



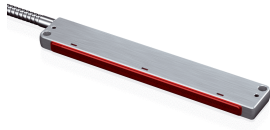
# LL3-TS11

LL3

FIBERS

**SICK**  
Sensor Intelligence.

## Ordering information



Type	Part no.
LL3-TS11	5338673

Included in delivery: FC (1)

Other models and accessories → [www.sick.com/LL3](http://www.sick.com/LL3)

## Detailed technical data

## Features

<b>Device type</b>	Fibers
<b>Functional principle</b>	Through-beam system
<b>Functional principle detail</b>	Consisting of a sender and a receiver
<b>For fiber-optic sensor</b>	GLL170(T), WLL180T, WLL24 Ex
<b>Fiber length</b>	2,000 mm
<b>Fiber material</b>	Polymethylmethacrylat (PMMA)
<b>Jacket material</b>	Polyethylen (PE)
<b>Fiber head material</b>	Zinc alloy
<b>Outer diameter, fiber-optic cable connection</b>	2.2 mm
<b>Fiber-optic cable cuttable</b>	✓
<b>Fiber-optic head design</b>	Flat type, 90° deflection, Array
<b>Array width</b>	100 mm
<b>Fiber arrangement</b>	Multi-fiber – linear arrangement
<b>Core structure</b>	125 x Ø 0,25 mm <sup>1)</sup> Multi-fiber – linear arrangement
<b>Angle of dispersion &lt; 60°</b>	No
<b>Compatibility with infrared light (1,450 nm)</b>	No
<b>Application</b>	Area detection
<b>Highly flexible/elastic fibers (bend radius 1–4 mm)</b>	No
<b>Adapter end sleeves required</b>	No
<b>Angle of dispersion</b>	60°
<b>Integrated lens</b>	No
<b>Minimal object diameter</b>	0.45 mm <sup>2)</sup>
<b>Included with delivery</b>	FC fiber cutter (5304141)
<b>Compatibility tip adapters</b>	No

<sup>1)</sup> 1 x Ø 1,5 mm for connection cable.

<sup>2)</sup> Minimum detectable object was determined at optimum measuring distance and optimum setting.

Mechanics/electronics

<b>Bend radius, fibre-optic cable</b>	40 mm
<b>Ambient operating temperature</b>	-55 °C ... +70 °C

Classifications

<b>ECl@ss 5.0</b>	27270905
<b>ECl@ss 5.1.4</b>	27270905
<b>ECl@ss 6.0</b>	27270905
<b>ECl@ss 6.2</b>	27270905
<b>ECl@ss 7.0</b>	27270905
<b>ECl@ss 8.0</b>	27270905
<b>ECl@ss 8.1</b>	27270905
<b>ECl@ss 9.0</b>	27270905
<b>ECl@ss 10.0</b>	27270905
<b>ECl@ss 11.0</b>	27270905
<b>ECl@ss 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

Sensing ranges with WLL180T

<b>Operating mode 16 µs</b>	200 mm
<b>Operating mode 70 µs</b>	550 mm
<b>Operating mode 250 µs</b>	1,000 mm
<b>Operating mode 2 ms</b>	2,400 mm
<b>Operating mode 8 ms</b>	3,200 mm
<b>Note</b>	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with GLL170

<b>Operating mode 250 µs</b>	400 mm
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Sensing ranges with GLL170T

<b>Operating mode 50 µs</b>	250 mm
<b>Operating mode 250 µs</b>	420 mm



## 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)