

Microduct Cable - The Viper Series - DIN VDE 0888

Microduct Cable, Dielectric 12-216 Fibers G657A1



HEXATRONIC 
VIPER

Features

- Up to 216 fibers
- Super slim design
- Excellent installation performance
- Unique design with robust inner tubes that do not kink
- Temperature range from -45 to +70°C
- Excellent bend performance
- 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 Polyamide compound. The Polyamide gives a special strength to the product, while increasing the bending properties as well as other benefits such as extreme temperature resistance.

As a result, The Viper Micro Cables are more durable during the installation process as they are able to withstand rough handling. The unique cable design with an extended operational temperature range of -45 to +70°C can be used in many environments, on all continents where heat and cold are often a major concern.



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Typical Data

Temperature range

Operation.....-45 to +70°C
 Storage.....-45 to +70°C
 Handling.....-15 to +50°C
 Cable temperature,
 blown installation-15 to +40°C

Bending radius

Cable bend radius, permanent,
 multiple turns
 12-96 fiber70 mm
 144 fiber90 mm
 192 fiber90 mm
 216 fiber100 mm

Tensile force

During installation/ operation
 12-96 fiber1200/ 50 N
 144 fiber1600/ 75 N
 192-216 fiber2500/ 170 N

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

12-96 fiber2000N/100 mm
 144 fiber2200 N/100 mm
 192-216 fiber5000 N/100 mm

Cable weight

12-72 fiber28 kg/km
 96 fiber27.5 kg/km
 144 fiber35 kg/km
 192-216 fiber47 kg/km

Delivery Information

Supplied lengths2, 4, 8 km

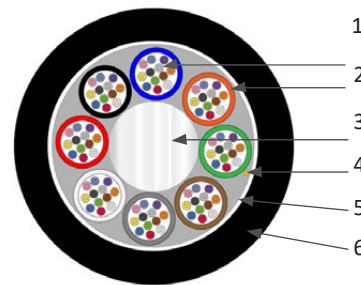
The cable is length water blocking according to IEC 60794-1-2-F5B.
 Mechanical and environmental test in accordance with IEC 60794-5-10
 Fiber parameters and tests according to the IEC series 60793-2 and 60793-1
 The cable shall not be stored in direct sun light. The sun may heat up the cable over the permitted temperature limit

Transmission Characteristics

Attenuation	@ 1310nm	@ 1383nm	@ 1550nm
Typical	0.32dB/km	0.32dB/km	0.18dB/km
Average in Cable	0.33dB/km	0.33dB/km	0.21dB/km
Max	0.36dB/km	0.36dB/km	0.23dB/km

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



The illustration shows a cable with a single layer of fiber tubes. Cables with more than 12 tubes are designed with two layers.

Color Code System

DIN VDE 0888	1	2	3	4	5	6	7	8	9	10	11	12
Fibers and Tubes	Red	Green	Blue	Yellow	White	Slate	Brown	Violet	Aqua	Black	Orange	Pink
Black fillers can replace tubes.	Red --	Green --	Blue --	Yellow --	White --	Slate --	Brown --	Violet --	Aqua --	Black --	Orange --	Pink --



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Ordering Information

Product No.	Product Name	Tubes/Fibers		Diameter	Weight	For Microducts ID
		No.	Color Code	ø (mm)	kg/km	ø (mm)
TOL4019022/12AB	Micro Cable 12f G657A1	1x12 (12f)	DIN VDE 0888	5.7	28	8 - 10 - 12
TOL4019022/24AB	Micro Cable 24f G657A1	2x12 (24f)	DIN VDE 0888	5.7	28	8 - 10 - 12
TOL4019022/48AB	Micro Cable 48f G657A1	4x12 (48f)	DIN VDE 0888	5.7	28	8 - 10 - 12
TOL4019022/72AB	Micro Cable 72f G657A1	6x12 (72f)	DIN VDE 0888	5.7	28	8 - 10 - 12
TOL4019032/96AB	Micro Cable 96f G657A1	8x12 (96f)	DIN VDE 0888	5.9	27.5	8 - 10 - 12
TOL4019032/144AB	Micro Cable 144f G657A1	6x24 (144f)	DIN VDE 0888	6.7	35	8 - 10 - 12
TOL4019053/144AB	Micro Cable 144f G657A1	12x12 (144f)	DIN VDE 0888	7.9	40	10 - 12
TOL4019028/192AB	Micro Cable 192f G657A1	8x24 (192f)	DIN VDE 0888	7.9	47	10 - 12
TOL4019053/216AB	Micro Cable 216f G657A1	18x12 (216f)	DIN VDE 0888	8.6	47	12