

## Network Systems ▶ Installation Cables ▶ Breakout Cables



Breakout cable with light connector & pigtail protection



Breakout cable with reinforced protection & retraction support



Detail Pigtails with protection & retraction support



### General Information

FOC® installation cables have been designed to support alternative cabling technologies for optical network nodes. Pre-assembled breakout cables gain more and more in importance, in particular as solutions in the industrial and FTTX fields. With a single installation the FOC® breakout cable provides a maximum of 24 point-to-point connections. Other advantages over conventional patch cords are lower prices, a better mechanical stability, a larger possible overall length and shorter installation time. FOC® breakout cables are available with up to 24 subunits and different lengths. All common connector standards can be provided, on request also with staggered subunit lengths or pigtail protection or retraction support.

### Features

- High mechanical stability
- Big overall possible length

- Shorter installation times
- Cost-efficient
- Individual configuration possible

### Standard Variants

- Breakout cable singlemode:
  - 4E9/125/900/2000x7000
  - 12E9/125/900/2000x11600
  - 24E9/125/900/2000x13900
- Breakout cable multimode:
  - 12G50/125/900/2000x11600 OM4
  - 24G50/125/900/2000x13900 OM3

### Options

- Staggered cable subunit lengths
- Cable subunits with 1.4 or 2.8 mm outer diameter
- Flexible tube (light protection), diameter ca. 40 mm
- Reinforced protection with retraction support (on one or both ends), diameter ca. 70 mm

**Specifications Breakout Cable Singlemode<sup>1</sup>**

Fibre number	max. 4	max. 12	max. 24
Fibre category	E9/125 (OS2)	E9/125 (OS2)	E9/125 (OS2)
Outer cable diameter	7,0 mm	11,6 mm	13,9 mm
Cable whip diameter	2,0 mm	2,0 mm	2,0 mm
Weight	45 kg/km	135 kg/km	170 kg/km
Crush resistance	1000 N/10cm	1500 N/10cm	1500 N/10cm
Min. bending radius (operation)	105 mm	175 mm	210 mm
Max. tensile strength (installation)	800 N	2000 N	2000 N
Temperature range (operation)	- 5°C to 70°C	-20 °C to 60 °C	-20 °C to 60 °C
Fire behaviour	IEC 60332-1-2, IEC 60332-3-22, IEC 60754-1, IEC 60754-2, IEC 61034,	LSZH, IEC 60332-3C, IEC 60754-2, IEC 61034	LSZH, IEC 60332-3C, IEC 60754-2, IEC 61034
Fire load	1,10 MJ/m	2,48 MJ/m	3,21 MJ/m

**Specifications Breakout Cable Multimode<sup>1</sup>**

Fibre number	max. 12	max. 24
Fibre category	50 µm MM (OM4)	50 µm MM (OM3)
Outer cable diameter	11,6 mm	13,9 mm
Cable whip diameter	2 mm	2 mm
Weight	135 kg/km	170 kg/km
Crush resistance	1500 N/10 cm	1500 N/10 cm
Min. bending radius (operation)	175 mm	210 mm
Max. tensile strength (installation)	2000 N	2000 N
Temperature range (operation)	-20 °C to 60 °C	-20 °C to 60 °C
Fire behaviour	IEC 60332-1-2, IEC 60332-3-24, IEC 60754-1, IEC 60754-2, IEC 61034	IEC 60332-1-2, IEC 60332-3-24, IEC 60754-1, IEC 60754-2, IEC 61034
Fire load	2,48 MJ/m	3,21 MJ/m

<sup>1</sup> Alternatively other cable geometries/types can be used.