

# LL3-LM36450

Fiber-optic cables

FIBER-OPTIC SENSORS

**SICK**  
Sensor Intelligence.

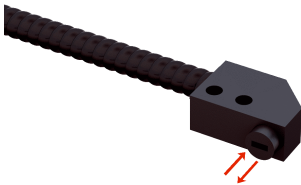


Illustration may differ

Ordering information

Type	part no.
LL3-LM36450	2073492

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	Proximity system
Fiber-optic head design	Flat type, 90° deflection
Application	Standard
Compatible fiber-optic amplifiers	GLL70, WLL80, WLL180, GLL170(T)
Sensing range max.	Depending on the fiber optic amplifier used
Minimal object diameter	0.5 mm
Optical fiber head	
Angle of dispersion	60°
Integrated lens	No
Compatibility tip adapters	No
Optical fiber	
Compatibility with infrared light	Yes <sup>1)</sup>
Adapter end sleeves required	No

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

Mechanics

Optical fiber head		
Light emission	Radial	
Optical fiber		
Fiber length	450 mm	
Bending radius	20 mm	
Dynamic flexibility (robotics)	No	
Outside diameter, optical fiber cable connection	2.2 mm	
Fiber arrangement	Multi-fiber	
Core structure	Multi-fiber	
Material		
Optical fiber head	Chrome-plated metal coil	
Sheath	Polyvinylchlorid (PVC)	
Fibers	Glass	
Weight	35 g	

## Ambient data

<b>Ambient operating temperature</b>	-10 °C ... +60 °C
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## Sensing ranges with WLL180T

<b>Operating mode 16 µs</b>	50 mm
<b>Operating mode 70 µs</b>	160 mm
<b>Operating mode 250 µs</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

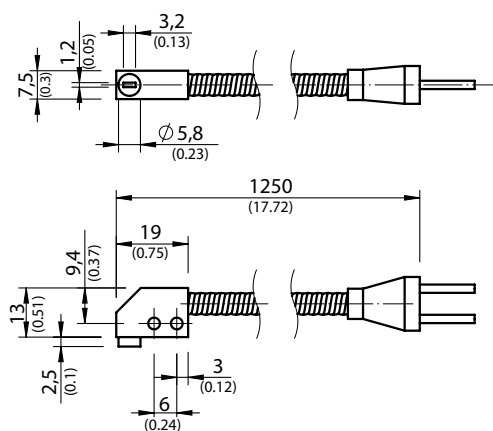
<b>Operating mode 250 µs</b>	70 mm
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## Sensing ranges with GLL170T

<b>Operating mode 50 µs</b>	171 mm
<b>Operating mode 250 µs</b>	325 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
<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



## 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)