

05.05.2021

Product Datasheet
Fiber Optic Cable: J-V(2ZN)H
Riser TB LSZH G.657.A1 400N (ANSI)

Order information

Design	Part number
Riser TB LSZH 2 G.657.A1 400N \varnothing 6.5mm (ANSI)*	0082-85221
Riser TB LSZH 4 G.657.A1 400N \varnothing 6.5mm (ANSI)*	0082-94480
Riser TB LSZH 12 G.657.A1 400N \varnothing 8.5mm (ANSI)*	0082-94481
Riser TB LSZH 24 G.657.A1 400N \varnothing 10.5mm (ANSI)*	Upon request
Riser TB LSZH 48 G.657.A1 400N \varnothing 14.5mm (ANSI)*	Upon request

* The design is preliminary; its technical parameters are subject to revision. The lead time for this design should be agreed separately.

Product Pros



Euroclass B2ca confirmed



All-dielectric



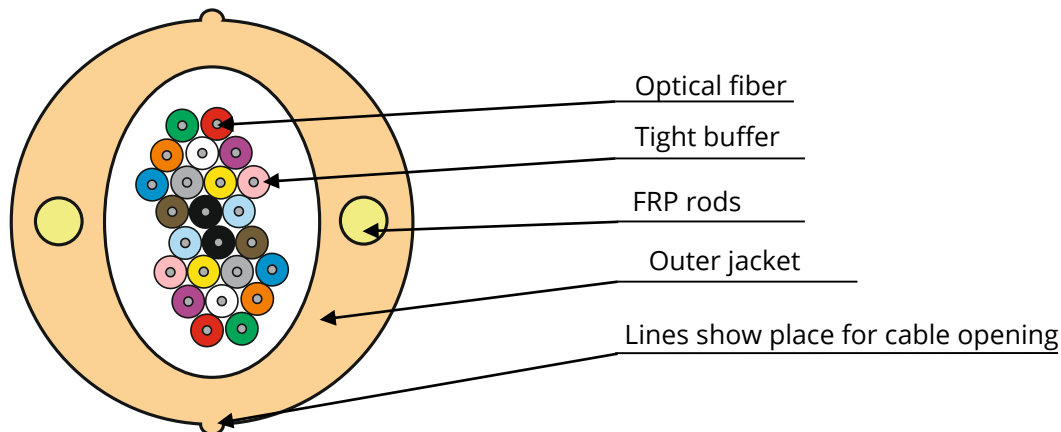
Flame-retardant



UV-resistant

















































Typical application and design

Installation into indoor/outdoor cable conduits and trays



Cable consists of bundle of tight buffered fibers. Outer jacket is made of halogen-free material. Two strength elements (FRP rods) are located inside the jacket. Other colors of outer jacket upon request.

Color identification of buffered fibers is according to ANSI/TIA-598-D-2014

1	2	3	4	5	6	7	8	9	10	11	12
											
Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Rose	Aqua
13	14	15	16	17	18	19	20	21	22	23	24
											
Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Rose	Aqua
1 ring											
25	26	27	28	29	30	31	32	33	34	35	36
											
Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Rose	Aqua
2 rings											
37	38	39	40	41	42	43	44	45	46	47	48
											
Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Rose	Aqua
3 rings											

Other colors upon request

Cable marking example

Marking is made on each meter of cable

Fiber optic cable	= EMCAB =	Riser TB	LSZH	12	G.657.A1	400N	Ø 8.5 mm	BATCH	2021	= 00001 m =
	1	2	3	4	5	6	7	8	9	10

1	Manufacturer	6	Operation tension
2	Cable trade name	7	Cable diameter
3	Jacket type	8	Batch number
4	Fiber count	9	Year of production
5	Fiber type	10	Meter marking

Design details

Fiber count	Cable diameter, ±0.5 mm	Cable weight, kg/km	Minimum bending radius, mm
2	6.5	45.0	65
4	6.5	47.0	65
12	8.5	71.5	85
24	10.5	100.1	105
48	14.5	187.3	145

Other designs upon request

Operating parameters

Operating temperature	-30°C...+50°C
Installation temperature	-10°C...+50°C
Transportation and storage temperature	-50°C...+50°C
Design life	25 years (per fiber supplier)

Optical fiber	
Fiber type	«G.657.A1»
Fiber manufacturer	Corning®
ITU-T Recommendation	G.657.A1

Dimensional Specifications

Core-Clad Concentricity	0.5 μm
Cladding Diameter	125 ± 0.7 μm
Cladding Non-Circularity	0.7 %
Coating Diameter	242 ± 5 μm

Transmission Specifications

Attenuation in the cable (dB/km*):	
1310 nm wavelength (Typical** / Max.)	0.35 / 0.38
1550 nm wavelength (Typical** / Max.)	0.20 / 0.30

* Increased attenuation, uneven incline of OTDR trace, and attenuation discontinuities on the first 500 m associated with cable winding on a reel are allowed.

** Typical attenuation is the real level of optical attenuation of at least 90% fibers after cabling

Additional information about optical fibers on www.emcab.co

Cable parameters

Parameter	Nominal value	Evaluation criterion
Tensile strength (IEC 60794-1-21 method E1)	400 N	
Crush (IEC 60794-1-21 method E3)	60 N/cm	
Repeated bending (IEC 60794-1-21 method E6)	20 cycles, bending radius ±90°	- Δα* ≤ 0.05 dB - no damage
Torsion (IEC 60794-1-21 method E7)	- 10 cycles - torsion angle ±360° length 4 m	
Impact (IEC 60794-1-21 method E4)	Impact energy 3 J	
Temperature cycling** (IEC 60794-1-22 method F1)	- temperature range from -30°C to 50°C - 2 cycles - cycle period ≥16 hours	Δα* ≤ 0.05 dB/km

* - attenuation increasing at standard wavelengths

** - other temperature range upon request

Safety standards compliance

Regulation (EU) No 305/2011	Construction Products Regulation (CPR), Euroclass B2ca confirmed according to EN 50575:2014+A1:2016. Reaction to fire: B2ca-s1a, d0, a1. Dangerous substances: no
IEC 60332-3-22	Tests on electric and optical fiber cables under fire conditions - Part 3-22: Test for vertical flame spread of vertically mounted bunched wires or cables - Category A
IEC 60754-1	Test on gases evolved during combustion of materials from cables - Part 1: Determination of the halogen acid gas content
IEC 60754-2	Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity
IEC 61034-2	Measurement of smoke density of cables burning under defined conditions
RoHS: 2011/65/EU; 2015/863/EU	"Restriction on the use of certain Hazardous Substances"
REACH: 1907/2006/EU	"Registration, Evaluation, Authorisation and Restrictions of Chemicals"

Reel packing and marking

Cables are supplied on non-returnable wooden reels. Reel diameter is not less than 40 diameters of the cable. Not less than 2 m of inside end of the cable is fixed to the reel flange. The cable ends are sealed with waterproof covers.

The label on the outer reel flange contains our trademark, cable type, customer's name and PO, reel number, production date, cable length, cable weight net/gross.

The following information is printed on the reel flange: manufacturer's name and website, rotation direction, cable end indication, shipping and handling summary, labels "Fragile" and "Handle with care".

Our cable passport shows: cable type, technical standard number, cable length, fiber type, fiber coloring, fibers per tube, tube identification coloring, final attenuation for all fibers, refractive index of the fiber, fiber manufacturer and production date.

Cable passport is affixed to the inner flange in a plastic bag. Additional information can be included on the passport upon request.

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