

# LL3-LM36450

LL3

FIBERS

**SICK**  
Sensor Intelligence.

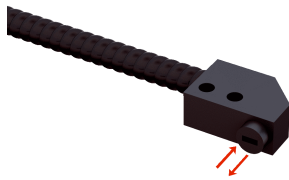


Illustration may differ

### Ordering information

Type	Part no.
LL3-LM36450	2073492

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>	Proximity system
<b>Functional principle detail</b>	Consisting of a sender and a receiver
<b>For fiber-optic sensor</b>	GLL170(T), WLL180T
<b>Fiber length</b>	450 mm
<b>Fiber material</b>	Glass
<b>Jacket material</b>	Polyvinylchlorid (PVC)
<b>Fiber head material</b>	Chrome-plated metal coil
<b>Outer diameter, fiber-optic cable connection</b>	2.2 mm
<b>Fiber-optic head design</b>	Flat type, 90° deflection
<b>Fiber arrangement</b>	Multi-fiber – linear arrangement
<b>Core structure</b>	Multi-fiber – linear arrangement
<b>Angle of dispersion &lt; 60°</b>	No
<b>Compatibility with infrared light (1,450 nm)</b>	Yes <sup>1)</sup>
<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>	0.5 mm
<b>Compatibility tip adapters</b>	No

<sup>1)</sup> Reduced sensing ranges possible when using a fiber-optic amplifier with infrared light.

#### Mechanics/electronics

<b>Bend radius, fibre-optic cable</b>	20 mm
<b>Ambient operating temperature</b>	-10 °C ... +60 °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>ECI@ss 7.0</b>	27270905
<b>ECI@ss 8.0</b>	27270905
<b>ECI@ss 8.1</b>	27270905
<b>ECI@ss 9.0</b>	27270905
<b>ECI@ss 10.0</b>	27270905
<b>ECI@ss 11.0</b>	27270905
<b>ECI@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 <math>\mu</math>s</b>	50 mm
<b>Operating mode 70 <math>\mu</math>s</b>	160 mm
<b>Operating mode 250 <math>\mu</math>s</b>	210 mm
<b>Operating mode 2 ms</b>	230 mm
<b>Operating mode 8 ms</b>	261 mm
<b>Note</b>	Sensing ranges related to fiber-optic sensors with type of light: visible red light

## Sensing ranges with GLL170

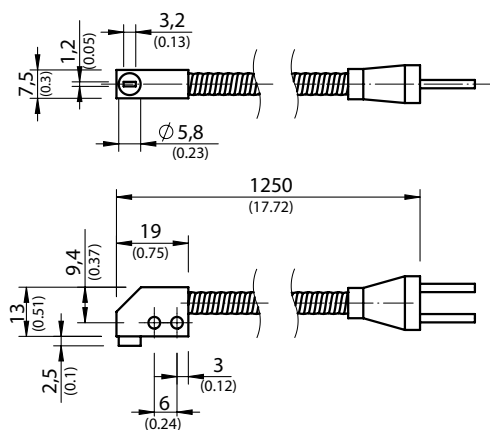
<b>Operating mode 250 <math>\mu</math>s</b>	70 mm
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## Sensing ranges with GLL170T

<b>Operating mode 50 <math>\mu</math>s</b>	171 mm
<b>Operating mode 250 <math>\mu</math>s</b>	325 mm

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

LL3-LM36450



## 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)