

FIBRAIN ®



CORE NETWORK

AirTrack

Product overview

→ www.fibrain.com

General information

The construction of a core network – AirTrack network is commonly used in non-metropolitan areas, where it is possible to install fiber optic lines in already built infrastructure.

This solution serves as an alternative to duct networks, which require high financial resources and are extremely time-consuming.

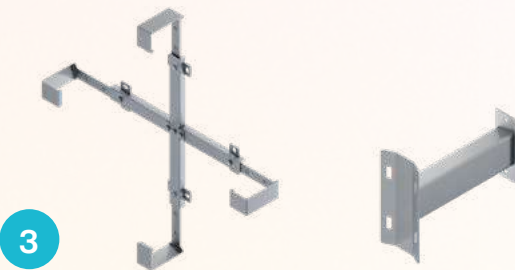
AirTrack system elements:



FIBRAIN AERO aerial cables



FIBRAIN fiber optic closures



Storage brackets



Anchoring clamps



Accessories for handle mounting



Composite poles

It is necessary to pay special attention to the compatibility of a cable and an anchoring clamp and specify cable diameter, resistance to stretch-

ing, span distance, and weather conditions that occur in the installation place.

The impact of external factors on cable and accessories exploitation

Aerial networks are subject to changing weather conditions throughout their lifespan. A fiber optic cable and accessories, especially anchoring clamps are an interdependent element of an entire system, which needs to be characterized by high resistance to all external factors such as wind pressure, hoarfrost, aeolian vibrations, temperature change, and UV radiation.

These factors generate additional tensions in a cable. Therefore, in this case also optical fiber is subject to tensions, which can lose its transmission parameters, and in the worst case be damaged.

For this reason, a selection of appropriate equipment and accessories to weather conditions present in a given areas are so valid.

FIBRAIN relies on a comparative analysis NESC, which is the standard created by the United States of America specifying norms of proper and safe installation as well as using electrical and telecommunication systems including climate conditions.

NESC determines 3 possible climate conditions (LIGHT, MEDIUM, HEAVY) which might occur in a given region.

	LIGHT	MEDIUM	HEAVY
Icing layer thickness	0 mm	6.5 mm	12.5 mm
Wind load pressure (horizontal)	430 Pa	190 Pa	190 Pa
Temperature	-1 C°	-10 C°	-20 C°
NESC additional load indicators	0.7 N/m	2.5 N/m	4.4 N/m

Taking into account environment data such as possible ice-covered, wind and temperature for a given region, 3 climatic zones were specified.

Main assumptions of NESC standard concentrate on ensuring safety of selected structures, and in case of cables it is also extra burden that does not affect the cable line such as excessive stretching or even breaking it.

In case of fiber optic cables, it is also necessary to bear in mind that improper burden, which goes beyond the norm, can cause micro-damages that affect transmission parameters.

On the basis of environmental data available for Polish regions, the norms clearly indicated that all Poland belongs to NESC HEAVY.



Suspension clamps



**Spiral anchoring clamps
with accessories**

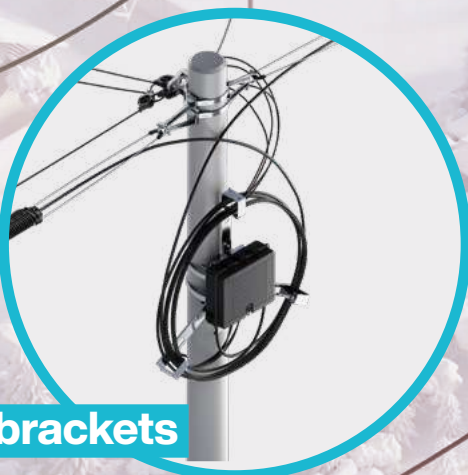


Fiber optic closures

Anchoring clamps



Storage brackets



AERO cables



**Hook brackets
and anchoring clamps**



CORE NETWORK



AirTrack

Core cables

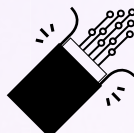
FIBRAIN AERO overhead cables are resistant to weather conditions and ensure failure-free operation of a network for years.



