	Up to 100 measurements
Display Units	dBm, dB, W

The **OPPM215-G** optical power meter is a small, pocket size low cost item. The small size does not prevent the optical meter fulfilling all technical requirements for field equipment. The tester can be used as pocket power meter or as USB probe, part of testing workstation. It can be placed within rack mount ODF's with the display on the top or on the side. The Li-Pol rechargeable battery ensures long term working time with a minimum life time of 2 years.
The unit is able to store 100 measurements which can be uploaded. to PC and managed with SmartProtocol software or Data Exporter.

ACCESSORIES	
OPADPFC	FC output adaptor
OPADPLC	LC output adaptor
OPADPSC	SC output adaptor
OPADPST	ST output adaptor

Features:
- Two functions:
  - Portable power meter
  - USB probe - accessory of Testing Workplace
- Small size, light weight
- Rotate display - switchable function (right/left-hander use)
- Backlight option
- SM and MM fiber testing
- Six working wavelengths
- Absolute and Relative optical power measurement
- Internal 2 level memory, capacity up to 100 measurements
- SmartProtocol SW – Test reports creating
- Data Exporter – data download to Excel sheet
- USB port for:
  - USB probe - full control via simple commands
  - charging the battery
  - data upload to PC
  - firmware upgrade
- Build-in Li-Pol rechargeable battery
- Battery status indicator, Auto Off

Standard accessories:
- Power Meter
- Changeable input adaptors
- USB cable
- Li-Pol battery
- Power charging adapter 220 Vac / 5 Vdc
- Calibration certificate
- Hard carrying case
- Smart Protocol PC software
- Data Exporter PC software

TEHC215-G

Application:
- Link Loss Characterization
- Measurement of optical power
- Output power of transceivers
- Fiber Detection
- Continuous fiber testing
- Signal detection
- USB probe

Input adapters:

OPADPFC (FC adaptor) | OPADPLC (LC adaptor) | OPADPSC (SC adaptor) | OPADPST (ST adaptor)

OPLS215-G - Light Source

The **OPLS215-G** optical Light Source is a small size low cost item which fulfils all necessary technical field equipment requirements. Available of working wavelengths 850/1300 for multimode or 1310/1550 nm single mode applications or a visible 650 nm laser source. The rechargeable battery ensures long term working, with a minimum life time of 2 years. Batteries can be charged via a USB port or external AC/DC adaptor.

The universal output port allows the easy installation of optical adaptors FC, SC, or ST widely used in telecommunications, data and industry networks. The output port is designed for connection of PC polished connectors.

The **OPLS215-G** light source can be used in cooperation with the new **OPPM215-G**, the same smallest design optical power meter for measurement of Insertion loss and evaluation of power budget in optical networks.
The tester is equipped with USB port, for battery charging and for PC control.

SPECIFICATIONS	OPLS-15-G
General	
Dimensions	95 x 47 x 27 mm (with output adapter)
Weight	55 g (with battery)
Operation Temperature	-10° ÷ +50° C
Storage Temperature	-40° ÷ +70° C
Humidity (non-condensating)	0 ÷ 95 %
Battery working time	>7 hours
Battery life time	> 2 years
Output Power	
LD 650nm	-5 dBm (FC adaptor)
LD 850nm, 1300nm	-5 dBm (FC adaptor)
LD 1310nm, 1550nm	-5 dBm (FC adaptor)
Stability	
LD 850nm, 1300nm	± 0.1 dBm
LD 1310nm, 1550nm	± 0.05 dBm
Data Storage	Up to 100 measurements
Display Units	dBm, dB, W

Changeable adaptors

ACCESSORIES	
OPADPFC	FC output adaptor
OPADPSC	SC output adaptor
OPADPST	ST output adaptor

Features:
- Single or Dual wavelength output
- Smallest size, light weight
- Wide range of output adapters
- USB port:
  - PC control
  - Battery charging
- Powered by Li-Pol type battery
- Battery status indicator
- 10 min Auto Off
- Protection rubber cover

Application:
- Link Loss Characterization
- Fiber Detection
- Continuous fiber testing
- Visual fault locator

Standard accessories:
- Set of adapters: FC, SC, ST
- USB cable
- Power charging adapter
- Traceable calibration certificate
- Hard case TEHC215-G 265 x 270 x 90 mm

Options:
- Soft case TEEVA215-G, 130 x 32 x 80 mm

TEEVA215-G

Output adapters:

OPADPFC

OPALSSC

OPALSST

DT-A86 HD Combine Tester

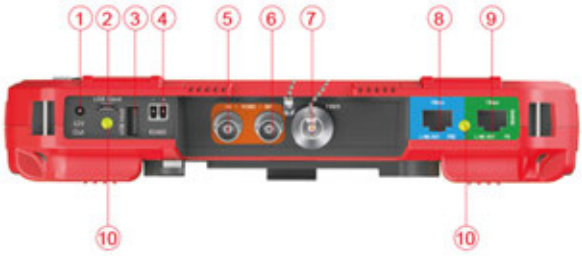
SPECIFICHE	DT-A86
IPC protocol	ONVIF, RTSP, RTP
IPC test	Discovering the device, real-time video, camera configuration, PTZ test, discovering ONVIF device cross the network segment
IPC image test	H265/H264 decoding, support 4K@30fps, local zoom preview (at 8 levels)
WiFi Spectrum test	Support 2.4G and 5G frequency band, spatial frequency band signal scanning and detection, and spatial noise (interference) signal detection
WiFi Signal monitoring	Support 2.4G and 5G frequency band quick monitoring of signal change, refresh frequency 1-10 Hz
POE test	The tester supplies the power. 802.3 at 25.5 W, PD actual power and voltage detection
Analog video test	Support format NTSC/PAL/HD-CVI3.0 standard /AHD3.0 standard /HD-TVI3.0 standard
Video input / output	BNC video 1 Vpp
Video digital zoom	Support zoom at 8 level
Video signal generator	Sending PAL/NTSC video test signal, sending CVI, AHD and TVI video test signal (720p/1080p)
HDMI signal test In/Out	720p 25/30/50/60 fps 1080p 25/30/50/60 fps
Audio test	1 x Audio signal input
Coaxial PTZ control test	Video IN BNC interface
Coaxial PTZ protocol	CVI protocol (Dahua coax), AHD protocol (Pelco c) and TVI protocol (Hikvision)
485 PTZ control test	More than 30 protocols, including Pelco-D/P, Samsung, Panasonic, Lilin and Yaan
Baud rate	150, 300, 600, 1200, 2400, 4800, 9600 and 19200 bps
WiFi test	Support 2.4 Ghz e 5Ghz frequency band, connection information (delay detection, packet loss and rate)
Ethernet test	10/100/1000 detection - Loop, DHCP, traffic, quality
TDR cable test	Testing the length of network cable (4 pairs). Resolution: 0.1 m; Accuracy: 1 m The maximum length of the measured cable is 130 ÷ 200 m (depending on the wire rod)
POE test	The tester receive/supplies the power. 802.3at 25.5 W max, PD actual power detection
Head led	2x 35 lm LED, wide angle
Interface	Dual-port RJ45 Ethernet 1 Gbs, support serial connection
Display	7.0" TFT 1920x1200 resolution - 16.7 M color
Battery	2x lithium battery pack capacity of 18.5 Wh
Power supply	12 Vdc - 1.5 A - Charging time 3/4 hours
Power saving	Auto power off setting
Working humidity	30 ÷ 90%
Working temperature	-10° ÷ +55° C
Dimension (HxWxD)	236.5 x 133.4 x 45.4 mm

NEW item

Main features:

- Built-in 2 Lithium batteries, POE power supply, 12 Vdc - 2 A power output
- 7 inch color LCD, Full HD, touch screen
- Multifunction tester: WiFi/Air spectrum and signal test (using dual antenna omnidirectional), ONVIF test, 4K CVI/AHD/TVI camera test, Signal generator, Cable TDR test, Digital multimeter, Optical power meter

1	RESET	"Reset" button: If necessary, use ball-point pen or other appropriate small tools to press down the keys inside the small hole to restart the tester.
2	AUDIO	Audio input port: 3.5MM Audio input port.
3	DC12 CHARGE	12V/2A charging interface
4	DMM FUSE	Multimeter fuse: It can be replaced after having been fused.
5		Digital multimeter, Headset and extension interface
6		Digital multimeter, Measuring current (AC / DC)
7		Digital multimeter, Common interface
8		Digital multimeter, Measure voltage (AC / DC), resistance, capacitance, diode, and circuit ON/OFF.
9	OUT PUT HDMI	Output HDMI test signal
10	IN PUT HDMI	Input HDMI test signal



1	12V/2A output jack. Outer diameter: 4mm, Inner needle: 1.65mm.
2	MICRO USB jack. It is used to connect with the computer host.
3	USB HOST extension interface
4	RS485 control output. It is used for PTZ control.
5	Analog video input BNC connector
6	Analog video output BNC connector
7	Fiber connector for optical power meter
8	Network port 1 (blue), with POE power supply output function.
9	Network port 2 (green), with POE power supply input detection function, which is also the device charging input port.
10	LED lighting (flashlight)

Signal generator / Camera test / HDMI signal test

DT-A86 HD Combine Tester

OSD italiano

Digital multimeter is a combination of varius electrical measuring instruments, with data recording function for later analysis

ONVIF test to discovering, acquiring and display the camera
Support PTZ control and configuration camera

Optical power meter of laser transmission, with calibration, data recording and saving report to eliminated intermittent problems
The wavelenght range covers 850 ÷ 1625 nm

WiFi /Air spectrum - WiFi Tools to detect and monitoring signal at 2.4/5.0 Ghz frequency band

Cable TDR to test/measure lenght/connection of RJ45 cable POE test

Accessories:

Carrying Bag

Multi Cable

AC/DC Adapter

Batteries

STKFK03

Kit con accessori per la pulizia della fibra ottica.

Ogni borsa in tessuto contiene:
- 2x flaconi di solvente per pulizia
- 1x mini vaschetta di CleanWipes ™ (conf. 90 pezzi)
- 1x confezione di CleanWipes™ (conf. 400 pezzi)
- 25x salviette CleanWipes™
- 50x tamponi CleanStixx™
- 1x torcia LED ad alta luminosità

STKS25

Stick di pulizia per ghiere di 2,5 mm (SC, FC, ST, etc.). Confezione da 50 pezzi.

STKS12

Stick di pulizia per ghiere di 1,25 mm (LC). Confezione da 50 pezzi.

STKPOC03M, POC10M

POC03M - 85 g
POC10M - 280 g

Flacone di solvente per la pulizia di connettori fibra ottica. Asciugatura rapida.

STKWCS100

Confezione di salviette ad alta assorbenza per la pulizia di jumpers e connettori.

STKWFW

Confezione da 400 salviette in poliestere per la pulizia di fibra ottica e connettori.

STKDS147

Spray per la rimozione di particelle e polvere di fibra ottica, oltre che per la pulizia di aree difficilmente accessibili.

MOFCJ005

Termorestringente per fibra 35 mm. Confezione da 100 pezzi.

MOFCJ007

Termorestringente per fibra 45 mm. Confezione da 100 pezzi.

MOFCJ009

Termorestringente per fibra 60 mm. Confezione da 100 pezzi.

YTK3

FLARE Stripper per fibra a 3 fori professionale.

YTK6

Buff Tube Stripper 45-162, fino a 1/8”
Altezza lama regolabile

YTK21

Buff Tube Stripper 45-163, 1/8” a 7/32”
Altezza lama regolabile

FS149

FLARE Stripper per fibra a 3 fori professionale.

FF143

FLARE Forbice taglia kevlar.

FS147

FLARE Mini Stripper per fibra a 3 fori professionale.

FRWBFCTRACK

Gancio per trazione su bussola FC/PC per bretelle preterminate FC/FC.

YTK11

Spela fibre assiale.

YTK47

Pulisci connettori FC / LC / SC / ST
Fino a 500 pulizie per nastro.

YTK47R
Ricarica nastro di pulizia.

CONDOMINIO MULTISERVIZI - SOLUZIONI IN FIBRA OTTICA

DISTRIBUZIONE IN FIBRA OTTICA:

CEI 306-2 COMPLIANT

Digitale Terrestre
Digitale Satellitare
Collegamento Dati
Videocitofonia
Videosorveglianza
Canali TV Info Condominio

IMPIANTO IN FIBRA OTTICA REALIZZATO NELL'ANNO 2012

PESCARA - TORRI CAMUZZI

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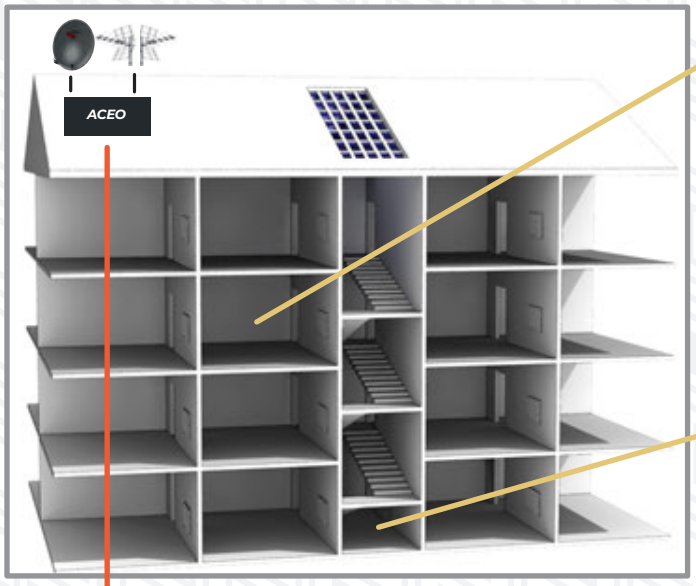
DISTRIBUZIONE FIBRA OTTICA IN CONDOMINIO CEI 306-2

(ACEO Armadio Conversione Elettrico Ottico - TETTO)



APPARTAMENTI

La STOA (scatola di terminazione ottica di appartamento) viene usata all'interno delle abitazioni: installazione all'interno del MQDSA

LOCALE TECNICO

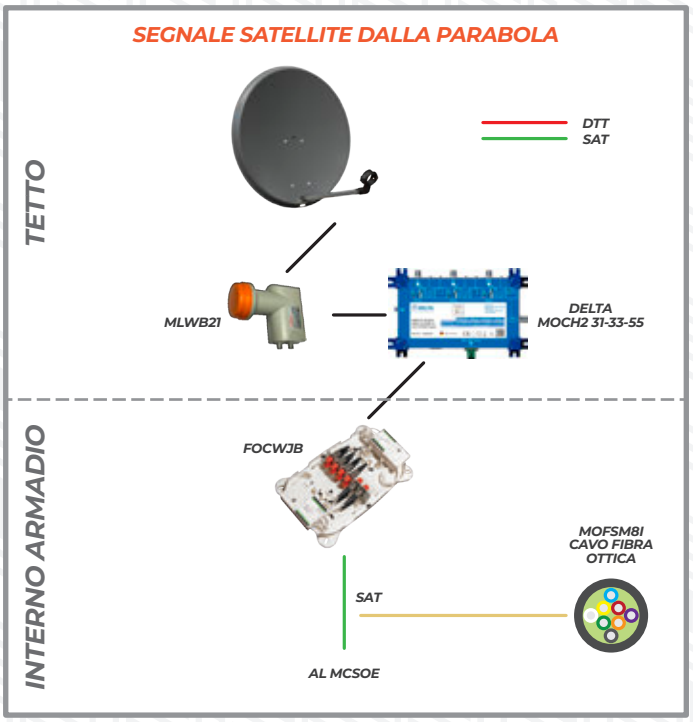
Nello scantinato o locale tecnico è presente il CSOE (Centro Servizio Ottico di Edificio) che connette le fibre provenienti da ogni STOA di appartamento alla fibra degli operatori.

TETTO

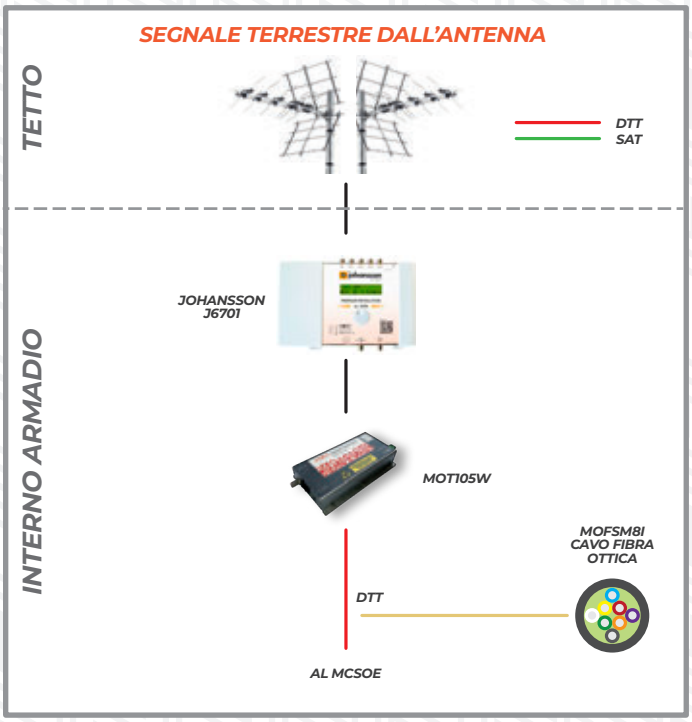
ACEO (Armadio Conversione Elettrico Ottica)

CEI 306-2 COMPLIANT

SEGNALE SATELLITE DALLA PARABOLA



SEGNALE TERRESTRE DALL'ANTENNA



SAT DTT

I DUE SEGNALI CONFLUISCONO IN UN SINGOLO CAVO FIBRA OTTICA MOFSM8I

NOVATEC EUROPE
Novatec Europe srl
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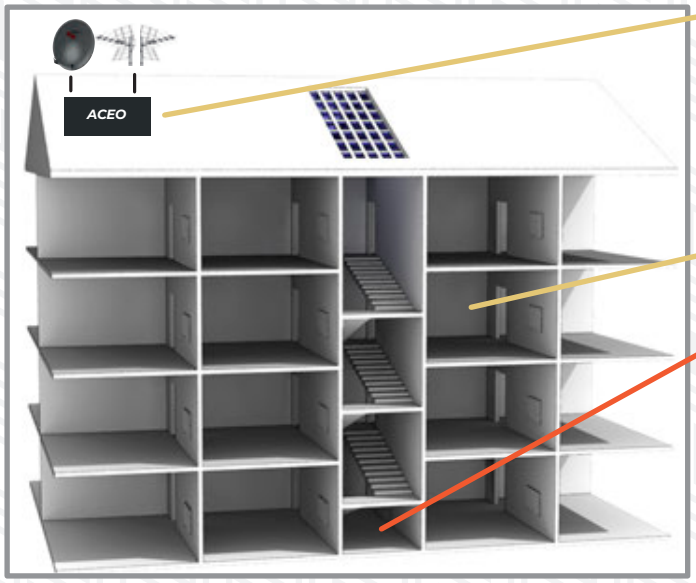
DISTRIBUZIONE FIBRA OTTICA IN CONDOMINIO CEI 306-2

(CSOE Centro Servizi Ottico di Edificio - LOCALE TECNICO)



TETTO

ACEO (Armadio Conversione Elettrico Ottica)

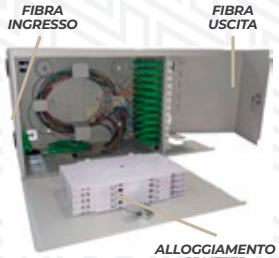
APPARTAMENTI

La STOA (scatola di terminazione ottica di appartamento) viene usata all'interno delle abitazioni: installazione all'interno del MQDSA

LOCALE TECNICO

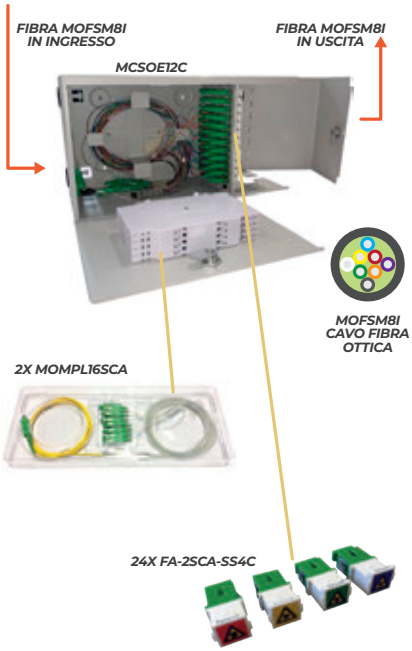
Nello scantinato o locale tecnico è presente il CSOE (Centro Servizio Ottico di Edificio) che connette le fibre provenienti da ogni STOA di appartamento alla fibra degli operatori.

MCSOE12C

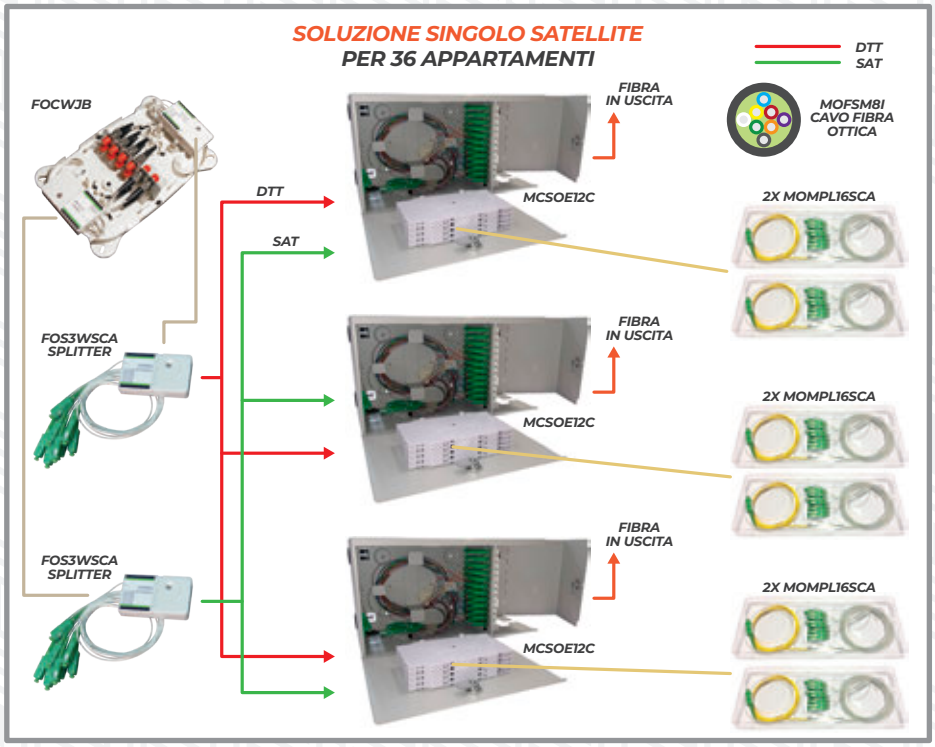


CEI 306-2 COMPLIANT

SOLUZIONE SINGOLO SATELLITE PER 12 APPARTAMENTI



SOLUZIONE SINGOLO SATELLITE PER 36 APPARTAMENTI



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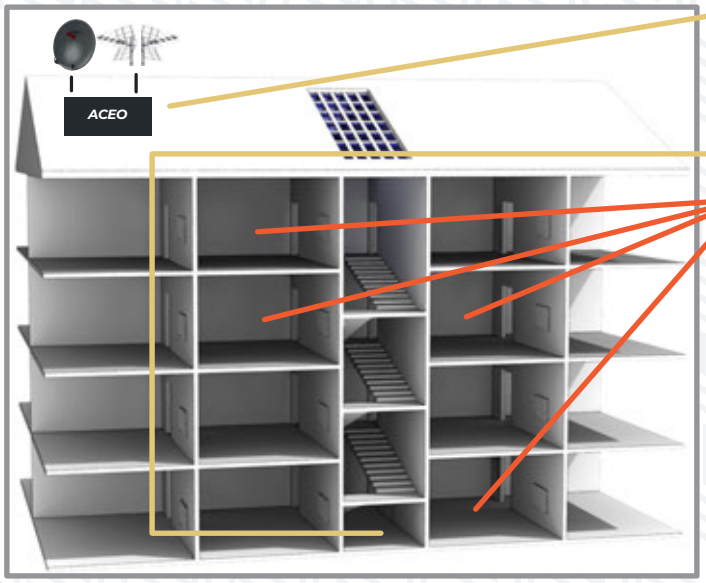
DISTRIBUZIONE FIBRA OTTICA IN APPARTAMENTO CEI 306-2

(QDSA Quadro Distributore Segnali di Appartamento - ABITAZIONE)



TETTO

ACEO (Armadio Conversione Elettrico Ottica)

LOCALE TECNICO

Nello scantinato o locale tecnico è presente il CSOE (Centro Servizio Ottico di Edificio) che connette le fibre provenienti da ogni STOA di appartamento alla fibra degli operatori.

APPARTAMENTI

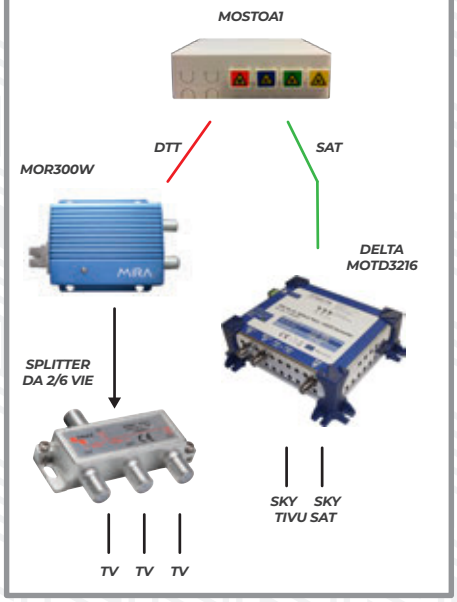
La STOA (scatola di terminazione ottica di appartamento) viene usata all'interno delle abitazioni: installazione all'interno del MQDSA

APPARTAMENTO

WTMS101

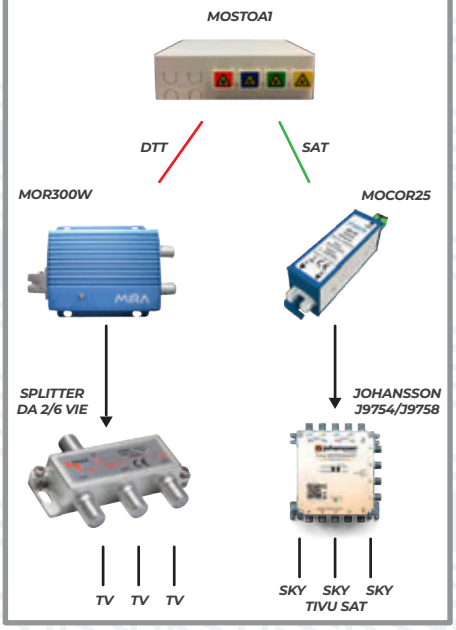
CEI 306-2 COMPLIANT

SOLUZIONE SINGOLO SATELLITE
4x DTT + 2x DECODER SKY Q 4x DECODER SAT SCR + 2x DECODER SAT



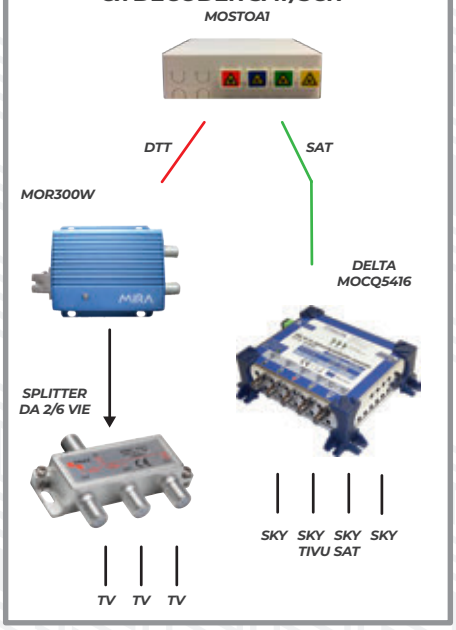
Compatibile con SKY Q, SKY HD, MY SKY HD, TIVU SAT, FTA

SOLUZIONE SINGOLO SATELLITE
4x DTT + 8x DECODER SAT SCR/DCSS



Compatibile con MY SKY HD, SKY HD, TIVU SAT, FTA

SOLUZIONE SINGOLO SATELLITE
4x DTT + 4x DECODER SAT/DCSS + 8x DECODER SAT/SCR



Compatibile con MY SKY HD, SKY HD, TIVU SAT, FTA

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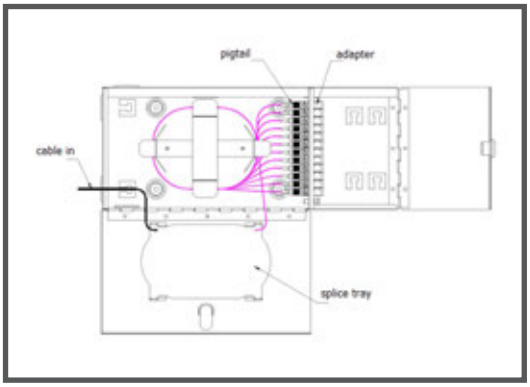
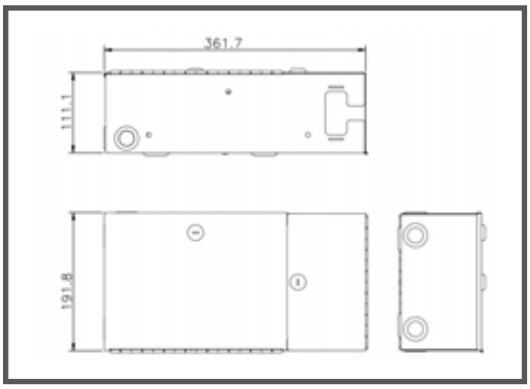
Fibra Ottica / Apparati Passivi
2024 Q2

INDICE

MCSOE12C, MCSOE8C - Centro Stella Ottico Edificio

CEI 306-2 COMPLIANT





MCOSE12C:
- cablato x 12 unità immobiliari;
- doppia apertura con chiusura a chiave;
- 2x 16 vie splitter + 48 adattatori SC/APC.

