



# LL3-LM401000

Fiber-optic cables

FIBERS

**SICK**  
Sensor Intelligence.

### Ordering information



Type	Part no.
LL3-LM401000	2082375

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

Illustration may differ

### Detailed technical data

#### Features

<b>Device type</b>	Fiber-optic cables
<b>Functional principle</b>	Proximity system
<b>Fiber-optic head design</b>	Smooth sleeve
<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	53.13°
Integrated lens	Yes
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	Axial
Smooth sleeve diameter	7 mm
<b>Optical fiber</b>	
Fiber length	1,000 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	Stainless steel
Sheath	Chrome-plated helical metal spring with PVC sheathing

	Fibers	Glass
<b>Weight</b>		62 g

Ambient data

<b>Ambient operating temperature</b>	-10 °C ... +60 °C
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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

Sensing ranges with WLL180T

<b>Operating mode 16 µs</b>	40 mm
<b>Operating mode 70 µs</b>	40 mm
<b>Note</b>	Sensing ranges related to fiber-optic sensors with type of light: visible red light

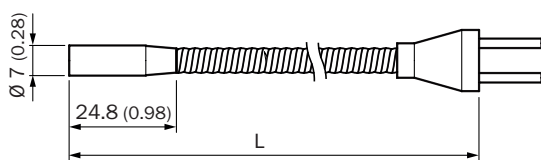
Sensing ranges with GLL170

<b>Operating mode 250 µs</b>	12 mm
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Sensing ranges with GLL170T

<b>Operating mode 50 µs</b>	16 mm
<b>Operating mode 250 µs</b>	20 mm

Dimensional drawing (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)