



# LL3-DT02

LL3

FIBERS

**SICK**  
Sensor Intelligence.



## Ordering information

Type	Part no.
LL3-DT02	5308085

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

## Detailed technical data

## Features

<b>Device type</b>	Fibers
<b>Detection principle</b>	Proximity system
<b>For fiber-optic sensor</b>	GLL170(T), WLL180T
<b>Fiber length</b>	500 mm
<b>Fiber material</b>	Polymethylmethacrylat (PMMA)
<b>Jacket material</b>	Polyethylen (PE)
<b>Fiber head material</b>	Stainless steel <sup>1)</sup>
<b>Outer diameter, fiber-optic cable connection</b>	1 mm
<b>Fiber-optic cable cuttable</b>	✓ <sup>2)</sup>
<b>Thread size</b>	M3
<b>Fiber-optic head design</b>	Threaded sleeve, Long end sleeve
<b>Fiber arrangement</b>	Monofiber
<b>Core structure</b>	2 x Ø 0,25 mm <sup>3)</sup> Monofiber
<b>Bend radius, fibre-optic cable</b>	4 mm
<b>Angle of dispersion &lt; 60°</b>	No
<b>Compatibility with infrared light (1,450 nm)</b>	No
<b>Ambient operating temperature</b>	-40 °C ... +70 °C
<b>Application</b>	High flexible (static), Robotics (dynamic flexible)
<b>Diameter/thread size from 2 mm taper</b>	≥ 0.82 mm
<b>Length of taper</b>	≥ 15 mm
<b>Diameter of taper</b>	≥ 0.82 mm
<b>Highly flexible/elastic fibers (bend radius 1–4 mm)</b>	Yes
<b>Adapter end sleeves required</b>	Yes
<b>Angle of dispersion</b>	60°
<b>Integrated lens</b>	No
<b>Minimal object diameter</b>	0.015 mm <sup>4)</sup>

<sup>1)</sup> Stainless steel.

<sup>2)</sup> FC fiber optic cable cutter included in delivery.

<sup>3)</sup> C = Coaxial, S = Sender, E = Receiver.

<sup>4)</sup> Minimum detectable object was determined at optimum measuring distance and optimum setting.

<b>Included with delivery</b>	Mounting, 2 x M3 hexagon nut, 2 x washer, adapter sleeves, BF-WLL160-10 (1.0 mm) adapter sleeves, FC fiber cutter (5304141)
<b>Compatibility tip adapters</b>	No
<b>Special features</b>	Compact, thin tip

1) Stainless steel.

2) FC fiber optic cable cutter included in delivery.

3) C = Coaxial, S = Sender, E = Receiver.

4) Minimum detectable object was determined at optimum measuring distance and optimum setting.

## Mechanics/electronics

<b>Bend radius, fibre-optic cable</b>	4 mm
<b>Ambient operating temperature</b>	-40 °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>ETIM 5.0</b>	EC002651
<b>ETIM 6.0</b>	EC002651
<b>ETIM 7.0</b>	EC002651
<b>UNSPSC 16.0901</b>	39121528

## Sensing ranges with WLL180T

<b>Operating mode 16 µs</b>	10 mm
<b>Operating mode 70 µs</b>	30 mm
<b>Operating mode 250 µs</b>	60 mm
<b>Operating mode 2 ms</b>	140 mm
<b>Operating mode 8 ms</b>	225 mm

## Sensing ranges with GLL170

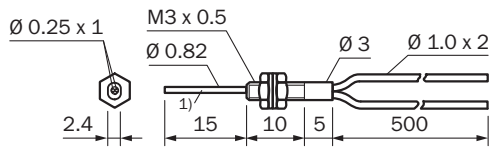
<b>Operating mode 250 µs</b>	10 mm
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## Sensing ranges with GLL170T

<b>Operating mode 50 µs</b>	10 mm
<b>Operating mode 250 µs</b>	30 mm

### Dimensional drawing (Dimensions in mm (inch))

LL3-DT02



1) End tip cannot be bent

## 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)