MCOSE8C:
- cablato x 8 unità immobiliari;
- doppia apertura con chiusura a chiave;
- 2x 8 vie splitter + 32 adattatori SC/APC.

PRODOTTO CORRELATO: NVC4SCA50STOA

PRODOTTI CORRELATI: MOSTOA1 MOSTOA8 MOSTOA12DIN

Kit assemblato STOA Single Mode 4 Fibre

CEI 306-2 COMPLIANT

KIT ASSEMBLATO STOA + FIBRA 4 CORE LSZH SINGLE MODE 9/125 COLORE BIANCO	
NVC4SCA15STOA	Kit preassemblato STOA + 15 m Fibra G657A2 con anello in Kevlar per trazione
NVC4SCA30STOA	Kit preassemblato STOA + 30 m Fibra G657A2 con anello in Kevlar per trazione
NVC4SCA40STOA	Kit preassemblato STOA + 40 m Fibra G657A2 con anello in Kevlar per trazione
NVC4SCA50STOA	Kit preassemblato STOA + 50 m Fibra G657A2 con anello in Kevlar per trazione
NVC4SCA70STOA	Kit preassemblato STOA + 70 m Fibra G657A2 con anello in Kevlar per trazione
NVC4SCA100STOA	Kit preassemblato STOA + 100 m Fibra G657A2 con anello in Kevlar per trazione

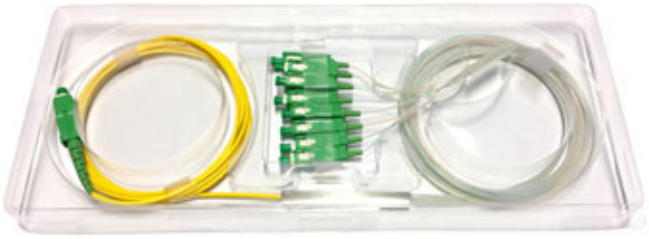
Fibra con STOA collegata

Kevlar per trazione

MOR-WDM A, MOR-WDM B

ACCOPPIATORI SINGLE MODE	
MOR-WDM A	Accoppiatore SM, 2 ingressi: 1310nm FC/PC / 1550 nm SC/APC, uscita FC/PC
MOR-WDM B	Accoppiatore SM, 2 ingressi: 1310nm FC/PC - 1490+1550 nm SC/APC, uscita FC/PC

SPLITTER PLC SC/APC - FC/PC - SC/PC



CEI 306-2
COMPLIANT

SPLITTER PLC – SC/APC	
MOMPL2SCA	Splitter PLC 1x2, Mini Module, tubo in acciaio, 0.9 mm, 1 m, SC/APC
MOMPL4SCA	Splitter PLC 1x4, Mini Module, tubo in acciaio, 0.9 mm, 1 m, SC/APC
MOMPL8SCA	Splitter PLC 1x8, Mini Module, tubo in acciaio, 0.9 mm, 1 m, SC/APC
MOMPL16SCA	Splitter PLC 1x16, Mini Module, tubo in acciaio, 0.9 mm, 1 m, SC/APC
MOMPL32SCA	Splitter PLC 1x32, Mini Module, tubo in acciaio, 0.9 mm, 1 m, SC/APC
MOMPL64SCA	Splitter PLC 1x64, Mini Module, tubo in acciaio, 0.9 mm, 1 m, SC/APC
MOMPL2FC	Splitter PLC 1x2, Mini Module, tubo in acciaio, 0.9 mm, 1 m, FC/PC
MOMPL4FC	Splitter PLC 1x4, Mini Module, tubo in acciaio, 0.9 mm, 1 m, FC/PC
MOMPL8FC	Splitter PLC 1x8, Mini Module, tubo in acciaio, 0.9 mm, 1 m, FC/PC
MOMPL16FC	Splitter PLC 1x16, Mini Module, tubo in acciaio, 0.9 mm, 1 m, FC/PC
MOMPL32FC	Splitter PLC 1x32, Mini Module, tubo in acciaio, 0.9 mm, 1 m, FC/PC
MOMPL64FC	Splitter PLC 1x64, Mini Module, tubo in acciaio, 0.9 mm, 1 m, FC/PC
MOMPL2SC	Splitter PLC 1x2, Mini Module, tubo in acciaio, 0.9 mm, 1 m, SC/PC
MOMPL4SC	Splitter PLC 1x4, Mini Module, tubo in acciaio, 0.9 mm, 1 m, SC/PC

PARAMETERS	1x2	1x4	1x8	1x16	1x32	1x64
OPERATING WAVELENGTH (nm)	1260 ÷ 1650					
FIBER TYPE	G657A1					
INSERTION LOSS (dB) (P/S Grade)	3.8	7.1	10.2	13.7	16.9	21.0
LOSS UNIFORMITY (dB)	0.4	0.6	0.8	1.2	1.5	2.0
POLARIZATION DEPENDENT LOSS (dB)	0.2			0.25	0.3	0.35
RETURN LOSS (dB) (P/S Grade)	55 / 50					
DIRECTIVITY (dB)	55					
WAVELENGTH DEPENDENT LOSS (dB)	0.3			0.5		
TEMPERATURE STABILITY (-40 ÷ 85°C) (dB)	0.4			0.5		
OPERATING TEMPERATURE (C)	-40 ÷ +85°					
STORAGE TEMPERATURE (C)	-40 ÷ +85°					
DEVICE DIMENSION (mm)	40 x 4 x 4			50 x 4 x 4	50 x 7 x 4	60 x 12 x 4
ABS MODULE DIMENSION (mm)	100 x 80 x 10			120 x 80 x 18		140 x 115 x 18
STEEL TUBE DIMENSION (mm)	60 x 7 x 4			60 x 12 x 4	80 x 20 x 6	100 x 40 x 6

1. Specified without connectors.
2. Add an additional 0.15 dB loss per connector.

Splitter Single Mode, connettore SC-/PC

SPLITTER SINGLE MODE SC/APC	
FOS2WSCA	DW splitter 2 vie SM, con 30 cm preterminati SC/APC, 3.90 dB
FOS3WSCA	DW splitter 3 vie SM, con 30 cm preterminati SC/APC, 6.50 dB
FOS4WSCA	DW splitter 4 vie SM, con 30 cm preterminati SC/APC, 7.20 dB
FOS5WSCA	DW splitter 5 vie SM, con 30 cm preterminati SC/APC, 8.70 dB
FOS6WSCA	DW splitter 6 vie SM, con 30 cm preterminati SC/APC, 11.60 dB
FOS7WSCA	DW splitter 7 vie SM, con 30 cm preterminati SC/APC, 12.20 dB
FOS8WSCA	DW splitter 8 vie SM, con 30 cm preterminati SC/APC, 12.90 dB

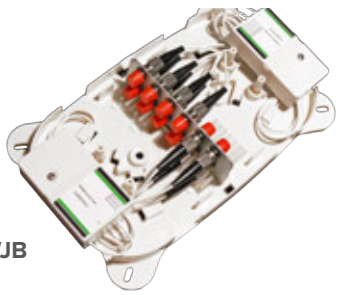
Coupler Single Mode preterminati SC/APC

COUPLER SINGLE MODE SC/APC	
FOC951X5SCA	Coupler SM 1 via 95/5, conn. SC-/PC, uscita ≤ 0.70 dB, ≤ 15.70 dB
FOC901X10SCA	Coupler SM 1 via 95/10, conn. SC/APC, uscita ≤ 0.95 dB, ≤ 12.30 dB
FOC801X20SCA	Coupler SM 1 via 80/20, conn. SC/APC, uscita ≤ 1.65 dB, ≤ 8.60 dB
FOC701X30SCA	Coupler SM 1 via 70/30, conn. SC/APC, uscita ≤ 2.35 dB, ≤ 6.50 dB
FOC651X35SCA	Coupler SM 1 via 70/30, conn. SC/APC, uscita ≤ 2.55 dB, ≤ 5.60 dB
FOC902X5SCA	Coupler SM 2 vie 95/5/5, conn. SC/APC, uscita ≤ 0.95 dB, 2x ≤ 15.70 dB
FOC802X10SCA	Coupler SM 2 vie 80/10/10, conn. SC/APC, uscita ≤ 1.65 dB, 2x ≤ 12.30 dB
FOC702X15SCA	Coupler SM 2 vie 70/15/15, conn. SC/APC, uscita ≤ 2.35 dB, 2x ≤ 9.90 dB
FOC602X20SCA	Coupler SM 2 vie 60/20/20, conn. SC/APC, uscita ≤ 3.15 dB, 2x ≤ 8.60 dB
FOC502X25SCA	Coupler SM 2 vie 50/25/25, conn. SC/APC, uscita ≤ 3.95 dB, 2x ≤ 7.20 dB
FOC704X7SCA	Coupler SM 4 via 70/7.5/7.5/7.5/7.5, conn. SC/APC, usc. ≤ 1.65 dB, 4x ≤15.80 dB
FOC804X5SCA	Coupler SM 4 vie 70/7.5/7.5/7.5/7.5, conn. SC/APC, usc. ≤ 1.65 dB, 4x ≤ 15.80 dB
FOC604X10SCA	Coupler SM 4 vie 70/10/10/10/10, conn. SC/APC, usc. ≤ 3.25 dB, 4x ≤ 12.50 dB
FOC504X12SCA	Coupler SM 4 vie 50/12.5/12.5/12.5/12.5, conn. SC/APC, usc. ≤ 3.95 dB, 4x ≤ 11.90 dB

Splitter Single Mode, connettore FC/PC

SPLITTER SINGLE MODE FC/PC	
FOS2WFC	DW splitter 2 vie SM, con 30 cm preterminati FC/PC, 3.90 dB
FOS3WFC	DW splitter 3 vie SM, con 30 cm preterminati FC/PC, 6.50 dB
FOS4WFC	DW splitter 4 vie SM, con 30 cm preterminati FC/PC, 7.20 dB
FOS5WFC	DW splitter 5 vie SM, con 30 cm preterminati FC/PC, 8.70 dB
FOS6WFC	DW splitter 6 vie SM, con 30 cm preterminati FC/PC, 11.60 dB
FOS7WFC	DW splitter 7 vie SM, con 30 cm preterminati FC/PC, 12.20 dB
FOS8WFC	DW splitter 8 vie SM, con 30 cm preterminati FC/PC, 12.90 dB

Coupler Single Mode preterminati FC/PC



FOCWJB

COUPLER SINGLE MODE FC/PC	
FOC951X5FC	Coupler SM 1 via 95/5, conn. FC/PC, uscita ≤ 0.70 dB, ≤ 15.70 dB
FOC901X10FC	Coupler SM 1 via 95/10, conn. FC/C, uscita ≤ 0.95 dB, ≤ 12.30 dB
FOC801X20FC	Coupler SM 1 via 80/20, conn. FC/PC, uscita ≤ 1.65 dB, ≤ 8.60 dB
FOC701X30FC	Coupler SM 1 via 70/30, conn. FC/PC, uscita ≤ 2.35 dB, ≤ 6.50 dB
FOC651X35FC	Coupler SM 1 via 70/30, conn. FC/PC, uscita ≤ 2.55 dB, ≤ 5.60 dB
FOC902X5FC	Coupler SM 2 vie 95/5/5, conn. FC/PC, uscita ≤ 0.95 dB, 2x ≤ 15.70 dB
FOC802X10FC	Coupler SM 2 vie 80/10/10, conn. FC/PC, uscita ≤ 1.65 dB, 2x ≤ 12.30 dB
FOC702X15FC	Coupler SM 2 vie 70/15/15, conn. FC/PC, uscita ≤ 2.35 dB, 2x ≤ 9.90 dB
FOC602X20FC	Coupler SM 2 vie 60/20/20, conn. FC/PC, uscita ≤ 3.15 dB, 2x ≤ 8.60 dB
FOC502X25FC	Coupler SM 2 vie 50/25/25, conn. FC/PC, uscita ≤ 3.95 dB, 2x ≤ 7.20 dB
FOC804X5FC	Coupler SM 4 via 80/5/5/5/5, conn. FC/PC, uscita ≤1.65 dB, 4x ≤15.80 dB
FOC704X7FC	Coupler SM 4 via 70/7.5/7.5/7.5/7.5, conn. FC/PC, usc. ≤ 1.65 dB, 4x ≤15.80 dB
FOC604X10FC	Coupler SM 4 via 70/10/10/10/10, conn. FC/PC, usc. ≤ 3.25 dB, 4x ≤12.50 dB
FOC504X12FC	Coupler SM 4 via 50/12.5/12.5/12.5/12.5, conn. FC/PC, usc. ≤ 3.95 dB, 4x ≤11.90 dB

Contenitore slim da parete per splitter / coupler serie CQT / FOS / FOC, utlizzabile per connessione TV -SAT massima di 5 CSOE.

Splitter Single Mode, non terminati

CEI 306-2 COMPLIANT

SPLITTER SINGLE MODE - NON TERMINATI	
FOS2W	DW splitter 2 way SM, 3.90 dB
FOS3W	DW splitter 3 way SM, 6.50 dB
FOS4W	DW splitter 4 way SM, 7.20 dB
FOS5W	DW splitter 5 way SM, 8.70 dB
FOS6W	DW splitter 6 way SM, 11.60 dB
FOS7W	DW splitter 7 way SM, 12.20 dB
FOS8W	DW splitter 8 way SM, 12.90 dB

Coupler Single Mode, non terminati

CEI 306-2 COMPLIANT

COUPLER SINGLE MODE - NON TERMINATI	
FOC951X5FC	Coupler SM 1 via 95/5, uscita ≤ 0.70dB, ≤ 15.70 dB
FOC901X10FC	Coupler SM 1 via 95/10, uscita ≤ 0.95dB, ≤ 12.30 dB
FOC801X20FC	Coupler SM 1 via 80/20, uscita ≤ 1.65dB, ≤ 8.60 dB
FOC701X30FC	Coupler SM 1 via 70/30, uscita ≤ 2.35dB, ≤ 6.50 dB
FOC651X35FC	Coupler SM 1 via 70/30, uscita ≤ 2.55dB, ≤ 5.60 dB
FOC902X5FC	Coupler SM 2 vie 95/5/5, uscita ≤ 0.95dB, 2x ≤ 15.70 dB
FOC802X10FC	Coupler SM 2 vie 80/10/10, uscita ≤ 1.65dB, 2x ≤ 12.30 dB
FOC702X15FC	Coupler SM 2 vie 70/15/15, uscita ≤ 2.35dB, 2x ≤ 9.90 dB
FOC602X20FC	Coupler SM 2 vie 60/20/20, uscita ≤ 3.15dB, 2x ≤ 8.60 dB
FOC502X25FC	Coupler SM 2 vie 50/25/25, uscita ≤ 3.95dB, 2x ≤ 7.20 dB
FOC804X5FC	Coupler SM 4 vie 80/5/5/5/5, uscita ≤ 1.65dB, 4x ≤ 15.80 dB
FOC704X7FC	Coupler SM 4 vie 70/7.5/7.5/7.5/7.5, uscita ≤ 1.65dB, 4x ≤ 15.80 dB
FOC604X10FC	Coupler SM 4 vie 70/10/10/10/10, uscita ≤ 3.25dB, 4x ≤ 12.50 dB
FOC504X12FC	Coupler SM 4 vie 50/12.5/12.5/12.5/12.5, uscita ≤ 3.95dB, 4x ≤ 11.90 dB

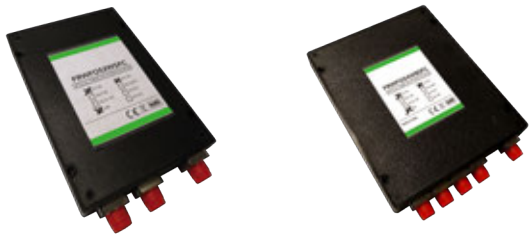
Splitter Single Mode, connettore 5M-PC

SPLITTER SINGLE MODE 5M-PC	
FOS2W5M	DW splitter 2 vie SM, con 30 cm preterminati 5M-PC, 3.90 dB
FOS3W5M	DW splitter 3 vie SM, con 30 cm preterminati 5M-PC, 6.50 dB
FOS4W5M	DW splitter 4 vie SM, con 30 cm preterminati 5M-PC, 7.20 dB
FOS5W5M	DW splitter 5 vie SM, con 30 cm preterminati 5M-PC, 8.70 dB
FOS6W5M	DW splitter 6 vie SM, con 30 cm preterminati 5M-PC, 11.60 dB
FOS7W5M	DW splitter 7 vie SM, con 30 cm preterminati 5M-PC, 12.20 dB
FOS8W5M	DW splitter 8 vie SM, con 30 cm preterminati 5M-PC, 12.90 dB

Coupler Single Mode preterminati 5M-PC

COUPLER SINGLE MODE 5M-PC	
FOC951X5-5M	Coupler SM 1 via 95/5, conn. 5M-PC, uscita ≤ 0.70dB, ≤ 15.70 dB
FOC901X10-5M	Coupler SM 1 via 95/10, conn. 5M-PC, uscita ≤ 0.95dB, ≤ 12.30 dB
FOC801X20-5M	Coupler SM 1 via 80/20, conn. 5M-PC, uscita ≤ 1.65dB, ≤ 8.60 dB
FOC701X30-5M	Coupler SM 1 via 70/30, conn. 5M-PC, uscita ≤ 2.35dB, ≤ 6.50 dB
FOC651X35-5M	Coupler SM 1 via 70/30, conn. 5M-PC, uscita ≤ 2.55dB, ≤ 5.60 dB
FOC902X5-5M	Coupler SM 2 vie 95/5/5, conn. 5M-PC, uscita ≤ 0.95dB, 2x ≤15.70 dB
FOC802X10-5M	Coupler SM 2 vie 80/10/10, conn. 5M-PC, uscita ≤1.65dB, 2x ≤ 12.30 dB
FOC702X15-5M	Coupler SM 2 vie 70/15/15, conn. 5M-PC, uscita ≤2.35dB, 2x ≤9.90 dB
FOC602X20-5M	Coupler SM 2 vie 60/20/20, conn. 5M-PC, uscita ≤ 3.15dB, 2x ≤8.60 dB
FOC502X25-5M	Coupler SM 2 vie 50/25/25, conn. 5M-PC, uscita ≤ 3.95dB, 2x ≤7.20 dB
FOC804X5-5M	Coupler SM 4 vie 80/5/5/5/5, conn. 5M-PC, uscita ≤ 1.65dB, 4x ≤15.80 dB
FOC704X7-5M	Coupler SM 4 vie 70/7.5/7.5/7.5/7.5, conn. 5M-PC, usc. ≤ 1.65dB, 4x ≤14.80 dB
FOC604X10-5M	Coupler SM 4 vie 70/10/10/10/10, conn. 5M-PC, uscita ≤ 3.25dB, 4x ≤12.50 dB
FOC504X12-5M	Coupler SM 4 vie 50/12.5/12.5/12.5/12.5, conn. 5M-PC, usc. ≤ 3.95dB, 4x ≤11.90 dB

Splitter ottici connettore FC femmina



SPLITTER OTTICI CONNETTORE FC FEMMINA	
FRWFOS2WBSFC	Splitter ottico DW a 2 vie, connettore tipo FC femmina
FRWFOS3WBSFC	Splitter ottico DW a 3 vie, connettore tipo FC femmina
FRWFOS4WBSFC	Splitter ottico DW a 4 vie, connettore tipo FC femmina
FRWFOS5WBSFC	Splitter ottico DW a 5 vie, connettore tipo FC femmina
FRWFOSBC90FC	Splitter ottico DW a 2 vie 90/10, connettore tipo FC femmina
FRWFOSBC80FC	Splitter ottico DW a 2 vie 80/20, connettore tipo FC femmina
FRWFOSBC70FC	Splitter ottico DW a 2 vie 70/30, connettore tipo FC femmina

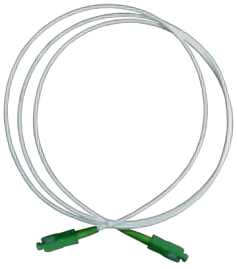
Splitter / coupler preterminati FC

SPLITTER COUPLER PRETERMINATI FC	
FRWFOS2WSFC	Splitter ottico DW a 2 vie, 50 cm fibra preterminata FC
FRWFOS3WSFC	Splitter Ottico DW a 3 Vie, 50 cm fibra preterminata FC
FRWFOS4WSFC	Splitter Ottico DW a 4 Vie, 50 cm fibra preterminata FC
FRWFOS5WSFC	Splitter Ottico DW a 5 Vie, 50 cm fibra preterminata FC
FRWFOS6WSFC	Splitter Ottico DW a 6 Vie, 50 cm fibra preterminata FC
FRWFOS8WSFC	Splitter Ottico DW a 8 Vie, 50 cm fibra preterminata FC
FRWFOSNC9010FC	Coupler Ottico DW a 2 Vie 90/10, 50 cm fibra preterminata FC
FRWFOSNC8020FC	Coupler Ottico DW a 2 Vie 80/20, 50 cm fibra preterminata FC
FRWFOSNC7030FC	Coupler Ottico DW a 2 Vie 70/30, 50 cm fibra preterminata FC
FRWFOSNC6040FC	Coupler Ottico DW a 2 Vie 60/40, 50 cm fibra preterminata FC
FRWFOSC8515FC	Coupler Ottico DW a 4 Vie 85/5/5/5, 50 cm fibra preterminata FC
FRWFOSC7030FC	Coupler Ottico DW a 4 Vie 70/10/10/10, 50 cm fibra preterminata FC
FRWFOSC5545FC	Coupler Ottico DW a 4 Vie 55/15/15/15, 50 cm fibra preterminata FC
FRWFOSC1090FC	Coupler Ottico DW a 4 Vie 10/30/30/30, 50 cm fibra preterminata FC

Bretelle ottiche Single Mode LSZH a doppia armatura, preterminate FC/FC (G6529)

BRETELLE DOPPIA ARMATURA FC/FC	
FOFAL001FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 1 m
FOFAL003FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 3 m
FOFAL005FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 5 m
FOFAL010FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 10 m
FOFAL015FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 15 m
FOFAL020FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 20 m
FOFAL025FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 25 m
FOFAL030FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 30 m
FOFAL040FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 40 m
FOFAL050FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 50 m
FOFAL075FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 75 m
FOFAL100FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 100 m
FOFAL150FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 150 m
FOFAL200FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 200 m
FOFAL250FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 250 m
FOFAL300FC	Bretella bianca LSZH SM doppia armatura, preterminata FC/FC, 300 m

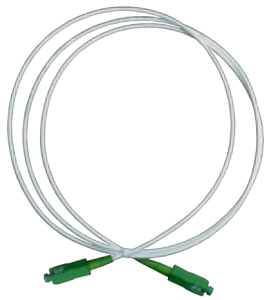
Bretelle ottiche doppia armatura Single Mode SC/APC



CEI 306-2 COMPLIANT

BRETELLE DOPPIA ARMATURA / SC-APC	
FOFAL 001SCA	Bretella Single Mode LSZH doppia armatura preterminata Colore Bianco SC/APC, 1 m
FOFAL 003SCA	Bretella Single Mode LSZH doppia armatura preterminata Colore Bianco SC/APC, 3 m
FOFAL 005SCA	Bretella Single Mode LSZH doppia armatura preterminata Colore Bianco SC/APC, 5 m
FOFAL 010SCA	Bretella Single Mode LSZH doppia armatura preterminata Colore Bianco SC/APC, 10 m
FOFAL 015SCA	Bretella Single Mode LSZH doppia armatura preterminata Colore Bianco SC/APC, 15 m
FOFAL 025SCA	Bretella Single Mode LSZH doppia armatura preterminata Colore Bianco SC/APC, 25 m
FOFAL 040SCA	Bretella Single Mode LSZH doppia armatura preterminata Colore Bianco SC/APC, 40 m
FOFAL 075SCA	Bretella Single Mode LSZH doppia armatura preterminata Colore Bianco SC/APC, 75 m
FOFAL 100SCA	Bretella Single Mode LSZH doppia armatura preterminata Colore Bianco SC/APC, 100 m

Bretelle ottiche LSZH rinforzate, preterminate SC/APC



BRETELLE OTTICHE LSZH 5/125 OM4 COLORE BIANCO	
FOFOAS005SCA	Bretella Single Mode SC/APC Simplex G657A2 LSZH Rinforzata colore bianco ø 3mm, 5 m
FOFOAS010SCA	Bretella Single Mode SC/APC Simplex G657A2 LSZH Rinforzata colore bianco ø 3mm, 10 m
FOFOAS015SCA	Bretella Single Mode SC/APC Simplex G657A2 LSZH Rinforzata colore bianco ø 3mm, 15 m
FOFOAS025SCA	Bretella Single Mode SC/APC Simplex G657A2 LSZH Rinforzata colore bianco ø 3mm, 25 m
FOFOAS050SCA	Bretella Single Mode SC/APC Simplex G657A2 LSZH Rinforzata colore bianco ø 3mm, 50 m
FOFOAS075SCA	Bretella Single Mode SC/APC Simplex G657A2 LSZH Rinforzata colore bianco ø 3mm, 75 m
FOFOAS100SCA	Bretella Single Mode SC/APC Simplex G657A2 LSZH Rinforzata colore bianco ø 3mm, 100 m
FOFOAS150SCA	Bretella Single Mode SC/APC Simplex G657A2 LSZH Rinforzata colore bianco ø 3mm, 150 m
FOFOAS250SCA	Bretella Single Mode SC/APC Simplex G657A2 LSZH Rinforzata colore bianco ø 3mm, 250 m

Bretelle ottiche LSZH rinforzate, preterminate LC/LC

BRETELLE OTTICHE LSZH 5/125 OM4 COLORE BIANCO	
FOFOAS005LC	Bretella Single Mode LC/PC Simplex G652 LSZH Rinforzata colore bianco ø 3 mm, 5 m
FOFOAS010LC	Bretella Single Mode LC/PC Simplex G652 LSZH Rinforzata colore bianco ø 3 mm, 10 m
FOFOAS015LC	Bretella Single Mode LC/PC Simplex G652 LSZH Rinforzata colore bianco ø 3 mm, 15 m
FOFOAS025LC	Bretella Single Mode LC/PC Simplex G652 LSZH Rinforzata colore bianco ø 3 mm, 25 m
FOFOAS050LC	Bretella Single Mode LC/PC Simplex G652 LSZH Rinforzata colore bianco ø 3 mm, 50 m
FOFOAS075LC	Bretella Single Mode LC/PC Simplex G652 LSZH Rinforzata colore bianco ø 3 mm, 75 m
FOFOAS100LC	Bretella Single Mode LC/PC Simplex G652 LSZH Rinforzata colore bianco ø 3 mm, 100 m
FOFOAS150LC	Bretella Single Mode LC/PC Simplex G652 LSZH Rinforzata colore bianco ø 3 mm, 150 m
FOFOAS250LC	Bretella Single Mode LC/PC Simplex G652 LSZH Rinforzata colore bianco ø 3 mm, 250 m
FOFOAS005LC2	Bretella Single Mode LC/PC Duplex G652 LSZH Rinforzata colore bianco ø 3 mm, 5 m
FOFOAS010LC2	Bretella Single Mode LC/PC Duplex G652 LSZH Rinforzata colore bianco ø 3 mm, 10 m
FOFOAS015LC2	Bretella Single Mode LC/PC Duplex G652 LSZH Rinforzata colore bianco ø 3 mm, 15 m
FOFOAS025LC2	Bretella Single Mode LC/PC Duplex G652 LSZH Rinforzata colore bianco ø 3 mm, 25 m
FOFOAS050LC2	Bretella Single Mode LC/PC Duplex G652 LSZH Rinforzata colore bianco ø 3 mm, 50 m
FOFOAS075LC2	Bretella Single Mode LC/PC Duplex G652 LSZH Rinforzata colore bianco ø 3 mm, 75 m
FOFOAS100LC2	Bretella Single Mode LC/PC Duplex G652 LSZH Rinforzata colore bianco ø 3 mm, 100 m
FOFOAS150LC2	Bretella Single Mode LC/PC Duplex G652 LSZH Rinforzata colore bianco ø 3 mm, 150 m
FOFOAS250LC2	Bretella Single Mode LC/PC Duplex G652 LSZH Rinforzata colore bianco ø 3 mm, 250 m

Bretelle ottiche, preterminate LC/LC OM4 duplex

BRETELLE OTTICHE LC-LC OM4 DUPLEX	
NVCP2LC-3D4	Bretella Single mode LC/PC Duplex 50/125 OM4 preterminata, 3 m
NVCP2LC-5D4	Bretella Single mode LC/PC Duplex 50/125 OM4 preterminata, 5 m
NVCP2LC-10D4	Bretella Single mode LC/PC Duplex 50/125 OM4 preterminata, 10 m
NVCP2LC-30D4	Bretella Single mode LC/PC Duplex 50/125 OM4 preterminata, 30 m
NVCP2LC-50D4	Bretella Single mode LC/PC Duplex 50/125 OM4 preterminata, 50 m
NVCP2LC-100D4	Bretella Single mode LC/PC Duplex 50/125 OM4 preterminata, 100 m
NVCP2LC-200D4	Bretella Single mode LC/PC Duplex 50/125 OM4 preterminata, 200 m
NVCP2LC-300D4	Bretella Single mode LC/PC Duplex 50/125 OM4 preterminata, 300 m

