

## Паспорт изделия

### Outdoor fiber optics cable, unarmored, GYXY type



**Product Code:** [LAN-OFC-GYXYnnyy](#)

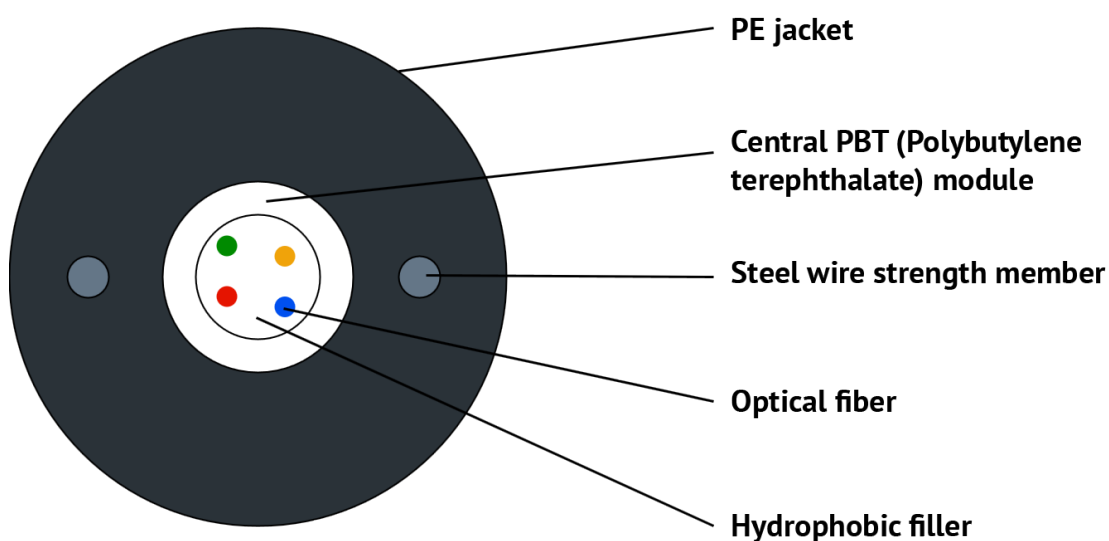
Outdoor fiber optics cable, unarmored, GYXY type

### Description

#### Application:

Used for cabling in cable ducts with no external mechanical impacts, trays, tunnels, and collectors.

#### Design:



The cable contains a central optical module with loosely laid fibers. The free space in the optical module is filled with a hydrophobic filler. The module is covered with a medium density polyethylene jacket. Two steel wires are

located diametrically opposite in the cable jacket and serve as strength members.

The maximum possible count of optical fibers in the cable is 24.

### Color identification of optical fibers

| Nº | Fibers 1-12 | Nº | Fibers 13-24       |
|----|-------------|----|--------------------|
| 1  | Blue        | 13 | Blue + 1 ring      |
| 2  | Orange      | 14 | Orange + 1 ring    |
| 3  | Green       | 15 | Green + 1 ring     |
| 4  | Brown       | 16 | Brown + 1 ring     |
| 5  | Grey        | 17 | Grey + 1 ring      |
| 6  | White       | 18 | White + 1 ring     |
| 7  | Red         | 19 | Red + 1 ring       |
| 8  | Black       | 20 | Black + 1 ring     |
| 9  | Yellow      | 21 | Yellow + 1 ring    |
| 10 | Violet      | 22 | Violet + 1 ring    |
| 11 | Pink        | 23 | Pink + 1 ring      |
| 12 | Turquoise   | 24 | Turquoise + 1 ring |

### Weight and Dimensions

| Fiber count                    | 4                                  | 8   | 12  | 16  | 24  |
|--------------------------------|------------------------------------|-----|-----|-----|-----|
| Strength member                | Steel wire<br>0.8                  |     |     |     |     |
| Central module                 | Polybutylene terephthalate / PBT   |     |     |     |     |
| Material                       |                                    |     |     |     |     |
| Diameter (±0.05 mm)            | 2.0                                | 2.0 | 2.2 | 2.8 | 2.8 |
| Thickness (±0.06 mm)           |                                    |     |     |     |     |
| Thickness (±0.00.30 mm)        |                                    |     |     |     |     |
| Maximum fiber count per module | 4                                  | 8   | 12  | 16  | 24  |
| Jacket                         | Middle Density Polyethylene<br>2.5 |     |     |     |     |
| Material                       |                                    |     |     |     |     |
| Thickness (±0.2 mm)            |                                    |     |     |     |     |
| Cable diameter (±0.2) mm       | 6.3                                | 6.3 | 6.3 | 7.0 | 7.0 |
| Cable weight (±5) kg/km        | 38                                 | 38  | 38  | 46  | 46  |

