

LT107205

FIBER OPTIC SENSORS • FIBER OPTICS PLASTIC 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 (MAX)	80 °C
Ambient temperature (MIN)	-55 °C
Bending radius (fixed)	4 mm
Bending radius (flexible)	10 mm
Degree of protection (IP)	IP40
End piece diameter	1.5 mm
End piece length	15 mm
Fiber diameter	1.1 mm
Fiber optics core material	Plastic
Heavy soiling	Yes
Housing design	Cylinder plain
Housing material	Stainless steel
Material of cable sheath	Plastic
Number of fibers	1
Overall length	1000 mm
Punching tools	Yes
Sensing head diameter	1.5 mm
Sheathing material	Plastic
Version	Push button

ELECTRICAL DATA

Analogue output 4 mA ... 20 mA	No
Light exit	Axial
Max. switching distance	25 mm

OPTICAL DATA

Range	25 mm
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