CORNIX

PRODUCT FAMILY DATASHEET

CNX-DS-F46-000 · REV 1.0 · 06 OCTOBER 2026

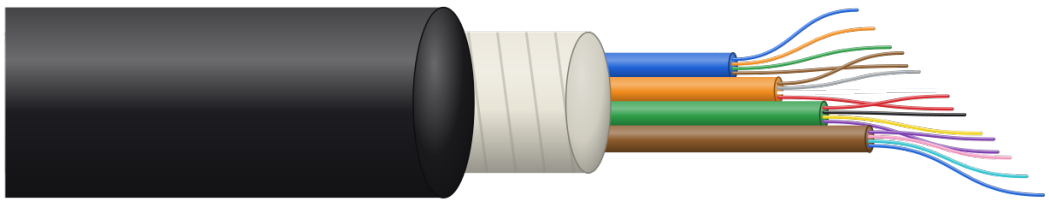
FIBER OPTIC CABLE

OS2 Single-Mode Indoor/Outdoor Fiber Cable

SINGLE-MODE · G.652.D · INDOOR/OUTDOOR · LSZH

FAMILY **F46 • 8 PART NUMBERS**

SHOWN: CX-FB-OS2-48-IO-LSZH



48	0.36 / 0.22 dB/km	12.0 ± 0.5 mm	1500 N / 600 N
FIBER COUNT	ATTENUATION @ 1310 / 1550 NM	CABLE OUTER DIAMETER	TENSILE LOAD SHORT / LONG TERM

OVERVIEW

Universal loose-tube single-mode cable developed for routes that pass from outside plant into buildings without a transition splice. The LSZH sheath is designed for indoor sections while the gel-filled tube construction supports outdoor duct sections where applicable.

- Universal indoor/outdoor design — no transition splice
- LSZH outer sheath for building entry sections
- Gel-filled loose tube for outdoor sections
- Non-metallic glass-yarn strength member
- ITU-T G.652.D single-mode fiber

APPLICATIONS

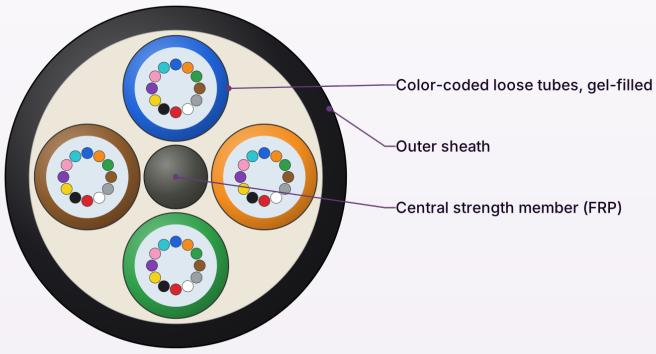
- Building entrance links without transition splice
- Campus duct-to-riser routes
- Indoor/outdoor backbone segments

STANDARDS & COMPLIANCE

ITU-T G.652.D · IEC 60793 · IEC 60794 · ANSI/TIA-568.3-D · RoHS compliant

Common Specifications

Values shared by all 8 part numbers in this family · variant-specific values on the following page



CROSS-SECTION (ILLUSTRATIVE, NOT TO SCALE) — SHOWN FOR CX-FB-OS2-48-IO-LSZH

CONSTRUCTION

Outer sheath	**LSZH, black**

OPTICAL CHARACTERISTICS

Fiber type	**Single-mode 9/125 µm, ITU-T G. 652.D (OS2)**
Max. attenuation @ 1310 / 1550 nm	**0.36 / 0.22 dB/km**

MECHANICAL

Tensile load — short / long term	**1500 N / 600 N**
Min. bend radius — static / dynamic	**10 × OD / 20 × OD**

ENVIRONMENTAL

Operating temperature	**-20 °C to +60 °C**
Installation temperature	**-5 °C to +50 °C**

Ordering Information

8 part numbers · individual datasheets available for every part number

Part number	Description	Fiber count	Fiber	Jacket	Environment
Multi-tube (above 24 fibers)					
CX-FB-OS2-48-IO-LSZH	OS2 Single-Mode Indoor/Outdoor Fiber Cable, 48F, LSZH	48	OS2 / G.652.D	LSZH	Indoor / outdoor
CX-FB-OS2-96-IO-LSZH	OS2 Single-Mode Indoor/Outdoor Fiber Cable, 96F, LSZH	96	OS2 / G.652.D	LSZH	Indoor / outdoor
CX-FB-OS2-144-IO-LSZH	OS2 Single-Mode Indoor/Outdoor Fiber Cable, 144F, LSZH	144	OS2 / G.652.D	LSZH	Indoor / outdoor
Unitube (up to 24 fibers)					
CX-FB-OS2-04-IO-LSZH	OS2 Single-Mode Indoor/Outdoor Fiber Cable, 4F, LSZH	4	OS2 / G.652.D	LSZH	Indoor / outdoor
CX-FB-OS2-06-IO-LSZH	OS2 Single-Mode Indoor/Outdoor Fiber Cable, 6F, LSZH	6	OS2 / G.652.D	LSZH	Indoor / outdoor
CX-FB-OS2-08-IO-LSZH	OS2 Single-Mode Indoor/Outdoor Fiber Cable, 8F, LSZH	8	OS2 / G.652.D	LSZH	Indoor / outdoor
CX-FB-OS2-12-IO-LSZH	OS2 Single-Mode Indoor/Outdoor Fiber Cable, 12F, LSZH	12	OS2 / G.652.D	LSZH	Indoor / outdoor
CX-FB-OS2-24-IO-LSZH	OS2 Single-Mode Indoor/Outdoor Fiber Cable, 24F, LSZH	24	OS2 / G.652.D	LSZH	Indoor / outdoor

