LL3-DH04

Fiber-optic cables

FIBERS

SICK
Sensor Intelligence.

Ordering information

Type	Part no.
LL3-DH04	5326022

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	Heat-resistant (≥100 °C)
Compatible fiber-optic amplifiers	WLL80, WLL180, GLL170(T)
Sensing range max.	1,090 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	Yes [2]
Adapter end sleeves required	No
Included with delivery	Mounting, 2 x M6 hexagon nut, 1 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)	M6
Optical fiber head array width	8.75 mm
Optical fiber taper diameter	≥ 2.8 mm
Optical fiber taper length after 2 mm	≥ 60 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	S: 380 x Ø 0,5 µm R: 380 x Ø 0,5 µm Multi-fiber
Material	

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

Ambient data

Ambient operating temperature	–30 °C ... +350 °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	120 mm
Operating mode 70 µs	300 mm
Operating mode 250 µs	500 mm
Operating mode 500 µs	595 mm
Operating mode 1 ms	665 mm
Operating mode 2 ms	900 mm
Operating mode 8 ms	1,090 mm

Sensing ranges with WLL180T

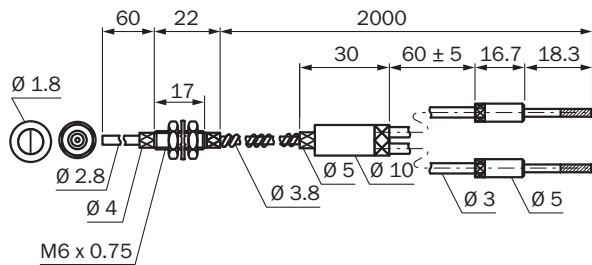|	
Operating mode 16 µs	65 mm
Operating mode 70 µs	225 mm
Operating mode 250 µs	500 mm
Operating mode 2 ms	1,000 mm
Operating mode 8 ms	1,060 mm
Note	Sensing ranges related to fiber-optic sensors with type of light: visible red light

Sensing ranges with GLL170

Operating mode 250 µs	150 mm

Sensing ranges with GLL170T

Operating mode 50 µs	150 mm
Operating mode 250 µs	360 mm

Dimensional drawing (Dimensions in mm (inch))

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Recommended accessories

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

	Brief description	**Type**	**Part no.**
Device protection (mechanical)			
	Metal protection hose for LL3-Fibers with M6 threaded head; length 1000 mm, stainless steel, 1 pieces	BEF-LL3M61000	5331291
	Metal protection hose for LL3-Fibers with M6 threaded head; length 500 mm, stainless steel, 1 pieces	BEF-LL3M6500	5331290

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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.

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