

# LL3-LM38450

Fiber-optic cables

FIBER-OPTIC SENSORS

**SICK**  
Sensor Intelligence.

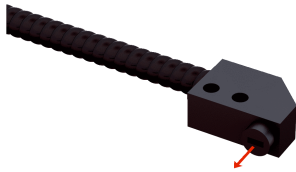


Illustration may differ

### Ordering information

Type	part no.
LL3-LM38450	2073502

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

### Detailed technical data

#### Features

<b>Device type</b>	Fiber-optic cables
<b>Functional principle</b>	Through-beam system, consisting of a sender and a receiver
<b>Fiber-optic head design</b>	Flat type, 90° deflection
<b>Application</b>	Standard
<b>Compatible fiber-optic amplifiers</b>	WLL80, WLL180, GLL170(T)
<b>Sensing range max.</b>	Depending on the fiber optic amplifier used
<b>Minimal object diameter</b>	0.5 mm
<b>Optical fiber head</b>	
Angle of dispersion	60°
Integrated lens	No
Compatibility tip adapters	No
<b>Optical fiber</b>	
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

<b>Optical fiber head</b>		
Light emission	Radial	
<b>Optical fiber</b>		
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	
<b>Material</b>		
Optical fiber head	Chrome-plated metal coil	
Sheath	Polyvinylchlorid (PVC)	
Fibers	Glass	
<b>Weight</b>	56 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>	140 mm
<b>Operating mode 70 µs</b>	490 mm
<b>Operating mode 250 µs</b>	750 mm
<b>Operating mode 2 ms</b>	750 mm
<b>Operating mode 8 ms</b>	750 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>	270 mm
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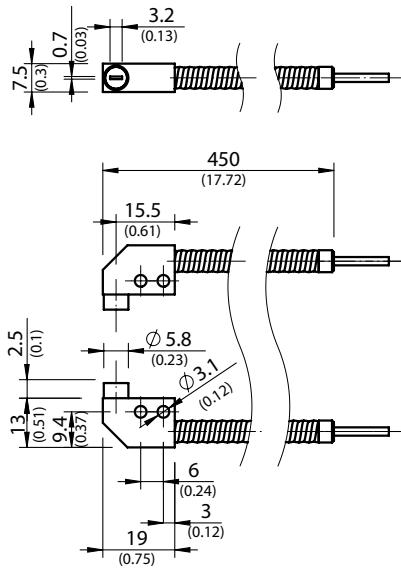
## Sensing ranges with GLL170T

<b>Operating mode 50 µs</b>	462 mm
<b>Operating mode 250 µs</b>	764 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

### Dimensional drawing LL3-LM38450



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)