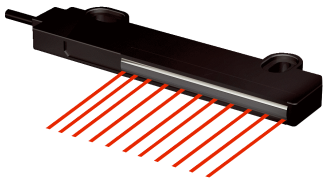


## LL3-TS40

Fiber-optic cables

**FIBER-OPTIC SENSORS**

**SICK**  
Sensor Intelligence.



Ordering information

Type	part no.
LL3-TS40	5323971

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

Detailed technical data

Features

Device type	Fiber-optic cables
Functional principle	Through-beam system, consisting of a sender and a receiver
Fiber-optic head design	Flat type, 90° deflection, Array
Application	High flexible (static), Area detection
Special features	Long fiber optic cable cell
Compatible fiber-optic amplifiers	GLL70, WLL80, WLL180, GLL170(T), WLL24 Ex
Sensing range max.	3,600 mm (Sensing range of WLL80 at 8 ms)
Minimal object diameter	0.4 mm <sup>1)</sup>
Optical fiber head	
Angle of dispersion	25°
Integrated lens	Yes
Compatibility tip adapters	No
Optical fiber	
Compatibility with infrared light	No
Optical fiber cable can be shortened	✓
Adapter end sleeves required	No
Included with delivery	Mounting, 4 x M3 Phillips-head screw, FC fiber cutter (5304141), protective cladding for fiber head

<sup>1)</sup> Minimum detectable object was determined at optimum measuring distance and optimum setting.

Mechanics

Optical fiber head	
Light emission	Radial
Fiber-optic head array width	40 mm
Optical fiber	
Fiber length	2,000 mm
Bending radius	2 mm
Dynamic flexibility (robotics)	No
Outside diameter, optical fiber cable connection	2.2 mm
Fiber arrangement	Multi-fiber
Core structure	Ø 1,0 mm Multi-fiber
Material	
Optical fiber head	Polyamid (PA)

	Sheath	Polyethylen (PE)
	Fibers	Polymethylmethacrylat (PMMA)
<b>Weight</b>		44 g

## Ambient data

<b>Ambient operating temperature</b>	-40 °C ... +60 °C
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## Sensing ranges with GLL70

<b>Operating mode 50 µs</b>	3,600 mm
<b>Operating mode 250 µs</b>	3,600 mm
<b>Operating mode 1 ms</b>	3,600 mm
<b>Operating mode 4 ms</b>	3,600 mm

## Sensing ranges with WLL80

<b>Operating mode 16 µs</b>	3,600 mm
<b>Operating mode 70 µs</b>	3,600 mm
<b>Operating mode 250 µs</b>	3,600 mm
<b>Operating mode 500 µs</b>	3,600 mm
<b>Operating mode 1 ms</b>	3,600 mm
<b>Operating mode 2 ms</b>	3,600 mm
<b>Operating mode 8 ms</b>	3,600 mm
<b>Note</b>	Sensing ranges related to fiber-optic sensors with type of light: visible red light

## Sensing ranges with WLL180T

<b>Operating mode 16 µs</b>	3,000 mm
<b>Operating mode 70 µs</b>	4,000 mm
<b>Operating mode 250 µs</b>	4,000 mm
<b>Operating mode 2 ms</b>	4,000 mm
<b>Operating mode 8 ms</b>	4,000 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>	3,500 mm
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## Sensing ranges with GLL170T

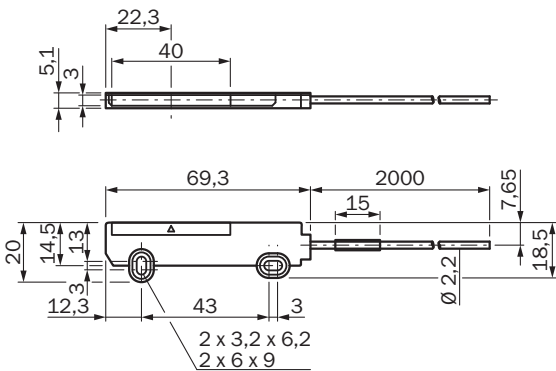
<b>Operating mode 50 µs</b>	3,500 mm
<b>Operating mode 250 µs</b>	3,500 mm

## 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

ECLASS 9.0	27270905
ECLASS 10.0	27270905
ECLASS 11.0	27270905
ECLASS 12.0	27270905
ETIM 5.0	EC002651
ETIM 6.0	EC002651
ETIM 7.0	EC002651
ETIM 8.0	EC002651
UNSPSC 16.0901	39121528

Dimensional drawing LL3-TS40



Dimensions in mm (inch)

## 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)