# LL3-DH06

Fiber-optic cables

**FIBER-OPTIC SENSORS**

**SICK**
Sensor Intelligence.

# LL3-DH06 | Fiber-optic cables

FIBER-OPTIC SENSORS

## Ordering information

| Type | part no. |
|------|----------|
| LL3-DH06 | 5326026 |

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** | Flat type, 90° deflection |
| **Application** | Lcd / clear material / semiconductor |
| **Compatible fiber-optic amplifiers** | GLL70, WLL80, WLL180, GLL170(T) |
| **Sensing range max.** | 76 mm (Sensing range of WLL80 at 8 ms) |
| **Minimal object diameter** | 0.02 mm [1] |
| **Optical fiber head** | |
| Angle of dispersion | 81° |
| Integrated lens | Yes |
| Compatibility tip adapters | No |
| **Optical fiber** | |
| Compatibility with infrared light | Yes [2] |
| Adapter end sleeves required | No |

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

[2] Reduced sensing ranges possible when using a fiber-optic amplifier with infrared light.

### Mechanics

| | |
|---|---|
| **Optical fiber head** | |
| Light emission | Radial |
| **Optical fiber** | |
| Fiber length | 2,000 mm |
| Bending radius | 25 mm |
| Dynamic flexibility (robotics) | No |
| Outside diameter, optical fiber cable connection | 2.2 mm |
| Fiber arrangement | Singlefiber |
| Core structure | 2 x Ø 1,2 mm Singlefiber |
| **Material** | |
| Optical fiber head | Stainless steel |
| Sheath | Stainless steel |
| Fibers | Glass |
| **Weight** | 0 g |

## Ambient data

| Ambient operating temperature | –30 °C ... +300 °C |
|---|---|

## Sensing ranges with WLL80

| Operating mode 16 µs | 0 mm ... 14 mm |
|---|---|
| Operating mode 70 µs | 0 mm ... 41 mm |
| Operating mode 250 µs | 0 mm ... 55 mm |
| Operating mode 500 µs | 0 mm ... 60 mm |
| Operating mode 1 ms | 0 mm ... 66 mm |
| Operating mode 2 ms | 0 mm ... 70 mm |
| Operating mode 8 ms | 0 mm ... 76 mm |
| Note | Sensing ranges related to fiber-optic sensors with type of light: visible red light |

## Sensing ranges with WLL180T

| Operating mode 16 µs | 3 mm ... 5 mm |
|---|---|
| Operating mode 70 µs | 0 mm ... 10 mm |
| Operating mode 250 µs | 0 mm ... 19 mm |
| Operating mode 2 ms | 0 mm ... 37 mm |
| Operating mode 8 ms | 0 mm ... 43 mm |
| Note | Sensing ranges related to fiber-optic sensors with type of light: visible red light |

## Sensing ranges with GLL170

| Operating mode 250 µs | 0 mm ... 14 mm |
|---|---|

## Sensing ranges with GLL170T

| Operating mode 50 µs | 0 mm ... 19.5 mm |
|---|---|
| Operating mode 250 µs | 0 mm ... 30 mm |

## 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 |
|---|---|

## Dimensional drawing LL3-DH06



Dimensions in mm (inch)

# 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**

SICK AG  |  Waldkirch  |  Germany  |  www.sick.com