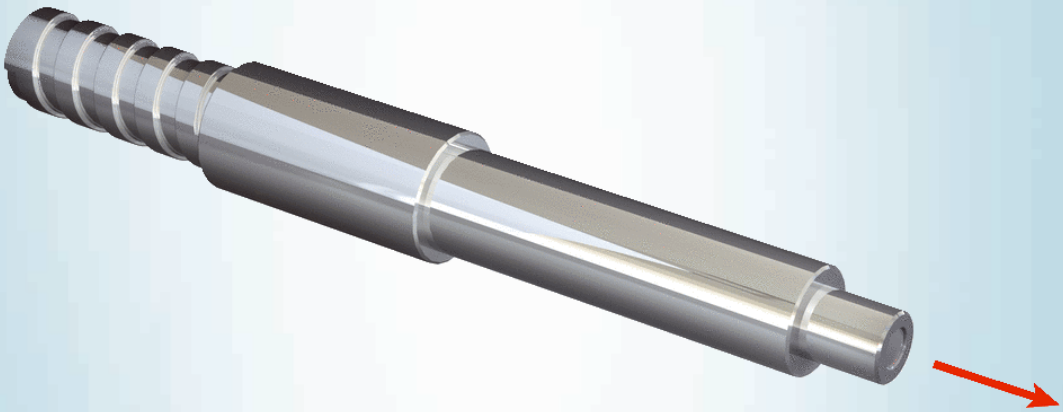
Product data sheet

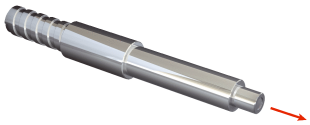


LL3-TW012000S01

Fiber-optic cables

FIBERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
LL3-TW012000S01	2092707

Other models and accessories ➜ www.sick.com/Fiber-optic_cables

Detailed technical data

Features

Device type	Fiber-optic cables
Functional principle	Through-beam system
Fiber-optic head design	Threaded sleeve
Application	Heat-resistant (≥100 °C)
Special features	Long connection sleeves for connection to WLL24 Ex
Compatible fiber-optic amplifiers	WLL80, WLL180, GLL170(T)
Sensing range max.	Depending on the fiber optic amplifier used
Minimal object diameter	0.4 mm [1]
Optical fiber head	
Angle of dispersion	60 °
Integrated lens	No
Compatibility tip adapters	Yes
Optical fiber	
Compatibility with infrared light	Yes [2]
Adapter end sleeves required	No
Included with delivery	Mounting, 4 x M4 hexagon nut, 2 x washer

[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	Axial
Thread diameter (housing)	M4
Optical fiber taper diameter	≥ 2.6 mm
Optical fiber taper length after 2 mm	≥ 3 mm
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	Multi-fiber
Core structure	Ø 1.5 mm (multi-fiber) Multi-fiber
Material	

Optical fiber head	Stainless steel
Sheath	Stainless steel
Fibers	Glass
Weight	13 g

Ambient data

Ambient operating temperature	–60 °C ... +210 °C

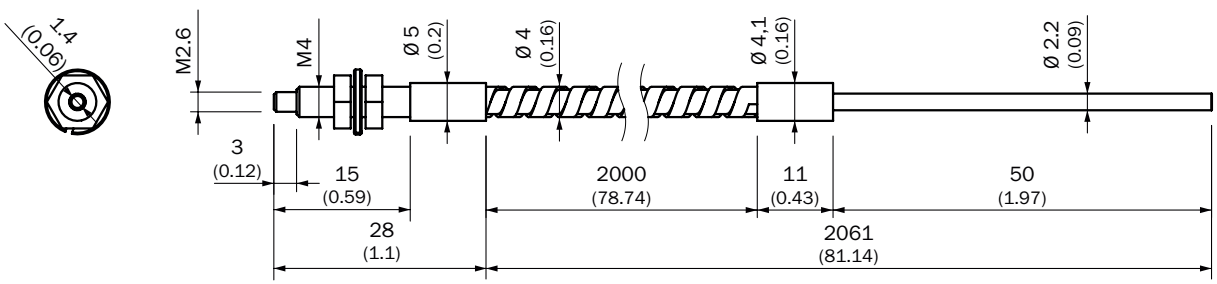
Classifications

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

Sensing ranges with WLL180T

Operating mode 16 µs	80 mm
Operating mode 70 µs	230 mm
Operating mode 250 µs	350 mm
Operating mode 2 ms	560 mm
Operating mode 8 ms	980 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Dimensional drawing (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