Patch Cord fibra ottica - Single Mode

NVCPSC-15PGS

NVCP2SCA3MSW

NVCSCA-ADS

NVCSOC

NVCSCAREF1650

Nota: le foto dei prodotti sono di esempio. Colori e connettori personalizzabili a richiesta

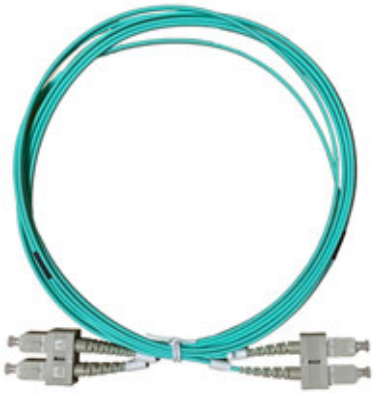
PATCH CORD FIBRA OTTICA SINGLE MODE	
NVCP2SC-1MSW	SC/PC-SC/PC 1 m PATCH CORD SM G652 SIMPLEX
NVCP2SC-3MSW	SC/PC-SC/PC 3 m PATCH CORD SM G652 SIMPLEX
NVCP2SCA-1.5MSW	SC/APC-SC/APC 1,5 m PATCH CORD SM G657A2 SIMPLEX
NVCP2SCA-3MSW	SC/APC-SC/APC 3 m PATCH CORD SM G657 A2 SIMPLEX
NVCP2SCA-60MSW	SC/APC-SC/APC 60 m PATCH CORD WHITE SIMPLEX
NVCP2LC-3MDW	LC/PC-LC/PC 3 m PATCH CORD 9/125 SM G652 DUPLEX
NVCP2LC-3MSW	LC/PC-LC/PC 3 m PATCH CORD 9/125 SM G652 SIMPLEX
NVCP2LC-5MSW	LC/PC-LC/PC 5 m PATCH CORD 9/125 SM G652 SIMPLEX
NVCP2SC-3MSW	SC/PC-SC/PC 3 m PATCH CORD 9/125 SM G652 SIMPLEX
NVCP2SC-5MSW	SC/PC-SC/PC 5 m PATCH CORD 9/125 SM G652 SIMPLEX
NVCPLCSC-3MSW	LC/PC-SC/PC 3 m PATCH CORD 9/125 SM G652 SIMPLEX
NVCPLCSC-5MSW	LC/PC-SC/PC 5 m PATCH CORD 9/125 SM G652 SIMPLEX
NVCPLCSCA-3MSW	LC/PC-SC/APC 3 m PATCH CORD SM G657A2 SIMPLEX
NVCPLCSCA-3MDW	LC/PC-SC/APC 3 m PATCH CORD SM G657A2 DUPLEX
NVCPLCASC-3MSW	LC/APC-SC/PC 3 m PATCH CORD SM G657A2 SIMPLEX
NVCPFCSC-3MSW	FC/PC-SC/PC 3 m PATCH CORD 9/125 SM G652 SIMPLEX
NVCPFCSCA-3MSW	FC/PC-SC/APC 3 m PATCH CORD 9/125 SM G652 SIMPLEX
NVCPSCSCA-3MSW	SC/PC-SCA/PC 3 m PATCH CORD 9/125 SM G652 SIMPLEX
NVCPSCST-3MSW	SC/PC-ST/PC 3 m PATCH CORD 9/125 SM G652 SIMPLEX
NVCPFCLC-3MSW	FC/PC-LC/PC 3 m PATCH CORD 9/125 SM G652 SIMPLEX
NVCP2LCA-3MSW	LC/APC-LC/APC 3 m PATCH CORD 9/125 SM G652 SIMPLEX
NVCPFCASCA-3MSW	FC/APC-SC/APC 3 m PATCH CORD 9/125 SM G652 SIMPLEX

PIGTAIL FIBRA OTTICA	
NVCPFC-15PGS	Pigtail FC/PC 1,5 m 9/125 SM
NVCPFCA-15PGS	Pigtail FC/APC 1,5 m 9/125 SM
NVCPLC-15PGS	Pigtail LC/PC 1,5 m 9/125 SM
NVCPSC-15PGS	Pigtail SC/PC 1,5 m 9/125 SM
NVCPSCA-15PGS	Pigtail SC/APC 1,5 m 9/125 SM
NVCPLCA-15PGS	Pigtail LC/APC 1,5 m 9/125 SM

ADATTATORI / CONNETTORI FIBRA OTTICA	
NVCADKEY-LCSC	Adattatore KEYSTONE per adattatori SC simplex/LC duplex
NVCADKEY-FCST	Adattatore KEYSTONE per adattatori FC/ST
NVCSOC-SCA	Connettore Rapido SC-APC Single mode
NVCSOC-SC	Connettore Rapido SC-PC Single mode
NVCSOC-FC	Connettore Rapido FC-PC Single mode
NVCFC-ADS	Adattatore FC/PC Single mode
NVCLC-ADD	Adattatore LC/PC Single mode Duplex
NVCSC-ADS	SC/PC - SC/PC SIMPLEX ADAPTOR
NVCSCA-ADS	SC/APC - SC/APC SIMPLEX ADAPTOR
NVCSCAREF1650	SC/APC REFLECTOR 1650nm

Patch Cord fibra ottica - Multi Mode

NVCPSC4-15PGS



NVCP2SC3-3D4

PATCH CORD FIBRA OTTICA MULTI MODE	
NVCP2LC-3D1	LC/PC-LC/PC 3 m PATCH CORD 50/125 OM1 DUPLEX
NVCP2LC-3D3	LC/PC-LC/PC 3 m PATCH CORD 50/125 OM3 DUPLEX
NVCP2LC-5D3	LC/PC-LC/PC 5 m PATCH CORD 50/125 OM3 DUPLEX
NVCP2LC-10D3	LC/PC-LC/PC 10 m PATCH CORD 50/125 OM3 DUPLEX
NVCP2LC-30D3	LC/PC-LC/PC 30 m PATCH CORD 50/125 OM3 DUPLEX
NVCP2LC-3D4	LC/PC-LC/PC 3 m PATCH CORD 50/125 OM4 DUPLEX
NVCP2LC-5D4	LC/PC-LC/PC 5 m PATCH CORD 50/125 OM4 DUPLEX
NVCP2LC-10D4	LC/PC-LC/PC 10 m PATCH CORD 50/125 OM4 DUPLEX
NVCP2LC-30D4	LC/PC-LC/PC 30 m PATCH CORD 50/125 OM4 DUPLEX
NVCP2LC-50D4	LC/PC-LC/PC 50 m PATCH CORD 50/125 OM4 DUPLEX
NVCP2LC-100D4	LC/PC-LC/PC 100 m PATCH CORD 50/125 OM4 DUPLEX
NVCP2LC-200D4	LC/PC-LC/PC 200 m PATCH CORD 50/125 OM4 DUPLEX
NVCP2LC-300D4	LC/PC-LC/PC 300 m PATCH CORD 50/125 OM4 DUPLEX
NVCP2SC-3D1	SC/PC-SC/PC 3 m PATCH CORD 50/125 OM1 DUPLEX
NVCP2SC-3D3	SC/PC-SC/PC 3 m PATCH CORD 50/125 OM3 DUPLEX
NVCP2SC-5D3	SC/PC-SC/PC 5 m PATCH CORD 50/125 OM3 DUPLEX
NVCP2SC-10D3	SC/PC-SC/PC 10 m PATCH CORD 50/125 OM3 DUPLEX
NVCP2SC-30D3	SC/PC-SC/PC 30 m PATCH CORD 50/125 OM3 DUPLEX
NVCP2SC-3D4	SC/PC-SC/PC 3 m PATCH CORD 50/125 OM4 DUPLEX
NVCP2SC-5D4	SC/PC-SC/PC 5 m PATCH CORD 50/125 OM4 DUPLEX
NVCP2SC-10D4	SC/PC-SC/PC 10 m PATCH CORD 50/125 OM4 DUPLEX
NVCP2SC-30D4	SC/PC-SC/PC 30 m PATCH CORD 50/125 OM4 DUPLEX
NVCPLCSC-3D1	LC/PC-SC/PC 3 m PATCH CORD 50/125 OM1 DUPLEX
NVCPLCSC-3D3	LC/PC-SC/PC 3 m PATCH CORD 50/125 OM3 DUPLEX
NVCPLCSC-3D4	LC/PC-SC/PC 3 m PATCH CORD 50/125 OM4 DUPLEX
NVCPLCSC-10D3	LC/PC-SC/PC 10 m PATCH CORD 50/125 OM3 DUPLEX
NVCPLCSC-10D4	LC/PC-SC/PC 10 m PATCH CORD 50/125 OM4 DUPLEX
NVCP2ST-3D1	ST/PC-ST/PC 3 m PATCH CORD 50/125 OM1 DUPLEX
NVCP2ST-3D3	ST/PC-ST/PC 3 m PATCH CORD 50/125 OM3 DUPLEX
NVCP2ST-3D4	ST/PC-ST/PC 3 m PATCH CORD 50/125 OM4 DUPLEX
NVCPLCST-3D1	LC/PC-ST/PC 3 m PATCH CORD 50/125 OM1 DUPLEX
NVCPLCST-3D3	LC/PC-ST/PC 3 m PATCH CORD 50/125 OM3 DUPLEX
NVCPLCST-3D4	LC/PC-ST/PC 3 m PATCH CORD 50/125 OM4 DUPLEX
NVCPSCST-3D1	SC/PC-ST/PC 3 m PATCH CORD 50/125 OM1 DUPLEX
NVCPSCST-3D3	SC/PC-ST/PC 3 m PATCH CORD 50/125 OM3 DUPLEX
NVCPSCST-3D4	SC/PC-ST/PC 3 m PATCH CORD 50/125 OM4 DUPLEX

NVCPLC4-ADD

Nota: le foto dei prodotti sono di esempio.
Colori e connettori personalizzabili a richiesta

PIGTAIL FIBRA OTTICA	
NVCPSC1-15PGS	Pigtail SC/PC 1,5 m 50/125 OM1
NVCPLC1-15PGS	Pigtail LC/PC 1,5 m 50/125 OM1
NVCPST1-15PGS	Pigtail ST/PC 1,5 m 50/125 OM1
NVCPSC3-15PGS	Pigtail SC/PC 1,5 m 50/125 OM3
NVCPLC3-15PGS	Pigtail LC/PC 1,5 m 50/125 OM3
NVCPST3-15PGS	Pigtail ST/PC 1,5 m 50/125 OM3
NVCPSC4-15PGS	Pigtail SC/PC 1,5 m 50/125 OM4
NVCPLC4-15PGS	Pigtail LC/PC 1,5 m 50/125 OM4
NVCPST4-15PGS	Pigtail ST/PC 1,5 m 50/125 OM4

ADATTATORI FIBRA OTTICA	
NVCLC3-ADD	LC/PC - LC/PC OM3 DUPLEX ADAPTOR
NVCSC3-ADS	SC/PC - SC/PC OM3 SIMPLEX ADAPTOR
NVCLC4-ADD	LC/PC - LC/PC OM4 DUPLEX ADAPTOR
NVCSC4-ADS	SC/PC - SC/PC OM4 SIMPLEX ADAPTOR
NVCST-ADS	ST/PC-ST/PC OM4 SIMPLEX ADAPTOR

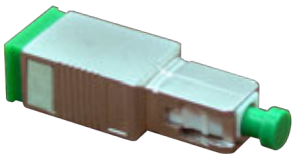
Attenuatori ottici single mode

FXATFCPC5, FXATFCPC10, FXATFCPC15

Attenuatore fisso ottico professionale, preterminato FC.

Disponibile da 5 / 10 / 15 dB.

FXATSCAPC5, FXATSCAPC10, FXATSCAPC10



Attenuatore fisso ottico professionale, preterminato SC/APC.

Disponibile da 5 / 10 / 15 dB.

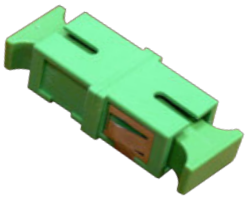
F700251

Bussola adattatrice FC/PC a SC/PC.

NVCADKEY-FCST, NVCADKEY-LCSC

Adattatore KEYSTONE per bussola FC - ST
Adattatore KEYSTONE per bussola SC simplex / LC duplex.

FA-SCA-SS



CEI 306-2 COMPLIANT

Bussola adattatrice da SC/APC a SC/APC.

FA-2SCA-SSBL

CEI 306-2 COMPLIANT

Bussola adattatrice da SC/APC a SC/APC.
Shutter **blu.**

FA-2SCA-SSRS

CEI 306-2 COMPLIANT

Bussola adattatrice da SC/APC a SC/APC.
Shutter **rosso.**

FA-2SCA-SSVE

CEI 306-2 COMPLIANT

Bussola adattatrice da SC/APC a SC/APC.
Shutter **verde.**

FA-2SCA-SSGI

CEI 306-2 COMPLIANT

Bussola adattatrice da SC/APC a SC/APC.
Shutter **giallo.**

FA-FCP-SS

Bussola adattatrice FC/PC a FC/PC.

FA-FCA-SS

Bussola adattatrice FC/APC a FC/APC.

FA-STP-SS

Bussola adattatrice ST/PC a ST/PC.

FASCPSS

Bussola adattatrice SC/PC a SC/PC.

FA-2SC-SS

Doppia bussola adattatrice SC/PC a SC/PC.

FA-2SCA-SS

Doppia bussola adattatrice SC/APC a SC/APC.

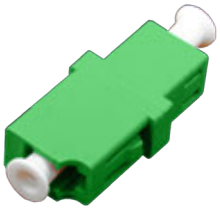
FA-LCP-SS

Bussola adattatrice SM LC/PC a LC/PC.

FA-LCP-SD

Bussola adattatrice Duplex LC/PC a LC/PC.

FA-LCA-SS



Bussola adattatrice LC/APC a LC/APC.

FA-SCP-MS3

Bussola SC-SC MM OM3 colore Aqua.

FA-SCP-MD3

Bussola SC-SC duplex MM OM3 colore Aqua.

FA-LCP-MD3

Bussola LC-LC duplex MM OM3 colore Aqua.

FA-SCP-MS4

Bussola SC-SC MM OM4 colore Violet.

FA-SCP-MD4

Bussola SC-SC duplex MM OM4 colore Violet.

FA-LCP-MD4

Bussola LC-LC duplex MM OM4 colore Violet.

MCORMP1U24

Patch panel **estraibile** 19”rack 1U per 24 adattatori SC - SC/APC simplex e LC duplex (non inclusi).

MCORMP1UE12, MCORMP1UE

MCORMP1UE12

MCORMP1UE

Universal patch panel 19”rack 1U per 12/24 adattatori SC - SC/APC simplex e LC duplex (non inclusi).

MSTR24

Ordinatore 24 fibre.
Dimensioni: 159 x 105 x 18 mm.

MSTR12

Ordinatore 12 fibre.
Dimensioni: 101 x 165 x 17 mm.

MSTR6

Ordinatore 6 fibre.
Dimensioni: 97 x 84 x 13 mm.

NVCR1U12XXX, NVCR1U24XXX

Universal patch panel 19”rack 1U per 12/24 adattatori SC - SC/APC simplex e LC duplex (non inclusi nei modelli **NVCCR1U12U** e **NVCCR1U24U**).

NVCCR1U24SCA

UNIVERSAL PATCH PANEL 19” RACK 1U	
NVCCR1U12SCA	1U Fiber Panel 12ports, with 1 pc 12 cores white tray. Loaded with 12 pcs SC/APC (Green) simplex adapters. With Mira Stickers
NVCCR1U12SC	1U Fiber Panel 12ports, with 1 pc 12 cores white tray. Loaded with 12 pcs SC/PC (Blue) simplex adapters. With Mira Stickers
NVCCR1U12LC	1U Fiber Panel 12ports, with 2 pc 12 cores white tray. Loaded with 12 pcs LC/PC (Blue) duplex adapters. With Mira Stickers
NVCCR1U12LC4	1U Fiber Panel 12ports, with 2 pc 12 cores white tray. Loaded with 12 pcs LC/PC OM4 (Purple) duplex adapters. With Mira Stickers
NVCCR1U12SC4	1U Fiber Panel 12ports, with 2 pc 12 cores white tray. Loaded with 12 pcs SC/PC OM4 (Purple) simplex adapters. With Mira Stickers
NVCCR1U24SCA	1U Fiber Panel 24ports, with 2 pc 12 cores white tray. Loaded with 24 pcs SC/APC (Green) simplex adapters. With Mira Stickers
NVCCR1U24LC4	1U Fiber Panel 24ports, with 2 pc 24 cores white tray. Loaded with 24 pcs LC/PC OM4 (Purple) duplex adapters. With Mira Stickers
NVCCR1U24SC4	1U Fiber Panel 12ports, with 2 pc 12 cores white tray. Loaded with 24 pcs SC/PC OM4 (Purple)simplex adapters. With Mira Stickers
NVCCR1U24LC	1U Fiber Panel 24ports, with 2 pc 24 cores white tray. Loaded with 24 pcs LC/PC (Blue) duplex adapters. With Mira Stickers
NVCCR1U24SC	1U Fiber Panel 24ports, with 2 pc 12 cores white tray. Loaded with 24 pcs SC/PC (Blue) simplex adapters. With Mira Stickers
NVCCR1U12U	1U Fiber Panel 12ports, SC simplex ports with 2 pc 12 cores white tray. Loaded with 12 pcs hole plastic cover. With Mira Stickers
NVCCR1U24U	1U Fiber Panel 24ports, SC simplex ports with 2 pc 12 cores white tray. Loaded with 24 pcs hole plastic cover. With Mira Stickers

MOSTOA1

CEI 306-2 COMPLIANT

Contenitore STOA completo di 4 adattatori SC-APC, con shutter a 4 colori. Dimensioni: 100 x 80 x 29 mm.

MOSTOA8

CEI 306-2 COMPLIANT

Contenitore STOA completo di 8 adattatori SC-APC standard. Dimensioni: 130 x 199 x 28.5 mm.

MOSTOA12DIN

CEI 306-2 COMPLIANT

Contenitore STOA da barra din vuoto, permette utilizzo di 12 adattatori SC/APC - SC/PC - LC/PC Duplex. Standard CEI 306-22.
Dimensioni: 35 x 133 x 130 mm

MOWB216FC

Contenitore a parete per splitter da esterno:
con 2 ingressi, completo di 16 bussole FC/PC.
Dimensioni: 260x320x90 mm

MOWB208SCA, MOWB216SCA

Contenitore a parete per splitter da esterno:
MOWB208SCA con 2 ingressi, completo di 8 bussole SC/APC
MOWB216SCA con 2 ingressi, completo di 16 bussole SC/APC.
Dimensioni: 260x320x90 mm

NVCBSC-2

Contenitore a parete, per 2 bussole SC/PC.
Dimensioni: 86 x 86 x 22 mm.

FMIWB202SCA

Contenitore a parete, completo di 2 bussole SC-SC/APC.
Dimensioni: 86 x 86 x 22 mm.

MOWB104R

Box a parete per splitter da esterno: 1 ingresso per 4 bussole tipo SC Simplex, con chiusura a chiave.
Dimensioni 120 x 190 x 40 mm.

MOWB208R, MOWB216R

Box a parete per splitter da esterno:
MOWB208R 3 ingressi x 8 bussole SC Simplex.
Dim. 180x210x45mm
MOWB216R 2 ingressi x 16 bussole SC Simplex.
Dim. 260x320x100mm

MOWB4SC, MOWB12SC

Contenitore a chiave di distribuzione a parete:
MOWB4SC per 4 bussole SC-SC/APC.
Dimensioni 145x153x50mm
MOWB12SC per 12 bussole SC-SC/APC.
Dimensioni 200x200x50mm

MCPOR48

CEI 306-2 COMPLIANT

Contenitore Servizi SAT / TV di distribuzione a parete, doppia apertura con chiave, pronto per 24 adattatori SC/APC - SC/APC.
Dimensioni: 421 x 316 x 64 mm.

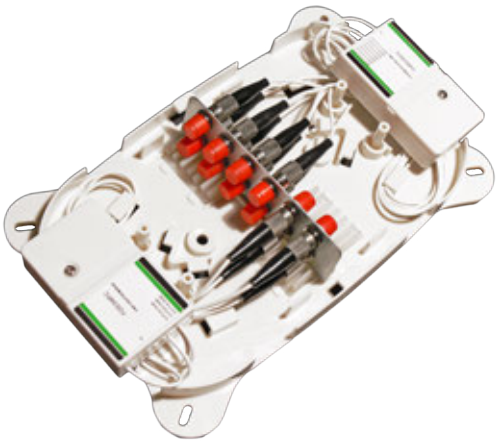
FOCWJB

Contenitore per fibra ottica.

Coperchio di chiusura.

PRODOTTO CORRELATO: MOMPLXXXX

Con splitter/coupler 5M.



Con splitter/coupler FC/PC.

Con splitter/coupler SC/APC.

Con splitter/coupler non terminato.

FMIWMB148SCA

For splitting: 1 ÷ 3 pcs standard slot position for splitter, for 1:8, 1:16. 1:32 splitter.
For distribution: 1 ÷ 72 ports of adapters panel.
Maximum 2 pcs of slice trays (expandible) for satisfying kinds of connection.
Dimensions: 350 x 340 x 120 mm.

WTSM101, WTSM110

WTSM101

WTSM110

WTSM101 QDSA da incasso vuoto per cablaggio FIBRA
Dimensioni 372 x 432 x 90 mm
Dimensioni 360 x 420 x 90 mm (incluso la flangia)

WTSM110 QDSA da appoggio vuoto per cablaggio FIBRA
Dimensioni: 300 x 420 x 90 mm

MIRAGOB248

Contenitore per splitter,
da esterno / interramento:
ingressi cavo 2x 16 mm o 4x 12 mm
Dimensioni: 280 x 200 x 90 mm

SPECIFICHE	MIRAGOB248
Appearance size	280 × 200 × 90 mm
Cable ports	2 ÷ 5
Core capacity per tray	12 ÷ 24
Max capacity (fibers)	96
Cable Diameter	Ø 14 mm
Weight Unit	2.6 ÷ 2.8 Kg

Main Features:
- Holds up to 96 fibers.
- Easy to re-enter
- Cable entry/exit ports
- Pressure testing valve and earth deriving device
- Intergrated seal, air tight and water proof
- Ideal for cable repair
- RoHS compliant
- Can be used in through, branch or mid span splice locations
- Suitable for aerial, underground duct or direct burial applications

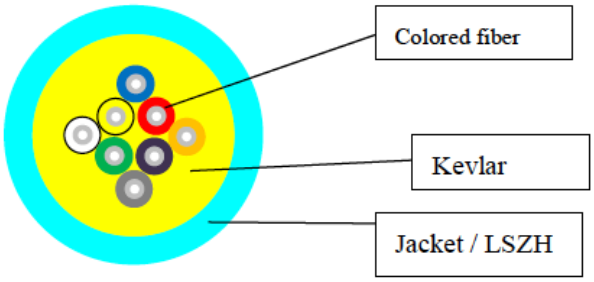
MIRAGOB436

SPECIFICHE	MIRAGOB436
Size	260 × 210 × 90 mm
Weight	4.2 ÷ 4.8 kg
Port quantity	3 (2 ports are for single bunch fiber cable, 1 port is for cable which is uncut)
Suit cable diameter	Small port Ø 8 ÷ 12 mm Direct output cable Ø 10 ÷ 17.5 mm
Tray quantity	3 pcs
Max. Capacity (single fiber)	36 F
Sealing	Mechanical
Tray capacity	12 F
IP rate	68

Type FMGOB436 is one type of dome closure, which can connect and protect fiber cable and splices piont in straight-through and branching applications. With IP 65 level. Has two small ports and one uncut port. Use vulcanization molding rubber and direct pressure mechanical sealing.

MOFSMxI - Micro cavo ottico Single Mode (EN 60794-2-50)

Sezione



MOFSM4I: 4 core
MOFSM8I: 8 core

CEI 306-2 COMPLIANT

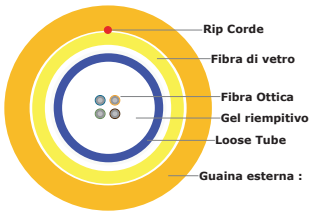
SPECIFICHE	MOFSM4I	MOFSM8I
CABLE PARAMETERS		
Fiber Count	4	8
Cable Weight	2.8 Kg / Km	
Fiber Type	G657-A2	
Colored Coating Fiber		
Dimension	250 ±15 µm	
Color	Blue, Yellow Red, White, Green, Violet, Orange, Grey According to CEI EN 60793-2-50 standard	
Jacket		
Dimension	2.8 ±0.1 mm	
Material	LSZH	
Color	White	

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS	
Tension (Long Term)	60 N
Tension (Short Term)	100 N
Crush (Long Term)	100 N / 10 cm
Crush (Short Term)	500 N / 10 cm
Min. Bend Radius (Dynamic)	60 mm
Min. Bend Radius (Static)	30 mm
Installation Temperature	0° ÷ +70° C
Operating Temperature	-20° ÷ +70° C
Storage Temperature	-20° ÷ +70° C

PRODOTTO CORRELATO: MOSTOA1

PRODOTTO CORRELATO: MCSOE12C

Fibra Ottica multimodale con armatura dielettrica



A. Conduttori : Fibra ottica
B. Riempitivo : Gel Riempitivo
C. Loose Tube : PBT
D. Fibra di vetro : Filato in fibra di vetro
E. Rip Corde :
F. Guaina esterna : Duraflam+® LSZH
Colorazione guaina : Giallo

CODICE PRODOTTO	TIPOLOGIA	N DI FIBRE	MAX. CARICO DI TRAZIONE (N)	INSTALLAZIONE INTERNA / ESTERNA	DIAMETRO ESTERNO (MM)	PESO (KG/KM)	MATERIALE E COLORE GUAINA ESTERNA	CPR CLASSIFICAZIONE REAZIONE AL FUOCO
FOFO2Z04	OM2	4	1200 / 800	• / •	6,40	48,0	LSZH Giallo	Cca s1b, d1, a1
FOFO2Z08	OM2	8	1200 / 800	• / •	6,40	48,0	LSZH Giallo	Cca s1b, d1, a1
FOFO2Z12	OM2	12	1200 / 800	• / •	6,40	48,0	LSZH Giallo	Cca s1b ,d1 ,a1
FOFO2Z24	OM2	24	1200 / 800	• / •	6,40	48,0	LSZH Giallo	Cca s1b, d1, a1
FOFO3Z04	OM3	4	1200 / 800	• / •	6,40	48,0	LSZH Giallo	Cca s1b, d1 ,a1
FOFO3Z08	OM3	8	1200 / 800	• / •	6,40	48,0	LSZH Giallo	Cca s1b ,d1 ,a1
FOFO3Z12	OM3	12	1200 / 800	• / •	6,40	48,0	LSZH Giallo	Cca s1b ,d1 ,a1
FOFO3Z24	OM3	24	1200 / 800	• / •	6,40	48,0	LSZH Giallo	Cca s1b ,d1 ,a1
FOFO4Z04	OM4	4	1200 / 800	• / •	6,40	48,0	LSZH Giallo	Cca s1b, d1 ,a1
FOFO4Z08	OM4	8	1200 / 800	• / •	6,40	48,0	LSZH Giallo	Cca s1b, d1, a1
FOFO4Z12	OM4	12	1200 / 800	• / •	6,40	48,0	LSZH Giallo	Cca s1b, d1, a1
FOFO4Z24	OM4	24	1200 / 800	• / •	6,40	48,0	LSZH Giallo	Cca s1b, d1, a1

SCHEMA COLORI FIBRE												
NO.	1	2	3	4	5	6	7	8	9	10	11	12
COLOR	Blu	Arancio	Verde	Marrone	Grigio	Bianco	Rosso	Nero	Giallo	Viola	Rosa	Acqua
NO.	13	14	15	16	17	18	19	20	21	22	23	24
COLOR	Blu*	Arancio*	Verde*	Marrone*	Grigio*	Bianco*	Rosso*	Nero*	Giallo*	Viola*	Rosa*	Acqua*

* tratteggiatura nera circolare di riconoscimento ogni 50mm

CARATTERISTICHE MECCANICHE E PERFORMANCE		
CARATTERISTICA	SPECIFICA	VALORE
Max Carico di Trazione	Breve termine Lungo termine	1200 N 800 N
Max Resistenza allo schiacciamento	Breve termine Lungo termine	1500 N / 100 mm 30% del valore a breve termine
Min. Raggio di curvatura	Fase di installazione In utilizzo	20 volte il diametro 10 volte il diametro
Range di temperatura	Temperatura di esercizio Temperatura di posa Temperatura di stoccaggio e trasporto	-30° ÷ +70° C -5° ÷ +55° C -30° ÷ +70° C

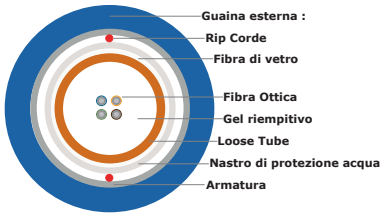
CARATTERISTICHE MECCANICHE PRINCIPALI E PERFORMANCE TEST		
CARATTERISTICA	METODO DI PROVA	CONDIZIONI DI ACCETTAZIONE
Resistenza alla Trazione IEC 60794-1-2-E1	- Carico: Tensione temporanea - Lunghezza del cavo: 50 m - Tempo di carico: 1 min	- Deformazione fibra ≤ 0.6% - Nessuna rottura di fibre e nessun danno alla guaina
Prova di schiacciamento IEC 60794-1-2-E3	- Carico: Per breve periodo - Tempo di carico: 1 min	- Nessuna rottura di fibre e nessun danno alla guaina

"Nessun cambio di attenuazione" considerato se l'attenuazione varia ≤ 0.05 db.

