

LT120381

Accessories • Fiber optics for color sensors - Diffuse reflection sensors

Glass fiber optics diffuse reflection sensor, 1.2m, head: stainless steel 24long Ø4.5 Ø6.6, axial light exit, conductor: glass fiber+silicone, end piece: M18x1 plastic, -40-180°C



Fiber optics in combination with the appropriate fiber optic amplifier function as contactless and wear-free position switches that can also be used in harsh environmental conditions. They detect objects independent of their characteristics (e.g., shape, color, surface structure, material). Because the ends and heads of the fiber optics have small dimensions and the fiber optics are flexible, very elegant solutions can be created for detecting objects in places that are difficult to access. Fiber optics can be used without special precautions in potentially explosive areas and in zones with electrical and/or magnetic fields (high-voltage installations, electrical welding equipment) as their function is not thereby affected. Fiber optics are available in versions for implementing the function as through-beam sensor or diffuse reflection sensor.

Electrical features

Bending section of the sensing head	0 mm
Bending angle of the sensing head	0 °
Short-circuit protection	No
Sensing head length	24 mm
Reverse polarity protection	No

Mechanical features

Type of fiber	Multi
Design	Cylinder plain
Sensing head diameter 1	4.5
Sensing head diameter 2	6.6
Fiber diameter	2.5 mm
End piece diameter	22 mm
Light exit diameter	2.5
Fiber optic cable diameter	5.8
Sensing head diameter	4.5 mm
Number of fibers	1
End piece thread pitch	1 mm
Length	1200 mm
End piece length	35 mm
Sheathing material	Silicone
End piece material	Plastic
Fiber optics core material	Glass
Sensing head material	Stainless steel
Ejection control	Yes
Strong vibration / motion	Yes
Design of the fiber optic connection	screw fitting M18
Thread dimension of the end piece	M18
Ambient temperature	-40 - 180 °C

Optical features

Light exit	axial
Angle of beam spread	67 °

Other features

Suitable for	Color sensors with white light source / fiber optics
Feeding technology	Yes
ardTE00_Anwendungen	Stanzwerkzeuge starke Verschmutzung

Classification

ETIM 8	EC002651 Fiber optic sensor/amplifier
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More

IPF Product Group	154 glass fibers (color recognition)
packaging dimensions	123 x 77 x 25 mm
gross weight	100 g
Customs tariff number	90011090
WEEE number	40951076
POP-compliant	Yes
Reach-compliant	Yes
RoHS-compliant	Yes

Extract accessories program**AL000036**

accessories fiber optic, Lens, zoom lens, diffuse-reflection sensor, color detection, M12x1 60long, für Diffuse reflection sensor, External thread, Sn: 10-20, Aluminum+Glass

AL000045

accessories fiber optic, Lens, zoom lens, diffuse-reflection sensor, color detection, M18x1 51long, für Diffuse reflection sensor, External thread, Sn: 20-60, Aluminum+Glass

OF500180

sensor optical, color, 36x50x50mm, White light, True color, Sn: 1-500, 22-26V DC, 2x PNP/NPN Push-pull, Connector M8 4pin, IP64, Aluminum Anodised, With fiber optics connection, ΔE >= 0.5, 60kHz, 3 colors

OF650080

sensor optical, color, 36x65x65mm, White light, True color, Sn: 1-500, 22-26V DC, 2x PNP/NPN Push-pull, Connector M9 8pin, IP64, Aluminum Anodised, With fiber optics connection, ΔE >= 0.5, 60kHz, 3 colors

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.