



fibers  
LL3, Fibers, proximity system

LL3-DR12



**Model Name** > [LL3-DR12](#)  
**Part No.** > [5326001](#)



**At a glance**

- For installation at sites with limited space
- The smooth sleeve is simply secured by a setscrew

**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:                    | WLL160(T), WLL170-2/WLL170T-2, WLL180T, WLL190T-2 |
| Device type:                               | Fibers  |
| Jacket material:                           | PE  |
| Core material:                             | PMMA  |
| Sleeve material:                           | Stainless steel                                   |
| Diameter, connection:                      | 1 mm  |
| Mounting sleeve dimension:                 | Ø 3 mm  |
| Bend radius, fibre-optic cable:            | 1 mm  |
| Heat resistance:                           | 60 °C   |
| Ambient temperature operation:             | -40 °C ... 60 °C                                  |
| Minimal object diameter:                   | 0.02 mm <sup>1)</sup>                             |
| Core structure:                            | S : 151 x 0.05 mm R : 151 x 0.05 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, Smooth sleeve  
 Fiber length: 2,000 mm

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

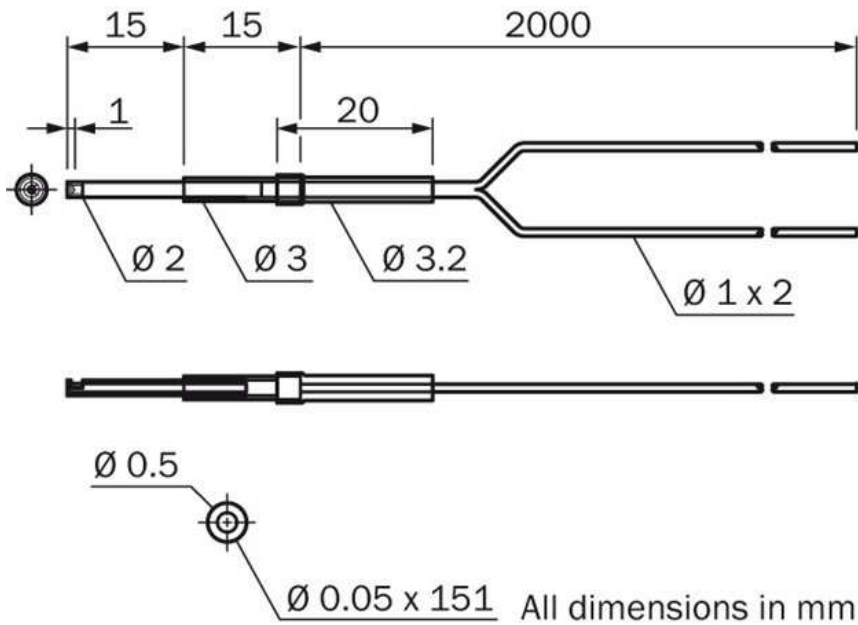
**Sensing range with WLL180T**

|                             |       |
|-----------------------------|-------|
| Operating mode 16 $\mu$ s:  | 4 mm  |
| Operating mode 70 $\mu$ s:  | 13 mm |
| Operating mode 250 $\mu$ s: | 27 mm |
| Operating mode 2 ms:        | 55 mm |
| Operating mode 8 ms:        | 59 mm |

**Sensing range with WLL170-2**

|                       |       |
|-----------------------|-------|
| Redlight 250 $\mu$ s: | 11 mm |
| Highspeed 50 $\mu$ s: | 5 mm  |

**Dimensional drawing**



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