

High Performance Loose Tube Cable

GRHL 12-192 fibers G657A1 S12

Features

- Up to 192 fibres
- Slim yet very durable design
- Air-blown installation, water jetting or traditional pulling
- Excellent optical performance with ultra-low loss G657A1 fibers
- A dry cable design - easy to prepare and identify fibres

Application

The Hexatronic slim duct cable series combines state of the art installation performance, ultra-low attenuation and a high mechanical and environmental performance.

The cable type is typically used in transport applications such as terrestrial long-haul or metro networks where low attenuation and cable performance are prime concerns.

With a reduced outside cable diameter and optimised cable stiffness, the cables can be air-blown or water-jetted long distances without the need for splicing. A reduced cable diameter also allows for reduced duct diameters which will simplify and reduce the cost of material handling in field.

Thanks to the central strength member design and a robust sheath the cables can also be installed by traditional pulling techniques.

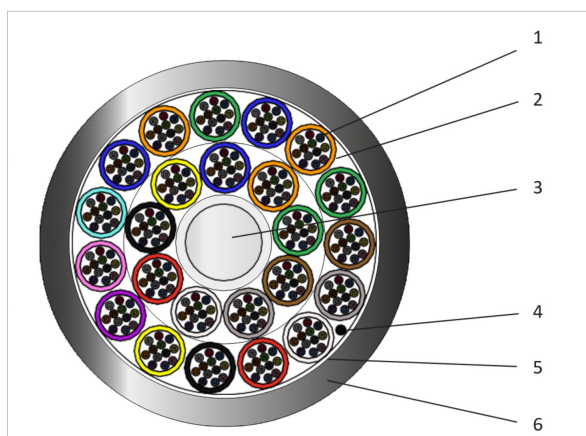
Design

The cables are based on a dry concentric core, slim loose tube design with up to 16 tubes per cable.

The cables have one or two layers of inner protective tubes made of a robust PBT compound where each tube has 12 fibers.

The design facilitates easy fibre preparation and mid-span access.

Product Information



- 1 Primary coated fiber: Silica, acrylate
- 2 Loose tube: PBT
- 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

Black fillers can replace empty white tubes.

Technical Information

| | |
|---------------------------------------|---|
| Product Color | Black sheath |
| Color Code | S12 |
| Temperature, Operation [°C] | -40 to +70 |
| Temperature, Storage [°C] | -40 to +70 |
| Temperature, Installation [°C] | -15 to +50 |
| Water Blocking | Length water blocking according to IEC 60794-1-2-F5B |
| Fiber Type | G657A1 |
| Attenuation @Wavelength [nm] | 1310/1383/1550 |
| Typical Attenuation [dB/km] | 0.32/0.32/0.18 |
| Average Attenuation [dB/km] | 0.33/0.33/0.21 |
| Maximum Attenuation [dB/km] | 0.36/0.36/0.23 |
| Conformance | 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 |
| Marking | Example of sheath marking, 1 time/meter: "HEXATRONIC A35 yymmddhh TOL4012128/192AH GRHL-U-CDGNRV 192/T12 G657A1 S12 xxxx m" where yymmddhh = year, month, day and hour of manufacture, xxxx=running meter marking |
| Installation Notes | If the cable is installed by blowing the temperature shall be -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. |

Ordering Information

Supplied lengths: 2, 4, 8 km

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| Article name | Color | No. of Fibers | Layout | Bend Radius [mm] | Tensile Force, Installation [N] | Tensile Force, Operation [N] | Crush [N/100 mm] | Impact [J] | Diameter Ø [mm] | Weight [kg/km] |
|---|-------|---------------|--------|------------------|---------------------------------|------------------------------|------------------|------------|-----------------|----------------|
| GRHL 12 G657A1 S12 (1x12f) TOL4012128/12AH | Black | 12 | 1x12 | 140 | 1500 | 500 | 1500 | 10 | 9.4 | 65 |
| GRHL 24 G657A1 S12 (2x12f) TOL4012128/24AH | Black | 24 | 2x12 | 140 | 1500 | 500 | 1500 | 10 | 9.4 | 65 |
| GRHL 36 G657A1 S12 (3x12f) TOL4012128/36AH | Black | 36 | 3x12 | 140 | 1500 | 500 | 1500 | 10 | 9.4 | 65 |
| GRHL 48 G657A1 S12 (4x12f) TOL4012128/48AH | Black | 48 | 4x12 | 140 | 1500 | 700 | 1500 | 10 | 9.4 | 65 |
| GRHL 72 G657A1 S12 (6x12f) TOL4012128/72AH | Black | 72 | 6x12 | 140 | 1500 | 700 | 1500 | 10 | 9.4 | 65 |
| GRHL 96 G657A1 S12 (8x12f) TOL4012128/96AH | Black | 96 | 8x12 | 160 | 4000 | 1500 | 1500 | 10 | 10.7 | 90 |
| GRHL 192 G657A1 S12 (16x12f) TOL4012128/192AH | Black | 192 | 16x12 | 175 | 2400 | 1500 | 1500 | 15 | 13.6 | 126 |