# GOF

IMCAVI
SPECIAL CABLES SINCE 1973

## GOF Bus Cables

RoHS

## Application

GOF (**G**lass **O**ptical **F**ibre) bus cables are distinguished by low attenuation and broad bandwidth. They allow for far longer transmission distances than POF and PCF bus cables.

Also in this cable group a distinction is made between indoor and outdoor cables and – according to their purpose – between fixed installation and partly flexible applications without compulsory guide; another possibility is the use in drag chains. Our direct burial type with non-metallic rodent protection is specifically suited for connecting buildings. Depending on the design as well as on the jacket materials used, several grades of flame-resistance as well as oil and UV resistances can be achieved.

For specific applications we offer cables with a special PUR sheath which combine improved tear and crush resistances with reduced outer diameters.

→ **Transmission distances**

**max. 2,000 m**

## Supported Connector Types

- ST (BFOC)-connector
- SC-connector
- FC-connector
- LC-connector
- E2000-connector

## Construction

| | |
|---|---|
| Conductor: | Graded-index fibre G50/125 µm or G62.5/125 µm |
| Filling: | Petroleum jelly (optional) |
| Fibre coating: | Acrylate, special polyester or polyamide (PA) |
| Strengh members: | Aramid (optional) |
| Insulation: | Special compound of polyvinylchloride (PVC), thermoplastic, halogen-free and flame-retardant polymer compound (FRNC) or thermoplastic polyurethane compound (PUR), matt, low adhesion, halogen-free and flame-retardant, orange, black, grey, green or blue |
| Strengh members: | Aramid (optional) |
| Rodent protection: | Glass rovings (optional) |
| Sheath: | Special compound of polyvinylchloride (PVC), thermoplastic, halogen-free and flame-retardant polymer compound (FRNC), thermoplastic polyurethane compound (PUR), matt, low adhesion, halogen-free and flame-retardant or polyethylene (PE) orange (similar RAL 2003), green (similar RAL 6018) or black (similar RAL 9005) |

## Mechanical Properties

| | |
|---|---|
| Operating temperature: | -25°C to +70°C |
| Temperature at laying: | -10°C to +50°C |
| Min. bending radius: | 10 x cable diameter<br>20 x cable diameter (drag chain application)<br>15 x cable diameter (GOF BUS CABLE heavy without tensile stress)<br>30 x cable diameter (GOF BUS CABLE heavy under tensile stress) |

## Optical Properties

| | |
|---|---|
| Attenuation: | max. 2.6 dB/km at 850 nm (G50)<br>max. 2.9 dB/km at 850 nm (G62.5)<br>max. 0.8 dB/km at 1,300 nm (G50)<br>max. 0.9 dB/km at 1,300 nm (G62.5) |
| Bandwidth: | min. 600 MHz x km at 850 nm (G50)<br>min. 200 MHz x km at 850 nm (G62.5)<br>min. 1,200 MHz x km at 1,300 nm (G50)<br>min. 600 MHz x km at 1,300 nm (G62.5) |
| Numeric aperture: | 0.2 (G50)<br>0.275 (G62.5) |

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# Technical Data

## Technical Data

| Type | Sheath | OD mm | Insulation mm | Insulation colour | Weight [kg/km] | Part number | UL/ resistances |
|---|---|---|---|---|---|---|---|
| GOF BUS CABLE 2 G62.5/125 FRNC/FRNC OG | FRNC | 3.9x6.8 | 2.9 | GY | 31 | 110838 | FRNC BS1 |
| for indoor PROFIBUS applications, halogen-free | | | | | | | |
| GOF BUS CABLE 2 G62.5/125 FR-PVC/FR-PVC BK | PVC | 6.3x9.8 | 3.5 | GY | 71 | 110839 | PVC BS3 |
| for indoor and outdoor PROFIBUS applications | | | | | | | |
| GOF BUS CABLE 2 G50/125 FR-PVC/FR-PVC GN | PVC | 4.5x7.4 | 2.9 | BK/OG | 47 | 101760 | PVC BS3 |
| for PROFIBUS/PROFINET applications for fixed indoor and outdoor installation | | | | | | | |
| GOF BUS CABLE 2 G50/125 FRNC/FRNC GN | FRNC | 9.2 | 2.9 | BK/OG | 78 | 110911 | FRNC BS2 |
| for PROFIBUS/PROFINET applications for fixed indoor installation, halogen-free | | | | | | | |
| GOF BUS CABLE Burial 2 G50/125 FR-PVC/PE BK | PE | 10.5 | 2.9 | BK/OG | 101 | 110841 | PE BS1 |
| for PROFIBUS/PROFINET applications for direct burial with non-metallic rodent protection, longitudinal and transversal watertight | | | | | | | |
| GOF BUS CABLE highflex 2 G50/125 FR-PVC/FR-PUR GN | PUR | 10.5 | 2.9 | BK/OG | 93 | 110913 | PUR BS1 |
| for PROFIBUS/PROFINET applications with continuous flexing, e.g. in drag chains at high mechanical load | | | | | | | |
| GOF BUS CABLE highflex 2 G50/125 FR-PVC/FR-PVC GN | PVC | 10.5 | 2.9 | BK/OG | 102 | 110918 | PVC BS3 |
| for PROFIBUS/PROFINET applications with continuous flexing, e.g. in drag chains with increased flame-resistance | | | | | | | |
| GOF BUS CABLE highflex 2 G62.5/125 FR-PUR/FR-PUR BK | PUR | 12.9 | 3.5 | BK | 125 | 110919 | PUR BS1 |
| for PROFIBUS/PROFINET applications with continuous flexing, e.g. in drag chains indoor and outdoor at high mechanical load, halogen-free | | | | | | | |
| GOF BUS CABLE heavy 2 G50/125 PA/FR-PUR BK | PUR | 4.7 | - | GN | 23 | 84201 | PUR BS1 |
| for flexible indoor and outdoor application at extreme mechanical load, halogen-free | | | | | | | |
| GOF BUS CABLE heavy 2 G62.5/125 PA/FR-PUR BK | PUR | 4.7 | - | BU | 23 | 76704 | PUR BS1 |
| for flexible indoor and outdoor application at extreme mechanical load, halogen-free | | | | | | | |

## Resistances

| | Oil resistance | | Flame resistance | | UV resistance | |
|---|---|---|---|---|---|---|
| PE BS1 | + | | - | | ++ | |
| FRNC BS1 | - | | o | IEC 60332-1-2 | - | |
| FRNC BS2 | - | | ++ | IEC 60332-3-24 | - | |
| PUR BS1 | ++ | IEC 60811-2-1 | - | | + | |
| PVC BS3 | ++ | UL 2556 | ++ | IEC 60332-3-24 | ++ | UL 2556 |

++ excellent / + good / o adequate / - poor