



# LLSE-A2030111020C4

Fiber-optic cables

**FIBER-OPTIC SENSORS**

**SICK**  
Sensor Intelligence.



Illustration may differ

### Ordering information

Type	part no.
LLSE-A2030111020C4	2115022

**Included in delivery:** LLAC-FC (1)

Other models and accessories → [www.sick.com/Fiber-optic\\_cables](http://www.sick.com/Fiber-optic_cables)

### Detailed technical data

#### Features

<b>Device type</b>	Fiber-optic cables
<b>Functional principle</b>	Through-beam system, consisting of a sender and a receiver
<b>Fiber-optic head design</b>	Smooth sleeve
<b>Application</b>	Standard
<b>Compatible fiber-optic amplifiers</b>	GLL70, WLL80, WLL180, GLL170(T), WLL24 Ex
<b>Sensing range max.</b>	Depending on the fiber optic amplifier used
<b>Optical fiber head</b>	
Angle of dispersion	60°
Integrated lens	No
Compatibility tip adapters	No
<b>Optical fiber</b>	
Compatibility with infrared light	No
Optical fiber cable can be shortened	✓
Adapter end sleeves required	No
<b>Items supplied</b>	1 x fiber cutter (LLAC-FC)

#### Mechanics

<b>Optical fiber head</b>	
Light emission	Axial
Smooth sleeve diameter	3 mm
<b>Optical fiber</b>	
Fiber length	2,000 mm
Bending radius	15 mm
Dynamic flexibility (robotics)	No
Outside diameter, optical fiber cable connection	2.2 mm
Fiber arrangement	Singlefiber
Core structure	Ø 1,0 mm Singlefiber
<b>Material</b>	
Optical fiber head	Stainless steel
Sheath	Polyethylen (PE)
Fibers	PMMA
<b>Weight</b>	28 g

## Ambient data

<b>Ambient operating temperature</b>	-40 °C ... +60 °C
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## Sensing ranges with WLL180T

<b>Operating mode 16 µs</b>	150 mm
<b>Operating mode 70 µs</b>	420 mm
<b>Operating mode 250 µs</b>	850 mm
<b>Operating mode 2 ms</b>	1,500 mm
<b>Operating mode 8 ms</b>	2,700 mm

## Sensing ranges with GLL170

<b>Operating mode 250 µs</b>	290 mm
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## Sensing ranges with GLL170T

<b>Operating mode 50 µs</b>	400 mm
<b>Operating mode 250 µs</b>	600 mm

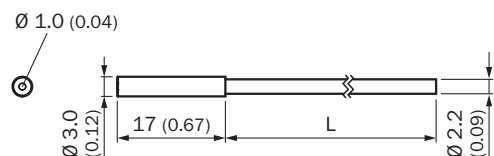
## Certificates

<b>RoHS manufacturer declaration</b>	✓
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## Classifications

<b>ECLASS 5.0</b>	27270905
<b>ECLASS 5.1.4</b>	27270905
<b>ECLASS 6.0</b>	27270905
<b>ECLASS 6.2</b>	27270905
<b>ECLASS 7.0</b>	27270905
<b>ECLASS 8.0</b>	27270905
<b>ECLASS 8.1</b>	27270905
<b>ECLASS 9.0</b>	27270905
<b>ECLASS 10.0</b>	27270905
<b>ECLASS 11.0</b>	27270905
<b>ECLASS 12.0</b>	27270905
<b>ETIM 5.0</b>	EC002651
<b>ETIM 6.0</b>	EC002651
<b>ETIM 7.0</b>	EC002651
<b>ETIM 8.0</b>	EC002651
<b>UNSPSC 16.0901</b>	39121528

## Dimensional drawing




Dimensions in mm (inch)

For length of cable (L), see technical data

### Recommended accessories

Other models and accessories → [www.sick.com/Fiber-optic\\_cables](http://www.sick.com/Fiber-optic_cables)

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"><li><b>Description:</b> Fiber cutting tool, in LLX scope of delivery</li><li><b>Items supplied:</b> 1 pieces</li></ul>	LLAC-FC	2119448

# SpareCruX

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

### WORLDWIDE PRESENCE:

Contacts and other locations – [www.sick.com](http://www.sick.com)

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