



SICK Sensor Intelligence.

FIBER-OPTIC SENSORS AND FIBERS



Ordering information

Туре	Part no.
LL3-DB02	5308083
Other medale and appropriate - the unit aids com (11.2)	

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

Detailed technical data

Pewice typeFibersDetection principleProximity systemFor fiber-optic sensorGLL170(T, WLL180T, WLL24 ExFiber length2 mFiber materialPolymethylmethacrylat (PMMA)Jacket materialPolyethylmethacrylat (PMMA)Jacket materialStainless steel ¹⁾ Outer diameter, fiber-optic cable connection2 ¹ Fiber-optic cable cutable2 ² Fiber-optic cable cutable2 ² Thread sizeM6Fiber-optic cable contectionStainlass steel si to stainlass steelFiber-optic cable cutable2 ² Core structureStainlass steel si to stainlass steelFiber-optic cable cutableStainlass steel si to stainlass steelFiber-optic cable cutable2 ² Fiber-optic cable cutableStainlass steel si to stainlass steel steel si to stainlass steel si to stainlass steel si to stainlass steel steel steel steel steel	Features	
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Jacket material Polyethylen (PE) Fiber head material Stainless steel ¹) Outer diameter, fiber-optic cable connection 2.2 mm Fiber-optic cable cuttable ✓? Thread size M6 Fiber-optic head design Threaded sleeve, Long end sleeve Fiber-optic cable cuttable Stainlass and arrangement Core structure Stainlass (16 × 00.25 mm ⁻³⁾ Coaxial arrangement Bend radius, fibre-optic cable Stainlass (16 × 00.25 mm ⁻³⁾ Coaxial arrangement Angle of dispersion < 60° No Anabient operating temperature -40°C+70°C Diameter / thread size from 2 mm taper ≥25 mm Length of taper ≥00 mm Diameter of taper ≥2.5 mm Lighty flexible/elastic fibers (bend radius) No Angle of dispersion No Jameter of taper ≥2.5 mm Langth of taper >00 mm Diameter of taper >0.0 Angle of dispersion (align (16 min cutta)) No Angle of dispersion No Jagle of dispersion No Angle of dispersion Mo Mo No <th>Fiber length</th> <th>2 m</th>	Fiber length	2 m
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Fiber arrangementCoaxial arrangementCore structureS: Ø 1 mm, R: 16 x Ø 0,25 mm ³⁾ Coaxial arrangementBend radius, fibre-optic cable25 mmAngle of dispersion < 60°NoCompatibility with infrared light (1,450 nm)NoAmbient operating temperature-40 °C +70 °CDiameter/thread size from 2 mm tape2.5 mmLength of taper>90 mmDiameter of taper2.5 mmAdapter end sleeves requiredNoAdapter end sleeves requiredNoAngle of dispersionNoIntegrated lensNo	Thread size	M6
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Bend radius, fibre-optic cable25 mmAngle of dispersion < 60°	Fiber arrangement	Coaxial arrangement
Angle of dispersion < 60°	Core structure	S: Ø 1 mm, R: 16 x Ø 0,25 mm $^{3)}$ Coaxial arrangement
Compatibility with infrared light (1,450 nm)NoAmbient operating temperature-40 °C +70 °CDiameter/thread size from 2 mm taper≥ 2.5 mmLength of taper≥ 90 mmDiameter of taper≥ 2.5 mmMighly flexible/elastic fibers (bend radius 1-4 mm)NoAdapter end sleeves requiredNoAngle of dispersion60°Integrated lensNo	Bend radius, fibre-optic cable	25 mm
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1-4 mm) Adapter end sleeves required No Angle of dispersion 60° Integrated lens No	Diameter of taper	≥ 2.5 mm
Angle of dispersion 60° Integrated lens No		No
Integrated lens No	Adapter end sleeves required	No
	Angle of dispersion	60°
Minimum hand and in a final ale and the second	Integrated lens	No
IVINIMUM Dena radius of ena sieeve	Minimum bend radius of end sleeve	10 mm
Minimal object diameter 0.015 mm ⁴⁾	Minimal object diameter	0.015 mm ⁴⁾
Special features Ideal for small, insufficient objects. Standard, bendable sleeve, large sensing range	Special features	Ideal for small, insufficient objects. Standard, bendable sleeve, large sensing range
Included with delivery Mounting, 2 x M6 hexagon nut, 2 x washer, FC fiber cutter (5304141)	Included with delivery	Mounting, 2 x M6 hexagon nut, 2 x washer, FC fiber cutter (5304141)

¹⁾ Stainless steel.

²⁾ FC fiber optic cable cutter included in delivery.

³⁾ C = Coaxial, S = Sender, E = Receiver.

⁴⁾ Minimum detectable object was determined at optimum measuring distance and optimum setting.

Compatibility tip adapters

No

¹⁾ Stainless steel.

²⁾ FC fiber optic cable cutter included in delivery.

³⁾ C = Coaxial, S = Sender, E = Receiver.

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m 4)}$ Minimum detectable object was determined at optimum measuring distance and optimum setting.

Classifications

ECI@ss 5.0	27270905
ECI@ss 5.1.4	27270905
ECI@ss 6.0	27270905
ECI@ss 6.2	27270905
ECI@ss 7.0	27270905
ECI@ss 8.0	27270905
ECI@ss 8.1	27270905
ECI@ss 9.0	27270905
ETIM 5.0	EC002651
ETIM 6.0	EC002651
UNSPSC 16.0901	39121528

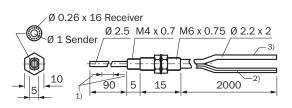
Sensing ranges with WLL180T

Operating mode 16 µs	100 mm
Operating mode 70 µs	350 mm
Operating mode 250 µs	580 mm
Operating mode 2 ms	850 mm
Operating mode 8 ms	1,300 mm
Sensing ranges with GLL170	
Operating mode 250 µs	160 mm
Sensing ranges with GLL170T	

Operating mode 50 µs	180 mm
Operating mode 250 µs	340 mm

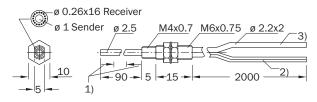
Dimensional drawing (Dimensions in mm (inch))

LL3-DB02



Flexible end tip, do not bend in this area (10 mm), bend radius R10 mm
 Sender (marked blue)
 Receiver

LL3-DB02 | LL3 FIBER-OPTIC SENSORS AND FIBERS



¹⁾ Flexible end tip, do not bend in this region (10 mm), bend radius R 10
 ²⁾ Sender (marked blue)
 ³⁾ Receiver

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



Online data sheet

