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DATA SHEET

LL3-LM311500

Fiber-optic cables
Fiber-optic sensors

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Sensor Intelligence

Illustration may differ

FIBER-OPTIC SENSORS

LL3-LM311500

ORDERING INFORMATION

Type	part no.
LL3-LM311500	2073486

Further device versions and accessories at www.sick.com/Fiber-optic_cables

DETAILED TECHNICAL DATA

FEATURES

Device type	Fiber-optic cables
Functional principle	Proximity system
Fiber-optic head design	Smooth sleeve, Long end sleeve
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 [1]
Adapter end sleeves required	No

[1] Reduced sensing ranges possible when using a fiber-optic amplifier with infrared light.

MECHANICS

Optical fiber head	
Light emission	Axial
Smooth sleeve diameter	5.8 mm
Fiber-optic head array width	4 mm
Optical fiber taper diameter	≥ 4 mm
Optical fiber taper length after 2 mm	≥ 11.4 mm
Optical fiber	
Fiber length	1,500 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	89 g

AMBIENT DATA

Ambient operating temperature	–10 °C ... +60 °C

SENSING RANGES WITH WLL180T

Operating mode 16 µs	50 mm
Operating mode 70 µs	140 mm
Operating mode 250 µs	240 mm
Operating mode 2 ms	220 mm
Operating mode 8 ms	220 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

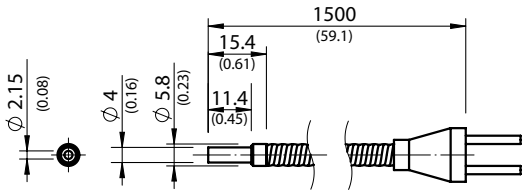
SENSING RANGES WITH GLL170

Operating mode 250 µs	125 mm

SENSING RANGES WITH GLL170T

Operating mode 50 µs	217 mm
Operating mode 250 µs	332 mm

DIMENSIONAL DRAWING LL3-LM311500



Dimensions in mm (inch)

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/2073486

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SICK AT A GLANCE

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