Concentric Core Loose Tube Micro Cable – TOL 401 9024 & TOL 401 9029

For Aerial Duct Installation - GNHLDV Dielectric 12-96 Fibers G652.D

Features

- Optimized for Aerial duct installations
- Excellent installation performance
- Unique design with robust inner tubes
- Temperature range from -40 to +70°C
- Easy to prepare and identify fibers
- Slim design for microducts down to 8mm
- Halogen-free
- Up to 96 fibers

Application

GNHLDV Aerial is a fiber optic micro cable for installation into microducts mounted on pole lines (aerial installation). The cable is part of the Hexatronic Micronet Micro Cable System. The Micronet system is used for installing optical fibers in all types of metropolitan, rural access networks and in the backbone network. Micronet provides an easy, cost-efficient rollout and maintenance, which creates the opportunity for increasing broadband penetration, with the capability to grow with user needs.

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, Micronet 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 -40 to +70°C can be used in many environments, on all continents where heat and cold are often a factor.

The micro cable consists of up to 8 loose tubes with 12 fibers per tubes. This enables a fiber count from 12 to 96 fibers.

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Typical Data

Temperature range

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

Bending radius

Cable bend radius, ¼ turn permanent
1-72 fiber..... ≥ 80 mm
96 fiber..... ≥ 80 mm

Cable bend radius, single turn permanent
1-72 fiber..... ≥ 100 mm
96 fiber..... ≥ 100 mm

Cable bend radius, multiple turns permanent
1-72 fiber..... ≥ 230 mm
96 fiber..... ≥ 230 mm

Tensile force

During installation
1-72 fiber..... ≤ 700 N
96 fiber..... ≤ 1700 N

During operation
(temporary when subjected to wind & ice,
0,5% tension, no attenuation change)
1-72 fiber..... ≤ 700 N
96 fiber..... ≤ 1700 N

Crush resistance ($\Delta\alpha \leq 0.05$ dB after test, no damage)
1-96 fiber..... ≤ 2000 N/10 cm

Cable weight

1-72 fiber..... 28 kg
96 fiber..... 39 kg

Typical installation performance

1-72 fiber,10/8 tube ..... up to 1500 m
96 fiber, 10/8 tube ..... up to 1200 m

Delivery Information

Supplied lengths ..... 2, 4, 8 km

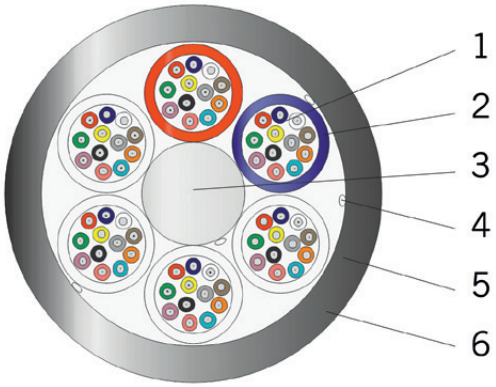
The cable is length water blocking according to IEC 60794-1-2-F5B.
Mechanical and environmental test in accordance with IEC 60794-5
Fiber parameters and tests according to the IEC series 60793-2 and 60793-1
* The cable shall not be stored in direct sun light. The sun may heat up the cable over the permitted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

Transmission Characteristics, G652.D

ATTENUATION	@ 1310NM	@ 1550NM	@ 1625NM
Mean value in cable	0.36dB/km	0.22dB/km	0.25dB/km
Max value individual	0.38dB/km	0.25dB/km	0.30dB/km

Design

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



Color Coding

SDT=According to standard color code system. Fibers: red, blue, white, green, yellow, grey, brown, black, orange, violet, pink, turquoise. Tubes: 1 – red, 2 – blue, 3 - 6 – white, 7 – blue, 8 – 12 - white

S12=According to S12 color code system. Fibers: red, blue, white, green, yellow, grey, brown, black, violet, orange, turquoise, pink. Tubes: 1 – red, 2 – blue, 3 - 12 – white

Black fillers can replace white tubes.

Ordering Information

Note that this cable type is intended for Aerial Duct Installation only. For Underground duct installation, see cable type TOL 401 9017+.

ORDER NUMBER	NUMBER OF FIBERS	DIAMETER (MM)	COLOR CODE
TOL 401 9024/12A	12	5.7 ± 0.15	STD
TOL 401 9024/24A	24	5.7 ± 0.15	STD
TOL 401 9024/48A	48	5.7 ± 0.15	STD
TOL 401 9024/72A	72	5.7 ± 0.15	STD
TOL 401 9024/96A	96	6.7 ± 0.15	STD
TOL 401 9029/12AH	12	5.7 ± 0.15	S12
TOL 401 9029/24AH	24	5.7 ± 0.15	S12
TOL 401 9029/48AH	48	5.7 ± 0.15	S12
TOL 401 9029/72AH	72	5.7 ± 0.15	S12
TOL 401 9029/96AH	96	6.7 ± 0.15	S12

The order numbers corresponds to cables with single mode G652.D fibers.

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