LL3-DR10

Fiber-optic cables

FIBER-OPTIC SENSORS

SICK
Sensor Intelligence.

LL3-DR10 | Fiber-optic cables
FIBER-OPTIC SENSORS

Ordering information

Type	part no.
LL3-DR10	5326005

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

Detailed technical data

Features

Device type	Fiber-optic cables
Functional principle	Proximity system
Fiber-optic head design	Threaded sleeve, Long end sleeve, Bendable sleeve, 90° deflection
Application	Standard
Compatible fiber-optic amplifiers	GLL70, WLL80, WLL180, GLL170(T)
Sensing range max.	260 mm (Sensing range of WLL80 at 8 ms)
Minimal object diameter	0.02 mm [1]
Optical fiber head	
Angle of dispersion	60°
Integrated lens	No
Compatibility tip adapters	No
Optical fiber	
Compatibility with infrared light	No
Optical fiber cable can be shortened	✓
Adapter end sleeves required	Yes

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

Mechanics

Optical fiber head	
Light emission	Axial
Thread diameter (housing)	M4
Optical fiber taper diameter	≥ 1.48 mm
Optical fiber taper length after 2 mm	≥ 35 mm
Optical fiber	
Fiber length	2,000 mm
Bending radius	10 mm
Dynamic flexibility (robotics)	No
Outside diameter, optical fiber cable connection	1 mm
Fiber arrangement	Multi-fiber
Core structure	2 x (151 x Ø 0,05 mm) Multi-fiber
Material	
Optical fiber head	Copper-zinc alloy (CuZn)
Sheath	Polyethylen (PE)

Fibers	Polymethylmethacrylat (PMMA)
Weight	40 g

Ambient data

Ambient operating temperature	–40 °C … +60 °C

Sensing ranges with GLL70

Operating mode 50 μs	30 mm
Operating mode 250 μs	75 mm
Operating mode 1 ms	115 mm
Operating mode 4 ms	260 mm

Sensing ranges with WLL80

Operating mode 16 μs	15 mm
Operating mode 70 μs	45 mm
Operating mode 250 μs	75 mm
Operating mode 500 μs	90 mm
Operating mode 1 ms	115 mm
Operating mode 2 ms	185 mm
Operating mode 8 ms	260 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with WLL180T

Operating mode 16 μs	12 mm
Operating mode 70 μs	40 mm
Operating mode 250 μs	77 mm
Operating mode 2 ms	150 mm
Operating mode 8 ms	160 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with GLL170

Operating mode 250 μs	40 mm

Sensing ranges with GLL170T

Operating mode 50 μs	20 mm
Operating mode 250 μs	50 mm

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

Dimensional drawing LL3-DR10
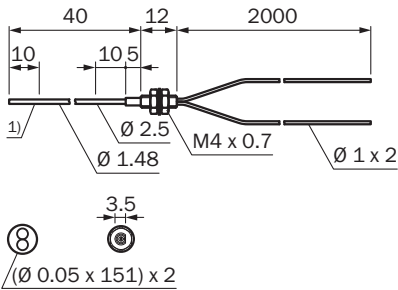
1) bendable

Dimensions in mm (inch)

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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.

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For us, that is "Sensor Intelligence."

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