

# Arc-Flash Detection

## PGA-LS30 Series

### Fiber-Optic Sensor



## Description

The PGA-LS30 series Fiber-Optic Sensor is an arc-detection sensor that uses fiber to detect arcs anywhere along its length. This sensor is meant to be installed with the fiber along the back wall of switchboards to form the detection range across many compartments with just one sensor. The sensor is positioned to allow direct line of sight to all powered connections where an arc could develop. The sensor is capable of detecting the light from an arc flash from all angles. The detection radius is dependent on the arc power. The sensor is calibrated at the factory for 60 cm (24 in) of fiber in each monitored compartment. When using a fiber-optic sensor in compartments with less than 60 cm (24 in) of fiber, the sensitivity may have to be adjusted so that the sensor will detect arcs of 3 kA or more. This fiber-optic sensor and the arc-flash relay provide superior protection against the damaging effects of arc flashes and improve the lifespan of electrical equipment as well as the protection of personnel. This sensor is intended to be installed as part of an active arc flash mitigation system that uses Littelfuse arc-flash relays.

## Features & Benefits

| FEATURES   | BENEFITS  |
|--|---|
| <b>Transmitter and receiver design with copper wiring to relay</b> | Allows fiber to be placed only where light needs to be measured; copper wiring can easily be extended or installed in existing cable channel or tight corners |
| <b>Rugged and flexible 5 cm bending radius</b>                     | Can be installed easily and reliably in different sizes and shapes of switchboards or panels  |
| <b>Length: 18 m active, 20 m total</b>                             | Protect many areas with one sensor  |

## Applications

- For use with Littelfuse arc-flash relays

## Specifications

|                                |  |
|--------------------------------|--|
| <b>Type</b>                    | Fiber-optic sensor   |
| <b>Detection Zone</b>          | 360° along fiber   |
| <b>Output</b>                  | 0–35 mA  |
| <b>Electrical Cable</b>        | Shielded 3-wire 20 AWG (0.5 mm <sup>2</sup> ) electrical cable                                     |
| <b>Factory Cable Length</b>    | 18 m (59 ft) active; 20 m (66 ft) total (2 m (7 ft) shielded)<br>2 x 10 m (33 ft) electrical cable |
| <b>Max. Elec. Cable Length</b> | 50 m (164 ft)  |
| <b>Sensor Check</b>            | Built-in LED for visual feedback   |
| <b>Dimensions</b>              | Transmitter and Receiver: 32 x 56 x 19 mm (1.3 x 2.2 x 0.7 in)                                     |
| <b>Enclosure</b>               | IP 30  |

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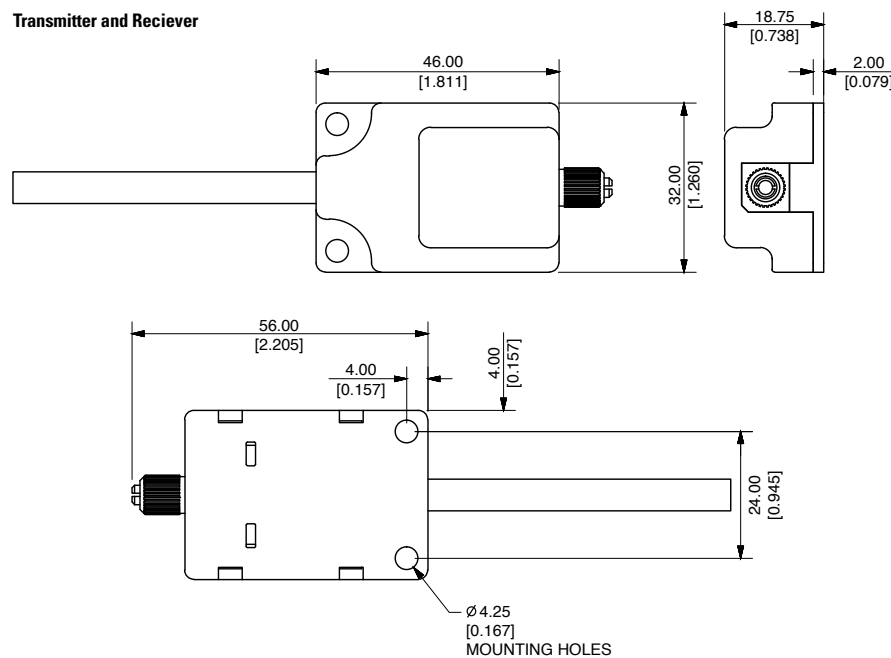
## PGA-LS30 Series

### Ordering Information

| ORDERING NUMBER | DESCRIPTION   |
|-----------------|---|
| PGA-LS30        | Pre terminated fiber-optic sensor with transmitter, receiver, 2 x 10 m of cable, and connector. |

### Dimensions Millimeters (in)

Transmitter and Receiver



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