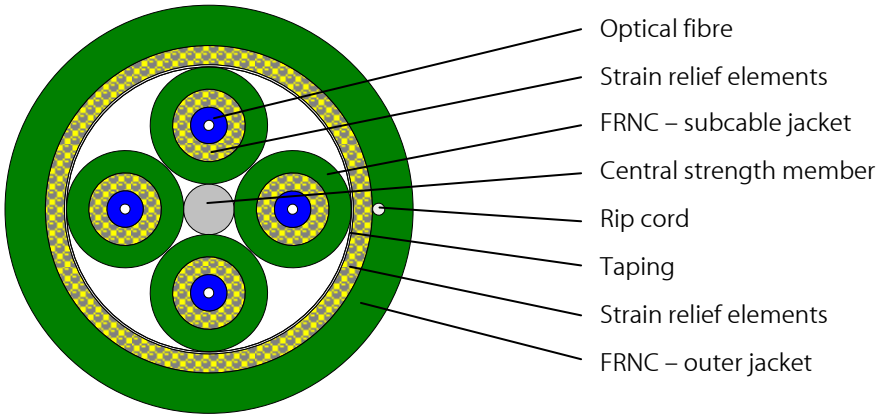
LEONI Part No.: **84950478# 688 ZGELO**

Fiber**Connect**® **AT-V(ZN)H(ZN)H n …**

Profile view:



Design:

Subcable:

- Semi-tight buffered fibre, outer diameter 0.9 mm
  colour: yellow (E9/125), green (G50/125), blue (G62.5/125)
- Strain relief elements (aramid)
- Subcable-jacket, halogen-free and flame-retardant material with approx. 0.5 mm wall, colour: green RAL 6029
- Diameter 2.9 mm with numeric coding

Stranding:

- FRP-element in centre, break-out-subcables stranded in layers (number of fibres 2-12)

Strain relief:

- Aramid yarns, wrapped in two layers (left and right spin)

Cable jacket:

- Halogen-free and flame-retardant material FRNC (SHF1, IEC 60092 Part 360)
- Outer diameter and wall see table below
- Colour: green RAL 6029
- Inkjet-marking black:
  LEONI FO - FiberConnect® DNV GL AT-V(ZN)H(ZN)H n *fibre type , buffer type* (alternating current symbol twice) - IEC 60332-3-24 -
  (order number), (sequential length in metres)

Application/Installation:

- Rugged cable for the application in heavy ambiance
- Indoor cable for the installation in cable ducts and in tubes
- For direct connector assembly

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Transmission characteristics:

- Transmission characteristics see separate fibre data-sheet

Mechanical characteristics:

- Min. bending radius acc. to IEC 60794-1-2, G1
  static — 10 x outside diameter
  dynamic — 15 x outside diameter
- Max. crush resistance acc. to IEC 60794-1-2, E3
  short term — 4000 N/dm
  long term — 1000 N/dm
- Impact strength acc. to IEC 60794-1-2, E4 — (radius 300 mm,
  30 cycles/minutes, 10 cycles) — 2 Nm
- Max. pulling force acc. to IEC 60794-1-2, E1 — 1200 N

Thermal characteristics: (acc. to IEC 60794-1-2, F1)

- Transport and storage — - 25 °C to + 80 °C
- Installation — - 5 °C to + 50 °C
- In use — - 20 °C to + 80 °C

Fire performance:

- Flame retardancy acc. — to IEC 60332-1-2 and to IEC 60332-3-24 Cat. C
- Smoke density acc. — to IEC 61034
- Halogen- free acc. — to IEC 60754-1
- Acidity of combustion gases acc. — to IEC 60754-2
- No corrosive and toxic fumes

Chemical characteristics:

- Oil resistance acc. to IEC 60811-2-1 with test-oil IRM 902 (acc. to ISO 1817) at +70°C; 4 h; pulling rate 50 mm/min relative change of the elongation at break and tensile strength max. +/- 40 %

Standardisation:

- Based on IEC 60794-2
- DNV-GL Type Approval Certificate No. TAE0000152

Notes:

- Packaging:
  Disposable drums

Part No.:	No. of Fibres	Outer diam. in mm	Wall thickness in mm	Weight in kg/km	Fire load in MJ/m	Zugkraft max. in N
84950481#	2	10.1	1.0	85	1.48	1200
84950478#	4	10.1	1.0	85	1.48	1200
84950482#	6	11.8	1.0	120	2.01	1200
84950483#	8	13.6	1.0	155	2.79	1200
84950484#	10	15.6	1.1	185	3.31	1200
84950485#	12	17.4	1.1	270	4.65	1200

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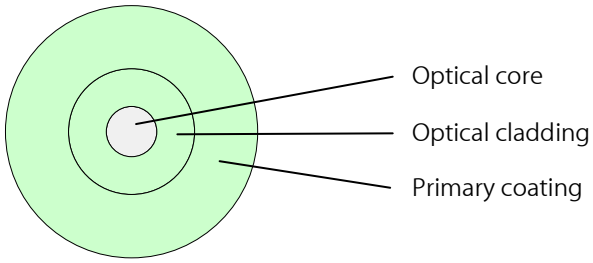
LEONI Part No.: **84######V**

Optical fiber F-G50/125 2.5B1500/0.7F500 j-BendAble OM3 Fiber

Profile view:



Design:

- Optical fibre G50/125 µm (conform to IEC 60793-2-10 type A1a.2b) with optical core 50 µm +/- 2.5 µm diameter and optical cladding 125 µm +/- 1 µm diameter
- Primary acrylate coating, 245 µm +/- 10 µm diameter

Geometrical properties:

▪ Core concentricity error	< 5 %
▪ Coating concentricity error	< 1 %
▪ Core coating eccentricity	< 1.5 µm
▪ Eccentricity of coating	< 10 µm
▪ Screen test	≥ 0.69 GPa (100 kpsi)

Transmission characteristics:

- Attenuation, maximum values

850 nm	(cabled fibre)	2.5 dB/km
1300 nm	(cabled fibre)	0.7 dB/km
850 nm	(uncabled fibre)	2.3 dB/km
1300 nm	(uncabled fibre)	0.6 dB/km

- Macrobending, induced attenuation

100 turns, 37.5 mm	</= 0.10 dB (at 850 nm)
100 turns, 37.5 mm	</= 0.15 dB (at 1300 nm)
2 turns, 15 mm	</= 0.1 dB (at 850 nm)
2 turns, 15 mm	</= 0.3 dB (at 1300 nm)
2 turns, 7.5 mm	</= 0.2 dB (at 850 nm)
2 turns, 7.5 mm	</= 0.5 dB (at 1300 nm)

- Bandwidth (OFL), minimum values

850 nm	1500 MHz x km
1300 nm	500 MHz x km

- Effective modal Bandwidth-length product min.

850 nm	2000 MHz x km

- Numerical aperture 0.200 +/- 0.015

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- Effective group of refraction

850 nm	1.483
1300 nm	1.478

Link lengths:

- 1 Gbps

1000BASE-SX (850 nm)	min. 1000 m
1000BASE-LX (1300 nm)	min. 550 m

- 10 Gbps

10GBASE-SX (850 nm)	min. 300 m
10GBASE-LX (1310 nm WDM)	min. 300 m

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