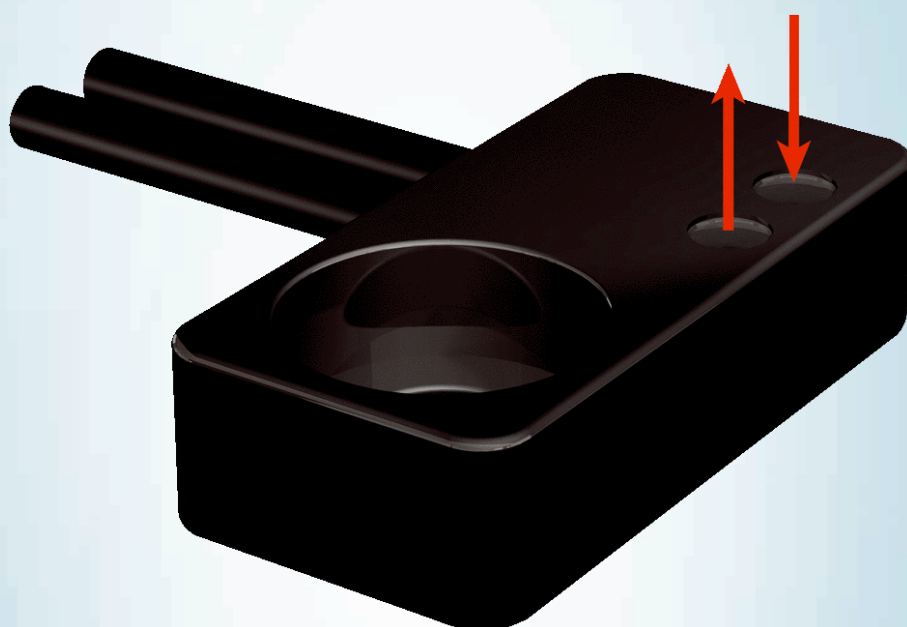


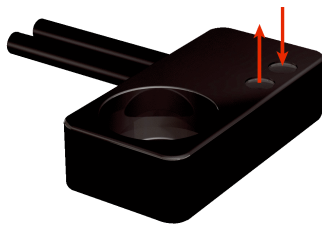


LL3-DE03

Fiber-optic cables

FIBER-OPTIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
LL3-DE03	5325986

Included in delivery: BF-WLL160-13 (1), FC (1)

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, 90° deflection
Application	High flexible (static)
Compatible fiber-optic amplifiers	GLL70, WLL80, WLL180, GLL170(T)
Sensing range max.	1,000 mm (Sensing range of WLL80 at 8 ms)
Minimal object diameter	0.03 mm ¹⁾
Optical fiber head	
Angle of dispersion	39°
Integrated lens	Yes
Compatibility tip adapters	No
Optical fiber	
Compatibility with infrared light	No
Optical fiber cable can be shortened	✓
Adapter end sleeves required	Yes
Included with delivery	Adapter sleeves, BF-WLL160-13 (1.3 mm) adapter sleeves, FC fiber cutter (5304141)

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

Mechanics

Optical fiber head		
Light emission	Radial	
Optical fiber		
Fiber length	2,000 mm	
Bending radius	1 mm	
Dynamic flexibility (robotics)	No	
Outside diameter, optical fiber cable connection	1.3 mm	
Fiber arrangement	Multi-fiber	
Core structure	S: 151 x Ø 0,75 mm R: 151 x Ø 0,75 mm Multi-fiber	
Material		
Optical fiber head	Polycarbonate (PC)	
Sheath	Polyethylen (PE)	
Fibers	Polymethylmethacrylat (PMMA)	

Weight	39 g
---------------	------

Ambient data

Ambient operating temperature	-40 °C ... +60 °C
--------------------------------------	-------------------

Sensing ranges with GLL70

Operating mode 50 µs	105 mm
Operating mode 250 µs	325 mm
Operating mode 1 ms	490 mm
Operating mode 4 ms	910 mm

Sensing ranges with WLL80

Operating mode 16 µs	85 mm
Operating mode 70 µs	280 mm
Operating mode 250 µs	450 mm
Operating mode 500 µs	525 mm
Operating mode 1 ms	565 mm
Operating mode 2 ms	720 mm
Operating mode 8 ms	1,000 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with WLL180T

Operating mode 16 µs	45 mm
Operating mode 70 µs	130 mm
Operating mode 250 µs	250 mm
Operating mode 2 ms	510 mm
Operating mode 8 ms	550 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with GLL170

Operating mode 250 µs	150 mm
------------------------------	--------

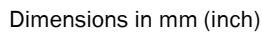
Sensing ranges with GLL170T

Operating mode 50 µs	90 mm
Operating mode 250 µs	180 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

Dimensional drawing LL3-DE03



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