

LL3-TH13

LL3

FIBERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
LL3-TH13	5325973

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

Detailed technical data

Features

Device type	Fibers
Functional principle	Through-beam system
Functional principle detail	Consisting of a sender and a receiver
For fiber-optic sensor	GLL170(T), WLL180, WLL80
Fiber length	2,000 mm
Fiber material	Glass
Jacket material	Stainless steel
Fiber head material	Copper-zinc alloy (CuZn)
Outer diameter, fiber-optic cable connection	2.2 mm
Thread diameter (housing)	M4
Fiber-optic head design	Threaded sleeve
Fiber arrangement	Monofiber
Core structure	Ø 0,8 mm Monofiber
Angle of dispersion < 60°	No
Compatibility with infrared light (1,450 nm)	Yes ¹⁾
Application	Heat-resistant (≥100 °C)
Diameter/thread size from 2 mm taper	≥ 2.6 mm
Length of taper	≥ 3 mm
Highly flexible/elastic fibers (bend radius 1–4 mm)	No
Adapter end sleeves required	No
Angle of dispersion	60°
Integrated lens	No
Minimal object diameter	0.12 mm ²⁾
Included with delivery	Mounting, 6 x M4 hexagon nut, 2 x M4 hexagon nut (plastic), 4 x washer, FC fiber cutter (5304141), LL3-TB09
Compatibility tip adapters	Yes

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

²⁾ Minimum detectable object was determined at optimum measuring distance and optimum setting.

Mechanics/electronics

Bend radius, fibre-optic cable	25 mm
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Ambient operating temperature	-60 °C ... +200 °C
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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	230 mm
Operating mode 70 µs	680 mm
Operating mode 250 µs	1,080 mm
Operating mode 500 µs	1,330 mm
Operating mode 1 ms	1,570 mm
Operating mode 2 ms	2,065 mm
Operating mode 8 ms	2,990 mm

Sensing ranges with WLL180T

Operating mode 16 µs	100 mm
Operating mode 70 µs	330 mm
Operating mode 250 µs	570 mm
Operating mode 2 ms	1,100 mm
Operating mode 8 ms	1,200 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with GLL170

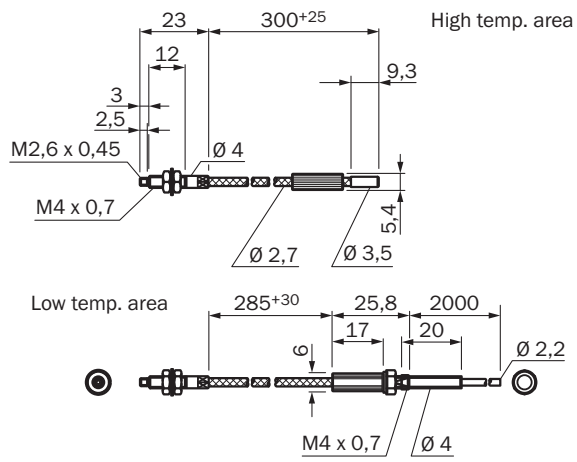
Operating mode 250 µs	270 mm
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Sensing ranges with GLL170T

Operating mode 50 µs	330 mm
Operating mode 250 µs	490 mm

Dimensional drawing (Dimensions in mm (inch))

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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