Dielectric



Resistant to UV



Double ripcords

Available cable span distances

up to 50 m

up to 70 m

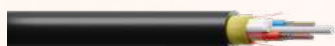
up to 100 m

up to 150 m

up to 220 m

+220 m

FIBRAIN AERO cables



**AERO-AS02 2kN
2-144F**



**AERO-AS03 3kN
4-288F**



**AERO-AS04 4kN
4-288F**



**AERO-AS06 6kN
4-288F**



**AERO-AS09 9kN
4-144F**



**AERO-AS12 12kN
2-144F**



**AERO-FM
6F per module**



**AERO-FM
12F per module**



**AERO-DDF03
4-48F**

Drop cables

High mechanical resistance, flexibility and reduced memory effect make FIBRAIN Drop cable easy and comfortable to install in overhead FTTX networks.



Resistant to UV



**Adjusted to FTTH
network**



Max. 24 fibers

Available span distance

up to 50 m

FIBRAIN Drop cables



**AERO-DR03
1-2F**



**AERO-DF03
1-24F**



VC-T60 6.0 mm



VC-T50 5.0 mm

Anchoring clamps

FIBRAIN anchoring and suspension clamps are used to maintain proper level of tension between poles.



**Toolless
installation**



**Flat and round
cables**

50 m

..

+220 m

**Various span
distances**



**High mechanical
resistance**

Available span distance

up to 50 m

up to 70 m

up to 100 m

up to 150 m

up to 220 m

+220 m

FIBRAIN spiral and suspension clamps



**Anchoring clamp for
AERO ADSS drop cables**



**Anchoring clamp for flat
AERO ADSS cables**



**Anchoring clamp for
AERO ADSS cables**



**Dielectric suspension clamp
for AERO ADSS cables**



**Spiral anchoring clamp
for AERO ADSS cables**



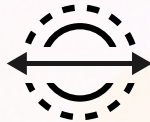
**Suspension clamp for
AERO ADSS cables**

Fiber optic closures

FIBRAIN fiber optic closures guarantee easy placement of core and drop cables with a possibility of preconnectorized cables, organizing tubes, splitters, adapters as well as protecting fibers in further exploitation.



**Max. 288
splices**



**Cable diameter
3 – 20 mm**



**Max. 18 adapter
fields**



Solid construction



OBP-S8 closure



OBP-S8W closure



FOBP-M1 closure



FOBP-M2 closure



FOBP-T1 closure



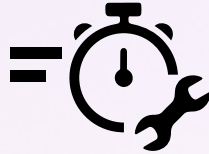
FOBP-T2 closure

Storage brackets and poles

Storage brackets are used for the storage and the bending of a fibre optic cable on the pole. Poles are light and at the same time extremely resistant alternative for their steel or concrete equivalents.



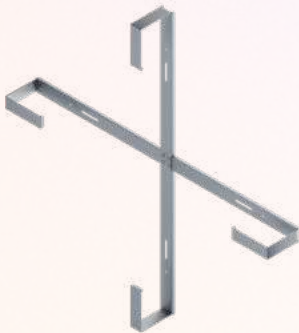
**Light
construction**



**Easy and fast
installation**



**Resistant to
harsh weather
conditions**



Storage bracket



**Cable and fiber optic closure
storage bracket**



Bracket



**FIBRAIN AirTrack
composite pole**

AirTrack accessories

The installation accessories include, among others storage and hook brackets, steelbands, shackles.



AirTrack band installation tool



AirTrack steel band 19 mm, thickness 0.7 mm – 50-meter length



AirTrack standard buckle 20 mm



AirTrack shackle 8 mm



AirTrack Closed eye bracket



AirTrack universal anchoring pole bracket



AirTrack hook bracket



AirTrack „c” thimble



AirTrack turnbuckle

**From a single fiber
to millions of satisfied
customers around
the world.**



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