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.

TECHNICAL DATA

Feeding technology	YES
Ambient temperature (min/max)	-55 °C / 80 °C
Bendable	NO
Bending radius (fixed)	4 mm
Bending radius (flexible)	10 mm
Degree of protection (IP)	IP67
Ejection control	YES
End piece diameter	6 mm
End piece length	15 mm
End piece thread pitch	0.75 mm
Fiber diameter	1.1 mm
Fiber optic with bendable head	NO
Fiber optic with small bending radius	NO
Fibre optics core material	Plastic
Heavy soiling	YES
Housing design	Cylinder, screw-thread
Housing material	Stainless steel
Increased ambient temperature ffi 180°C	NO
Increased ambient temperature ffi 300°C	NO
Material of cable sheath	Plastic
Metric thread size of end piece	6 mm
Number of fibers	1
Overall length	2000 mm
Punching tools	YES
Sensing head diameter	6 mm
Sheathing material	Plastic
Strong vibration / motion	NO
Type of mechanical connection	Clamped terminal connection
Version	Push button
Analogue output -10 V ... +10 V	NO

LT207001

plastic fibers

TECHNICAL DATA

Analogue output 0 V ... 10 V	NO
Analogue output 0 mA ... 20 mA	NO
Analogue output 4 mA ... 20 mA	NO
Bending angle of the sensing head	0 °
Bending section of the sensing head	0 mm
Connection amplifier with interference suppression	NO
Max. switching distance	220 mm
Metric thread size of sensing head	6 mm
Reverse polarity protection	NO
Scanning surface position	Axial
Sensing head length	15 mm
Sensing head thread pitch	0.75 mm
Setting via teach-in	NO
Short-circuit-proof	NO
Time function	NO
With LED display	NO
With blanking function	YES
Fiber optic for attachment optics	NO
Fiber optic with coaxial structure	NO
Fiber optic with linear light beam	NO
Range	220 mm

DIMENSIONAL DRAWING