LL3-TV05
Fiber-optic cables

FIBERS

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Sensor Intelligence.

LL3-TV05 | Fiber-optic cables
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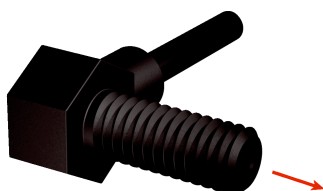
Ordering information

Type	part no.
LL3-TV05	5322546

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

Detailed technical data

Features

Device type	Fiber-optic cables
Functional principle	Through-beam system, consisting of a sender and a receiver
Fiber-optic head design	Threaded sleeve, 90° deflection
Application	Standard
Compatible fiber-optic amplifiers	WLL80, WLL180, GLL170(T), WLL24 Ex
Sensing range max.	3,600 mm (Sensing range of WLL80 at 8 ms)
Minimal object diameter	0.4 mm [1]
Optical fiber head	
Angle of dispersion	15.94°
Integrated lens	Yes
Compatibility tip adapters	No
Optical fiber	
Compatibility with infrared light	No
Optical fiber cable can be shortened	✓
Adapter end sleeves required	No
Included with delivery	Mounting, 2 x M4 hexagon nut, FC fiber cutter (5304141)

[1] Minimum detectable object was determined at optimum measuring distance and optimum setting.

Mechanics

Optical fiber head	
Light emission	Radial
Thread diameter (housing)	M4
Optical fiber	
Fiber length	2,000 mm
Bending radius	25 mm
Dynamic flexibility (robotics)	No
Outside diameter, optical fiber cable connection	2.2 mm
Core structure	Ø 1 mm
Material	
Optical fiber head	Polyamid (PA)
Sheath	Polyethylen (PE)
Fibers	Polymethylmethacrylat (PMMA)

Weight	29 g

Ambient data

Ambient operating temperature	–40 °C … +70 °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 WLL80

Operating mode 16 µs	475 mm
Operating mode 70 µs	1,455 mm
Operating mode 250 µs	2,230 mm
Operating mode 500 µs	2,685 mm
Operating mode 1 ms	3,020 mm
Operating mode 2 ms	3,600 mm
Operating mode 8 ms	3,600 mm

Sensing ranges with WLL180T

| Operating mode 16 µs	350 mm
Operating mode 70 µs	750 mm
Operating mode 250 µs	1,800 mm
Operating mode 2 ms	4,000 mm
Operating mode 8 ms	4,000 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with GLL170

Operating mode 250 µs	640 mm

Sensing ranges with GLL170T

Operating mode 50 µs	620 mm

Operating mode 250 µs	1,410 mm

Dimensional drawing LL3-TV05, LL3-TV06, LL3-TV07
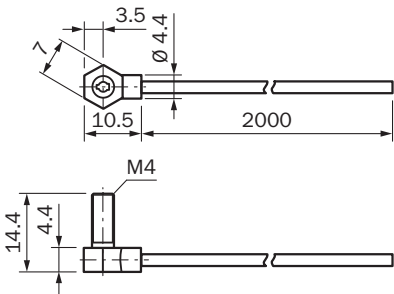
Dimensions in mm (inch)

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."

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