FIBRA MULTIMODALE				LARGHEZZA DI BANDA (MHZ. KM)			ATTENUAZIONE (DB/KM)	
NOMENCLATURA	TIA FIBER STANDARD	DIAMETRO CORE (MICRON)	DIAMETRO CLADDING (MICRON)	OFL A 850 NM	OFL A 1300 NM	EMB 850 NM	A 850 NM	A 1300 NM
OM2	492-AAAB	50	125	≥ 700	≥ 500	- -	≤ 3.5	≤ 1.5
OM3	492-AAAC	50	125	≥ 1500	≥ 500	≥ 2000	≤ 3.5	≤ 1.5
OM4	492-AAAD	50	125	≥ 3500	≥ 500	≥ 4700	≤ 3.5	≤ 1.5

RIF. CPR UE 305/11 CLASSIFICAZIONE REAZIONE AL FUOCO
Cavi ottici per impianti dati installati in opere d'ingegneria civile soggetti a prescrizione di reazione al fuoco **Classificazione secondo reazione al fuoco:** Euroclasse Cca s1b d1 a1

Fibra Ottica multimodale con armatura acciaio termosaldato



A. **Conduttori :** Fibra ottica
B. **Riempitivo :** Gel Riempitivo
C. **Loose Tube :** PBT
D. **Fibra di vetro :** Filato in fibra di vetro
E. **Nastro di protezione acqua:** Duralit®
F. **Rip Corde :**
G. **Armatura :** Acciaio Corrugato
H. **Guaina esterna :** Duraflam+® LSZH
Colorazione guaina : Blu

CODICE PRODOTTO	TIPOLOGIA	N DI FIBRE	MAX. CARICO DI TRAZIONE (N)	INSTALLAZIONE INTERNA / ESTERNA	DIAMETRO ESTERNO (MM)	PESO (KG/KM)	MATERIALE E COLORE GUAINA ESTERNA	CPR CLASSIFICAZIONE REAZIONE AL FUOCO
FOFO2R04	OM2	4	1200 / 800	• / •	8,70	98,0	LSZH Blu	Cca s1b, d1, a1
FOFO2R08	OM2	8	1200 / 800	• / •	8,70	98,0	LSZH Blu	Cca s1b, d1, a1
FOFO2R12	OM2	12	1200 / 800	• / •	8,70	98,0	LSZH Blu	Cca s1b, d1, a1
FOFO2R24	OM2	24	1200 / 800	• / •	8,70	98,0	LSZH Blu	Cca s1b, d1, a1
FOFO3R04	OM3	4	1200 / 800	• / •	8,70	98,0	LSZH Blu	Cca s1b, d1, a1
FOFO3R08	OM3	8	1200 / 800	• / •	8,70	98,0	LSZH Blu	Cca s1b, d1, a1
FOFO3R12	OM3	12	1200 / 800	• / •	8,70	98,0	LSZH Blu	Cca s1b, d1, a1
FOFO3R24	OM3	24	1200 / 800	• / •	8,70	98,0	LSZH Blu	Cca s1b, d1, a1
FOFO4R04	OM4	4	1200 / 800	• / •	8,70	98,0	LSZH Blu	Cca s1b, d1, a1
FOFO4R08	OM4	8	1200 / 800	• / •	8,70	98,0	LSZH Blu	Cca s1b, d1, a1
FOFO4R12	OM4	12	1200 / 800	• / •	8,70	98,0	LSZH Blu	Cca s1b, d1, a1
FOFO4R24	OM4	24	1200 / 800	• / •	8,70	98,0	LSZH Blu	Cca s1b, d1, a1

SCHEMA COLORI FIBRE												
NO.	1	2	3	4	5	6	7	8	9	10	11	12
COLOR	Blu	Arancio	Verde	Marrone	Grigio	Bianco	Rosso	Nero	Giallo	Viola	Rosa	Acqua
NO.	13	14	15	16	17	18	19	20	21	22	23	24
COLOR	Blu*	Arancio*	Verde*	Marrone*	Grigio*	Bianco*	Rosso*	Nero*	Giallo*	Viola*	Rosa*	Acqua*

* tratteggiatura nera circolare di riconoscimento ogni 50mm

CARATTERISTICHE MECCANICHE E PERFORMANCE		
CARATTERISTICA	SPECIFICA	VALORE
Max Carico di Trazione	Breve termine Lungo termine	1200 N 800 N
Max Resistenza allo schiacciamento	Breve termine Lungo termine	2000 N / 100 mm 30% del valore a breve termine
Min. Raggio di curvatura	Fase di installazione In utilizzo	20 volte il diametro 10 volte il diametro
Range di temperatura	Temperatura di esercizio Temperatura di posa Temperatura di stoccaggio e trasporto	-30° ÷ +70° C -5° ÷ +55° C -30° ÷ +70° C

CARATTERISTICHE MECCANICHE PRINCIPALI E PERFORMANCE TEST		
CARATTERISTICA	METODO DI PROVA	CONDIZIONI DI ACCETTAZIONE
Resistenza alla Trazione IEC 60794-1-2-E1	- Carico: Tensione temporanea - Lunghezza del cavo: 50 m - Tempo di carico: 1 min	- Deformazione fibra ≤ 0.6% - Nessuna rottura di fibre e nessun danno alla guaina
Prova di schiacciamento IEC 60794-1-2-E3	- Carico: Per breve periodo - Tempo di carico: 1 min	- Nessuna rottura di fibre e nessun danno alla guaina

"Nessun cambio di attenuazione" considerato se l'attenuazione varia ≤ 0.05 db.

FIBRA MULTIMODALE				LARGHEZZA DI BANDA (MHZ. KM)			ATTENUAZIONE (DB/KM)	
NOMENCLATURA	TIA FIBER STANDARD	DIAMETRO CORE (MICRON)	DIAMETRO CLADDING (MICRON)	OFL A 850 NM	OFL A 1300 NM	EMB 850 NM	A 850 NM	A 1300 NM
OM2	492-AAAB	50	125	≥ 700	≥ 500	- -	≤ 3.5	≤ 1.5
OM3	492-AAAC	50	125	≥ 1500	≥ 500	≥ 2000	≤ 3.5	≤ 1.5
OM4	492-AAAD	50	125	≥ 3500	≥ 500	≥ 4700	≤ 3.5	≤ 1.5

RIF. CPR UE 305/11 CLASSIFICAZIONE REAZIONE AL FUOCO
Cavi per impianti di videosorveglianza IP, impianti dati, installati in opere d'ingegneria civile soggetti a prescrizione di reazione al fuoco **Classificazione secondo reazione al fuoco:** Euroclasse Cca s1b d1 a1

NOVATEC
EUROPE

FIBER OPTIC CABLES

PRODUCT CATALOG

OPTIX®

Table of Contents

FIBER OPTIC CABLES

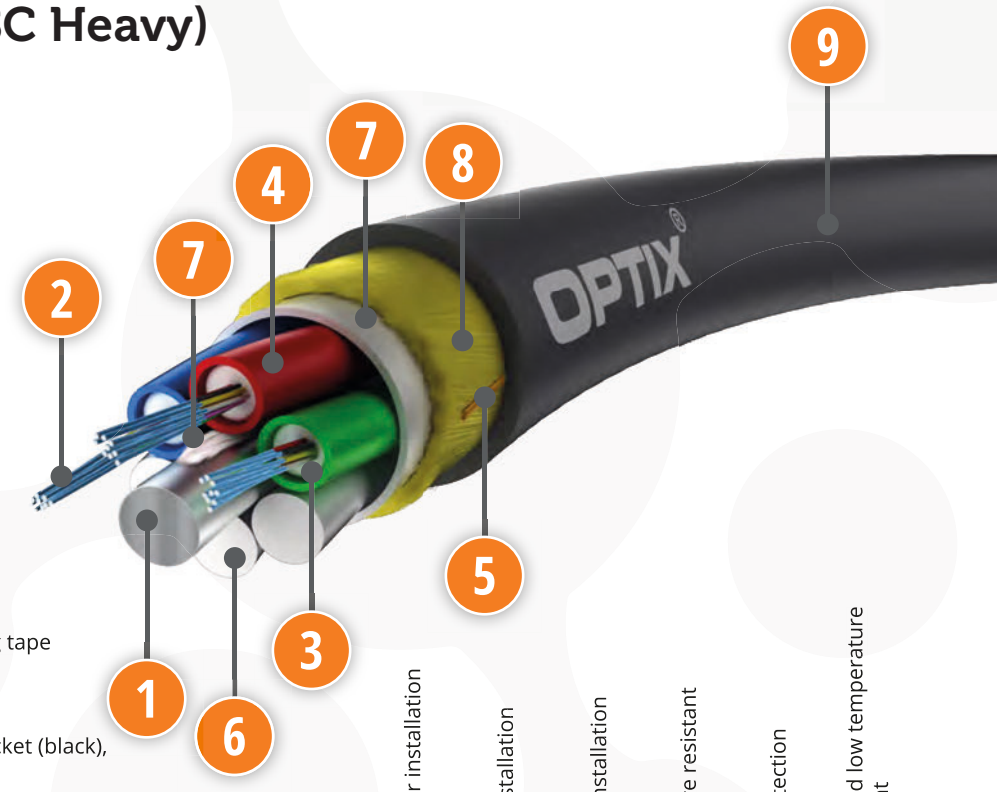
OPTIX Cable ADSS-XOTKtsdD 2.7kN (up to 50m SPAN - NESC Heavy)

Cod. Z3FAC105-Cable version*

9/125 ITU-T G.652D

FEATURES:

- Cable for aerial installation
- Span (NESC Heavy) up to 50 meters (2.7kN)
- Fully dielectric construction
- Additional water blocking construction
- Resistance to high and low temperatures
- Enhanced by high quality aramid yarns
- Solid HDPE jacket



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm coloured coating
3. Hydrophobic jelly
4. Loose tube
5. Ripcords to tear the outer jacket
6. Filler
7. Water blocking tape / yarns
8. Aramid yarns
9. HDPE outer jacket (black), UV stabilized

Outdoor installation
Duct installation
Aerial installation
Moisture resistant
UV protection
High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±5%)	Ø Tube [mm] (±0.1)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (nom.)	Temp. range installation	Temp. range operating, transport	Minimum bending radius
2T6F	12	81	10.0	1.5/2.1	Aramid yarns	FRP (2.25)	HDPE (1.5)	-30° to +60° C	-40° to +70° C	20D/10D
1T12F	12	85	10.2	1.6/2.2	Aramid yarns	FRP (2.30)	HDPE (1.5)	-30° to +60° C	-40° to +70° C	20D/10D
2T12F	24	85	10.2	1.6/2.2	Aramid yarns	FRP (2.30)	HDPE (1.5)	-30° to +60° C	-40° to +70° C	20D/10D
4T6F	24	81	10.0	1.5/2.1	Aramid yarns	FRP (2.25)	HDPE (1.5)	-30° to +60° C	-40° to +70° C	20D/10D
4T12F	48	85	10.2	1.6/2.2	Aramid yarns	FRP (2.30)	HDPE (1.5)	-30° to +60° C	-40° to +70° C	20D/10D
6T12F	72	85	10.2	1.6/2.2	Aramid yarns	FRP (2.30)	HDPE (1.5)	-30° to +60° C	-40° to +70° C	20D/10D
8T12F	96	108	11.6	1.6/2.2	Aramid yarns	FRP in PE coat (2.8/3.7)	HDPE (1.5)	-30° to +60° C	-40° to +70° C	20D/10D
12T12F	144	166	14.6	1.6/2.2	Aramid yarns	FRP in PE coat (3.5/6.7)	HDPE (1.5)	-30° to +60° C	-40° to +70° C	20D/10D
12T24F	192	170	15.4	1.6/2.2	Aramid yarns	FRP (2.50)	HDPE (1.5)	-30° to +60° C	-40° to +70° C	20D/10D
12T24F	216	170	15.4	1.6/2.2	Aramid yarns	FRP (2.50)	HDPE (1.5)	-30° to +60° C	-40° to +70° C	20D/10D
12T24F	288	218	17.4	1.6/2.2	Aramid yarns	FRP in PE coat (3.5/4.5)	HDPE (1.5)	-30° to +60° C	-40° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	12-24F	48F	72F	96-288F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	2700N	2700N	2700N	2700N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	1500N	1500N	1500N	1500N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	1000N/10 cm			
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]			

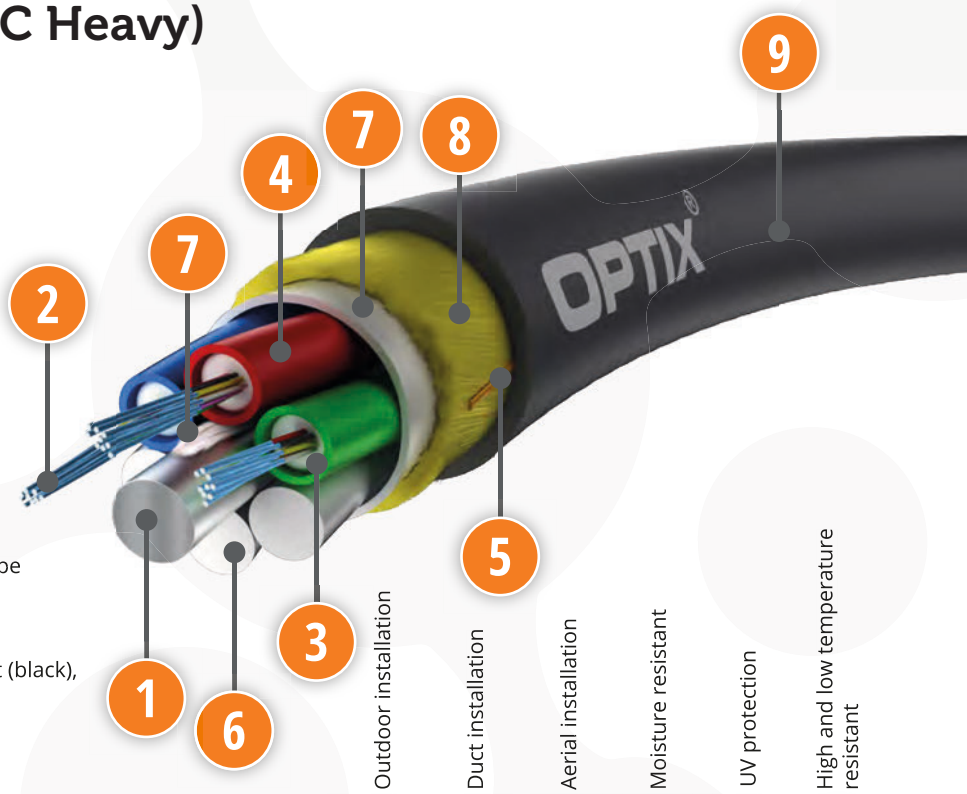
OPTIX Cable ADSS-XOTKtsdD 4.0kN (up to 100m SPAN - NESC Heavy)

Cod. Z3FAC206-Cable version*

9/125 ITU-T G.652D

FEATURES:

- Cable for aerial installation
- Span (NESC Heavy) up to 100 meters (4kN)
- Fully dielectric construction
- Additional water blocking construction
- Resistance to high and low temperatures
- Enhanced by high quality aramid yarns
- Solid HDPE jacket



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm coloured coating
3. Hydrophobic jelly
4. Loose tube
5. Ripcords to tear the outer jacket
6. Filler
7. Water blocking tape / yarns
8. Aramid yarns
9. HDPE outer jacket (black), UV stabilized

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±5%)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (min.)	Temp. range installation	Temp. range operating, transport	Minimum bending radius
1T12F	12	89	10.5	1.6/2.2	Aramid yarns	FRP (2.5)	HDPE (1.5)	-20° to +60° C	-40° to +70° C	20D/10D
2T6F	12	83	10.1	1.5/2.1	Aramid yarns	FRP (2.25)	HDPE (1.5)	-20° to +60° C	-40° to +70° C	20D/10D
4T6F	24	83	10.1	1.5/2.1	Aramid yarns	FRP (2.25)	HDPE (1.5)	-20° to +60° C	-40° to +70° C	20D/10D
2T12F	24	89	10.5	1.6/2.2	Aramid yarns	FRP (2.5)	HDPE (1.5)	-20° to +60° C	-40° to +70° C	20D/10D
4T12F	48	89	10.5	1.6/2.2	Aramid yarns	FRP (2.5)	HDPE (1.5)	-20° to +60° C	-40° to +70° C	20D/10D
6T12F	72	89	10.5	1.6/2.2	Aramid yarns	FRP (2.5)	HDPE (1.5)	-20° to +60° C	-40° to +70° C	20D/10D
8T12F	96	110	11.7	1.6/2.2	Aramid yarns	FRP in PE coat (3.0/3.7)	HDPE (1.5)	-20° to +60° C	-40° to +70° C	20D/10D
12T12F	144	170	14.7	1.6/2.2	Aramid yarns	FRP in PE coat (3.5/6.7)	HDPE (1.5)	-20° to +60° C	-40° to +70° C	20D/10D
6T24F	144	118	12.2	2.0/2.8	Aramid yarns	FRP (3.0)	HDPE (1.5)	-20° to +60° C	-40° to +70° C	20D/10D
16T12F	192	175	15.5	1.6/2.2	Aramid yarns	FRP (2.5)	HDPE (1.5)	-20° to +60° C	-40° to +70° C	20D/10D
8T24F	192	153	13.9	2.0/2.8	Aramid yarns	FRP in PE coat (3.5/4.7)	HDPE (1.5)	-20° to +60° C	-40° to +70° C	20D/10D
18T12F	216	175	15.5	1.6/2.2	Aramid yarns	FRP (2.5)	HDPE (1.5)	-20° to +60° C	-40° to +70° C	20D/10D
24T12F	288	223	17.5	1.6/2.2	Aramid yarns	FRP in PE coat (3.5/4.5)	HDPE (1.5)	-20° to +60° C	-40° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	12-24F	48F	72F	96-288F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	4000N	4000N	4000N	4000N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	2400N	2000N	2000N	2000N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	1000N			
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	25 cycles [(20xD), 1Kg]			

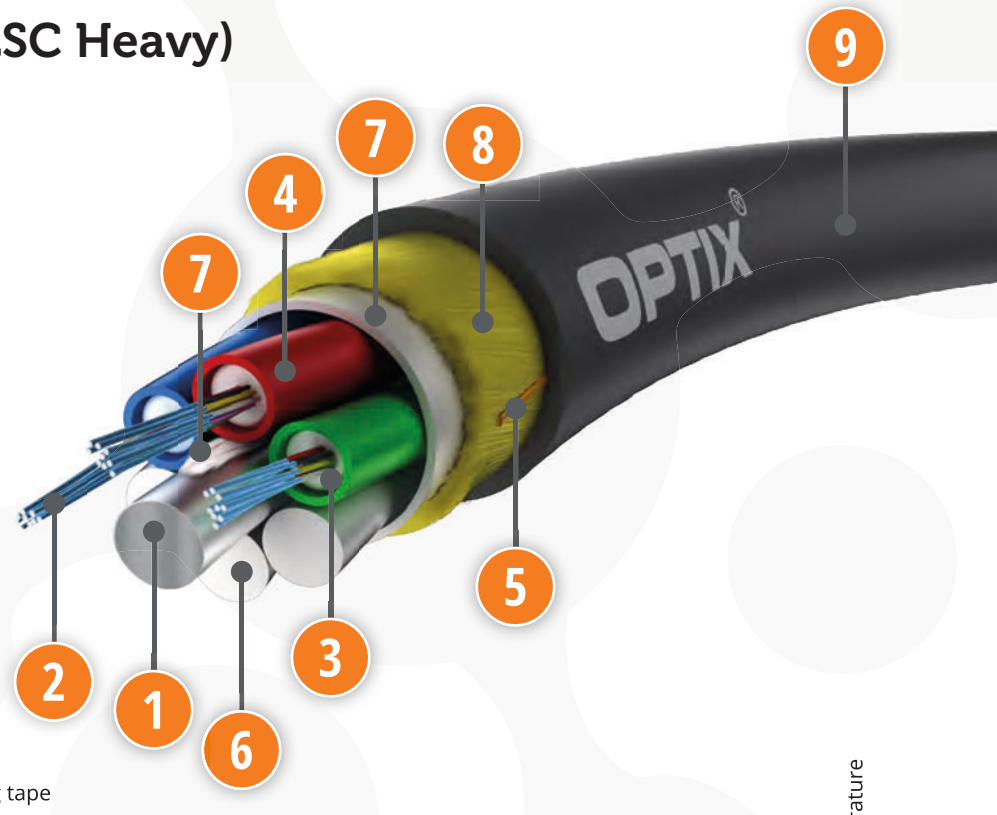
OPTIX Cable ADSS-XOTKtsdD 6.0kN (up to 150m SPAN - NESC Heavy)

Cod. Z3FAC301-Cable version*

9/125 ITU-T G.652D

FEATURES:

- Cable for aerial installation
- Span (NESC Heavy) up to 150 meters (6kN)
- Fully dielectric construction
- Additional water blocking construction
- Resistance to high and low temperatures
- Enhanced by high quality aramid yarns
- Solid HDPE jacket



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm coloured coating
3. Hydrophobic jelly
4. Loose tube
5. Ripcords to tear the outer jacket
6. Filler
7. Water blocking tape / yarns
8. Aramid yarns
9. HDPE outer jacket (black), UV stabilized

Outdoor installation
Duct installation
Aerial installation
Moisture resistant
UV protection
High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±5%)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (nom.)	Temp. range installation	Temp. range operating, transport	Minimum bending radius
2T6F	12	106	11.3	1.8/2.5	Aramid yarns	FRP (2.6)	HDPE (1.4)	-30° to +60° C	-40° to +70° C	20D/10D
4T6F	24	106	11.3	1.8/2.5	Aramid yarns	FRP (2.6)	HDPE (1.4)	-30° to +60° C	-40° to +70° C	20D/10D
2T12F	24	106	11.3	1.8/2.5	Aramid yarns	FRP (2.6)	HDPE (1.4)	-30° to +60° C	-40° to +70° C	20D/10D
4T12F	48	106	11.3	1.8/2.5	Aramid yarns	FRP (2.6)	HDPE (1.4)	-30° to +60° C	-40° to +70° C	20D/10D
6T12F	72	106	11.3	1.8/2.5	Aramid yarns	FRP (2.6)	HDPE (1.4)	-30° to +60° C	-40° to +70° C	20D/10D
8T12F	96	140	12.9	1.8/2.5	Aramid yarns	FRP in PE coat (3.5/4.3)	HDPE (1.4)	-30° to +60° C	-40° to +70° C	20D/10D
12T12F	144	201	16.2	1.8/2.5	Aramid yarns	FRP in PE coat (3.5/7.5)	HDPE (1.4)	-30° to +60° C	-40° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	12-144F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	6000N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	3000N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	1500N (100x100mm)
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	25 cycles [(20xD), 1Kg]

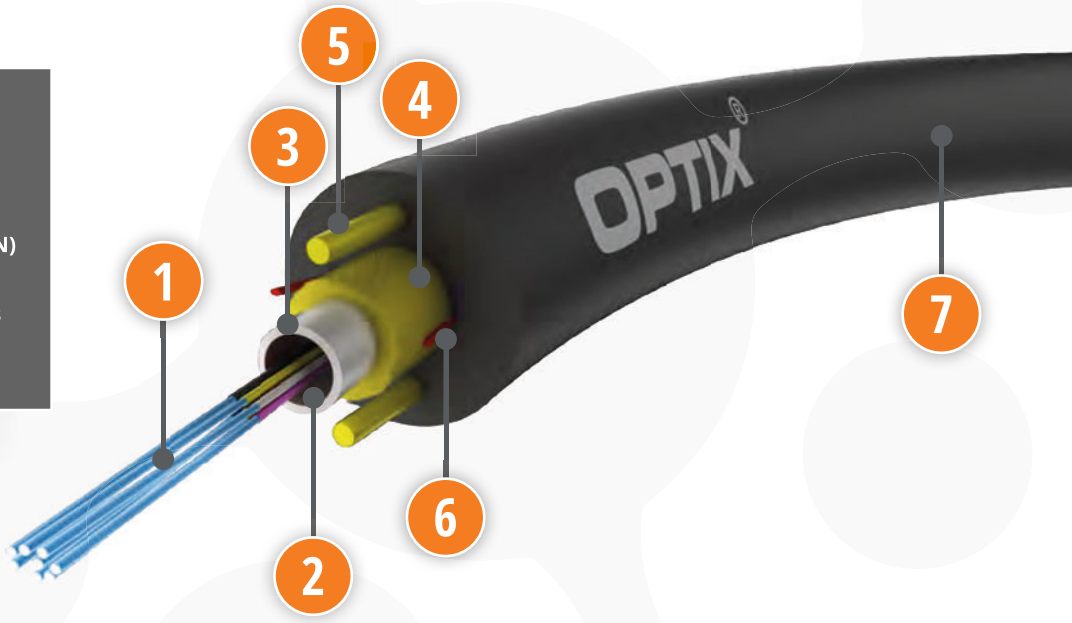
OPTIX Cable ARAMID Z-XOTKtcdD 1.2kN (up to 80m SPAN - NESC Heavy)

Cod. Z3FNV301-Cable version*

9/125 ITU-T G.652D/G.657A1/G.657A2

FEATURES:

- Universal cable for aerial / canalization installation
- Universal cable for aerial / canalization
- Span (NESC Heavy) up to 80 meters (1.2kN)
- Fully dielectric construction
- Resistance to high and low temperatures
- Enhanced by high quality aramid yarns
- Solid HDPE jacket



CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. Hydrophobic jelly
3. Loose tube
4. Aramid yarns
5. ARP rods / FRP rods
6. Ripcords to tear the outer jacket
7. HDPE outer jacket (black), UV stabilized

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.4)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.2)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
1T2F	2	22	5.3	1.4/2.0	Aramid yarns	ARP (2x0.5)/ FRP (2x0.5)	HDPE (1.5)	-10° to +50° C	-40° to +70° C	20D/10D
1T4F	4	22	5.3	1.4/2.0	Aramid yarns	ARP (2x0.5)/ FRP (2x0.5)	HDPE (1.5)	-10° to +50° C	-40° to +70° C	20D/10D
1T8F	8	22	5.3	1.4/2.0	Aramid yarns	ARP (2x0.5)/ FRP (2x0.5)	HDPE (1.5)	-10° to +50° C	-40° to +70° C	20D/10D
1T12F	12	22	5.3	1.4/2.0	Aramid yarns	ARP (2x0.5)/ FRP (2x0.5)	HDPE (1.5)	-10° to +50° C	-40° to +70° C	20D/10D
1T24F	24	25	5.8	1.6/2.4	Aramid yarns	ARP (2x0.5)/ FRP (2x0.5)	HDPE (1.5)	-10° to +50° C	-40° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	1-8F	12F	24F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	1200N	1200N	1200N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	600N	600N	600N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec.		
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]		

OPTIX Cable STEEL Z-XOTKtc 1.2kN (up to 60m SPAN - NESC Heavy)

9/125 ITU-T G.652D

Cod. Z3FNV309-Cable version*

FEATURES:

- Universal cable for aerial/canalization installation
- Span (NESC Heavy) up to 60 meters (1.2kN)
- Better structural strength
- Resistance to high and low temperatures
- Water blocking construction
- Solid HDPE jacket

CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. Hydrophobic jelly
3. Loose tube
4. Water blocking yarns
5. Steel rods
6. Ripcords to tear the outer jacket
7. HDPE outer jacket (black), UV stabilized

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.4)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.2)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
1T4F	4	40	6.5	1.4/2.0	None	Steel (2x0.9)	HDPE (2.0)	-10° to +50° C	-40° to +70° C	20D/15D
1T8F	8	40	6.5	1.4/2.0	None	Steel (2x0.9)	HDPE (2.0)	-10° to +50° C	-40° to +70° C	20D/15D
1T12F	12	40	6.5	1.4/2.0	None	Steel (2x0.9)	HDPE (2.0)	-10° to +50° C	-40° to +70° C	20D/15D
1T24F	24	50	7.0	1.6/2.4	None	Steel (2x0.9)	HDPE (2.0)	-10° to +50° C	-40° to +70° C	20D/15D

Mechanical parameters	EN standard	IEC standard	1-8F	12F	24F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	1200N	1200N	1200N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	600N	600N	600N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec.		
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]		

OPTIX Cable
FRP Z-XOTKtcd 1.2kN
(up to 35m SPAN - NESC Heavy)

9/125 ITU-T G.652D, 62.5/125 ITU-T OM1, 50/125 ITU-T OM2/OM3/OM4/OM5

Cod. Z3FUC501-Cable version*

FEATURES:

- **Universal cable for aerial / canalization installation**
- **Span (NESC Heavy) up to 35 meters (1.2kN)**
- **Fully dielectric construction**
- **Resistance to high and low temperatures**
- **Water blocking construction**
- **Solid HDPE jacket**

CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. Loose tube
3. Ripcords to tear the outer jacket
4. FRP rods
5. HDPE outer jacket (black), UV stabilized
6. Water blocking yarns

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.2)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
1T4F	4	40	6.5	1.4/2.0	None	FRP (2x0.9)	HDPE (2.0)	-10° to +50° C	-40° to +70° C	20D/15D
1T8F	8	40	6.5	1.4/2.0	None	FRP (2x0.9)	HDPE (2.0)	-10° to +50° C	-40° to +70° C	20D/15D
1T12F	12	40	6.5	1.4/2.0	None	FRP (2x0.9)	HDPE (2.0)	-10° to +50° C	-40° to +70° C	20D/15D
1T24F	24	50	7.0	1.6/2.4	None	FRP (2x0.9)	HDPE (2.0)	-10° to +50° C	-40° to +70° C	20D/15D

