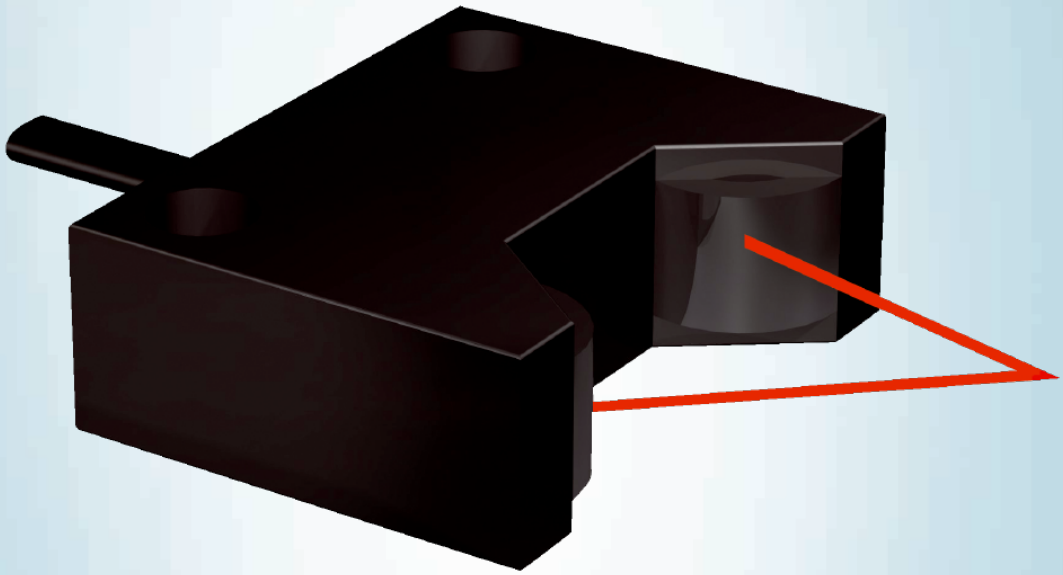
Product data sheet

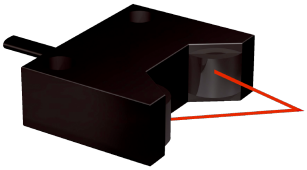


LL3-DC09

LL3

FIBERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
LL3-DC09	5326028

Other models and accessories ➜ www.sick.com/LL3

Detailed technical data

Features

Device type	Fibers
Functional principle	Proximity system
For fiber-optic sensor	GLL170(T), WLL180, KTL180
Fiber length	2,000 mm
Fiber material	Polymethylmethacrylat (PMMA)
Jacket material	Polyethylen (PE)
Fiber head material	Acrylnitril-Butadien-Styrol (ABS)
Outer diameter, fiber-optic cable connection	1 mm
Fiber-optic cable cuttable	✓
Fiber-optic head design	Flat type
Fiber arrangement	Monofiber
Core structure	2 x Ø 0,5 mm Monofiber
Angle of dispersion < 60°	Yes
Compatibility with infrared light (1,450 nm)	No
Application	Lcd / clear material / semiconductor, Limited sensing range
Highly flexible/elastic fibers (bend radius 1–4 mm)	No
Adapter end sleeves required	Yes
Angle of dispersion	25.91°
Integrated lens	Yes
Minimal object diameter	0.02 mm [1]
Included with delivery	Mounting, 2 x M2 hexagon nut, 4 x washer, 2 x M2 Phillips-head screw, adapter sleeves, BF-WLL160-10 (1.0 mm) adapter sleeves, FC fiber cutter (5304141)
Compatibility tip adapters	No

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

Mechanics/electronics

Bend radius, fibre-optic cable	10 mm
Ambient operating temperature	–40 °C ... +70 °C

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

Sensing ranges with WLL80

Operating mode 16 µs	4.9 mm ... 11 mm
Operating mode 70 µs	0 mm ... 18 mm
Operating mode 250 µs	0 mm ... 22 mm
Operating mode 500 µs	0 mm ... 24 mm
Operating mode 1 ms	0 mm ... 25 mm
Operating mode 2 ms	0 mm ... 29 mm
Operating mode 8 ms	0 mm ... 35 mm

Sensing ranges with WLL180T

Operating mode 16 µs	6 mm ... 8 mm
Operating mode 70 µs	6 mm ... 10 mm
Operating mode 250 µs	5 mm ... 11 mm
Operating mode 2 ms	4 mm ... 13 mm
Operating mode 8 ms	9 mm ... 17 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with GLL170

Operating mode 250 µs	4 mm ... 9 mm

Sensing ranges with GLL170T

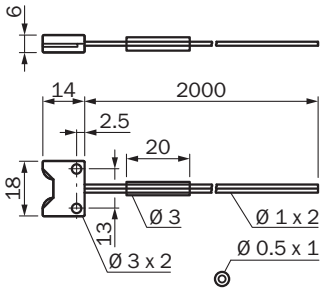
Operating mode 50 µs	10 mm ... 14 mm
Operating mode 250 µs	6 mm ... 19 mm

Sensing ranges with KTL180

Operating mode 16 µs	6.5 mm
Operating mode 200 µs	6.5 mm

Dimensional drawing (Dimensions in mm (inch))

LL3-DC09



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