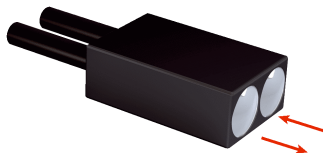


LL3-DR09

Fiber-optic cables

FIBER-OPTIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
LL3-DR09	5325528

Other models and accessories → 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
Application	Lcd / clear material / semiconductor, high flexible (static)
Special features	Small aperture angle of approximately 12 °
Compatible fiber-optic amplifiers	GLL70, WLL80, WLL180, GLL170(T), WLL24 Ex
Sensing range max.	3,170 mm (Sensing range of WLL80 at 8 ms)
Minimal object diameter	0.03 mm ¹⁾
Optical fiber head	
Integrated lens	Yes
Compatibility tip adapters	No
Optical fiber	
Compatibility with infrared light	No
Optical fiber cable can be shortened	✓
Adapter end sleeves required	No

¹⁾ Minimum detectable object was determined at optimum measuring distance and optimum setting.

Mechanics

Optical fiber head	
Light emission	Axial
Optical fiber	
Fiber length	2,000 mm
Bending radius	1 mm
Dynamic flexibility (robotics)	No
Outside diameter, optical fiber cable connection	2.2 mm
Fiber arrangement	Multi-fiber
Core structure	151 x Ø 0,08 mm Multi-fiber
Material	
Optical fiber head	Plastic
Sheath	Polyethylen (PE)
Fibers	Polymethylmethacrylat (PMMA)
Weight	56 g

Ambient data

Ambient operating temperature	-20 °C ... +70 °C
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Sensing ranges with WLL80

Operating mode 16 µs	250 mm
Operating mode 70 µs	760 mm
Operating mode 250 µs	1,200 mm
Operating mode 500 µs	1,665 mm
Operating mode 1 ms	1,740 mm
Operating mode 2 ms	2,300 mm
Operating mode 8 ms	3,170 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with WLL180T

Operating mode 16 µs	110 mm
Operating mode 70 µs	345 mm
Operating mode 250 µs	560 mm
Operating mode 2 ms	1,100 mm
Operating mode 8 ms	1,190 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with GLL170

Operating mode 250 µs	370 mm
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Sensing ranges with GLL170T

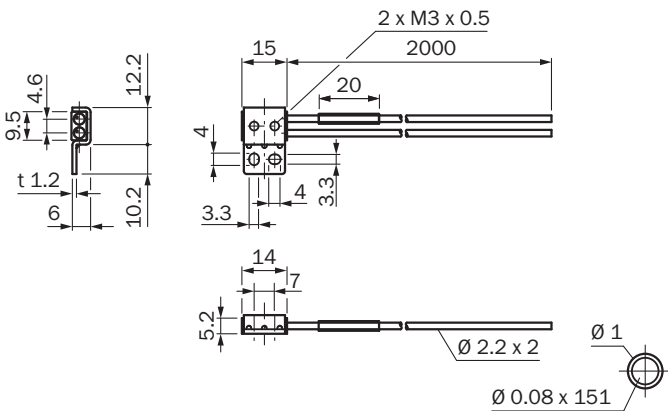
Operating mode 50 µs	230 mm
Operating mode 250 µs	400 mm

Classifications

ECLASS 5.0	27270905
ECLASS 5.1.4	27270905
ECLASS 6.0	27270905
ECLASS 6.2	27270905
ECLASS 7.0	27270905
ECLASS 8.0	27270905
ECLASS 8.1	27270905
ECLASS 9.0	27270905
ECLASS 10.0	27270905
ECLASS 11.0	27270905
ECLASS 12.0	27270905
ETIM 5.0	EC002651
ETIM 6.0	EC002651
ETIM 7.0	EC002651
ETIM 8.0	EC002651

UNSPSC 16.0901	39121528
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Dimensional drawing LL3-DR09



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