Cod. Z3FUC301-Cable version*

Mechanical parameters	EN standard	IEC standard	1-8F	12F	24F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	1200N	1200N	1200N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	600N	600N	600N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec.		
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]		

OPTIX Cable GLASS Z-XOTKtcdDb 1.0kN NV101 (up to 40m SPAN - NESC Heavy)

Cod. Z3FNV101-Cable version*

9/125 ITU-T G.652D/G.657A1/G.657A2

FEATURES:

- **Universal cable for aerial / canalization installation**
- **Span (NESC Heavy) up to 40 meters (1kN)**
- **Fully dielectric construction**
- **Resistance to high and low temperatures**
- **Enhanced by high quality glass yarns**
- **Solid HDPE jacket**

CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. Loose tube
3. Ripcords to tear the outer jacket
4. ARP rods
5. HDPE outer jacket (black), UV stabilized
6. Glass yarns

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.4)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.2)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
1T2F	2	25	5.5	1.4/2.0	Glass yarns	ARP (2x0.5)	HDPE (1.5)	-20° to +70° C	-20° to +70° C	20D/10D
1T4F	4	25	5.5	1.4/2.0	Glass yarns	ARP (2x0.5)	HDPE (1.5)	-20° to +70° C	-20° to +70° C	20D/10D
1T8F	8	25	5.5	1.4/2.0	Glass yarns	ARP (2x0.5)	HDPE (1.5)	-20° to +70° C	-20° to +70° C	20D/10D
1T12F	12	25	5.5	1.4/2.0	Glass yarns	ARP (2x0.5)	HDPE (1.5)	-20° to +70° C	-20° to +70° C	20D/10D
1T24F	24	30	6.0	1.9/2.5	Glass yarns	ARP (2x0.5)	HDPE (1.5)	-20° to +70° C	-20° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	1-8F	12F	24F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	1000N	1000N	1000N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	500N	500N	500N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec.		
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]		

OPTIX Cable GLASS PLUS Z-XOTKtcdDb 1.2kN (up to 50m SPAN - NESC Heavy)

Cod. Z3FNV103-Cable version*

9/125 ITU-T G.652D

FEATURES:

- Universal cable for aerial / canalization installation
- Span (NESC Heavy) up to 50 meters (1.2kN)
- Fully dielectric construction
- Resistance to high and low temperatures
- Enhanced by high quality glass yarns
- Solid HDPE jacket

CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. Loose tube
3. Ripcords to tear the outer jacket
4. ARP rods
5. HDPE outer jacket (black), UV stabilized
6. Glass yarns

Aerial installation | Outdoor installation | Duct installation | Moisture resistant | Rodent resistant | UV protection | High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.4)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.2)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
1T1F	1	28	6.0	1.4/2.0	Glass yarns	ARP (2x0.5)	HDPE (1.5)	-20° to +70° C	-20° to +70° C	20D/10D
1T2F	2	28	6.0	1.4/2.0	Glass yarns	ARP (2x0.5)	HDPE (1.5)	-20° to +70° C	-20° to +70° C	20D/10D
1T4F	4	28	6.0	1.4/2.0	Glass yarns	ARP (2x0.5)	HDPE (1.5)	-20° to +70° C	-20° to +70° C	20D/10D
1T8F	8	28	6.0	1.4/2.0	Glass yarns	ARP (2x0.5)	HDPE (1.5)	-20° to +70° C	-20° to +70° C	20D/10D
1T12F	12	28	6.0	1.4/2.0	Glass yarns	ARP (2x0.5)	HDPE (1.5)	-20° to +70° C	-20° to +70° C	20D/10D
1T24F	24	33	6.5	1.9/2.5	Glass yarns	ARP (2x0.5)	HDPE (1.5)	-20° to +70° C	-20° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	1-8F	12F	24F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	1200N	1200N	1200N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	600N	600N	600N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec.		
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]		

OPTIX Cable FLAT Z-XOTKtcdp FC101 1.0kN (up to 70m SPAN - NESC Heavy)

Cod. Z3FNV401-Cable version*

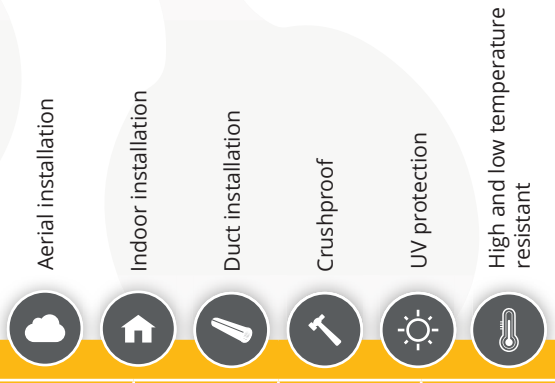
9/125 ITU-T G.652D

FEATURES:

- **Universal cable for aerial / canalization installation**
- **Span (NESC Heavy) up to 70 meters (1.0kN)**
- **Fully dielectric construction**
- **Resistance to high and low temperatures**
- **Practical, flat design**
- **Solid HDPE jacket**

CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. Hydrophobic jelly
3. Loose tube
4. FRP rods
5. HDPE outer jacket (black), UV stabilized



Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
1T8F	8	35	8.1x4.1	1.7/2.5	None	FRP (2x1.8)	HDPE	-30° to +70° C	-30° to +70° C	20D/10D
1T12F	12	35	8.1x4.1	1.7/2.5	None	FRP (2x1.8)	HDPE	-30° to +70° C	-30° to +70° C	20D/10D
1T24F	24	45	8.6x4.6	2.0/3.0	None	FRP (2x1.8)	HDPE	-30° to +70° C	-30° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	8F	12F	24F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	1000N	1000N	1000N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	600N	600N	600N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	1000N (100x100mm) for 60 sec.		
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]		

OPTIX Cable FLAT Z-XOTKtsdp FC201 1.0kN (up to 70m SPAN - NESC Heavy)

Cod. Z3FNV402-Cable version*

9/125 ITU-T G.652D

FEATURES:

- Universal cable for aerial / canalization installation
- Span (NESC Heavy) up to 70 meters (1.0kN)
- Fully dielectric construction
- Resistance to high and low temperatures
- Practical, flat design
- Solid HDPE jacket

CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. Hydrophobic jelly
3. Loose tube
4. FRP rods
5. HDPE outer jacket (black), UV stabilized

Aerial installation | Indoor installation | Duct installation | Crushproof | UV protection | High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
2T12F	24	30	8.8x3.4	1.2/1.7	None	FRP (2x1.8)	HDPE	-30° to +70° C	-30° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	24F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	1000N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	600N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	2000N (100x100mm) for 60 sec.
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]

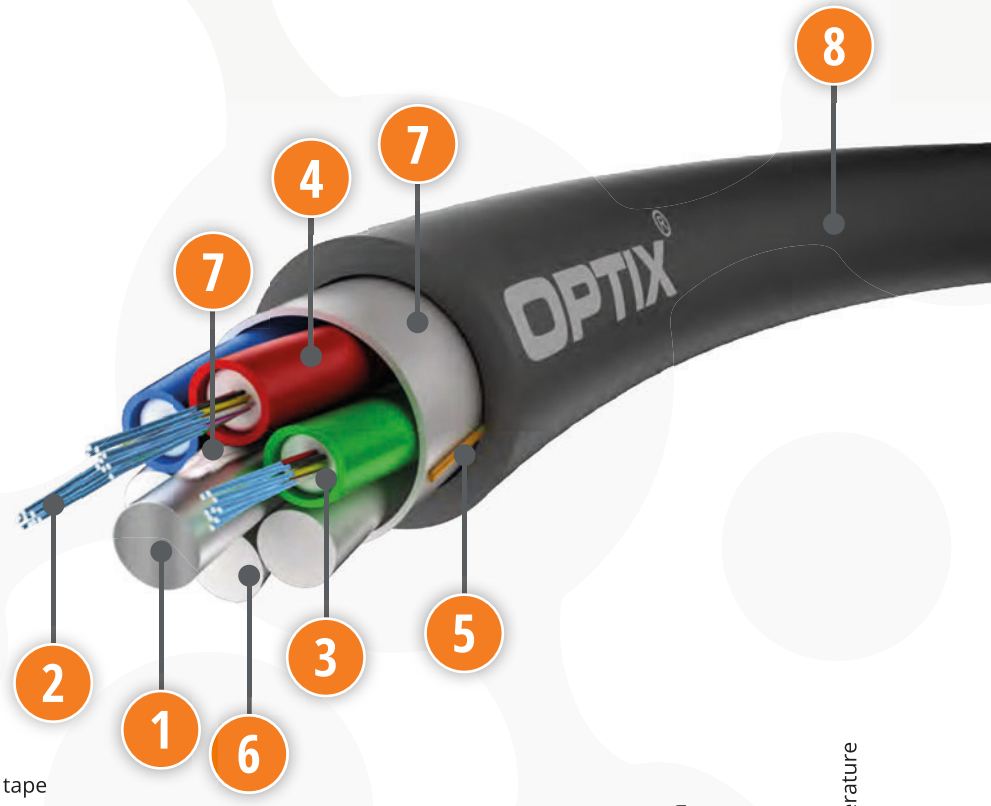
OPTIX Cable LSZH ZW-NOTKtsd 1.2kN

9/125 ITU-T G.652D

Cod. Z3FNV507-Cable version*

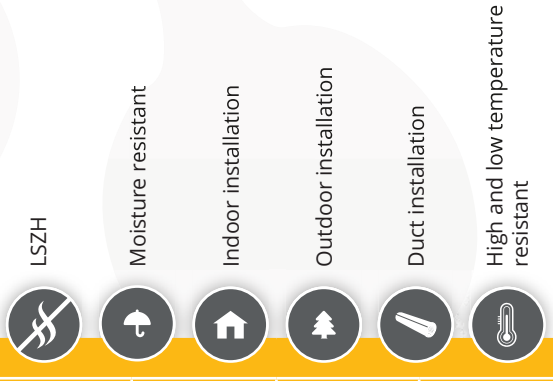
FEATURES:

- Fully dielectric construction
- Solid LSZH jacket
- Additional water blocking construction
- Resistance to high and low temperatures
- Practical and thin Ripcord



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm coloured coating
3. Hydrophobic jelly
4. Loose tube
5. Ripcords to tear the outer jacket
6. Filler
7. Water blocking tape / yarns
8. LSZH outer jacket (black)



Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube [mm] (±0.2)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.2)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
2T6F	12	105	10.2	1.4/2.0	None	FRP (2.0)	LSZH (1.6)	-40° to +60° C	-40° to +70° C	20D/10D
2T12F	24	105	10.2	1.4/2.0	None	FRP (2.0)	LSZH (1.6)	-40° to +60° C	-40° to +70° C	20D/10D
4T6F	24	105	10.2	1.4/2.0	None	FRP (2.0)	LSZH (1.6)	-40° to +60° C	-40° to +70° C	20D/10D
4T12F	48	105	10.2	1.4/2.0	None	FRP (2.0)	LSZH (1.6)	-40° to +60° C	-40° to +70° C	20D/10D
6T12F	72	105	10.2	1.4/2.0	None	FRP (2.0)	LSZH (1.6)	-40° to +60° C	-40° to +70° C	20D/10D
8T12F	96	130	11.5	1.4/2.0	None	FRP (2.0)	LSZH (1.6)	-40° to +60° C	-40° to +70° C	20D/10D
12T12F	144	195	14.2	1.4/2.0	None	FRP (2.0)	LSZH (1.6)	-40° to +60° C	-40° to +70° C	20D/10D
12T24F	288	250	16.5 (± 1.0)	1.4/2.0	None	FRP (2.0)	LSZH (1.6)	-40° to +60° C	-40° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	12-24F	48F	72F	96-288F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	1200N	1200N	1200N	1200N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	500N	500N	500N	500N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	2000N (100x100mm) for 60 sec.			
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	25 cycles (20xD)			

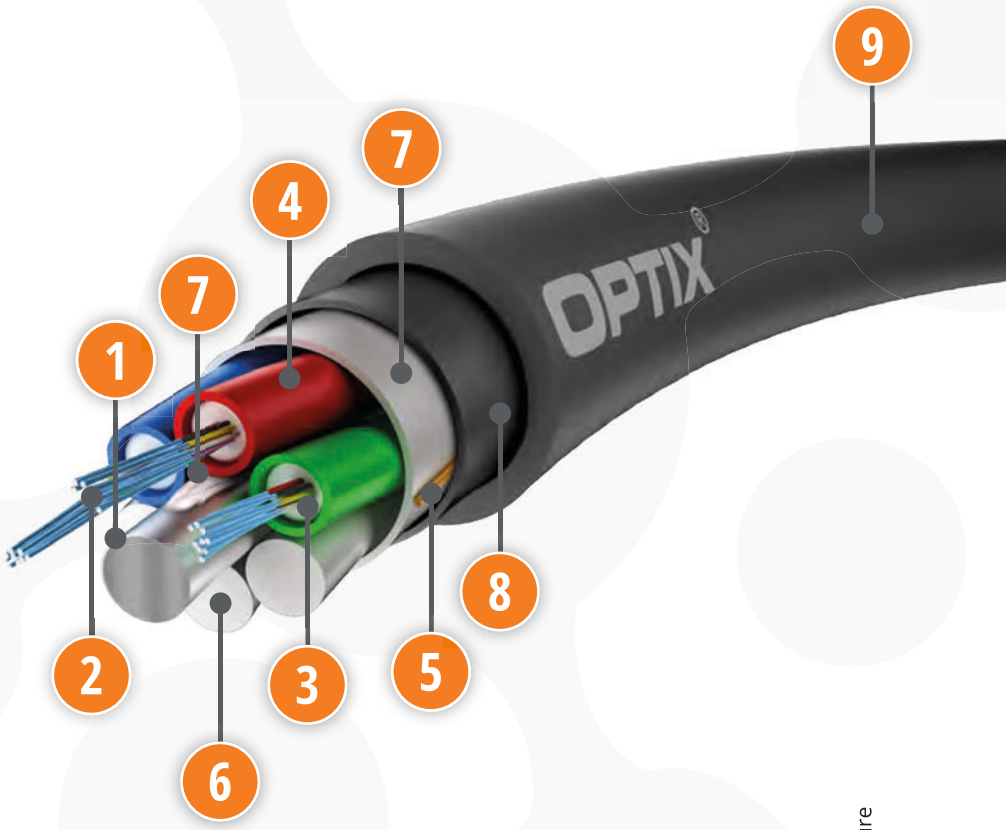
OPTIX Cable ZW-(NV)OTKtsd 1.2kN

9/125 ITU-T G.652D

Cod. Z3FNV509-Cable version*

FEATURES:

- Fully dielectric construction
- solid LSZH outer jacket and nylon (PA) inner jacket
- Additional water blocking construction
- Resistance to high and low temperatures
- Practical and thin Ripcord



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm coloured coating
3. Hydrophobic jelly
4. Loose tube
5. Ripcords to tear the outer jacket
6. Filler
7. Water blocking tape / yarns
8. Nylon (PA) inner jacket (black)
9. LSZH outer jacket (black)

Indoor installation | Outdoor installation | Duct installation | LSZH | Moisture resistant | Rodent resistant | High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.2)	Temp. range installation	Temp. range operating, transport	Minimum bending radius
1T12F	12	120	11.2	1.4/2.0	None	FRP (2.0)	LSZH (1.6) + PA (0.5)	-15° to +60° C	-40° to +70° C	20D
2T12F	24	120	11.2	1.4/2.0	None	FRP (2.0)	LSZH (1.6) + PA (0.5)	-15° to +60° C	-40° to +70° C	20D
3T12F	36	120	11.2	1.4/2.0	None	FRP (2.0)	LSZH (1.6) + PA (0.5)	-15° to +60° C	-40° to +70° C	20D
4T12F	48	120	11.2	1.4/2.0	None	FRP (2.0)	LSZH (1.6) + PA (0.5)	-15° to +60° C	-40° to +70° C	20D
6T12F	72	120	11.2	1.4/2.0	None	FRP (2.0)	LSZH (1.6) + PA (0.5)	-15° to +60° C	-40° to +70° C	20D
8T12F	96	150	12.5	1.4/2.0	None	FRP (2.0)	LSZH (1.6) + PA (0.5)	-15° to +60° C	-40° to +70° C	20D
12T12F	144	220	15.2	1.4/2.0	None	FRP (2.0)	LSZH (1.6) + PA (0.5)	-15° to +60° C	-40° to +70° C	20D
24T12F	288	280	17.5 (± 1.0)	1.4/2.0	None	FRP (2.0)	LSZH (1.6) + PA (0.5)	-15° to +60° C	-40° to +70° C	20D

Mechanical parameters	EN standard	IEC standard	12-24F	36-48F	72F	96-288F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	1200N	1200N	1200N	1200N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	500N	500N	500N	500N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	2000N (100x100mm) for 60 sec.			
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 5Kg]			

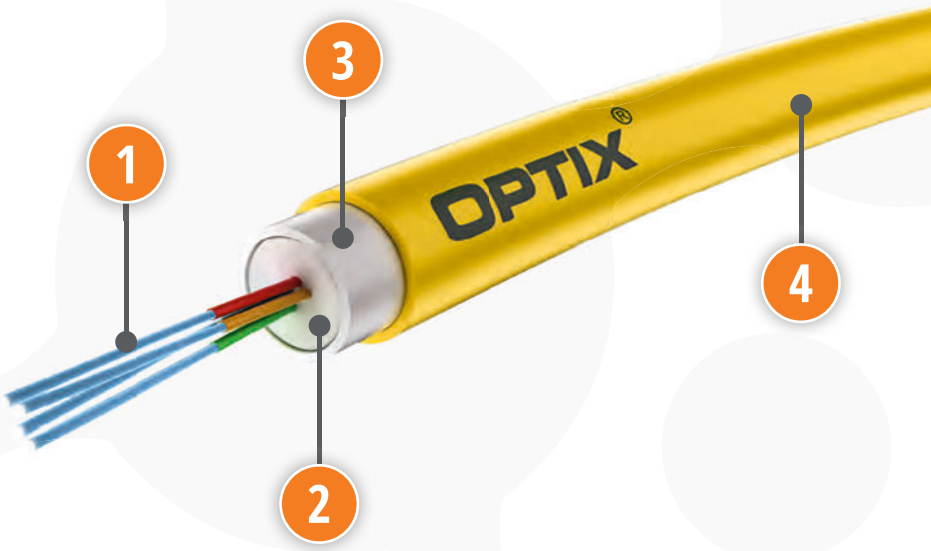
OPTIX Cable MICRO EPFU ZW-XOTKtcd 0.05kN

9/125 ITU-T G.657A2

Cod. Z3FMC101-Cable version*

FEATURES:

- Cable for microduct installation
- Solid yellow outer jacket
- Small reduced diameter
- Designed for cable blowing
- Resistance to high and low temperatures
- Fully dielectric construction



CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. Resin
3. Loose tube
4. Outer jacket (yellow)

Microduct installation
Outdoor installation
Indoor installation
Reduced diameter
Blowing installation
High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±0.5)	Ø Cable [mm] (±0.1)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating thickness [mm] (±0.1)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
1T2F	2	1.0	1.10	0.75	None	None	0.15	-10° to +50° C	-40° to +70° C	20D/10D
1T4F	4	1.0	1.10	0.75	None	None	0.15	-10° to +50° C	-40° to +70° C	20D/10D
1T6F	6	1.6	1.35	0.75	None	None	0.15	-10° to +50° C	-40° to +70° C	20D/10D
1T8F	8	1.6	1.35	0.75	None	None	0.15	-10° to +50° C	-40° to +70° C	20D/10D
1T12F	12	2.2	1.60	0.75	None	None	0.15 (±0.05)	-10° to +50° C	-40° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	2-12F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	50N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	25N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	100N (100x100mm)
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles (20xD)

OPTIX Cable MICRO ZW-XOTKtcdD 0.15kN

9/125 ITU-T G.652D

Cod. Z3FMC201-Cable version*

FEATURES:

- Cable for microduct installation
- Solid HDPE jacket
- Small reduced diameter
- Designed for cable blowing
- Reinforced by aramid yarns
- Resistance to high and low temperatures
- Fully dielectric construction

CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. Thixotropic jelly
3. Loose tube
4. Aramid yarns
5. Ripcords to tear the outer jacket
6. HDPE outer jacket (black), UV stabilized

Microduct installation
Outdoor installation
Indoor installation
Reduced diameter
UV protection
Blowing Installation
High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.2)	Ø Tube [mm] (±0.1)	Supporting element / Peripheral reinforcement	Reinforcing element	Coating material & thickness [mm] (±5%)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
1T2F	2	5.2	2.5	1.1/1.6	Aramid yarns		HDPE (0.3)	-20° to +70° C	-20° to +70° C	20D/15D
1T4F	4	5.2	2.5	1.1/1.6	Aramid yarns		HDPE (0.3)	-20° to +70° C	-20° to +70° C	20D/15D
1T6F	6	5.2	2.5	1.1/1.6	Aramid yarns		HDPE (0.3)	-20° to +70° C	-20° to +70° C	20D/15D
1T8F	8	5.2	2.5	1.1/1.6	Aramid yarns		HDPE (0.3)	-20° to +70° C	-20° to +70° C	20D/15D
1T12F	12	5.2	2.5	1.1/1.6	Aramid yarns		HDPE (0.3)	-20° to +70° C	-20° to +70° C	20D/15D

Mechanical parameters	EN standard	IEC standard	2-12F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	150N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	75N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	50N (100x100mm) for 60 sec.
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 0.5Kg]

OPTIX Cable MICRO ZW-VOTKtcdD 0.25kN

9/125 ITU-T G.657A1

Cod. Z3FMC205-Cable version*

FEATURES:

- Cable for microduct installation
- Solid PA-12 jacket
- Small reduced diameter
- Designed for cable blowing
- Reinforced by aramid yarns
- Resistance to high and low temperatures
- Fully dielectric construction

CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. Thixotropic jelly
3. Loose tube
4. Aramid yarns
5. PA-12 outer jacket (orange)

Microduct installation
Outdoor installation
Indoor installation
Reduced diameter
UV protection
Blowing Installation
High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.1)	Ø Tube [mm] (±0.2)	Supporting element / Peripheral reinforcement	Reinforcing element	Coating material & thickness [mm] (±0.1)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
1T2F	2	5.5	2.5	1.8	Aramid yarns		PA-12 (0.3)	-10° to +60° C	-20° to +70° C	15D
1T4F	4	5.5	2.5	1.8	Aramid yarns		PA-12 (0.3)	-10° to +60° C	-20° to +70° C	15D
1T6F	6	5.5	2.5	1.8	Aramid yarns		PA-12 (0.3)	-10° to +60° C	-20° to +70° C	15D
1T8F	8	5.5	2.5	1.8	Aramid yarns		PA-12 (0.3)	-10° to +60° C	-20° to +70° C	15D
1T12F	12	5.5	2.5	1.8	Aramid yarns		PA-12 (0.3)	-10° to +60° C	-20° to +70° C	15D
1T24F	24	11.0	3.5	2.1	Aramid yarns		PA-12 (0.3)	-10° to +60° C	-20° to +70° C	15D

Mechanical parameters	EN standard	IEC standard	2-24F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	250N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	150N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	100N (100x100mm)
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	25 cycles (20xD)

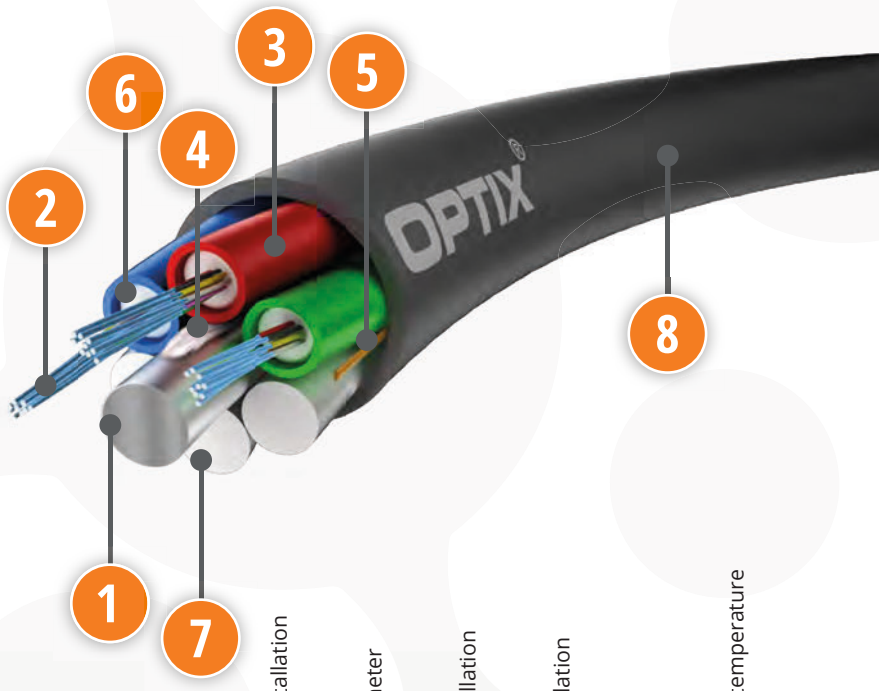
OPTIX Cable MICRO Z-XOTKtmd 0.65 - 1.0kN

9/125 ITU-T G.652D

Cod. Z3FMC301-Cable version*

FEATURES:

- Cable for microduct installation
- Solid HDPE jacket
- Small reduced diameter
- Designed for cable blowing
- Water blocking construction
- Reinforced with FRP central strengthening element
- Resistance to high and low temperatures
- Fully dielectric construction



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm coloured coating
3. Loose tube
4. Water blocking yarns
5. Ripcord to tear the outer jacket
6. Hydrophobic jelly
7. Filler
8. HDPE outer jacket (black), UV stabilized

Microduct installation
Reduced diameter
Outdoor installation
Blowing installation
UV protection
High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.3)	Ø Tube [mm] (±0.1)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.1)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
2T6F	12	26	5.4	1.15/1.45	None	FRP 1.60	HDPE (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
1T12F	12	26	5.4	1.15/1.45	None	FRP 1.60	HDPE (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
2T12F	24	26	5.4	1.15/1.45	None	FRP 1.60	HDPE (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
4T6F	24	26	5.4	1.15/1.45	None	FRP 1.60	HDPE (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
3T12F	36	26	5.4	1.15/1.45	None	FRP 1.60	HDPE (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
4T12F	48	26	5.4	1.15/1.45	None	FRP 1.60	HDPE (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
6T12F	72	26	5.4	1.15/1.45	None	FRP 1.60	HDPE (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
8T12F	96	36	6.1	1.15/1.45	None	FRP 2.4	HDPE (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
12T12F	144	52	7.9	1.15/1.45	None	FRP in PE coat (2.4/4.1)	HDPE (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
24T6F	144	80	9.3	1.15/1.45	None	FRP 2.80	HDPE (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
16T12F	192	52	7.9	1.15/1.45	None	FRP 1.60	HDPE (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
18T12F	216	52	7.9	1.15/1.45	None	FRP 1.60	HDPE (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
24T12F	288	80	9.3	1.15/1.45	None	FRP 2.80	HDPE (0.5)	-10° to +50° C	-30° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	12-72F	96-144F	192-216F	288F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	650N	800N	650N	1000N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	450N	550N	450N	700N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec..			
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	25 cycles (20xD)			

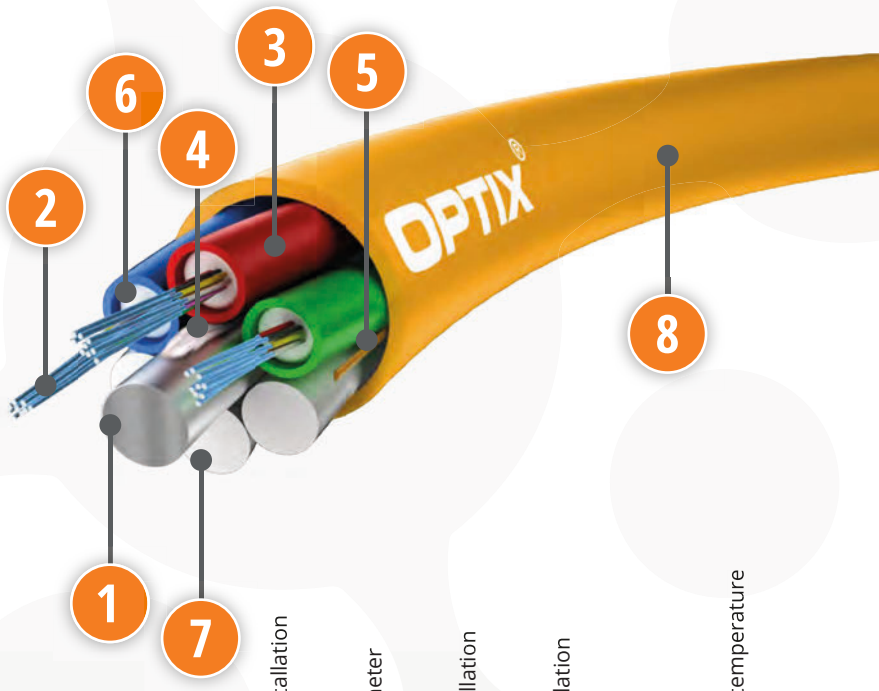
OPTIX Cable MICRO Z-VOTKtmd 0.65 - 1.0kN

9/125 ITU-T G.652D

Cod. Z3FMC302-Cable version*

FEATURES:

