

Micro Cable, Super Slim - The Viper Series 200

GNHL-U-CDGNRV (GNHLDV) 144-288 Fibers G.57A1, 200 μm

HEXATRONIC 

VIPER

Features

- Super slim design with 200 μm fibers
- 144-288 fibers
- Fits in microducts with an ID of 8 to 12 mm
- Excellent installation performance
- Unique design with robust inner tubes that does 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 twelve tubes per cable. The design facilitates fiber preparation and mid-span access. The cables are suitable for long-distance, air blown installation in microducts, with an inner diameter of as little as 8 to 12 mm.

The cables have excellent bend performance and an extremely wide operational temperature range.

Design

The Micro Cables are designed with 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 fiber Hexatronic Viper 200 series is designed with 200 μm fibers.





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Typical Data

Temperature range

Operation, $\Delta\alpha \leq 0.15$ dB/Km

.....-40 to +70°C

Operation, $\Delta\alpha \leq 0.05$ dB/Km

.....-35 to +70°C

Storage-40 to +70°C

Handling-15 to +50°C

Cable temperature, blown installation

.....-15 to +40°C

Bending radius

Cable bend radius, permanent

¼ turn/ single turn/ multiple turns

288f..... $\geq 40/ 50/ 100$ mm

Tensile force

During installation

144f..... ≤ 850 N

192f..... ≤ 1200 N

288f..... ≤ 2000 N

Crush resistance ($\Delta\alpha \leq 0.05$ dB after test, no damage)

144f..... ≤ 2000 N/100 mm

192-288f..... ≤ 3000 N/100 mm

Impact ($\Delta\alpha \leq 0.05$ dB after test, no damage)

.....5 J

Typical installation performance*

Ducts, inner diameter 12 mm

.....2000 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.

Delivery Information

Supplied lengths2, 4, 6, 8 km

The cable is length water blocking according to IEC 60794-1-2-F5B.

Mechanical and environmental test in accordance with IEC 60794-5-10

Fiber parameters and tests according to the IEC series 60793-2 and 60793-1

The cable shall not be stored in direct sun light. The sun may heat up the cable over the permitted temperature limit

Design

1. Primary coated fiber Silica, acrylate

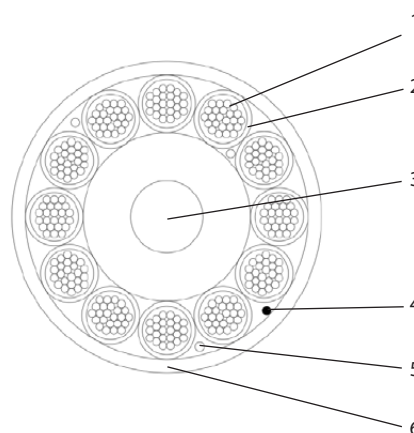
2. Loose tube PA

3. Central strength member Glass fiber reinforced plastic, PE

4. Slit up yarn Aramide yarn

5. Wrapping..... Water blocking yarns

6. Sheath..... Polyethylene, halogen-free



Transmission Characteristics, G657A1

Attenuation	@ 1310nm	@ 1383nm	@ 1550nm
Typical	0.32dB/km	0.32dB/km	0.18dB/km
Max	0.36dB/km	0.36dB/km	0.23dB/km



Concentric Core Loose Tube Micro Cable 288 fibers– The Viper Series

Ordering Information

Product No.	Product Name	Tubes/Fibers		Diameter	Weight	For Microducts ID
		No.	Color Code	ø (mm)	kg/km	ø (mm)
TOL4019035/144AH	Micro Cable 144f G657A1, 200 µm S12	6x24 (144f)	S12	5.6	26	8 - 16
TOL4019035/192AH	Micro Cable 192f G657A1, 200 µm S12	8x24 (192f)	S12	6.7	37,5	8 - 16
TOL4019035/288AH	Micro Cable 288f G657A1, 200 µm S12	12x24 (288f)	S12	8.5	57	12 - 20
TOL4019035/144C	Micro Cable 144f G657A1, 200 µm TIA598	6x24 (144f)	TIA598	5.6	26	8 - 16
TOL4019035/192C	Micro Cable 192f G657A1, 200 µm TIA598	8x24 (192f)	TIA598	6.7	37,5	8 - 16
TOL4019035/288C	Micro Cable 288f G657A1, 200 µm TIA598	12x24 (288f)	TIA598	8.5	57	12 - 20

Color Code Systems

	1	2	3	4	5	6	7	8	9	10	11	12
S12 Fibers and Tubes	RD	BU	WH	GN	YE	SL	BR	BL	VT	OG	AQ	RO
	13	14	15	16	17	18	19	20	21	22	23	24
	RD—	BU—	WH—	GN—	YE—	SL—	BN—	CL—	VT—	OR—	AQ—	RO—
TIA-598 Fibers and Tubes	Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Rose	Aqua
	13	14	15	16	17	18	19	20	21	22	23	24
	Blue—	Orange—	Green—	Brown—	Slate—	White—	Red—	Clear—	Yellow—	Violet—	Rose—	Aqua—

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



Concentric Core Loose Tube Micro Cable 288 fibers– The Viper Series
