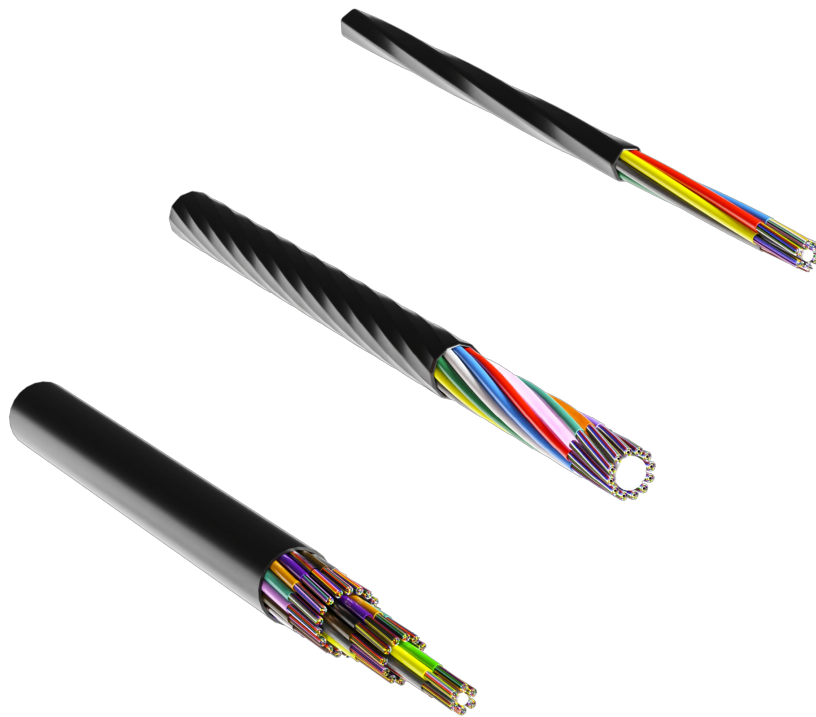


HEXATRONIC 
VIPER



High Performance Micro Cable – Super Slim

FTMU 288 fibers G657A1 200 μm FIN2012

Features

- Super slim design with 200um fibers
- Up to 288 fibers
- Excellent installation performance
- Unique design with robust inner tubes that do not kink
- Temperature range from -40 to +70°C
- Excellent bend performance, ≥ 30 mm
- Easy to prepare and identify fibers

Application

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

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

The micro cables are based on a slim loose tube design with up to 18 tubes per cable. The design facilitates fiber preparation and mid-span access. The cables are suitable for long-distance, air blown installation in microducts, with an inner diameter of as little as 8 to 12 mm. The cables have excellent bend performance and an extremely wide operational temperature range.

Design

The Micro Cables are designed with one, two or three layers of inner protective tubes made of a unique compound. The compound gives a special strength to the product, while increasing the bending properties as well as other benefits such as extreme temperature resistance.

To enable installation into smallest possible microducts, the Hexatronic Viper 200 series is designed with 200 μm fibers

Product Information



- 1 Primary coated fiber: Silica, acrylate
- 2 Loose tube: PA
- 3 Central strength member: Glass fiber reinforced plastic, PE
- 4 Slit up yarn: Aramide yarn 5. Wrapping: Water blocking yarns
- 5 Sheath: Polyethylene, halogen-free

Black fillers can replace empty white tubes.

Technical Information

Tuotteen väri	Black Sheath
Värijärjestys	FIN2012
Lämpötila, käyttö [°C]	-40 to +70
Lämpötila, varastointi [°C]	-40 to +70
Lämpötila, asennus [°C]	-15 to +50
Vedenesto	Longitudinal water blocking according to IEC 60794-1-2-F5C

Kuidun tyyppi	G657A1
Vaimennus @Aallonpituudella [nm]	1310/1383/1550
Tyypillien vaimennus [dB/km]	0.32/0.32/0.19
Keskimääräinen vaimennus [dB/km]	0.33/0.33/0.21
Max. vaimennus [dB/km]	0.36/0.36/0.23
Vaatimustenmukaisuus	<p>Fiber parameters and tests according to the IEC series 60793-2 and 60793-1.</p> <p>Mechanical and environmental tests in accordance with Family Specification IEC 60794-5-10.</p> <p>Test standards, conditions and requirements:</p> <ul style="list-style-type: none"> ▪ Operational temperature: IEC 60794-1-22 Method F1; max attenuation 0.10dB/km* ▪ Storage temperature: IEC 60794-1-22 Method F1; max attenuation 0.15dB/km* reversible ▪ Ageing: IEC 60794-1-22, Method F9; 168h@85°C,+2 cycles, no attenuation after test ▪ Water blocking: IEC 60794-1-2, Method F5C, 3m sample, 1m head of water, no leakage after 24 hours ▪ Bend radius: IEC 60794-1-21, Method E11B; 4 turns, 3 cycles, max attenuation 0.05dB* ▪ Installation tensile load: IEC 60794-1-21, Method E1; max fiber tension 0.6%, reversible attenuation ▪ Crush: IEC 60794-1-21, Method E3; 1 minute load, 100mm plate, no attenuation after test ▪ Impact: IEC 60794-1-21, Method E4; 3 different places, max attenuation 0.1dB* after test <p>* All attenuation measurements performed @ 1550nm</p>
Merkintä	<p>Example of sheath marking, 1 time/meter: "HEXATRONIC A35 Viper yymmdh TOL4019038/288AL FTMU 288/T24 G657A1 200um FIN2012 xxxx M" where yymmdh = year, month, day and hour of manufacture, xxxx=running meter marking</p>

Aseennustiedot

Typical installation performance:

- Ducts ID 8-10 mm, cable OD ≤6.7 mm: 2000 m
- Ducts ID 12 mm, cable OD ≤8.0 mm: 2000 m
- Ducts ID 15-16 mm, cable OD <11 mm: 2000 m,
cable OD 11-12 mm: 1500 m

Installation performance verified on Hexatronic test track, according to IEC 60794. Installation performance is affected by the installed path, environmental conditions, installation equipment etc and actual performance may therefore deviate from the above specified values.

The cable should be installed at a temperature between -15 to +40°C. The cable shall not be stored in direct sunlight. The sun may heat up the cable over the permitted temperature limit.

Tilaustiedot

Supplied lengths: 2, 4, 8 km

Technical Details

FIN-2012 Kuidut ja putkpaällysteet Fibers and Tubes	1	2	3	4	5	6	7	8	9	10	11	12
	Sininen Blue	Valkoinen White	Keltainen Yellow	Vihreä Green	Harmaa Grey	Oranssi Orange	Ruskea Brown	Turkoosi Turquoise	Musta Black	Violetti Violet	Vaalean- punainen Pink	Punainen Red
Sininen Blue	Valkoinen White	Keltainen Yellow	Vihreä Green	Harmaa Grey	Oranssi Orange	Ruskea Brown	Turkoosi Turquoise	Lapinalkova Clear	Violetti Violet	Vaalean- punainen Pink	Punainen Red	

Articles 1

Article name	Väri	Kuitujen lkm	Asettelu	Taiutus säde [mm]	Vetolujuus [N]	Puristuslujuus asennettaessa [N]	Istu [J]	Halkaisija Ø [mm]	Paino [kg/km]	Pituus [m]
FTMU288/T12 G657A1 200um FIN2012 TOL4019038/288AL	Black	288	24x12	100	2000	2000	5	7.95	65	2000/K8, 4000/K10, 6000/K12, 8000/K12