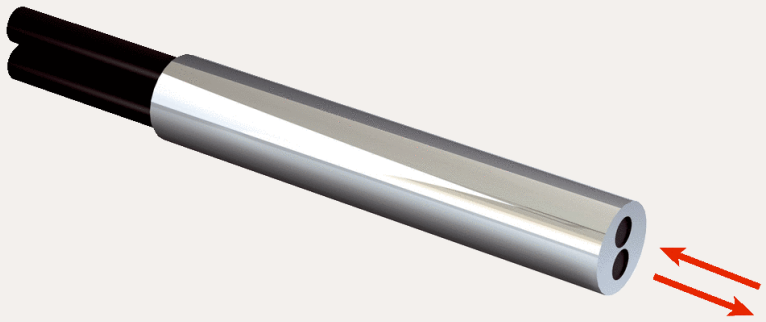
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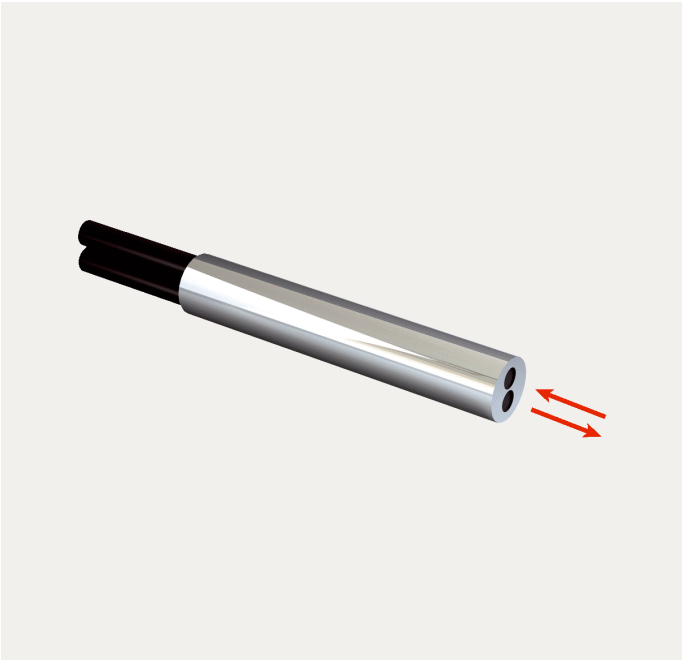


DATA SHEET

LL3-DK4Z

Fiber-optic cables
Fiber-optic sensors

SICK Sensor Intelligence



FIBER-OPTIC SENSORS

LL3-DK4Z

ORDERING INFORMATION

Type	part no.
LL3-DK4Z	5313026

Further device versions and accessories at www.sick.com/Fiber-optic_cables

DETAILED TECHNICAL DATA

FEATURES

Device type	Fiber-optic cables
Functional principle	Proximity system
Fiber-optic head design	Smooth sleeve
Application	High flexible (static)
Compatible fiber-optic amplifiers	GLL70, WLL80, WLL180, GLL170(T)
Sensing range max.	Depending on the fiber optic amplifier used
Minimal object diameter	0.015 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	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	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	1.3 mm
Fiber arrangement	Singlefiber

[1] C = Coaxial, S = Sender, E = Receiver.

Core structure	2 x Ø 1,0 mm [1] Singlefiber
Material	
Optical fiber head	Stainless steel
Sheath	Polyethylen (PE)
Fibers	Polymethylmethacrylat (PMMA)
Weight	20 g

[1] C = Coaxial, S = Sender, E = Receiver.

AMBIENT DATA

Ambient operating temperature	–40 °C ... +70 °C

SENSING RANGES WITH WLL180T

Operating mode 16 µs	65 mm
Operating mode 70 µs	200 mm
Operating mode 250 µs	350 mm
Operating mode 2 ms	650 mm
Operating mode 8 ms	1,000 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

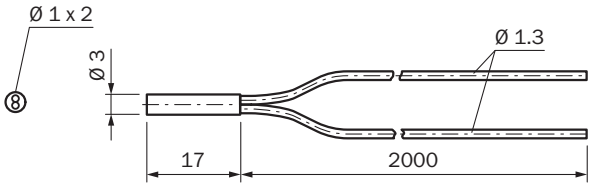
SENSING RANGES WITH GLL170

Operating mode 250 µs	120 mm

SENSING RANGES WITH GLL170T

Operating mode 50 µs	160 mm
Operating mode 250 µs	290 mm

DIMENSIONAL DRAWING LL3-DK4Z



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/5313026

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

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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