- Cable for microduct installation
- Solid PA-12 jacket
- Small reduced diameter
- Designed for cable blowing
- Water blocking construction
- Reinforced with FRP central strengthening element
- Resistance to high and low temperatures
- Fully dielectric construction



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm coloured coating
3. Loose tube
4. Water blocking yarns
5. Ripcord to tear the outer jacket
6. Hydrophobic jelly
7. Filler
8. PA-12 outer jacket (orange)

Microduct installation
Reduced diameter
Outdoor installation
Blowing installation
UV protection
High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.3)	Ø Tube [mm] (±0.1)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.1)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
2T6F	12	26	5.4	1.15/1.45	None	FRP 1.60	PA-12 (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
1T12F	12	26	5.4	1.15/1.45	None	FRP 1.60	PA-12 (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
2T12F	24	26	5.4	1.15/1.45	None	FRP 1.60	PA-12 (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
4T6F	24	26	5.4	1.15/1.45	None	FRP 1.60	PA-12 (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
3T12F	36	26	5.4	1.15/1.45	None	FRP 1.60	PA-12 (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
4T12F	48	26	5.4	1.15/1.45	None	FRP 1.60	PA-12 (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
6T12F	72	26	5.4	1.15/1.45	None	FRP 1.60	PA-12 (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
8T12F	96	36	6.1	1.15/1.45	None	FRP 2.4	PA-12 (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
12T12F	144	52	7.9	1.15/1.45	None	FRP in PE coat (2.4/4.1)	PA-12 (0.5±0.2)	-10° to +50° C	-30° to +70° C	20D/10D
24T6F	144	80	9.3	1.15/1.45	None	FRP 2.80	PA-12 (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
16T12F	192	52	7.9	1.15/1.45	None	FRP 1.60	PA-12 (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
18T12F	216	52	7.9	1.15/1.45	None	FRP 1.60	PA-12 (0.5)	-10° to +50° C	-30° to +70° C	20D/10D
24T12F	288	80	9.3	1.15/1.45	None	FRP 2.80	PA-12 (0.5±0.2)	-10° to +50° C	-30° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	12-72F	96-144F	192-216F	288F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	650N	800N	650N	1000N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	450N	550N	450N	700N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec..			
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	25 cycles (20xD)			

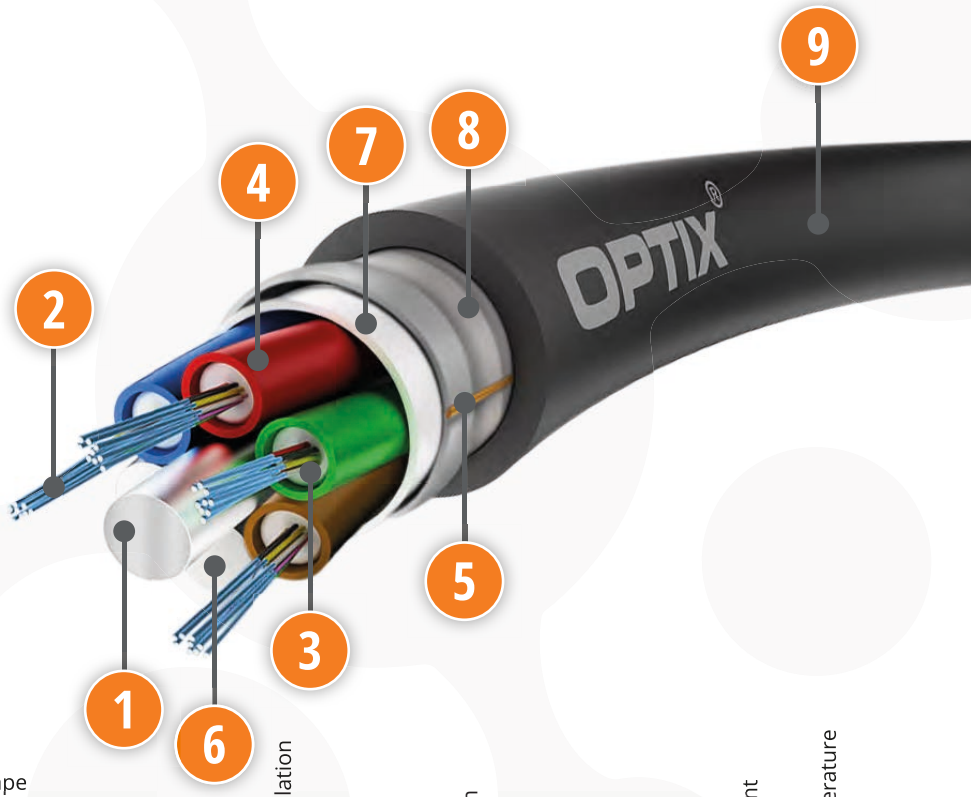
OPTIX Cable STRONG ZKS-XOTKtsFf 2.5kN

9/125 ITU-T G.652D

Cod. Z3FNV701-Cable version*

FEATURES:

- Improved rodent protection
- Solid HDPE jacket
- Water blocking construction
- Designed for direct access in the ground
- Resistance to high and low temperatures
- Enhanced by corrugated steel tape
- Practical and thin Ripcord



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm coloured coating
3. Hydrophobic jelly
4. Loose tube
5. Ripcords to tear the outer jacket
6. Filler
7. Water blocking tape
8. Corrugated steel tape
9. HDPE outer jacket (black)

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.2)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
1T12F	12	150	11.3	1.5/2.1	Steel tape	FRP 2.3	HDPE (1.5)	-30° to +70° C	-20° to +70° C	20D/10D
2T6F	12	150	11.3	1.5/2.1	Steel tape	FRP 2.3	HDPE (1.5)	-30° to +70° C	-20° to +70° C	20D/10D
2T12F	24	150	11.3	1.5/2.1	Steel tape	FRP 2.3	HDPE (1.5)	-30° to +70° C	-20° to +70° C	20D/10D
4T6F	24	150	11.3	1.5/2.1	Steel tape	FRP 2.3	HDPE (1.5)	-30° to +70° C	-20° to +70° C	20D/10D
4T12F	48	150	11.3	1.5/2.1	Steel tape	FRP 2.3	HDPE (1.5)	-30° to +70° C	-20° to +70° C	20D/10D
6T12F	72	150	11.3	1.5/2.1	Steel tape	FRP 2.3	HDPE (1.5)	-30° to +70° C	-20° to +70° C	20D/10D
8T12F	96	185	12.5	1.5/2.1	Steel tape	FRP in PE coat (2.5/3.5)	HDPE (1.5)	-30° to +70° C	-20° to +70° C	20D/10D
12T12F	144	260	15.0	1.5/2.1	Steel tape	FRP in PE coat (2.5/6.3)	HDPE (1.5)	-30° to +70° C	-20° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	12-144F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	2500N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	1250N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	3000N (100x100mm) for 60 sec.
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]

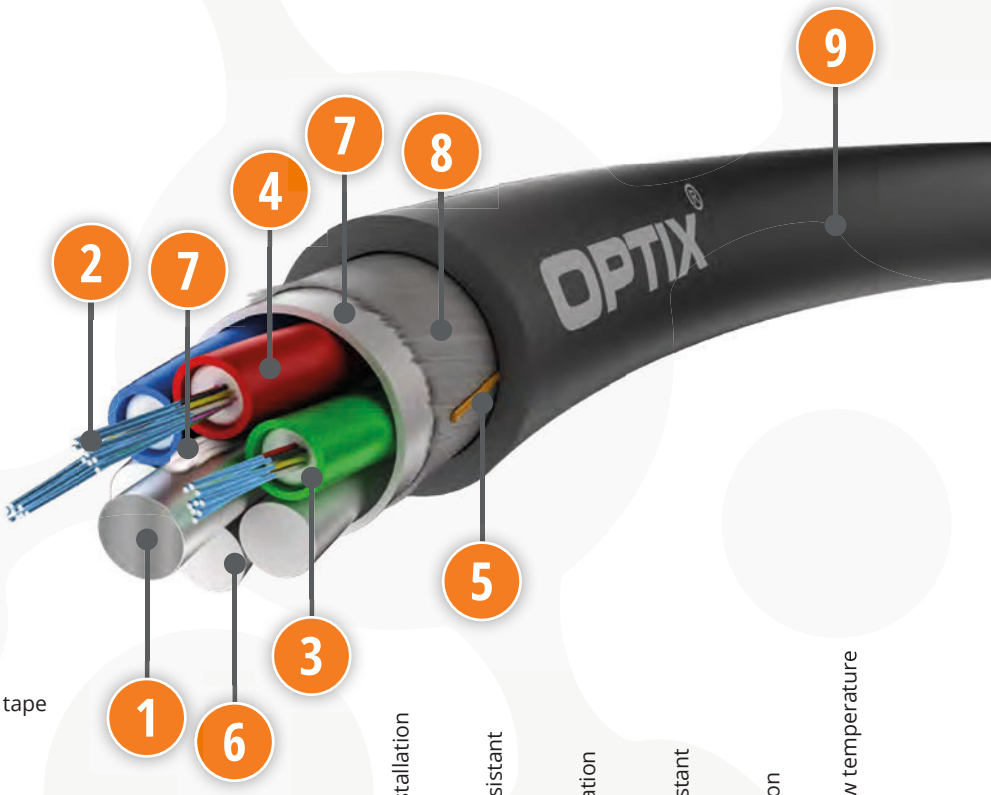
OPTIX Cable DUCT Z-XOTKtsdDb 3.0kN

9/125 ITU-T G.652D

Cod. Z3FNV703-Cable version*

FEATURES:

- Fully dielectric construction
- Solid HDPE jacket
- Additional water blocking construction
- Resistance to high and low temperatures
- Enhanced by high quality glass yarns
- Practical and thin Ripcord



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm coloured coating
3. Hydrophobic jelly
4. Loose tube
5. Ripcords to tear the outer jacket
6. Filler
7. Water blocking tape / yarns
8. Glass yarns
9. HDPE outer jacket (black), UV stabilized

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.2)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
1T12F	12	85	10.1	1.4/2.0	Glass yarns	FRP (2.25)	HDPE (1.5)	-5° to +40° C	-40° to +70° C	20D/15D
2T6F	12	85	10.1	1.4/2.0	Glass yarns	FRP (2.25)	HDPE (1.5)	-5° to +40° C	-40° to +70° C	20D/15D
2T12F	24	85	10.1	1.4/2.0	Glass yarns	FRP (2.25)	HDPE (1.5)	-5° to +40° C	-40° to +70° C	20D/15D
4T6F	24	85	10.1	1.4/2.0	Glass yarns	FRP (2.25)	HDPE (1.5)	-5° to +40° C	-40° to +70° C	20D/15D
4T12F	48	85	10.1	1.4/2.0	Glass yarns	FRP (2.25)	HDPE (1.5)	-5° to +40° C	-40° to +70° C	20D/15D
6T12F	72	85	10.1	1.4/2.0	Glass yarns	FRP (2.25)	HDPE (1.5)	-5° to +40° C	-40° to +70° C	20D/15D
8T12F	96	110	11.4	1.4/2.0	Glass yarns	FRP in PE coat (2.5/3.5)	HDPE (1.5)	-5° to +40° C	-40° to +70° C	20D/15D
12T12F	144	160	14.0	1.4/2.0	Glass yarns	FRP in PE coat (3.5/6.0)	HDPE (1.5)	-5° to +40° C	-40° to +70° C	20D/15D
16T12F	192	160	14.0	1.4/2.0	Glass yarns	FRP (2.25)	HDPE (1.5)	-5° to +40° C	-40° to +70° C	20D/15D
18T12F	216	160	14.0	1.4/2.0	Glass yarns	FRP (2.25)	HDPE (1.5)	-5° to +40° C	-40° to +70° C	20D/15D
24T12F	288	210	15.8	1.4/2.0	Glass yarns	FRP in PE coat (3.0/4.0)	HDPE (1.5)	-5° to +40° C	-40° to +70° C	20D/15D

Mechanical parameters	EN standard	IEC standard	12-24F	48F	72F	96-288F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	3000N	3000N	3000N	3000N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	2000N	2000N	2000N	2000N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	2000N (100x100mm) for 60 sec.			
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]			

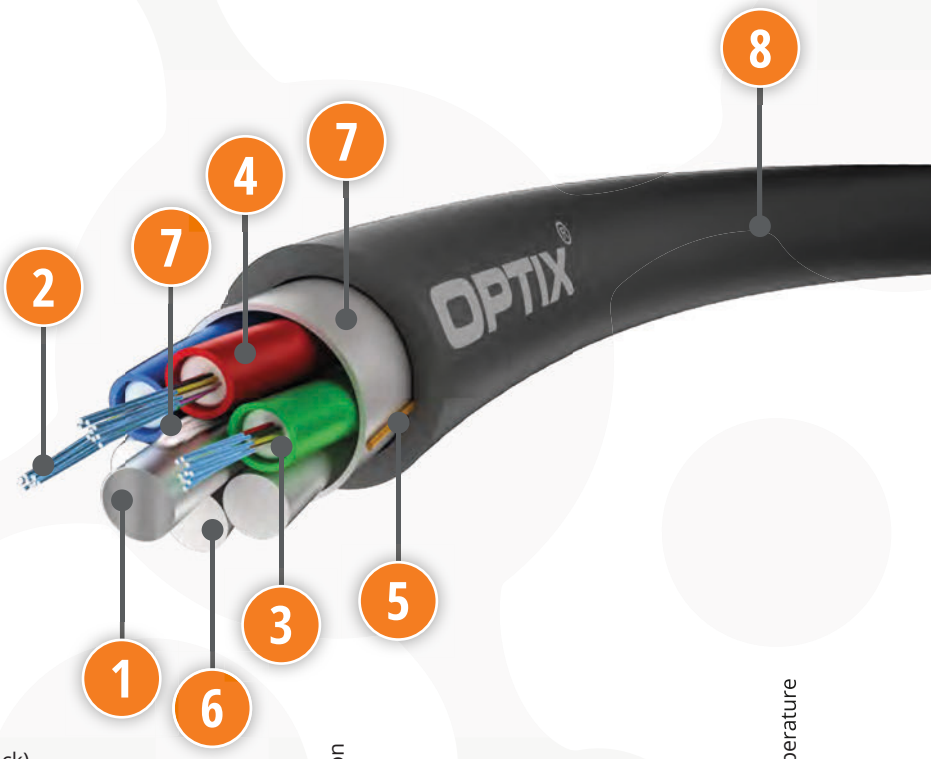
OPTIX Cable LIGHT Z-XOTKtsd 1.5kN

9/125 ITU-T G.652D

Cod. Z3FNV705-Cable version*

FEATURES:

- Reduced diameter 8mm
- Fully dielectric construction
- Solid HDPE Jacket
- Additional water blocking construction
- Resistance to high and low temperatures
- Practical and thin Ripcord



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm coloured coating
3. Hydrophobic jelly
4. Loose tube
5. Ripcords to tear the outer jacket
6. Filler
7. Water blocking tape / yarns
8. HDPE outer jacket (black), UV stabilized

Outdoor installation | Moisture resistant | Duct installation | Reduced diameter | UV protection | High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube [mm] (±0.1)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm]	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
2T6F	12	50	8.3	1.3/1.8	None	FRP (1.8)	HDPE (min. 1.1)	-10° to +70° C	-20° to +70° C	20D/10D
1T12F	12	50	8.3	1.3/1.80	None	FRP (1.8)	HDPE (min. 1.1)	-10° to +70° C	-20° to +70° C	20D/10D
2T12F	24	50	8.3	1.3/1.8	None	FRP (1.8)	HDPE (min. 1.1)	-10° to +70° C	-20° to +70° C	20D/10D
4T6F	24	50	8.3	1.3/1.8	None	FRP (1.8)	HDPE (min. 1.1)	-10° to +70° C	-20° to +70° C	20D/10D
3T12F	36	50	8.3	1.3/1.8	None	FRP (1.8)	HDPE (min. 1.1)	-10° to +70° C	-20° to +70° C	20D/10D
6T6F	36	50	8.3	1.3/1.8	None	FRP (1.8)	HDPE (min. 1.1)	-10° to +70° C	-20° to +70° C	20D/10D
4T12F	48	50	8.3	1.3/1.8	None	FRP (1.8)	HDPE (min. 1.1)	-10° to +70° C	-20° to +70° C	20D/10D
6T12F	72	50	8.3	1.3/1.8	None	FRP (1.8)	HDPE (min. 1.1)	-10° to +70° C	-20° to +70° C	20D/10D
8T12F	96	72	9.2	1.3/1.8	None	FRP (3.0)	HDPE (min. 1.1)	-10° to +70° C	-20° to +70° C	20D/10D
12T12F	144	105	11.5	1.3/1.8	None	FRP in PE coat (2.5/5.4)	HDPE (min. 1.1)	-10° to +70° C	-20° to +70° C	20D/10D
12T24F	288	165	14.8	1.6/2.0	None	FRP in PE coat (3.0/4.0)	HDPE (min. 1.0)	-10° to +70° C	-20° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	12-72F	96-288F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	1500N	1500N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	1000N	1000N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	1000N (100x100mm) for 60 sec.	
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]	

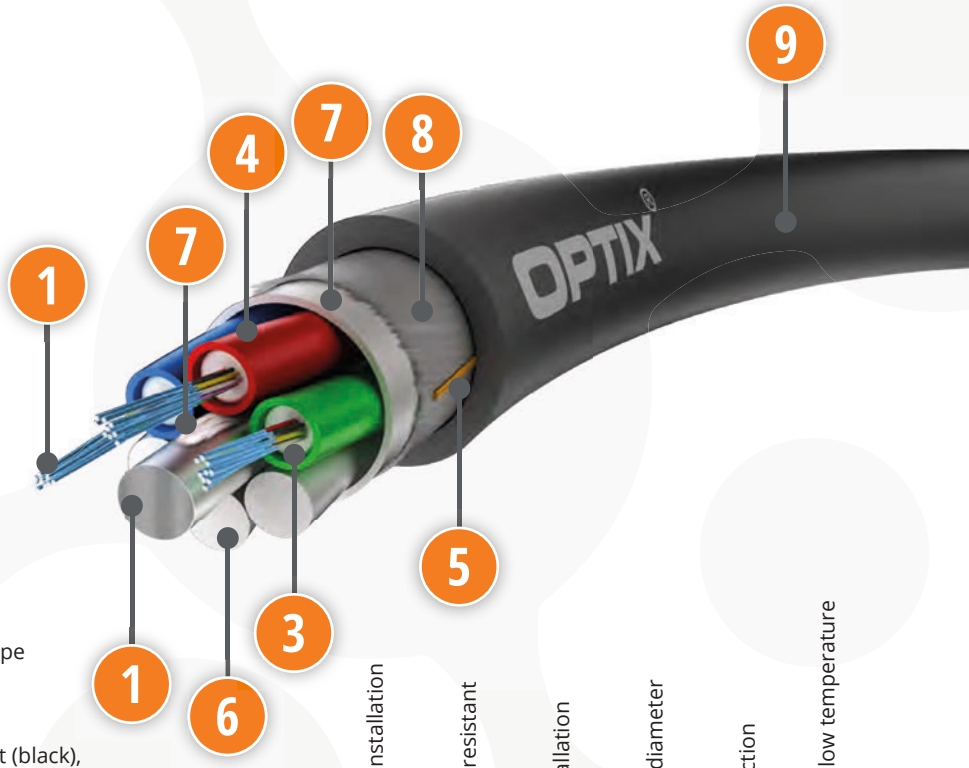
OPTIX Cable SAVER Z-XOTKtsdDb 1.8kN

9/125 ITU-T G.652D

Cod. Z3FNV707-Cable version*

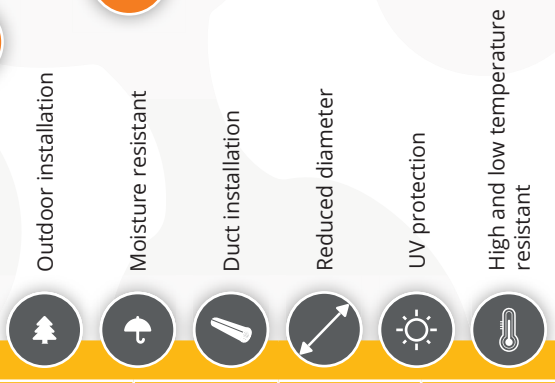
FEATURES:

- Fully dielectric construction
- Solid HDPE Jacket
- Additional water blocking construction
- Resistance to high and low temperatures
- Enhanced by high quality glass yarns
- Practical and thin Ripcord



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm colored coating
3. Hydrophobic jelly
4. Loose tube
5. Ripcords for tear the outer-sheath
6. Filler
7. Water blocking tape / yarns
8. Glass yarns
9. HDPE outer jacket (black), UV stabilized



Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (min.)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
2T6F	12	65	8.5	1.4/1.8	Glass yarns	FRP 1.8	HDPE (1.0)	-30° to +60° C	-40° to +70° C	20D/10D
1T12F	12	65	8.5	1.4/1.8	Glass yarns	FRP 1.8	HDPE (1.0)	-30° to +60° C	-40° to +70° C	20D/10D
2T12F	24	65	8.5	1.4/1.8	Glass yarns	FRP 1.8	HDPE (1.0)	-30° to +60° C	-40° to +70° C	20D/10D
4T6F	24	65	8.5	1.4/1.8	Glass yarns	FRP 1.8	HDPE (1.0)	-30° to +60° C	-40° to +70° C	20D/10D
4T12F	48	65	8.5	1.4/1.8	Glass yarns	FRP 1.8	HDPE (1.0)	-30° to +60° C	-40° to +70° C	20D/10D
6T12F	72	65	8.5	1.4/1.8	Glass yarns	FRP 1.8	HDPE (1.0)	-30° to +60° C	-40° to +70° C	20D/10D
8T12F	96	78	9.6	1.4/1.8	Glass yarns	FRP in PE coat (2.25/3.0)	HDPE (1.0)	-30° to +60° C	-40° to +70° C	20D/10D
12T12F	144	115	11.9	1.4/1.8	Glass yarns	FRP in PE coat (2.8/5.4)	HDPE (1.0)	-30° to +60° C	-40° to +70° C	20D/10D
16T12F	192	130	13.2	1.4/2.0	Glass yarns	FRP 2.25	HDPE (1.0)	-30° to +60° C	-40° to +70° C	20D/10D
18T12F	216	130	13.2	1.4/2.0	Glass yarns	FRP 2.25	HDPE (1.0)	-30° to +60° C	-40° to +70° C	20D/10D
24T12F	288	165	14.8	1.4/2.0	Glass yarns	FRP in PE coat (3.0/4.0)	HDPE (1.0)	-30° to +60° C	-40° to +70° C	20D/10D
12T24F	288	185	15.4	1.7/2.5	Glass yarns	FRP in PE coat (3.0/7.5)	HDPE (1.0)	-30° to +60° C	-40° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	12-24F	48F	72F	96-288F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	1800N	1800N	1800N	1800N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	1200N	1200N	1200N	1200N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	1000N (100x100mm) for 60 sec.			
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	25 cycles [(20xD), 1Kg]			

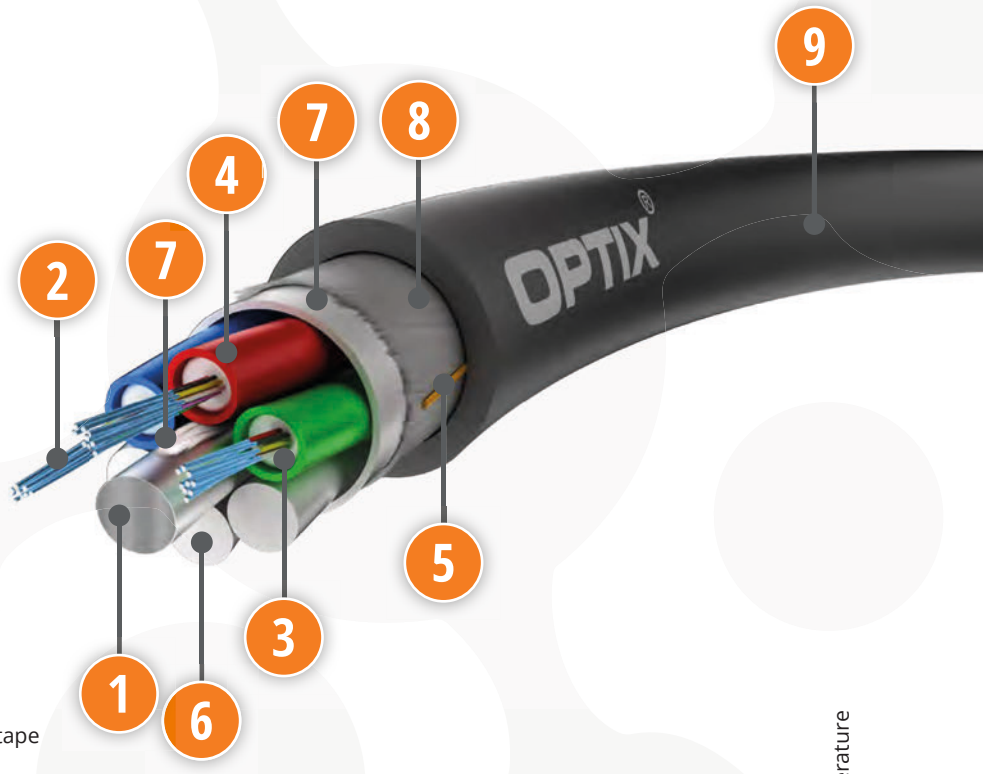
OPTIX Cable SAVER PLUS Z-XOTKtsdDb 2.7kN

9/125 ITU-T G.652D

Cod. Z3FNV709-Cable version*

FEATURES:

- Fully dielectric construction
- Solid HDPE jacket
- Additional water blocking construction
- Resistance to high and low temperatures
- Enhanced by high quality glass yarns
- Practical and thin Ripcord



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm coloured coating
3. Hydrophobic jelly
4. Loose tube
5. Ripcords to tear the outer jacket
6. Filler
7. Water blocking tape / yarns
8. Glass yarns
9. HDPE outer jacket (black), UV stabilized

Outdoor installation | Moisture resistant | Duct installation | Rodent resistant | UV protection | High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.2)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
2T6F	12	75	9.0	1.1/1.7	Glass yarns	FRP (1.8)	HDPE (1.2)	-10° to +50° C	-40° to +70° C	20D/15D
4T6F	24	75	9.0	1.1/1.7	Glass yarns	FRP (1.8)	HDPE (1.2)	-10° to +50° C	-40° to +70° C	20D/15D
2T12F	24	75	9.0	1.1/1.7	Glass yarns	FRP (1.8)	HDPE (1.2)	-10° to +50° C	-40° to +70° C	20D/15D
4T12F	48	75	9.0	1.1/1.7	Glass yarns	FRP (1.8)	HDPE (1.2)	-10° to +50° C	-40° to +70° C	20D/15D
6T12F	72	75	9.0	1.1/1.7	Glass yarns	FRP (1.8)	HDPE (1.2)	-10° to +50° C	-40° to +70° C	20D/15D
8T12F	96	85	9.5	1.1/1.7	Glass yarns	FRP (1.8)	HDPE (1.2)	-10° to +50° C	-40° to +70° C	20D/15D
12T12F	144	115	11.7	1.1/1.7	Glass yarns	FRP in PE coat (2.8/5.0)	HDPE (1.2)	-10° to +50° C	-40° to +70° C	20D/15D
8T24F	192	145	12.5	1.6/2.4	Glass yarns	FRP in PE coat (3.5/6.0)	HDPE (1.2)	-10° to +50° C	-40° to +70° C	20D/15D
12T24F	288	165	15.5	1.6/2.4	Glass yarns	FRP in PE coat (3.5/6.0)	HDPE (1.2)	-10° to +50° C	-40° to +70° C	20D/15D

Mechanical parameters	EN standard	IEC standard	12-24F	48F	72F	96-288F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	2700N	2700N	2700N	2700N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	1250N	1250N	1250N	1250N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec.			
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]			

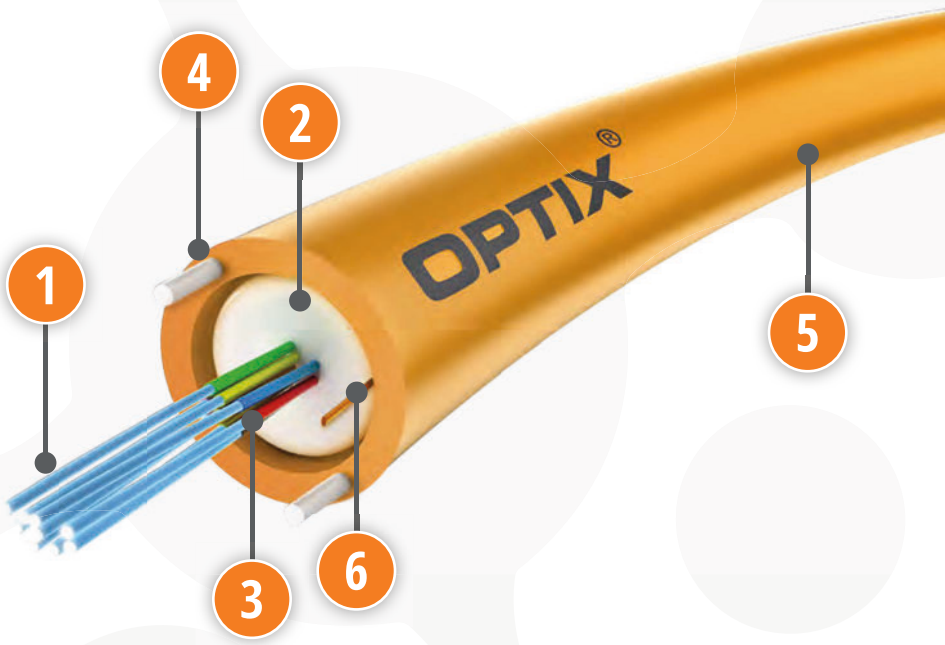
OPTIX Cable DAC (Direct Access Cable) Z-XOTKtcd 1.2kN

