



fibers  
LL3, Fibers, through-beam system

LL3-TR08



**Model Name** > [LL3-TR08](#)  
**Part No.** > [5325984](#)



#### At a glance

- Space-saving installation
- Axial cable outlet is available which prevents loops and potential damage to the cable

#### Your benefits

- Very large selection of fiber-optic cables with plastic and glass fibers, giving users more application flexibility
- Resistant to damage caused by mechanical and chemical stress, as well as high temperatures
- Standard and customer-specific types
- Simple installation saves time
- For detection of objects, surfaces, leading edges, and fluid levels

#### Features

|                                            |                                        |
|--------------------------------------------|----------------------------------------|
| For fiber-optic sensor:                    | WLL170-2/WLL170T-2, WLL180T, WLL190T-2 |
| Device type:                               | Fibers                                 |
| Jacket material:                           | PE                                     |
| Core material:                             | PMMA                                   |
| Sleeve material:                           | Zinc with nickel coating               |
| Diameter, connection:                      | 2.2 mm                                 |
| Mounting sleeve dimension:                 | M4                                     |
| Bend radius, fibre-optic cable:            | 1 mm                                   |
| Heat resistance:                           | 60 °C                                  |
| Ambient operating temperature:             | -40 °C ... 60 °C                       |
| Minimal object diameter:                   | 0.06 mm <sup>1)</sup>                  |
| Core structure:                            | 151 x 0.075 mm                         |
| Fiber-optic cable cuttable <sup>2)</sup> : | ✓                                      |
| Thread sleeve:                             | -                                      |
| Sleeve:                                    | -                                      |
| 90° offset:                                | ✓                                      |
| Flat housing:                              | -                                      |
| High flexible:                             | ✓                                      |
| Long end sleeve:                           | -                                      |
| Array:                                     | -                                      |
| High temperature:                          | -                                      |
| Oil/chemical resistant:                    | -                                      |
| Lcd/clear material/semiconductor:          | ✓                                      |
| Vacuum:                                    | -                                      |

|                              |                                            |
|------------------------------|--------------------------------------------|
| Robotics:                    | -                                          |
| Retro-reflective:            | -                                          |
| Liquid level:                | -                                          |
| Category fiber-optic cables: | 90° deflection, Flexible fiber-optic cable |
| Fiber length:                | 2,000 mm                                   |

<sup>1)</sup> Minimum detectable object was determined at optimal measuring distance and optimal setting <sup>2)</sup> FC fiber optic cable cutter included in delivery

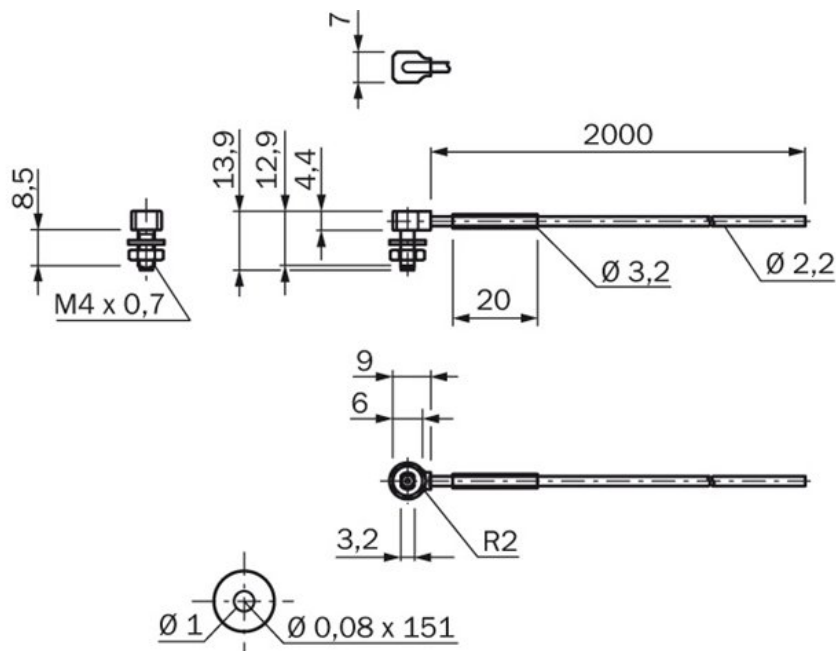
#### Sensing range with WLL180T

|                             |          |
|-----------------------------|----------|
| Operating mode 16 $\mu$ s:  | 160 mm   |
| Operating mode 70 $\mu$ s:  | 480 mm   |
| Operating mode 250 $\mu$ s: | 800 mm   |
| Operating mode 2 ms:        | 1,600 mm |
| Operating mode 8 ms:        | 1,700 mm |

#### Sensing range with WLL170-2

|                         |        |
|-------------------------|--------|
| Redlight 250 $\mu$ s:   | 350 mm |
| Greenlight 250 $\mu$ s: | 150 mm |
| Highspeed 50 $\mu$ s:   | 170 mm |

#### Dimensional drawing



Alle Maße in mm

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