

LL3-DB01-3

Fiber-optic cables

FIBERS

SICK
Sensor Intelligence.



Ordering information

| Type | Part no. |
|------------|----------|
| LL3-DB01-3 | 5322552 |

Other models and accessories → www.sick.com/Fiber-optic_cables

Detailed technical data

Features

| | |
|--|---|
| Device type | Fiber-optic cables |
| Functional principle | Proximity system |
| Fiber-optic head design | Threaded sleeve |
| Application | Standard |
| Compatible fiber-optic amplifiers | WLL80, WLL180, GLL170(T), WLL24 Ex |
| 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 | No |
| Included with delivery | Mounting, 2 x M6 hexagon nut, 2 x washer, FC fiber cutter (5304141) |

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

Mechanics

| | |
|--|--------------------------------------|
| Optical fiber head | |
| Light emission | Axial |
| Thread diameter (housing) | M6 |
| Optical fiber taper diameter | ≥ 2.8 mm |
| Optical fiber taper length after 2 mm | ≥ 5 mm |
| Optical fiber | |
| Fiber length | 3,000 mm |
| Bending radius | 25 mm |
| Dynamic flexibility (robotics) | No |
| Outside diameter, optical fiber cable connection | 2.2 mm |
| Fiber arrangement | Coaxial |
| Core structure | S: Ø 1 mm, R: 16 x Ø 0,25 mm Coaxial |
| Material | |
| Optical fiber head | Stainless steel |

| | | |
|---------------|--------|------------------------------|
| | Sheath | Polyethylen (PE) |
| | Fibers | Polymethylmethacrylat (PMMA) |
| Weight | | 39 g |

Ambient data

| | |
|--------------------------------------|-------------------|
| 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 WLL180T

| | |
|------------------------------|---|
| Operating mode 16 µs | 90 mm |
| Operating mode 70 µs | 280 mm |
| Operating mode 250 µs | 500 mm |
| Operating mode 2 ms | 900 mm |
| Operating mode 8 ms | 1,350 mm |
| Note | Sensing ranges related to fiber-optic sensors with type of light: visible red light |

Sensing ranges with GLL170

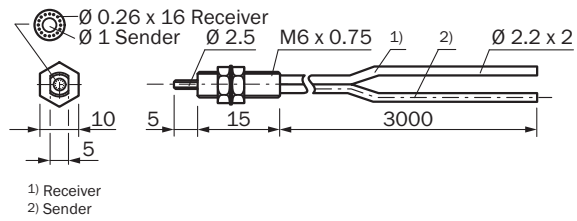
| | |
|------------------------------|--------|
| Operating mode 250 µs | 120 mm |
|------------------------------|--------|

Sensing ranges with GLL170T

| | |
|------------------------------|--------|
| Operating mode 50 µs | 90 mm |
| Operating mode 250 µs | 170 mm |


Dimensional drawing (Dimensions in mm (inch))

LL3-DB01-03



Recommended accessories

Other models and accessories → www.sick.com/Fiber-optic_cables

| | Brief description | Type | Part no. |
|---|---|---------------|----------|
| Device protection (mechanical) | | | |
|  | Metal protection hose for LL3-Fibers with M6 threaded head; length 1000 mm, stainless steel, 1 pieces | BEF-LL3M61000 | 5331291 |
| | Metal protection hose for LL3-Fibers with M6 threaded head; length 500 mm, stainless steel, 1 pieces | BEF-LL3M6500 | 5331290 |

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