9/125 ITU-T G.652D/G.657A1/G.657A2

Cod. Z3FNV201-Cable version*

FEATURES:

- Designed for direct access in the ground
- Fully dielectric construction
- Resistance to high and low temperatures
- Solid HDPE jacket (orange)



CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. Hydrophobic jelly
3. Loose tube
4. FRP rods
5. HDPE outer jacket (orange)
6. Ripcords to tear the outer jacket

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.2)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
1T2F	2	30	6.0	1.4/2.0	None	FRP (2x0.9)	HDPE (1.8)	-20° to +70° C	-20° to +70° C	20D/15D
1T4F	4	30	6.0	1.4/2.0	None	FRP (2x0.9)	HDPE (1.8)	-20° to +70° C	-20° to +70° C	20D/15D
1T8F	8	30	6.0	1.4/2.0	None	FRP (2x0.9)	HDPE (1.8)	-20° to +70° C	-20° to +70° C	20D/15D
1T12F	12	30	6.0	1.4/2.0	None	FRP (2x0.9)	HDPE (1.8)	-20° to +70° C	-20° to +70° C	20D/15D
1T24F	24	32	6.5	1.6/2.4	None	FRP (2x0.9)	HDPE (1.8)	-20° to +70° C	-20° to +70° C	20D/15D

Mechanical parameters	EN standard	IEC standard	1-8F	12F	24F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	1200N	1200N	1200N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	600N	600N	600N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	1000N (100x100mm) for 60 sec.		
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles (20xD)		

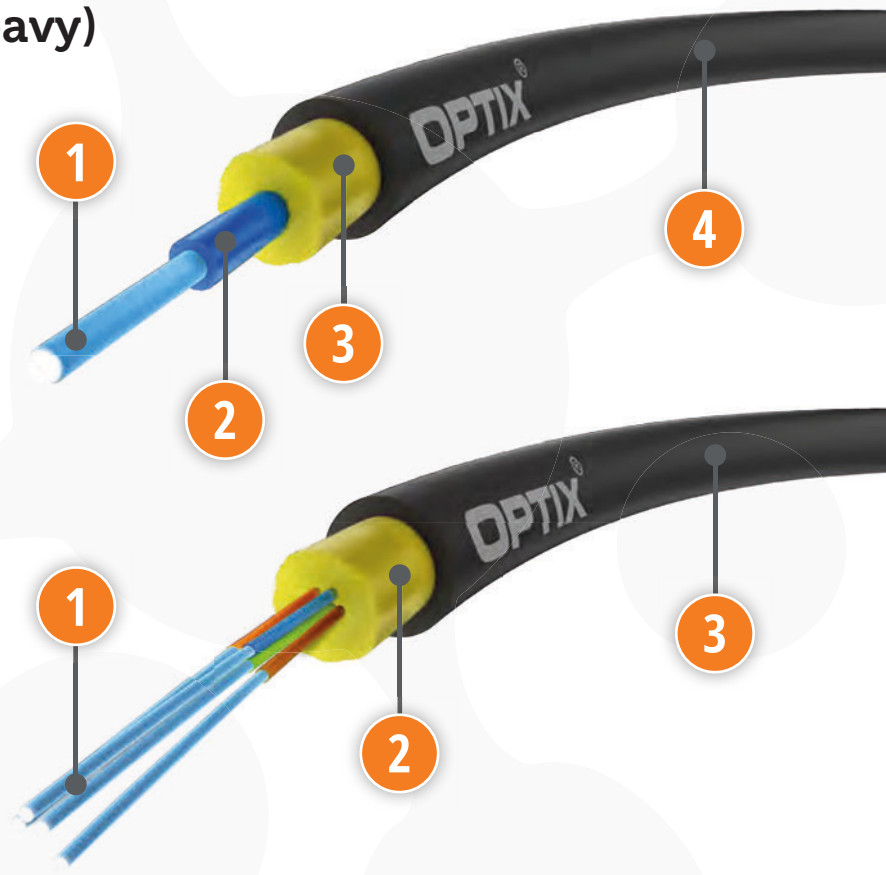
OPTIX Cable AIRFLOW S-QOTKSdD 0.8kN (up to 80m SPAN - NESC Heavy)

Cod. Z3FNV601-Cable version*

9/125 ITU-T G.657A2

FEATURES:

- Cable for outdoor / indoor installation
- Span (NESC Heavy) up to 80 meters (0.8kN)
- Fully dielectric construction
- Resistance to high and low temperatures
- Enhanced by high quality aramid yarns
- Small diameter ~3mm
- Reduced bend radius - G.657A2 fibers
- Solid flame retardant polyurethane jacket with UV protection



CABLE CONSTRUCTION 1F

1. Optical fibers in 0.25mm coating
2. Coloured buffer 0.9mm (semi-tight buffer)
3. Aramid yarns
4. FR PU outer jacket, UV Stabilized

CABLE CONSTRUCTION 2-12F

1. Optical fibers in 0.25mm coloured coating
2. Aramid yarns
3. FR PU outer jacket, UV Stabilized

Indoor installation · Outdoor installation · Duct installation · Aerial installation · Reduced diameter · UV protection · High and low temperature resistant · Fireproof · Moisture resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.1)	Ø Tube	Supporting element / Peripheral reinforcement	Reinforcing element	Coating material & thickness [mm] (±0.1)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
0T1F	1	8.7	3.05	None	Aramid yarns		FR PU (0.75)	-30° to +70° C	-30° to +70° C	15D/10D
0T2F	2	7.5	3.00	None	Aramid yarns		FR PU (0.75)	-30° to +70° C	-30° to +70° C	15D/10D
0T4F	4	7.5	3.00	None	Aramid yarns		FR PU (0.75)	-30° to +70° C	-30° to +70° C	15D/10D
0T6F	6	8.0	3.20	None	Aramid yarns		FR PU (0.75)	-30° to +70° C	-30° to +70° C	15D/10D
0T8F	8	8.3	3.40	None	Aramid yarns		FR PU (0.70)	-30° to +70° C	-30° to +70° C	15D/10D
0T12F	12	8.5	3.40	None	Aramid yarns		FR PU (0.70)	-30° to +70° C	-30° to +70° C	15D/10D

Mechanical parameters	EN standard	IEC standard	1F	2-4F	6-12F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	800N	800N	800N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	250N	250N	250N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec.		
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	25 cycles [(20xD), 1Kg]		

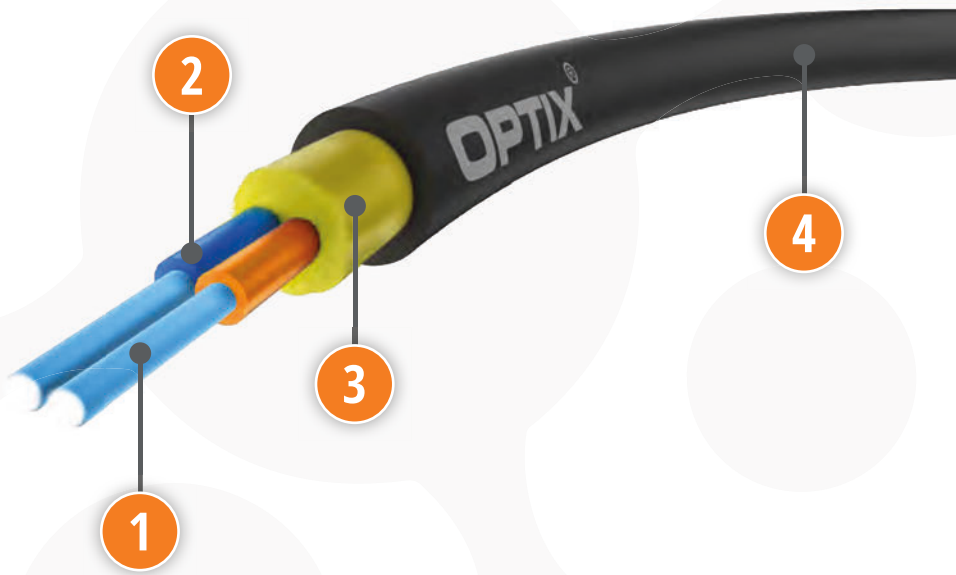
OPTIX Cable AIRFLOW S-QOTKSdD 2F (2x 0.9mm) 0.8kN (up to 80m SPAN - NESC Heavy)

Cod. Z3FNV602-Cable version*

9/125 ITU-T G.657A2

FEATURES:

- Cable for outdoor / indoor installation
- Span (NESC Heavy) up to 80 meters (0.8kN)
- Fully dielectric construction
- Resistance to high and low temperatures
- Enhanced by high quality aramid yarns
- Solid PU jacket
- Small diameter ~3.7mm
- Reduced bend radius - G.657A2 fibers



CABLE CONSTRUCTION 2F

1. Optical fibers in 0.25mm coating
2. Coloured buffer 0.9mm (semi-tight buffer)
3. Aramid yarns
4. FR Polyurethane, UV Stabilized

Indoor installation
Outdoor installation
Duct installation
Aerial installation
Reduced diameter
UV protection
High and low temperature resistant
Fireproof
Moisture resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±5%)	Ø Tube	Supporting element / Peripheral reinforcement	Reinforcing element	Coating material & thickness [mm] (±5%)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
0T2F	2	11.0	3.7	None	Aramid yarns		PU (0.75)	-10° to +50° C	-40° to +70° C	20D/15D

Mechanical parameters	EN standard	IEC standard	2F
Tensile Strength Installation	EN 187000	IEC 794-1-E1	800N
Tensile Strength Operation	EN 187000	IEC 794-1-E1	500N
Crushing resistance	EN 187000, m. 504	IEC 794-1-E3	500N (100x100mm) for 60 sec.
Repeated bending	EN 187000, m. 507	IEC 794-1-E6	30 [cycles (20xD)]

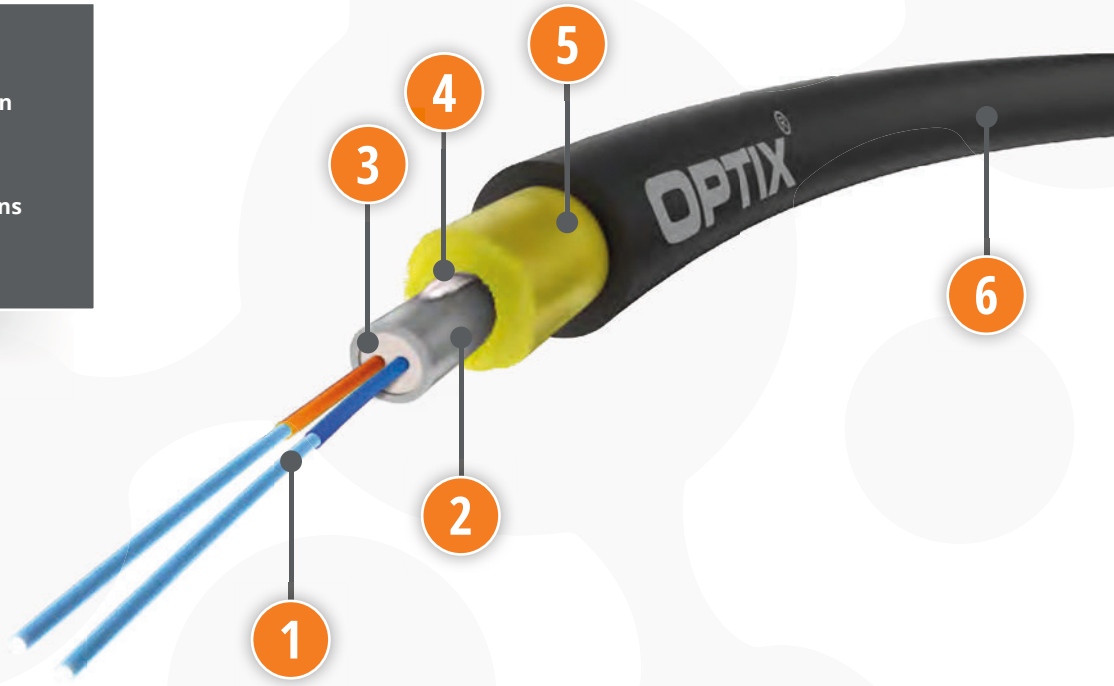
OPTIX Cable AirTube S-XOTKtmdD 0.6kN (up to 50m SPAN - NESC Heavy)

Cod. Z3FNV607-Cable version*

9/125 ITU-T G.657A2

FEATURES:

- Cable for outdoor / indoor installation
- Span (NESC Heavy) up to 50 meters
- Fully dielectric construction
- Enhanced by high quality aramid yarns
- Solid HDPE jacket
- Water blocking construction



CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. Loose tube PBT
3. Hydrophobic jelly
4. Water blocking yarns
5. Aramid yarns
6. HDPE outer jacket (black), UV stabilized

Indoor installation
Outdoor installation
Duct installation
Aerial installation
Reduced diameter
UV protection
High and low temperature resistant
Moisture resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (nom.)	Ø Cable [mm] (±0.2)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element	Coating material & thickness [mm] (nom.)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/permanent
1T1F	1	8.3	3.2	0.9/1.4	Aramid yarns		HDPE (0.75)	-20° to +50° C	-30° to +60° C	20D/10D
1T2F	2	8.3	3.2	0.9/1.4	Aramid yarns		HDPE (0.75)	-20° to +50° C	-30° to +60° C	20D/10D
1T4F	4	8.3	3.2	0.9/1.4	Aramid yarns		HDPE (0.75)	-20° to +50° C	-30° to +60° C	20D/10D
1T6F	6	9.4	3.4	0.9/1.4	Aramid yarns		HDPE (0.75)	-20° to +50° C	-30° to +60° C	20D/10D
1T8F	8	9.4	3.4	1.0/1.6	Aramid yarns		HDPE (0.75)	-20° to +50° C	-30° to +60° C	20D/10D
1T12F	12	9.4	3.4	1.0/1.6	Aramid yarns		HDPE (0.75)	-20° to +50° C	-30° to +60° C	20D/10D

Mechanical parameters	EN standard	IEC standard	1F	2-4F	6-12F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	600N	600N	600N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	250N	250N	250N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm)		
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	25 cycles [(20xD), 1Kg]		

OPTIX Cable S-NOTKSdp 0.6kN (up to 50m SPAN - NESC Heavy)

Cod. Z3FNV451-Cable version*

9/125 ITU-T G.657A2

FEATURES:

- Cable for outdoor / indoor installation
- Span (NESC Heavy) up to 50 meters (0.6kN)
- Fully dielectric construction
- Resistance to high and low temperatures
- Practical, flat design
- Solid FR LSZH jacket

CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. FRP rod
3. ARP rods
4. FR LSZH outer jacket (black), UV stabilized

Indoor installation | Aerial installation | Outdoor installation | LSZH | Fireproof | UV protection | High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±5%)	Ø Tube	Supporting element / Peripheral reinforcement [mm] (±0.1)	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±5%)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
0T1F	1	21.5	5.2x2.0	None	FRP (1.0)	ARP (2x0.5)	LSZH (0.75)	-10° to +50° C	-40° to +70° C	20D/15D
0T2F	2	21.5	5.2x2.0	None	FRP (1.0)	ARP (2x0.5)	LSZH (0.75)	-10° to +50° C	-40° to +70° C	20D/15D
0T4F	4	21.5	5.2x2.0	None	FRP (1.0)	ARP (2x0.5)	LSZH (0.75)	-10° to +50° C	-40° to +70° C	20D/15D

Mechanical parameters	EN standard	IEC standard	1F	2F	4F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	600N	600N	600N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	-	-	-
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec.		
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]		

OPTIX Cable S-NOTKSp 0.6kN (up to 50m SPAN - NESC Heavy)

Cod. Z3FNV453-Cable version*

9/125 ITU-T G.657A2

FEATURES:

- Cable for outdoor / indoor installation
- Span (NESC Heavy) up to 50 meters (0.6kN)
- Resistance to high and low temperatures
- Practical, flat design
- Solid FR LSZH jacket

CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. Galvanised steel rod
3. ARP rods
4. FR LSZH outer jacket (white or black), UV stabilized

Indoor installation
Aerial installation
Outdoor installation
LSZH
Fireproof
UV protection
High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±5%)	Ø Tube	Supporting element / Peripheral reinforcement [mm] (±0.1)	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±5%)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
0T1F	1	21.5	5.2x2.0	None	Galvanised steel(1.0)	ARP (2x0.5)	LSZH (0.75)	-10° to +50° C	-40° to +70° C	20D/15D
0T2F	2	21.5	5.2x2.0	None	Galvanised steel(1.0)	ARP (2x0.5)	LSZH (0.75)	-10° to +50° C	-40° to +70° C	20D/15D
0T4F	4	21.5	5.2x2.0	None	Galvanised steel(1.0)	ARP (2x0.5)	LSZH (0.75)	-10° to +50° C	-40° to +70° C	20D/15D

Mechanical parameters	EN standard	IEC standard	1F	2F	4F
Tensile Strength Installation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	600N	600N	600N
Tensile Strength Operation (NESC Heavy)	EN 187000	IEC 60794-1-2-E1	-	-	-
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec.		
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]		

OPTIX Cable ARP ZW-NOTKSdp 0.08kN

9/125 ITU-T G.657A2

Cod. Z3FNV457-Cable version*

FEATURES:

- Cable for outdoor / indoor installation
- Practical, flat design
- Fully dielectric construction
- Resistance to high and low temperatures
- Reduced bend radius - G.657A2 fibers
- Small diameter ~3mm
- Solid FR LSZH jacket

CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coloured coating
2. ARP rods
3. FR LSZH outer jacket, UV stabilized (available: white or black)

Indoor installation
Aerial installation
Outdoor installation
LSZH
Fireproof
Reduced diameter
UV protection
High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±5%)	Ø Tube	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±5%)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
0T1F	1	9.4	3.0x2.0	None	None	ARP (2x0.5)	LSZH (0.75)	-10° to +50° C	-40° to +70° C	20D/15D
0T2F	2	9.6	3.0x2.0	None	None	ARP (2x0.5)	LSZH (0.75)	-10° to +50° C	-40° to +70° C	20D/15D
0T4F	4	9.8	3.0x2.0	None	None	ARP (2x0.5)	LSZH (0.75)	-10° to +50° C	-40° to +70° C	20D/15D

Mechanical parameters	EN standard	IEC standard	1F	2F	4F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	80N	80N	80N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	-	-	-
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec.		
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]		

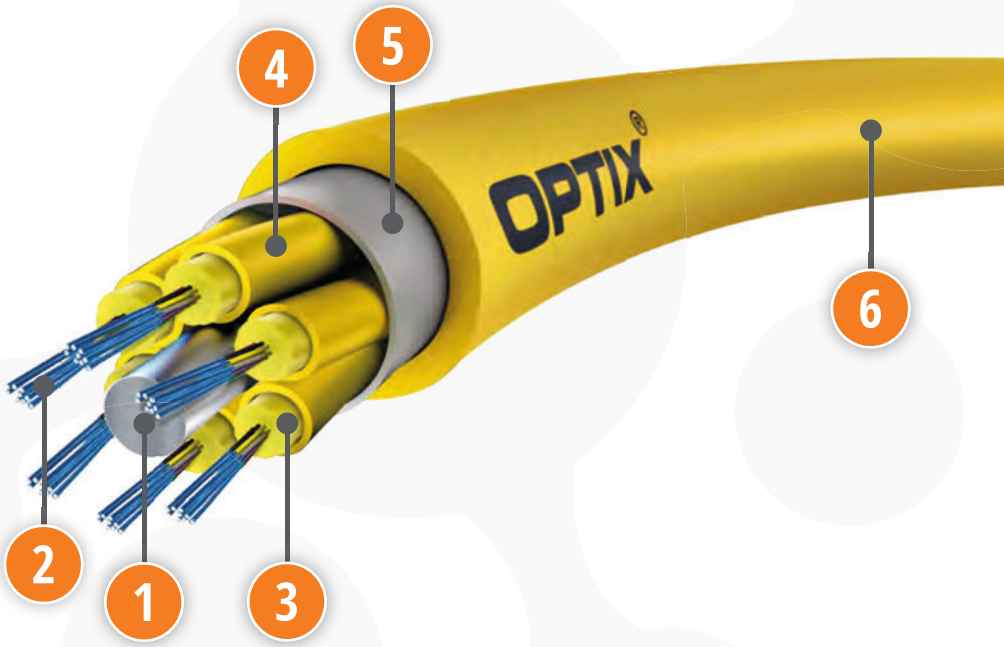
OPTIX Cable BREAKOUT W-NNOTKSd 0.15 - 1.0kN

9/125 ITU-T G.652D

Cod. Z3FNV801-Cable version*

FEATURES:

- Indoor cable for FTTB/FTTH installation
- Reinforced with FRP central strengthening element
- Water blocking construction
- Special "breakout" design
- Solid LSZH jacket (yellow)



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm coloured coating
3. Aramid yarns
4. FR LSZH micro modules (yellow)
5. Water blocking tape
6. FR LSZH outer jacket (yellow)

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element	Coating material	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
1x12	12	7.8	3.0	2.9	None	None	LSZH	-20° to +60° C	-40° to +70° C	20D/10D
2x12	24	72	9.0	2.9	None	FRP	LSZH	-20° to +60° C	-40° to +70° C	20D/10D
4x12	48	79	9.0	2.9	None	FRP	LSZH	-20° to +60° C	-40° to +70° C	20D/10D
6x12	72	126	11.2	2.9	None	FRP	LSZH	-20° to +60° C	-40° to +70° C	20D/10D
8x12	96	178	13.5	2.9	None	FRP	LSZH	-20° to +60° C	-40° to +70° C	20D/10D
12x12	144	285	17.5	2.9	None	FRP	LSZH	-20° to +60° C	-40° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	12F	24F	48F	72-96F	144F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	150N	300N	600N	1000N	1000N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	80N	150N	200N	300N	500N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	1000N (100x100mm) for 60 sec.				
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]				

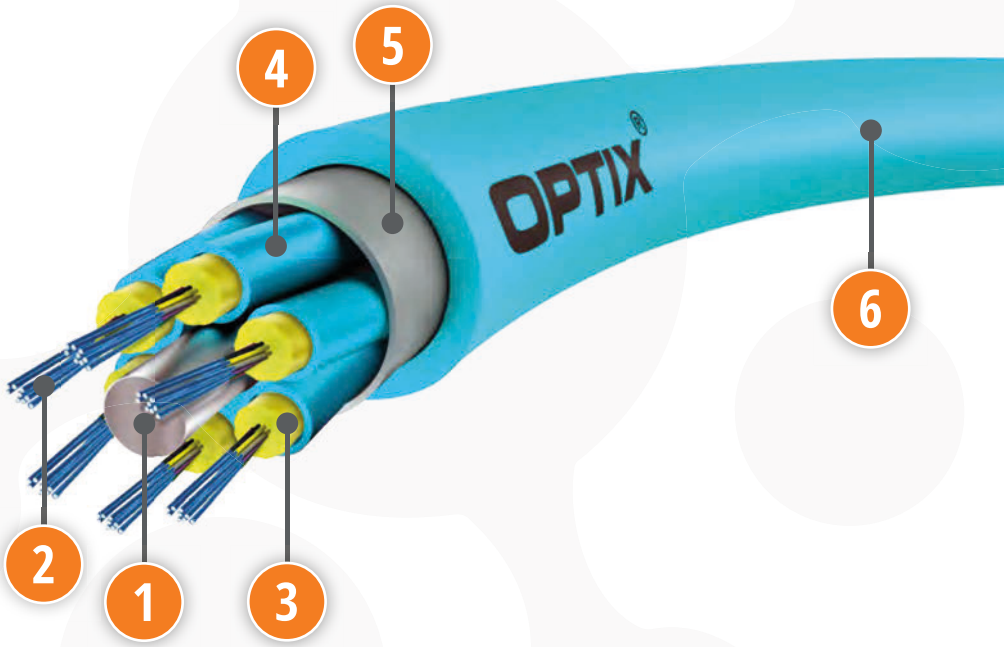
OPTIX Cable BREAKOUT W-NNOTKSd 1.5kN

50/125 ITU-T OM3

Cod. Z3FNV803-Cable version*

FEATURES:

- Indoor cable for FTTB/FTTH installation
- Reinforced with FRP central strengthening element
- Water blocking construction
- Special "breakout" design
- Solid LSZH jacket



CABLE CONSTRUCTION

1. FRP rod
2. Optical fibers in 0.25mm coloured coating
3. Aramid yarns
4. LSZH micro modules (aqua)
5. Water blocking tape
6. LSZH outer jacket (aqua)

Indoor installation | Outdoor installation | Moisture resistant | Duct installation

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±1.0)	Ø Tube [mm] (±0.1)	Supporting element / Peripheral reinforcement	Reinforcing element	Coating material	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
12x12	144	120	12.0	1.8	None	FRP in PE coat	LSZH	-10° to +60° C	-30° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	144F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	1500N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	800N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	1000N (100x100mm)
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]

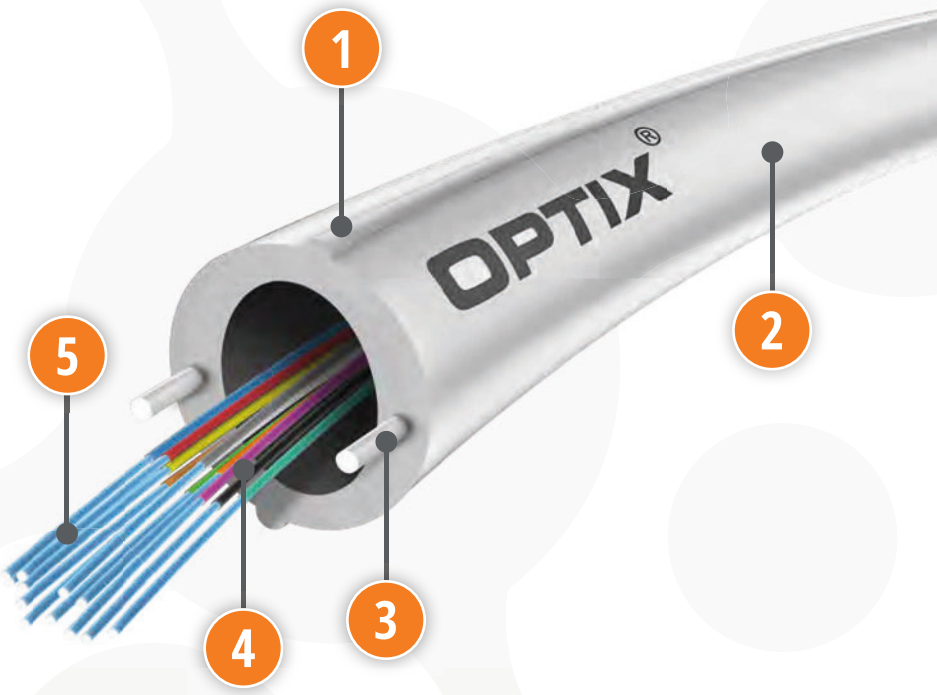
OPTIX Cable VERTICAL W-NOTKSd 1.0kN

9/125 ITU-T G.657A2

Cod. Z3FNV875-Cable version*

FEATURES:

- Easy access cable
- Best for installation in multi-family buildings / offices
- Fiber colour standard: EIA/TIA-598
- High quality LSZH jacket
- Reduced bend radius - G.657A2 fibers
- Cutting windows in jacket



CABLE CONSTRUCTION

1. Cable opening marker
2. LSZH outer jacket (white)
3. FRP rods
4. Coloured buffer 0.9mm (semi-tight buffer)
5. Optical fibers in 0.25mm coating

Indoor installation | LSZH | Easy access | Semi - tight | Fireproof

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.2)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
0T12F	12	70	8.5	None	None	FRP (2x1.0)	LSZH (1.5-2.0)	-20° to +60° C	-20° to +60° C	20D/10D
0T16F	16	85	10.0	None	None	FRP (2x1.0)	LSZH (1.5-2.0)	-20° to +60° C	-20° to +60° C	20D/10D
0T24F	24	90	10.0	None	None	FRP (2x1.0)	LSZH (1.5-2.0)	-20° to +60° C	-20° to +60° C	20D/10D
0T36F	36	139	13.5	None	None	FRP (2x1.0)	LSZH (1.5-2.0)	-20° to +60° C	-20° to +60° C	20D/10D
0T48F	48	151	13.5	None	None	FRP (2x1.0)	LSZH (1.5-2.0)	-20° to +60° C	-20° to +60° C	20D/10D

Mechanical parameters	EN standard	IEC standard	12F	16-24F	36-48F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	1000N	1000N	1000N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	500N	500N	500N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	1000N (100x100mm) for 60 sec.		
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]		

