

05.05.2021

## Product Datasheet

Fiber Optic Cable: J-V(ZN)H

Simplex LSZH 1 G.657.A1 180N Ø3.0mm (DIN VDE)

### Order information

Design	Part number
Simplex LSZH 1 G.657.A1 180N Ø3.0mm*	562586

\* 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



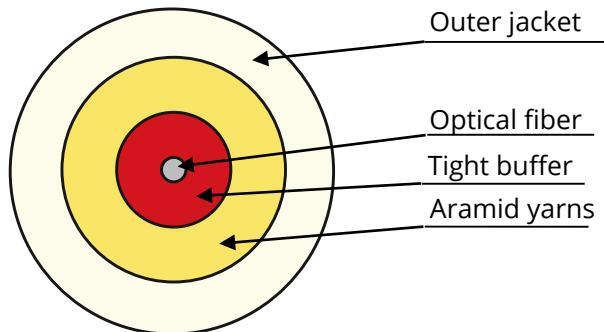
Flame-retardant



UV-resistant

### Application and design

Installation into indoor/outdoor cable conduits and trays



Cable consists of one tight buffered fiber. Aramid yarns are laid over the fiber. Outer jacket is made of halogen free material. Color of outer jacket is natural.

### Tight buffered fiber color identification:

1



Red

Other colors upon request

## Cable marking example

Marking is made on each meter of cable

Fiber optic cable = INCAB EUROPE = Simplex LSZH 1 G.657.A1 180N Ø 3.0 mm BATCH 2023 = 00001 m =

1	2	3	4	5	6	7	8	9	10	

1	Manufacturer	6	Tensile strength
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		1
Cable diameter ±0.2	mm	3.0
Cable weight	kg/km	10.9

Other designs upon request

### Operating parameters

Operating temperature	-10°C...+50°C
Installation temperature	-10°C...+50°C
Transportation and storage temperature	-50°C...+50°C
Minimum bending radius	10 x cable diameter
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

\* Local attenuation discontinuities caused by 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.incabeurope.com](http://www.incabeurope.com)

## Cable parameters

Parameter	Nominal value	Evaluation criterion
Tensile strength (IEC 60794-1-21 method E1)	180 N	
Crush (IEC 60794-1-21 method E3)	50 N/cm	
Repeated bending (IEC 60794-1-21 method E6)	20 cycles, bending radius $\pm 90^\circ$	- $\Delta\alpha^* \leq 0.10$ dB - no damage
Torsion (IEC 60794-1-21 method E7)	- 10 cycles - torsion angle $\pm 360^\circ$ length 4 m	
Impact (IEC 60794-1-21 method E4)	Impact energy 1 J	
Temperature cycling** (IEC 60794-1-22 method F1)	- temperature range from $-10^\circ\text{C}$ to $50^\circ\text{C}$ - 2 cycles - cycle period $\geq 16$ hours	$\Delta\alpha^* \leq 0.10$ 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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