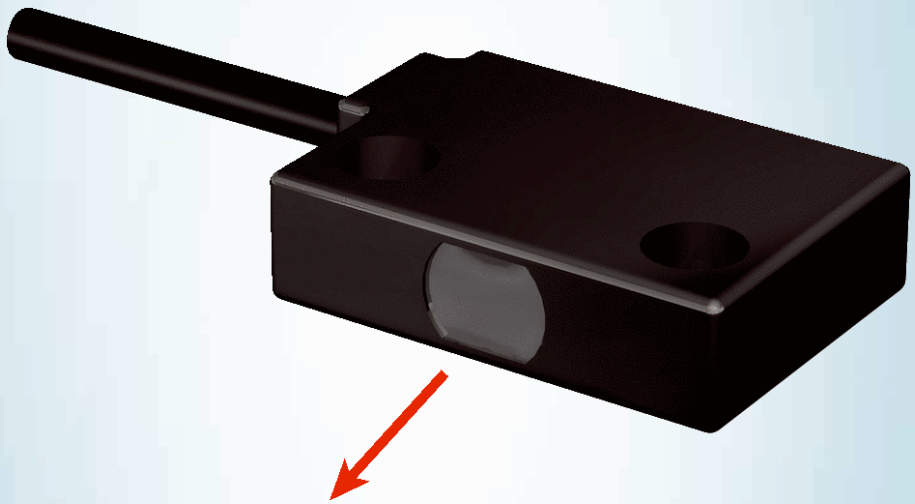
Data sheet

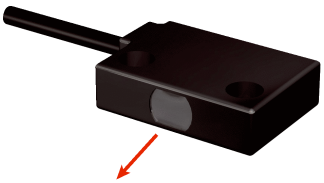


LL3-TR05

Fiber-optic cables

FIBER-OPTIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
LL3-TR05	5325808

Other models and accessories ➜ www.sick.com/Fiber-optic_cables

Detailed technical data

Features

Device type	Fiber-optic cables
Functional principle	Through-beam system, consisting of a sender and a receiver
Fiber-optic head design	Flat type, 90° deflection
Application	High flexible (static), Robotics (dynamic flexible)
Compatible fiber-optic amplifiers	GLL70, WLL80, WLL180, GLL170(T)
Sensing range max.	3,600 mm (Sensing range of WLL80 at 8 ms)
Minimal object diameter	0.03 mm [1]
Optical fiber head	
Angle of dispersion	10°
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	Mounting, 4 x M2 hexagon nut, 8 x washer, 4 x M2 Phillips-head screw, 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	4 mm
Dynamic flexibility (robotics)	Yes
Outside diameter, optical fiber cable connection	1.3 mm
Fiber arrangement	Multi-fiber
Core structure	7 x Ø 0,25 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 WLL80

Operating mode 16 µs	1,245 mm
Operating mode 70 µs	3,600 mm
Operating mode 250 µs	3,600 mm
Operating mode 500 µs	3,600 mm
Operating mode 1 ms	3,600 mm
Operating mode 2 ms	3,600 mm
Operating mode 8 ms	3,600 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with WLL180T

Operating mode 16 µs	360 mm
Operating mode 70 µs	1,300 mm
Operating mode 250 µs	2,300 mm
Operating mode 2 ms	4,000 mm
Operating mode 8 ms	4,000 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with GLL170

Operating mode 250 µs	1,830 mm

Sensing ranges with GLL170T

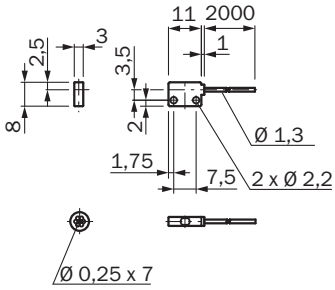
Operating mode 50 µs	1,280 mm
Operating mode 250 µs	2,000 mm

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

Dimensional drawing LL3-TR05



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