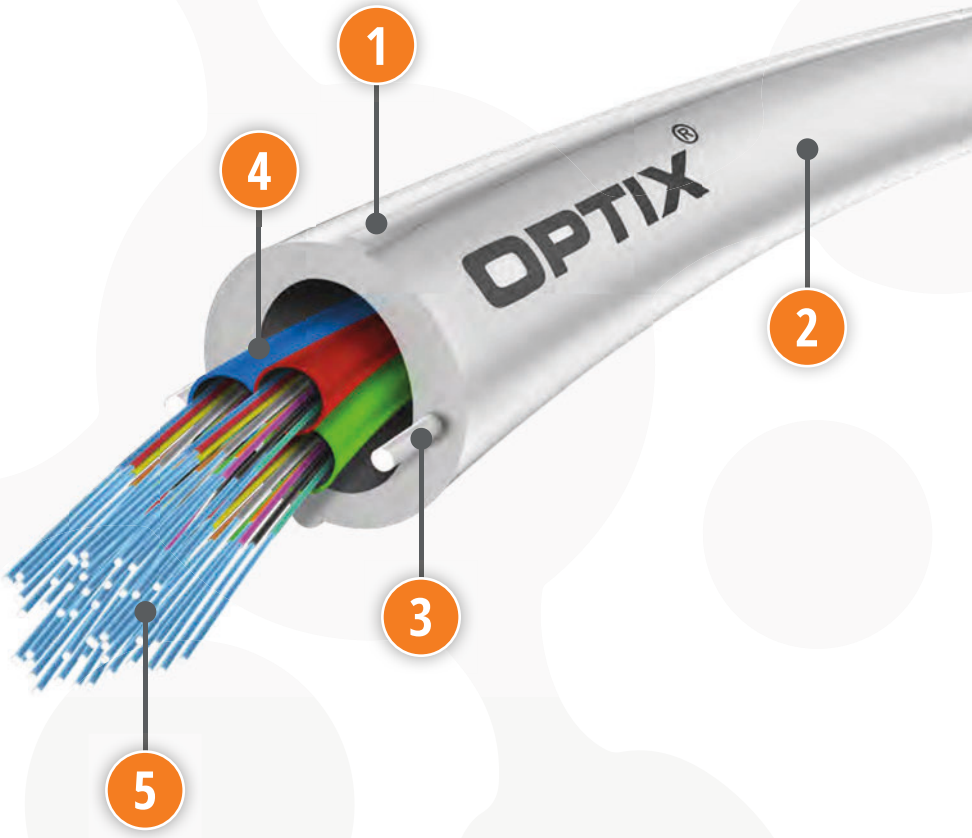
OPTIX Cable VERTICAL MULTI W-NNOTKSd 1.0kN

9/125 ITU-T G.657A2

Cod. Z3FNV879-Cable version*

FEATURES:

- Easy access cable
- Best for installation in multi-family buildings / offices
- Fiber and micro modules colour standard: EIA/TIA-598
- High quality LSZH jacket
- Reduced bend radius - G.657A2 fibers
- Cutting windows in jacket



CABLE CONSTRUCTION

1. Cable opening marker
2. LSZH outer jacket (white)
3. FRP rods
4. Micro modules in coloured LSZH coating
5. Optical fibers in 0.25mm coloured coating

Indoor installation | LSZH | Easy access | Fireproof

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.5)	Ø Tube / Subunit [mm] (±0.2)	Supporting element / Peripheral reinforcement	Reinforcing element [mm] (±0.1)	Coating material & thickness [mm] (±0.2)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
2T6F	12	60	7.5	1.0	None	FRP (2x1.0)	LSZH (1.5-2.0)	-15° to +60° C	-20° to +60° C	20D/10D
2T12F	24	60	8.0	1.2	None	FRP (2x1.0)	LSZH (1.5-2.0)	-15° to +60° C	-20° to +60° C	20D/10D
3T12F	36	61	8.0	1.2	None	FRP (2x1.0)	LSZH (1.5-2.0)	-15° to +60° C	-20° to +60° C	20D/10D
4T12F	48	67	8.0	1.2	None	FRP (2x1.0)	LSZH (1.5-2.0)	-15° to +60° C	-20° to +60° C	20D/10D
6T12F	72	110	10.5	1.4	None	FRP (2x1.0)	LSZH (1.5-2.0)	-15° to +60° C	-20° to +60° C	20D/10D
8T12F	96	110	10.5	1.4	None	FRP (2x1.0)	LSZH (1.5-2.0)	-15° to +60° C	-20° to +60° C	20D/10D
12T12F	144	130	10.5	1.4	None	FRP (2x1.0)	LSZH (1.5-2.0)	-15° to +60° C	-20° to +60° C	20D/10D
12T24F	288	210	13.5	2.4	None	FRP (2x1.0)	LSZH (1.5-2.0)	-15° to +60° C	-20° to +60° C	20D/10D

Mechanical parameters	EN standard	IEC standard	12-48F	72-288F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	1000N	1000N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	500N	500N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	1000N (100x100mm) for 60 sec.	
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]	

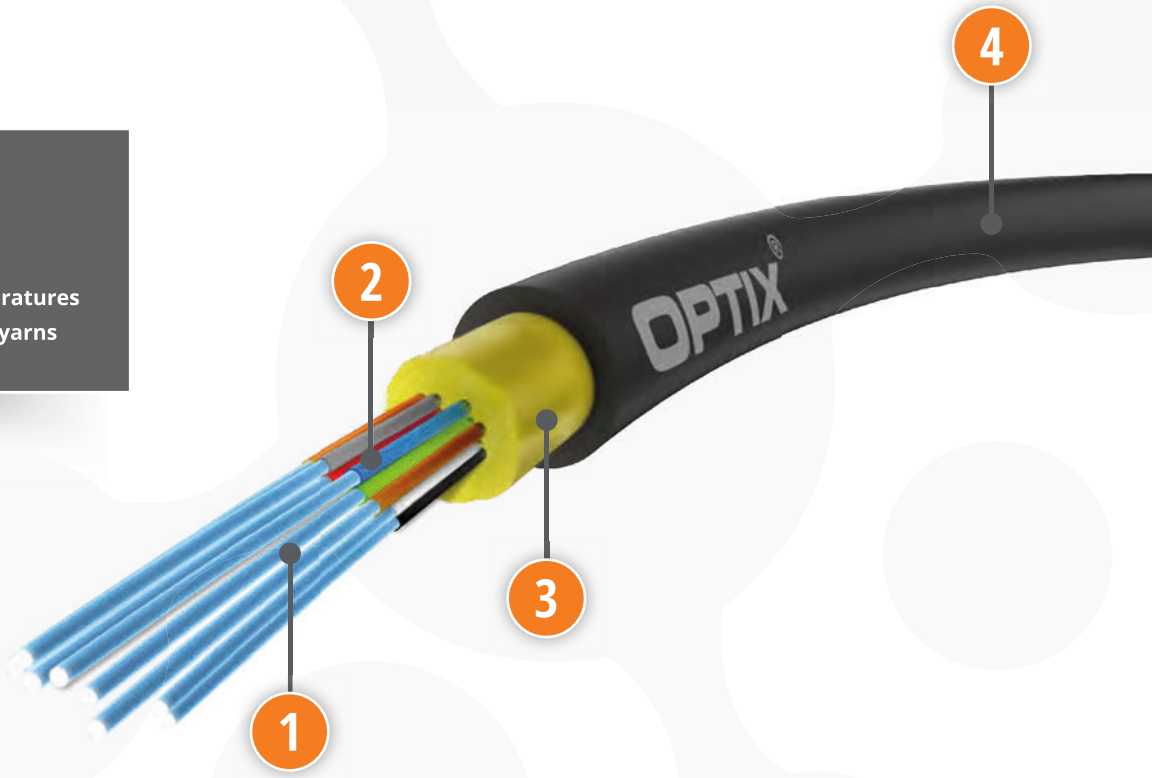
OPTIX Cable Multi LSZH W-NOTKSdD 0.8kN

9/125 ITU-T G.657A1/G.657A2

Cod. Z3FNV833-Cable version*

FEATURES:

- Cable for indoor installation
- Fully dielectric construction
- Resistance to high and low temperatures
- Enhanced by high quality aramid yarns
- Solid LSZH jacket



CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coating
2. Coloured buffer 0.9mm (tight buffer for black outer jacket, easy strip for white outer jacket)
3. Aramid yarns
4. LSZH outer jacket, (allowed: white or black)

Indoor installation | LSZH | Fireproof | High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.4)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element	Coating material & thickness [mm] (±5%)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
0T2F	2	23	5.3	None	Aramid yarns		LSZH (1.0)	-10° to +70° C	-20° to +70° C	20D/10D
0T4F	4	24	5.4	None	Aramid yarns		LSZH (1.0)	-10° to +70° C	-20° to +70° C	20D/10D
0T6F	6	24	5.5	None	Aramid yarns		LSZH (1.0)	-10° to +70° C	-20° to +70° C	20D/10D
0T8F	8	26	5.7	None	Aramid yarns		LSZH (1.0)	-10° to +70° C	-20° to +70° C	20D/10D
0T12F	12	36	6.5	None	Aramid yarns		LSZH (1.0)	-10° to +70° C	-20° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	2-6F	8-12F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	800N	800N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	300N	300N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	1000N (100x100mm) for 60 sec.	
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]	

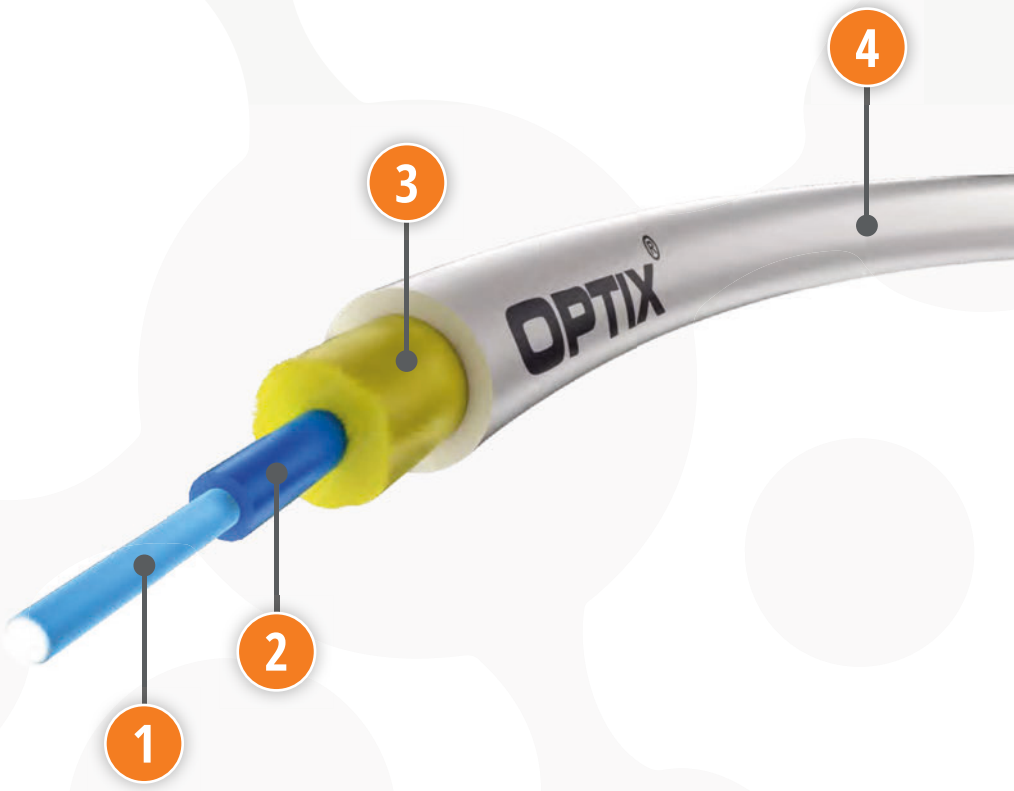
OPTIX Cable MINI LSZH W-NOTKSdD 0.12kN

9/125 ITU-T G.657A2 / ITU-T G.657B3

Cod. Z3FNV171-Cable version*

FEATURES:

- Cable for indoor installation
- Great flexibility and durability for dragging
- Fully dielectric construction
- Resistance to high and low temperatures
- Enhanced by high quality aramid yarns
- Solid FR LSZH jacket
- Small diameter ~3mm



CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coating
2. Coloured buffer 0.9mm (tight buffer or semi-tight buffer)
3. Aramid yarns
4. FR LSZH outer jacket (white), UV stabilized

Indoor installation · LSZH · Flexible · Fireproof · Reduced diameter · UV protection · High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±5%)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element	Coating material & thickness [mm] (±5%)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
0T1F	1	7.0	2.8	None	Aramid yarns		LSZH (0.40)	-10° to +50° C	-40° to +70° C	20D/15D
0T2F	2	8.5	3.0	None	Aramid yarns		LSZH (0.40)	-10° to +50° C	-40° to +70° C	20D/15D

Mechanical parameters	EN standard	IEC standard	1F	2F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	120N	120N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	-	-
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec.	
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]	

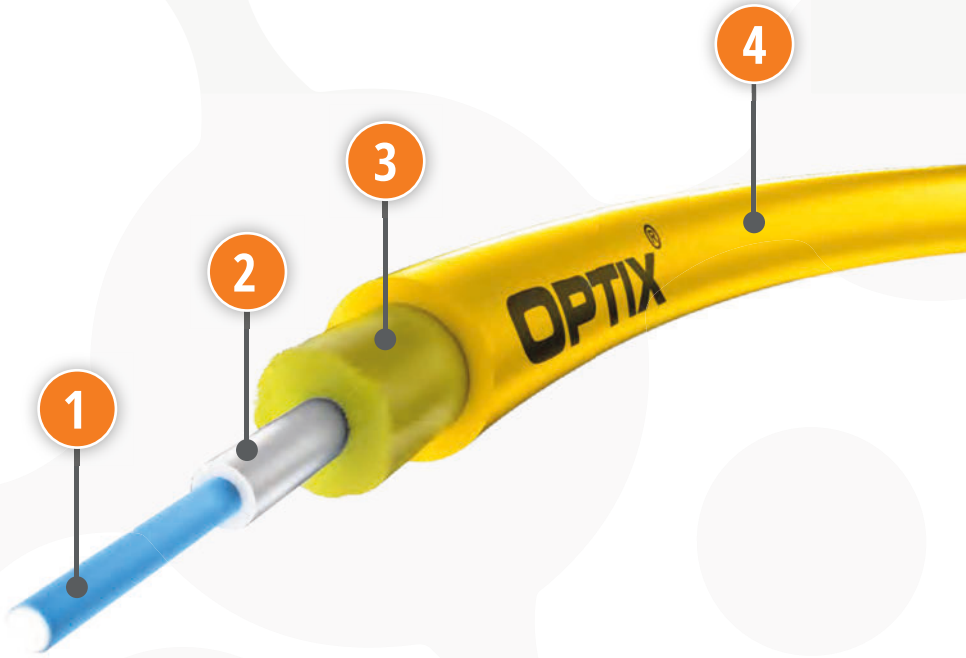
OPTIX Cable FireBlock $B2_{CA}$ W-NOTKSdD 0.5kN

9/125 ITU-T G.652D / ITU-T G.657A1

Cod. Z3FNV173-Cable version*

FEATURES:

- Cable for indoor installation in areas requiring special fire protection (escape routes)
- CPR - Euroclass of reaction to fire (acc. to EN 50575): $B2_{CA}$-s1a, d2, a1
- Fully dielectric construction
- Resistance to high and low temperatures
- Enhanced by high quality aramid yarns
- Small diameter
- Durable, halogen-free jacket, enhanced with flame-retardant additives



CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coating
2. Coloured buffer 0.9mm (semi-tight buffer)
3. Aramid yarns
4. LSZH-FR (CPR $B2_{CA}$) outer jacket (yellow)

Class of Reaction-to-Fire $B2_{CA}$ | Indoor installation | LSZH (CPR $B2_{CA}$) | Flexible | Fireproof | Reduced diameter | High and low temperature resistant

Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±0.3)	Ø Tube	Supporting element / Peripheral reinforcement	Reinforcing element	Coating material & thickness [mm] (±5%)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/permanent
0T1F	1	8.0	2.8 (±0.2)	None	Aramid yarns		LSZH-FR (0.45) [CPR $B2_{CA}$]	-10° to +60° C	-20° to +70° C	20D/10D
0T2F	2	8.5	3.0 (±0.2)	None	Aramid yarns		LSZH-FR (0.45) [CPR $B2_{CA}$]	-10° to +60° C	-20° to +70° C	20D/10D
0T4F	4	19.0	5.0	None	Aramid yarns		LSZH-FR (0.65) [CPR $B2_{CA}$]	-10° to +60° C	20° to +70° C	20D/10D
0T6F	6	23.0	5.2	None	Aramid yarns		LSZH-FR (0.65) [CPR $B2_{CA}$]	-10° to +60° C	-20° to +70° C	20D/10D
0T8F	8	26.0	5.5	None	Aramid yarns		LSZH-FR (0.65) [CPR $B2_{CA}$]	-10° to +60° C	20° to +70° C	20D/10D
0T12F	12	36.5	6.5	None	Aramid yarns		LSZH-FR (0.80) [CPR $B2_{CA}$]	-10° to +60° C	-20° to +70° C	20D/10D
0T16F	16	44.5	7.5	None	Aramid yarns		LSZH-FR (1.00) [CPR $B2_{CA}$]	-10° to +60° C	20° to +70° C	20D/10D
0T24F	24	54.5	8.5	None	Aramid yarns		LSZH-FR (1.20) [CPR $B2_{CA}$]	-10° to +60° C	-20° to +70° C	20D/10D

Mechanical parameters	EN standard	IEC standard	1-8F	12-24F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	500N	500N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	200N	200N
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	1000N/10cm	
Heat generation	EN 50399	IEC 60332-3	B2	
Fire spreading	EN 60332-1-2	IEC 60332-1		
Smoke emission	EN 50399	IEC 60332-3	s1a	
Flaming droplets	EN 50399	IEC 60332-3	d2	
Corrosive gases emission	EN 60754-1,-2	IEC 60754-1,-2	a1	

OPTIX Cable GHOST W-VOTKSd 0.06kN

ITU-T G.657B3

Cod. Z3FNV195-Cable version*

FEATURES:

- Cable for indoor installation
- Small diameter 0.9mm
- Reduced bend radius - G.657B3 fibers
- Invisible nylon coat (PA-12)
- Possibility to mount by warm glue
- Packed on one kilometre drums

CABLE CONSTRUCTION

1. Optical fibers in 0.25mm coating
2. Buffer 0.9mm Nylon PA-12 (invisible)

Indoor installation | Flexible | Fireproof | Reduced diameter | Bendsafe

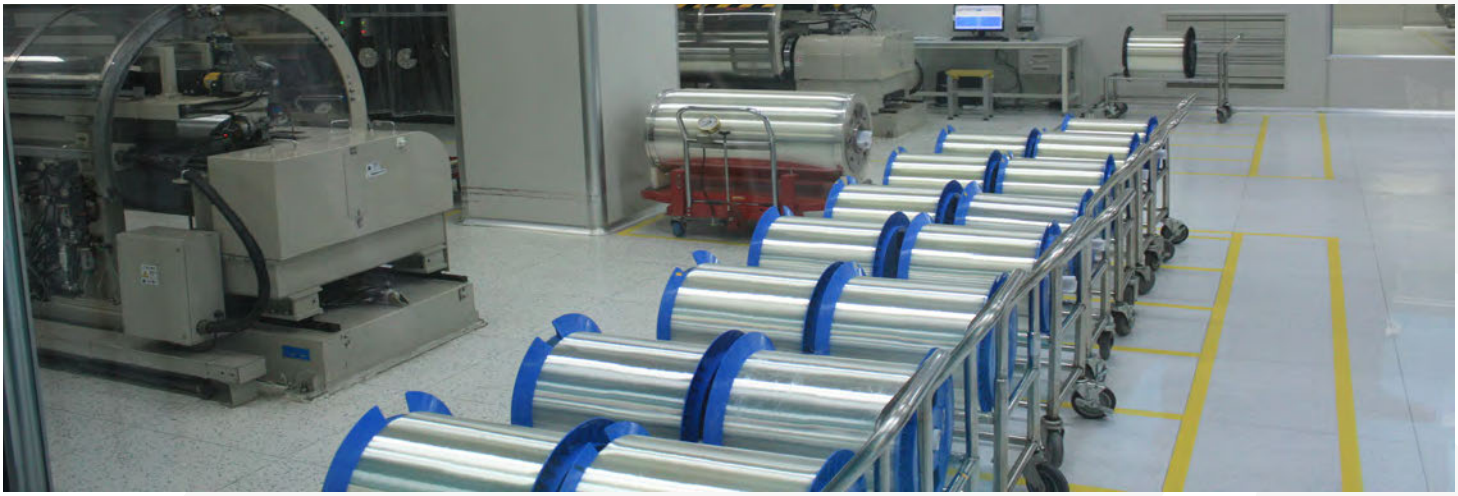
Product information

*Cable version	The total amount of fibers [pcs]	Weight [kg/km] (±10%)	Ø Cable [mm] (±5%)	Ø Tube [mm] (±0.15)	Supporting element / Peripheral reinforcement	Reinforcing element	Coating material & thickness [mm] (±5%)	Temp. range installation	Temp. range operating, transport	Minimum bending radius temporary/ permanent
0T1F	1	0.65	0.9	None	None	None	Nylon (0.25)	-10° to +50° C	-10° to +50° C	20D/15D

Mechanical parameters	EN standard	IEC standard	1F
Tensile Strength Installation	EN 187000	IEC 60794-1-2-E1	60N
Tensile Strength Operation	EN 187000	IEC 60794-1-2-E1	-
Crushing resistance	EN 187000, m. 504	IEC 60794-1-2-E3	500N (100x100mm) for 60 sec.
Repeated bending	EN 187000, m. 507	IEC 60794-1-2-E6	30 cycles [(20xD), 1Kg]

BASIC PARAMETERS OF OPTICAL FIBERS

SINGLE AND MULTI MODE

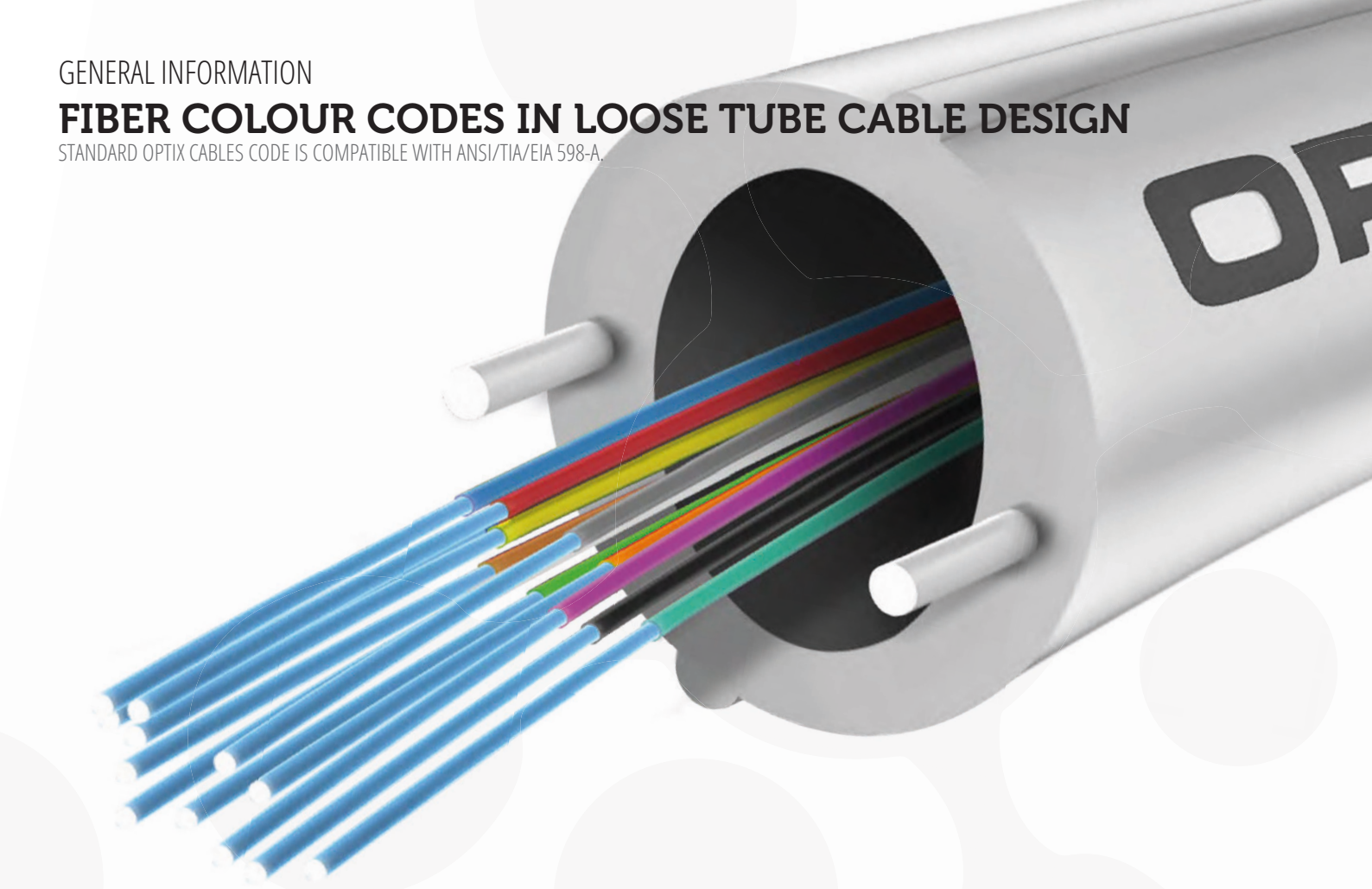


SINGLE MODE OPTICAL FIBERS						
Geometrical parameters	**Unit**	**ITU-T G652D**	**ITU-T G655**	**ITU-T G657A1**	**ITU-T G657A2**	**ITU-T G657B3 (A3)**
Mode field diameter at wavelength 1310 nm	µm	9.2±0.3	---	8.5 – 9.3 ± 0.3	8.4 – 9.2 ± 0.3	8.3 – 9.1 ± 0.3
Mode field diameter at wavelength 1550 nm	µm	10.4±0.5	9.6±0.5	9.4 – 10.4 ± 0,5	9.4 – 10.4 ± 0.5	9,2 – 10.4 ± 0.5
Cladding diameter	µm	125±0.7	125±0.7	125±0.7	125±0.7	125±0.7
Primary coating diameter	µm	235-245	235-245	235-245	235-245	235-245
Mode field eccentricity	µm	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5
Coating/cladding eccentricity	µm	≤12	≤12	≤12	≤12	≤12
Cladding ellipticity	%	≤0.7	≤1.0	≤0.7	≤0,7	≤0.7
Transmission parameters						
Attenuation - at wavelength 1310 nm - at wavelength 1550 nm - at wavelength 1625 nm - at wavelength 1285-1380 nm - at wavelength 1525-1625 nm	dB/km	 ≤0.34 ≤0.21 --- ≤0.37 ≤0.23	 ≤0.40 ≤0.22 ≤0.24 --- ---	 ≤0.35 ≤0.21 ≤0.24 ≤0.37 ≤0.23"	 ≤0.35 ≤0.21 ≤0.24 ≤0.37 ≤0.23"	 ≤0.35 ≤0.21 ≤0.23 ≤0.38 ≤0.23"
Chromatic dispersion - at wavelength 1550 nm - at wavelength 1625 nm	ps/(nm*km)	 ≤18.0 ≤22.0	 ≤4.5 ---	 ≤18.0 ≤22.0	 ≤17.5 ≤22.0	 ≤18.0 ≤22.0
Polarisation mode dispersion (PMD)	ps/√km	≤0.1	≤0.1	≤0.1	≤0.1	≤0.1
Zero dispersion wavelength	nm	1302<λ0<1322	≤1460	1302<λ0<1322	1302<λ0<1322	1302<λ0<1322
Cut-off wavelength λcc	nm	≤1260	≤1450	≤1260	≤1260	≤1260

MULTI MODE OPTICAL FIBERS			
Geometrical parameters	**Unit**	**Type G 50 (OM2)**	**Type G 62,5**
Core diameter	µm	50±2.5	62.5±2.5
Cladding diameter	µm	125±0.8	125±1.0
Primary coating diameter	µm	242±5	245±10
Core ellipticity	%	≤5	≤5
Cladding ellipticity	%	≤0.7	≤1
Core/cladding eccentricity	µm	≤1	≤1
Numerical aperture	–	0.200±0.010	0.275±0.015
Transmission parameters			
Attenuation - at wavelength 850 nm - at wavelength 1300 nm	dB/km	 ≤2.20 ≤0.60	 ≤2.90 ≤0.60
Bandwidth - at wavelength 850 nm - at wavelength1300 nm	MHz*km	 ≥700 ≥500	 ≥220 ≥500

FIBER COLOUR CODES IN LOOSE TUBE CABLE DESIGN

STANDARD OPTIX CABLES CODE IS COMPATIBLE WITH ANSI/TIA/EIA 598-A.



LOOSE TUBE CABLES

The most popular fiber optic tube to distribute optical fibers. Standard in fiber optic cable OPTIX is 24 fibers with 0.25mm (250µm) coating. Usually in the tubes are 12 optical fibers. Advantages of these tubes are: compact and sturdy design, resistance to weather conditions, resistance to mechanical damage. Fibers and tubes are based (painted) on Optical Fiber Cable Colour Coding. Fiber optic cables OPTIX are coded according to ANSI/TIA/EIA 598-A.

Fibers colour for tight tube by ANSI/TIA/EIA 598-A												
number	1	2	3	4	5	6	7	8	9	10	11	12
colour												
name	blue	orange	green	brown	grey	white	red	black	yellow	purple	pink	turquoise
number	13	14	15	16	17	18	19	20	21	22	23	24
colours												
name	blue/black	orange/ black	green/ black	brown/ black	grey/black	white/black	red/black	black/ yellow	yellow/ black	purple/ black	pink/black	turquoise/ black

Tube colour by ANSI/TIA/EIA 598-A												
number	1	2	3	4	5	6	7	8	9	10	11	12
colour												
name	blue	orange	green	brown	grey	white	red	black	yellow	purple	pink	turquoise

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