### Operating conditions

|                      |                              |                    |
|----------------------|------------------------------|--------------------|
| Minimum Bend Radius  | Without pulling tension      | 10 cable diameters |
|                      | With maximum pulling tension | 20 cable diameters |
| Temperature range °C | Installation                 | -20~+60            |
|                      | Storage                      | -40~+70            |
|                      | Operating                    | -40~+70            |
| Lifetime             | 25 years                     |                    |

### Physical specifications

| Nº | Specification           | Value         |
|----|-------------------------|---------------|
| 1  | Maximum pulling tension | 1000 N        |
|    | Short term impact       | 400 N         |
| 2  | Crush resistance        | 600 (N/100mm) |
|    | Long term impact        | 200 (N/100mm) |

## Basic operational testing of mechanical and environmental impact

| <b>Test</b>                                  | <b>Test procedure</b>                                                                                                                                                                                                          | <b>Test procedure</b>                                                                                                  |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Pulling tension IEC 794-1-93-E1 test         | - Load: short-term pulling<br>- Cable length: about 50 m                                                                                                                                                                       | - Fiber stretching $\leq 0.36\%$<br>- Change in attenuation $\leq 0.1$ dB @1550 nm<br>- No damage to fibers and sheath |
| Crush resistance IEC 794-1-93-E3 test        | - Load: short-term crushing<br>- Duration of the load: 1 minute                                                                                                                                                                | - Change in attenuation $\leq 0.05$ dB @1550 nm<br>- No damage to fibers and sheath                                    |
| Impact test IEC 60794-1-2-E4                 | - Impact points: 3<br>- Impacts per point: 1<br>- Impact energy: 5 J                                                                                                                                                           | - Change in attenuation $\leq 0.1$ dB @1550 nm<br>- No damage to fibers and sheath                                     |
| Cyclic temperature test YD/T901-2001-4.4.4.1 | - Temperature points $+20^{\circ}\text{C} \rightarrow -40^{\circ}\text{C} \rightarrow +70^{\circ}\text{C} \rightarrow +20^{\circ}\text{C}$<br>- Duration for each temperature point: 12 hours<br>- Temperature cycles count: 2 | - Change in attenuation $\leq 0.05$ dB @1550 nm<br>- No damage to fibers and sheath                                    |

## Applicable optical fibers

| <b>Identifier</b>   | <b>Description</b>                                                                                                                                       |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| SU                  | Single-mode fiber with extended operating wavelength and reduced attenuation and low bending loss (ITU G.652D+G.657.A1 recommendation)                   |
| S2                  | Single-mode fiber with an extended bandwidth of operating wavelengths (ITU-T G.652D recommendation)                                                      |
| S5                  | Single-mode positive non-zero dispersion shifted fiber (ITU-T G.655 recommendation)                                                                      |
| S7                  | Single-mode with low bending loss (ITU-T G.657 recommendation)                                                                                           |
| M1                  | Multi-mode with core to cladding ratio 62,5/125 $\mu\text{m}$ (IEC 60793-2-10 A1b type recommendation)                                                   |
| M2                  | Multi-mode with core to cladding ratio 62,5/125 $\mu\text{m}$ (IEC 60793-2-10 A1b type recommendation)                                                   |
| M3                  | Multi-mode with low bending loss and core to cladding ratio 50/125 $\mu\text{m}$ (ITU-T G.651 recommendation and IEC 60793-2-10 A1a.2 type requirements) |
| M4                  | Multi-mode with low bending loss and core to cladding ratio 50/125 $\mu\text{m}$ (ITU-T G.651 recommendation and IEC 60793-2-10 A1a.3 type requirements) |
| <b>Product code</b> | <b>Description</b>                                                                                                                                       |
| LAN-OFC-GYXYnnny    | FO cable, unarmored, loose tube, 2 steel wire strength members, GYXY, PE, outdoor, <b>nn</b> x OS2 Ultra/OS2/OM1/OM2/OM3/OM4                             |

**nn** – fiber count

**yy** – fiber type (SU, S2, S5, S7, M1, M2, M3, M4)

## Model range

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|                  |                                                                                             |
|------------------|---------------------------------------------------------------------------------------------|
| LAN-OFC-GYXY04S2 | FO cable, unarmored, loose tube, 2 steel wire strength members, GYXY, PE, outdoor, 4 x OS2  |
| LAN-OFC-GYXY08S2 | FO cable, unarmored, loose tube, 2 steel wire strength members, GYXY, PE, outdoor, 8 x OS2  |
| LAN-OFC-GYXY12S2 | FO cable, unarmored, loose tube, 2 steel wire strength members, GYXY, PE, outdoor, 12 x OS2 |

Product descriptions are listed according to the available information at the time of publication. Product specifications can be changed without advanced notification. More detailed and exact information can be obtained from the official partners and distributors of LANMASTER.