



## fibers LL3, Fibers, through-beam system

LL3-TX02-10



**Model Name** > [LL3-TX02-10](#)  
**Part No.** > [5326380](#)



#### At a glance

- Quick and easy mounting
- Models with hexagonal flange for trouble-free mounting with only one nut
- Optional tip adapter for a larger detection distance and small objects

#### 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   |
| Device type:                               | Fibers                        |
| Jacket material:                           | PE/PVC                        |
| Core material:                             | PMMA                          |
| Sleeve material:                           | Stainless steel <sup>1)</sup> |
| Diameter, connection:                      | 2.2 mm                        |
| Mounting sleeve dimension:                 | M12                           |
| Bend radius, fibre-optic cable:            | 25 mm                         |
| Heat resistance:                           | 60 °C                         |
| Ambient operating temperature:             | -40 °C ... 60 °C              |
| Minimal object diameter:                   | 0.5 mm <sup>2)</sup>          |
| Core structure:                            | Ø 1.5 mm                      |
| Fiber-optic cable cuttable <sup>3)</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: | Threaded sleeve |
| Fiber length:                | 10 m            |

1) Glass 2) Minimum detectable object was determined at optimal measuring distance and optimal setting 3) FC fiber optic cable cutter included in delivery

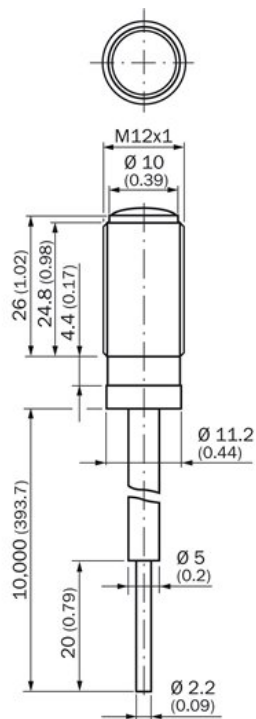
#### Sensing range with WLL180T

|                        |           |
|------------------------|-----------|
| Operating mode 16 µs:  | 2,000 mm  |
| Operating mode 70 µs:  | 7,500 mm  |
| Operating mode 250 µs: | 13,500 mm |
| Operating mode 2 ms:   | 27,000 mm |
| Operating mode 8 ms:   | 40,000 mm |

#### Sensing range with WLL170-2

|                    |          |
|--------------------|----------|
| Redlight 250 µs:   | 3,000 mm |
| Greenlight 250 µs: | 1,200 mm |
| Highspeed 50 µs:   | 1,300 mm |

#### Dimensional drawing



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