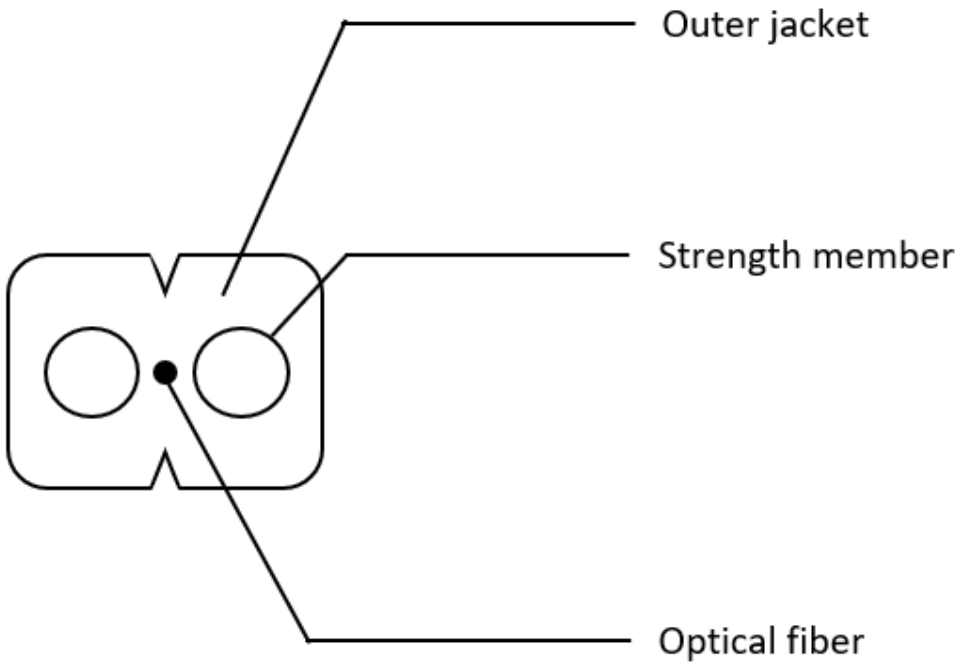
MICRO INDOOR LOW FRICTION OPTICAL CABLE (CFOI-BLI-CM-BA)

Construction	• ROHS Compliant; • Low friction; • Non dielectric;
Description	Compact dimensions cable with outer jacket made up of low friction material. The strength material is made up of 2 steel wires that can be used to push the cable through ducts.
Application	Developed specially for internal installations in FTTH and MDU networks.
Operation Environment	Internal network interconnection through ducts and/or trays.
Standard	• ITU-T G 657; • EN 60332-1-2: “Tests on electric and optical fibre cables under fire conditions - Part 1-2: Test for vertical flame propagation for a single insulated wire or cable - Procedure for 1 kW pre-mixed flame”; • EN 61034-2: “Measurement of smoke density of cables burning under defined conditions - Part 2: Test procedure and requirements”; • EN 50399: "Common test method for cables under fire conditions. Heat release and smoke production measurement on cables during flame spread test. Test apparatus, procedures, results"; • EN 60754-2: "Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity".
Certifications	CPR reaction to fire classification B2ca - s1a, d0, a1
Fiber Coating	Acrylate
Fiber Identification	**Fiber** 1. Blue; 2. Blue and orange.
Strength member	Two steel wires arranged in diametrically opposite positions along the cable.
Outer Jacket	Low friction thermoplastic material, flame retardant, LSZH (low smoke zero halogen).
Cable Flammability Rating	CPR reaction to fire classification B2ca - s1a, d0, a1

Cross Section



Dimension	**1 Fiber:** 1.6 ± 0.16 x 2.0 ± 0.20 **2 Fibers:** 1.6 ± 0.16 x 2.3 ± 0.23
Minimum radius of curvature during intallation	30 mm
Minimum curvature radius during operation	15 mm

Mechanical and Environmental Characteristics

Test	Standard	Procedure	Limit
Tensile	IEC 60794-1-21-E1	Load: 400N (10min) Speed: 100N/min	FS<0,6% FSres<0,2% At≤0,05dB
Crush	IEC 60794-1-21-E3A	500N (1min) 300N (15min)	At≤0,05 (after test)
Torsion	IEC 60794-1-21-E7	10 cycles 180°	No fiber breakage; No damage to the cable
Bend	IEC 60794-1-21-E11A	6 turns, 10 cycles Mandrel: 20xOD (30mm)	No fiber breakage; No damage to the cable
Cold bend	IEC 60794-1-21-E11A	Mandrel: 20xOD (30mm) T=0°C (4h) 10 turns	No fiber breakage; No damage to the cable
Repeated bending	IEC 60794-1-21-E6	Mandrel: 20xOD 25 cycles Mass: 4kg	No fiber breakage; No damage to the cable
Impact	IEC 60794-1-21-E4	3 impacts, 500mm apart Energy: 1J Radius: 300mm	No fiber breakage; No damage to the cable
Cable flexing	IEC 60794-1-21-E8	Cycles: 100 Mass: 2kg	No fiber breakage; No damage to the cable
Thermal cycling	IEC 60794-1-21-F1	Nº cycles: 2 Temperatures: -10°C/+60°C	At≤0,4dB

Dynamic Friction Coefficient ≤ 0.125, considering a weight of 2.0 kg

The dynamic friction coefficient is defined, in accordance to ANATEL Standarts for Compact Optical Fiber Cable for Internal Installation, as:

μ = Ft/(2*Fo)

Where:
μ =Dynamic friction coefficient
Ft = Slip force [N]
Fo = Compression loadstrength [N]

Marking	**FURUKAWA LIGHTERA CFOI-BLI-CM-**xx**-BA-LSZH EUROCLASS B2ca (s1a, d0, a1)** mm/aaaa **LOTE** nl YAAMMDDHHmm **(**)**

xx	Fiber number
mm	Manufacturing month
aaaa	Manufacturing year
nl	Batch number
YAAMMDDHHmm	Traceability (Y=Manufacturing process; AA=Year; MM=Month; DD=Day; HH=Hour; mm=Minute)
(**)	Length marking in meter (xxxxxm)

Package Type	RIB or Wood reel
Standard Length	500 m (RIB) 1000 m (RIB) 1000 m (Wood reel)
Package Nominal Dimensional	RIB 500 m= (250x255x215) mm RIB 1000 m= (345x365x265)mm Wood reel = Outer diameter: 350 mm / Internal diameter: 220 mm / Central hole diameter: 80 mm

Part Numbers