

LT100101

Fiber optic sensors • Fiber optic glass diffuse-refelction sensor

Fiber optics diffuse reflection sensor, 1 m, head: stainless steel, 25 mm long, Ø 1.5, Ø 6, axial light exit, conductor: optical fiber + silicone, end piece: M18x1 brass, Sn: 10, -40–180°C, IP67



Fiber-optic sensors, when used in conjunction with the appropriate fiber-optic amplifier, are contactless, wear-free position switches that can be used even under harsh environmental conditions. They detect objects regardless of their characteristics (e.g., shape, color, surface texture, material). Since the photoconductive ends or heads have small dimensions and the fibers are also flexible, object detection in hard-to-reach locations can be achieved very elegantly. Fiber optics can be used without special precautions in potentially explosive atmospheres and in areas with electric and/or magnetic fields (high-voltage systems, electric welding equipment), as their function is not impaired by these conditions. Fiber-optic sensors are available in versions designed to perform the function of a through-beam light barrier or a diffuse reflection sensor.

Electrical features

Bending angle of the sensing head	0 °
Sensing head length	25 mm
Switching distance	0 - 10 mm

Mechanical features

Type of fiber	Multi
Design	Cylinder plain
Bending radius (flexible)	30 mm
Bending radius (fixed)	15 mm
Sensing head diameter 1	1.5
Sensing head diameter 2	6
Fiber diameter	1 mm
End piece diameter	20 mm
Fiber optic cable diameter	4.2
Sensing head diameter	1.5 mm
Number of fibers	1
End piece thread pitch	1 mm
Length	1000 mm
End piece length	28 mm
Degree of protection (IP)	IP67
Sheathing material	Silicone
End piece material	Brass
Fiber optics core material	Glass
Sensing head material	Stainless steel
Design of the fiber optic connection	screw fitting M18
Thread dimension of the end piece	M18
Ambient temperature	-40 - 180 °C
dimensions	1,000 mm long
environmental resistance	severe shocks/movements

Optical features

Light exit	axial
Nominal operating distance	10 mm

Other features

Applications	Stamping tools Heavy soiling
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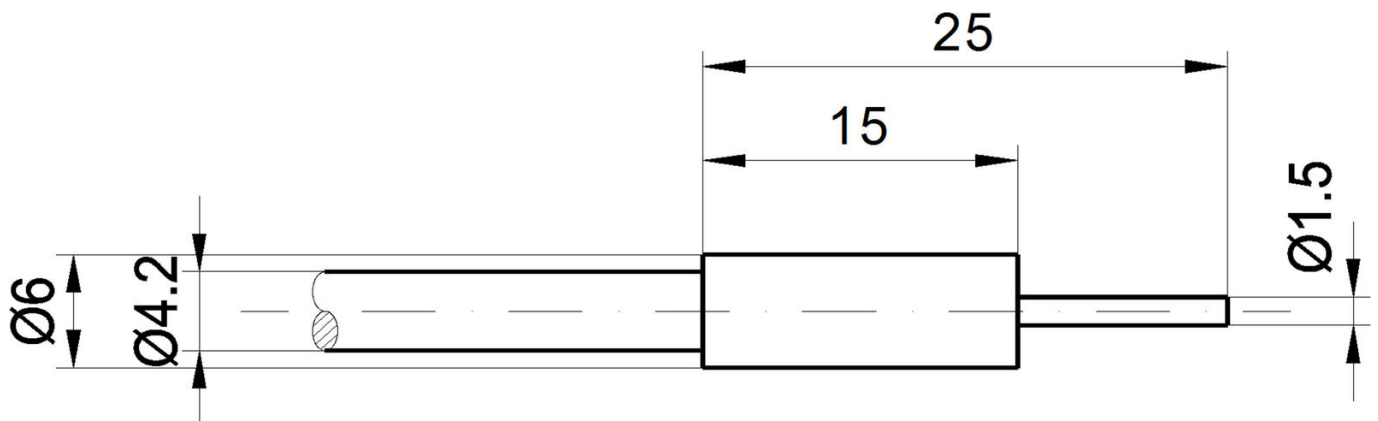
Classification

ETIM 8

More

IPF Product Group	150 glass fibers
packaging dimensions	123 x 77 x 25 mm
gross weight	60 g
customs tariff number	90011090
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

Dimensional drawing



Extract accessories program

OL400321



Fiber optics amplifier, 42x84x40 mm, 10–35 V DC, 1x PNP/NPN NC/NO, 4-pin M12 connector, IP65, aluminum, infrared light

OL400721



fiber optic-amplifier, 42x84x40mm, 10-35V DC, 2x PNP/NPN NC/NO, Connector M12 4pin, IP65, Aluminum, Infrared light, Alarm output

You can find further accessories on our homepage



Installation

Mounting / installation may only be carried out by a qualified electrician!



Disposal

WEEE number according to § 6 para. 3
ElektroG: 40951076

Safety warnings

/ Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.

/ Never use these devices in applications where the safety of a person depends on their functionality.