



fibers  
LL3, Fibers, through-beam system

LL3-TR09



**Model Name** > [LL3-TR09](#)  
**Part No.** > [5325985](#)



**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 temperature operation:	-40 °C ... 60 °C
Minimal object diameter:	0.04 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

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

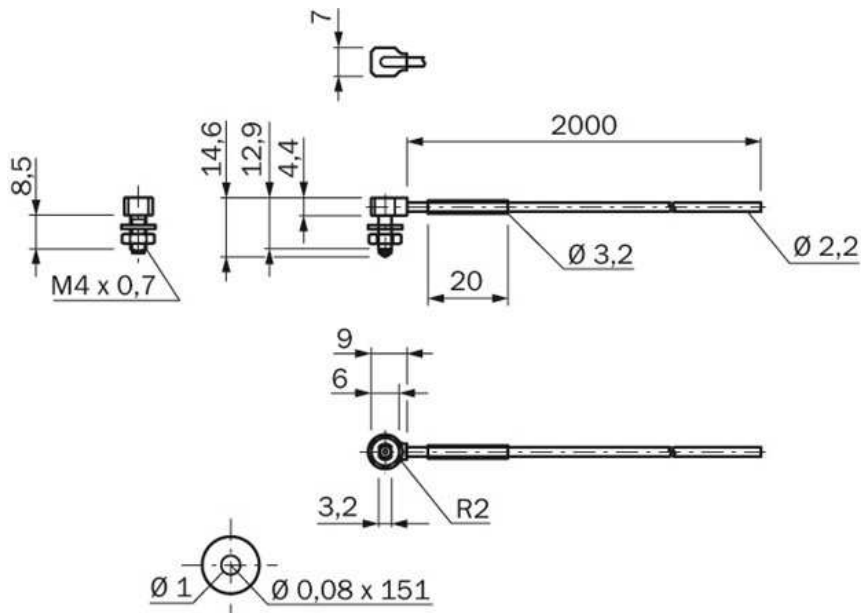
### Sensing range with WLL180T

Operating mode 16 $\mu$ s:	360 mm
Operating mode 70 $\mu$ s:	1,200 mm
Operating mode 250 $\mu$ s:	2,200 mm
Operating mode 2 ms:	4,000 mm
Operating mode 8 ms:	4,000 mm

### Sensing range with WLL170-2

Redlight 250 $\mu$ s:	900 mm
Greenlight 250 $\mu$ s:	450 mm
Highspeed 50 $\mu$ s:	500 mm

### Dimensional drawing



Alle Maße in mm

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