Variant-Specific Specifications

Values that differ between part numbers

Part number	Construction	Cable outer diameter	Cable weight (approx.)
CX-FB-OS2-48-IO-LSZH	Stranded multi-loose-tube, FRP central member, glass-yarn (non-metallic) armor	12.0 ± 0.5 mm	140 kg/km
CX-FB-OS2-96-IO-LSZH	Stranded multi-loose-tube, FRP central member, glass-yarn (non-metallic) armor	13.2 ± 0.5 mm	160 kg/km
CX-FB-OS2-144-IO-LSZH	Stranded multi-loose-tube, FRP central member, glass-yarn (non-metallic) armor	15.0 ± 0.5 mm	200 kg/km
CX-FB-OS2-04-IO-LSZH	Central loose tube (unitube), glass-yarn strength member	6 ± 0.5 mm	50 kg/km
CX-FB-OS2-06-IO-LSZH	Central loose tube (unitube), glass-yarn strength member	6 ± 0.5 mm	50 kg/km
CX-FB-OS2-08-IO-LSZH	Central loose tube (unitube), glass-yarn strength member	6 ± 0.5 mm	50 kg/km
CX-FB-OS2-12-IO-LSZH	Central loose tube (unitube), glass-yarn strength member	6 ± 0.5 mm	50 kg/km
CX-FB-OS2-24-IO-LSZH	Central loose tube (unitube), glass-yarn strength member	7 ± 0.5 mm	60 kg/km

Part number	Crush resistance — short / long term	Tube / filling	Crush resistance
CX-FB-OS2-48-IO-LSZH	1000 N / 300 N per 100 mm	—	—
CX-FB-OS2-96-IO-LSZH	1000 N / 300 N per 100 mm	—	—
CX-FB-OS2-144-IO-LSZH	1000 N / 300 N per 100 mm	—	—
CX-FB-OS2-04-IO-LSZH	—	PBT / thixotropic gel	1000 N/100 mm
CX-FB-OS2-06-IO-LSZH	—	PBT / thixotropic gel	1000 N/100 mm
CX-FB-OS2-08-IO-LSZH	—	PBT / thixotropic gel	1000 N/100 mm
CX-FB-OS2-12-IO-LSZH	—	PBT / thixotropic gel	1000 N/100 mm
CX-FB-OS2-24-IO-LSZH	—	PBT / thixotropic gel	1000 N/100 mm

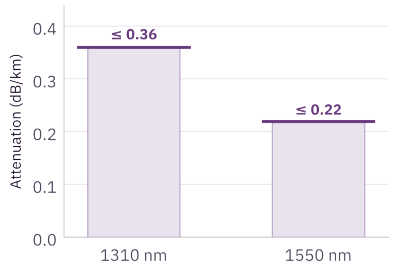
Part number	Flame retardancy
CX-FB-OS2-48-IO-LSZH	—
CX-FB-OS2-96-IO-LSZH	—
CX-FB-OS2-144-IO-LSZH	—
CX-FB-OS2-04-IO-LSZH	IEC 60332-1
CX-FB-OS2-06-IO-LSZH	IEC 60332-1
CX-FB-OS2-08-IO-LSZH	IEC 60332-1

Part number	Flame retardancy
CX-FB-OS2-12-IO-LSZH	IEC 60332-1
CX-FB-OS2-24-IO-LSZH	IEC 60332-1

Performance

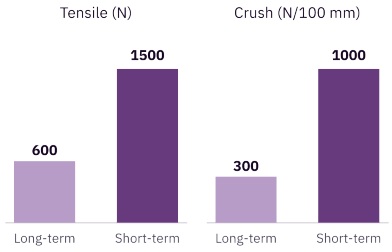
Shown for CX-FB-OS2-48-IO-LSZH

ATTENUATION PERFORMANCE

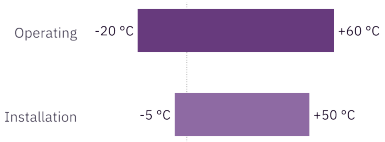


Maximum cabled attenuation per operating window.

MECHANICAL PERFORMANCE



TEMPERATURE RANGE



FACTORY TEST REPORT — SUPPLIED WITH EVERY DRUM

OTDR TESTED 100%

Test item	Requirement	Method
attenuation @ 1310 / 1550 nm	0.36 / 0.22 dB/km	OTDR, per fiber
Cable length	As ordered, verified	OTDR
Sheath, marking, appearance	No defects	Visual

Every drum is tested fiber-by-fiber before shipment and supplied with its OTDR test report and drum label (type, length, drum no., batch).

Request a quote or technical support

Datasheets, test reports and samples available on request

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