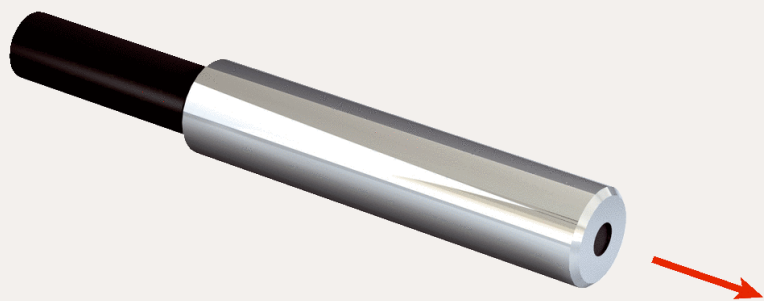




DATA SHEET

LL3-TK05

Fiber-optic cables
Fiber-optic sensors

SICK Sensor Intelligence



FIBER-OPTIC SENSORS

LL3-TK05

ORDERING INFORMATION

Type	part no.
LL3-TK05	5313034

Further device versions and accessories at 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	Smooth sleeve
Application	High flexible (static)
Compatible fiber-optic amplifiers	GLL70, WLL80, WLL180, GLL170(T), WLL24 Ex
Sensing range max.	3,600 mm (Sensing range of WLL80 at 8 ms)
Minimal object diameter	0.2 mm ¹⁾
Optical fiber head	
Angle of dispersion	60°
Integrated lens	No
Compatibility tip adapters	No
Optical fiber	
Compatibility with infrared light	No
Optical fiber cable can be shortened	✓
Adapter end sleeves required	No
Included with delivery	FC fiber cutter (5304141)

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

MECHANICS

Optical fiber head	
Light emission	Axial
Smooth sleeve diameter	3 mm
Optical fiber	
Fiber length	2,000 mm
Bending radius	2 mm
Dynamic flexibility (robotics)	No
Outside diameter, optical fiber cable connection	2.2 mm
Fiber arrangement	Singlefiber

	Core structure	Ø 1,0 mm Singlefiber
Material	Optical fiber head	Stainless steel
	Sheath	Polyethylen (PE)
	Fibers	Polymethylmethacrylat (PMMA)
Weight		29 g

AMBIENT DATA

Ambient operating temperature	-40 °C ... +70 °C
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SENSING RANGES WITH GLL70

Operating mode 50 µs	495 mm
Operating mode 250 µs	1,415 mm
Operating mode 1 ms	2,010 mm
Operating mode 4 ms	3,500 mm

SENSING RANGES WITH WLL80

Operating mode 16 µs	310 mm
Operating mode 70 µs	915 mm
Operating mode 250 µs	1,415 mm
Operating mode 500 µs	1,770 mm
Operating mode 1 ms	2,010 mm
Operating mode 2 ms	2,710 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

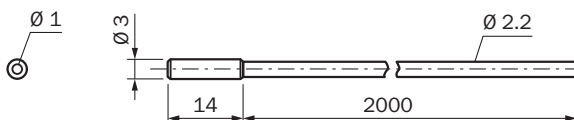
Operating mode 16 µs	220 mm
Operating mode 70 µs	650 mm
Operating mode 250 µs	1,200 mm
Operating mode 2 ms	2,750 mm
Operating mode 8 ms	4,000 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

SENSING RANGES WITH GLL170

Operating mode 250 µs	540 mm
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SENSING RANGES WITH GLL170T

Operating mode 50 µs	450 mm
Operating mode 250 µs	760 mm

DIMENSIONAL DRAWING LL3-TK05

Dimensions in mm (inch)

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/5313034



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SICK AT A GLANCE

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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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