

LS030920

FIBER OPTIC SENSORS • FIBER OPTICS GLASS FIBERS

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.



MECHANICAL DATA

Ambient temperature	-40 °C 180 °C	
Bending radius (fixed)	25 mm	
Bending radius (flexible)	50 mm	
Degree of protection (IP)	IP67	
Ejection control	Yes	
End piece diameter	25 mm	
End piece height	19 mm	
End piece length	6.5 mm	
Fiber diameter	6.7 mm	
Fiber optics core material	Glass	
Heavy soiling	Yes	
Housing design	Cuboid	
Housing material	Aluminium	
Increased ambient temperature ≤ 180°C	Yes	
Material of cable sheath	Silicone	
Number of fibers	2	
Overall length	300 mm	
Punching tools	Yes	
Sensing head height	19 mm	
Sensing head width	25 mm	
Sheathing material	Stainless steel inner helix/braided glass fibers	
Strong vibration / motion	Yes	
Type of mechanical connection	Screw connection M18	
Version	Through-beam sensors	

ELECTRICAL DATA

Analogue output 0 mA 20 mA	No
Analogue output 0 V 10 V	No
Analogue output -10 V +10 V	No



ELECTRICAL DATA

Analogue output 4 mA 20 mA	No
Light exit	Axial
Max. switching distance	300 mm

Sensing head length 6.5 mm

With blanking function No

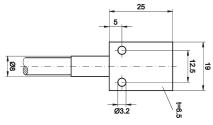
OPTICAL DATA

Fiber optic with linear light beam	Yes
Range	300 mm

OTHER DATA

Feeding technology Yes

DIMENSIONAL DRAWING



INSTALLATION



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

DISPOSAL



SAFETY WARNINGS

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