

## LS207032

### 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                   | -60 °C ... 200 °C           |
| Bending radius (fixed)                | 10 mm                       |
| Bending radius (flexible)             | 10 mm                       |
| Degree of protection (IP)             | IP40                        |
| Ejection control                      | Yes                         |
| End piece diameter                    | 4 mm                        |
| End piece length                      | 23 mm                       |
| End piece thread pitch                | 0.7 mm                      |
| Fiber diameter                        | 1 mm                        |
| Fiber optics core material            | Plastic                     |
| Heavy soiling                         | Yes                         |
| Housing design                        | Cylinder, screw-thread      |
| Increased ambient temperature ≤ 180°C | Yes                         |
| Material of cable sheath              | Plastic                     |
| Metric thread size of end piece       | 4 mm                        |
| Number of fibers                      | 2                           |
| Overall length                        | 2000 mm                     |
| Punching tools                        | Yes                         |
| Sensing head diameter                 | 4 mm                        |
| Sheathing material                    | Plastic                     |
| Type of mechanical connection         | Clamped terminal connection |
| 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    |
| Analogue output 4 mA ... 20 mA  | No    |
| Light exit                      | Axial |

