



LL3-DM03

Fiber-optic cables

FIBERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
LL3-DM03	5308084

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
Application	Standard
Compatible fiber-optic amplifiers	WLL80, WLL180, GLL170(T)
Sensing range max.	580 mm (Sensing range of WLL80 at 8 ms)
Minimal object diameter	0.015 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
Included with delivery	Mounting, 2 x M4 hexagon nut, 2 x washer, adapter sleeves, BF-WLL160-10 (1.0 mm) adapter sleeves, FC fiber cutter (5304141)

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	≥ 1.5 mm
Optical fiber taper length after 2 mm	≥ 90 mm
Optical fiber	
Fiber length	2,000 mm
Bending radius	15 mm
Dynamic flexibility (robotics)	No
Outside diameter, optical fiber cable connection	1 mm
Fiber arrangement	Singlefiber
Core structure	2 x Ø 0,5 mm ¹⁾ Singlefiber

¹⁾ C = Coaxial, S = Sender, E = Receiver.

Material	Optical fiber head	Stainless steel
	Sheath	Polyethylen (PE)
	Fibers	Polymethylmethacrylat (PMMA)
Weight		20 g

¹⁾ C = Coaxial, S = Sender, E = Receiver.

Ambient data

Ambient operating temperature	-40 °C ... +70 °C
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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	35 mm
Operating mode 70 µs	115 mm
Operating mode 250 µs	185 mm
Operating mode 500 µs	235 mm
Operating mode 1 ms	275 mm
Operating mode 2 ms	395 mm
Operating mode 8 ms	580 mm
Note	10 mm 25 mm 45 mm 90 mm 170 mm Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with WLL180T

Operating mode 16 µs	10 mm
Operating mode 70 µs	25 mm
Operating mode 250 µs	45 mm
Operating mode 2 ms	90 mm

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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.

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