



# S3N

## 95B010037

**S3N-PR-3-FG01-P**  
MINIATURE PHOTOELECTRIC SENSOR

## OVERVIEW

- Bright LED RED/IR and Safe Laser emission models
- Smart BGS and clear detection functions
- Single, Double trimmer & Push Button models
- Long distance detection models
- Very fast and very precise RGB Contrast sensor
- Cable, M8 connector, Pigtail M8 and M12 connection
- Rugged IP67 Plastic miniature case
- IO-Link with extended Smart Tasks

## TECHNICAL FEATURES

### Detection properties

|                                       |                |
|---------------------------------------|----------------|
| Nominal sensing distance              | 20 m           |
| Sensitivity adjustment                | 1 turn trimmer |
| Minimum sensing distance (blind zone) | 0 mm           |

### Application

|                    |                                   |
|--------------------|-----------------------------------|
| Function Principle | Through beam emitter and receiver |
|--------------------|-----------------------------------|

|                             |                                        |
|-----------------------------|----------------------------------------|
| Notes                       |                                        |
| Optic position              | Radial 90°                             |
| Functions                   | Through beam emitter and receiver      |
| Outputs                     |                                        |
| Output type                 | PNP L/D Selectable                     |
| Output Function             | L/D Selectable by trimmer              |
| Switching frequency         | 500 Hz                                 |
| Response time               | 1 ms                                   |
| Electrical data             |                                        |
| Operating Voltage           | 10...30VDC                             |
| No-Load supply current      | ≤ 35mA                                 |
| Load current                | ≤100mA                                 |
| Leakage current             | ≤ 300 µA                               |
| Output voltage drop         | ≤2V@Iload=100mA                        |
| Max ripple content          | ≤10%                                   |
| LED indicators              | yellow OUTPUT LED, green STABILITY LED |
| Short-circuit protection    | Yes                                    |
| Reverse Polarity Protection | Yes                                    |
|                             |                                        |

|                                  |                                                 |
|----------------------------------|-------------------------------------------------|
| Emission                         | 850 nm Infrared LED                             |
| Interference to external light   | according to EN 60947-5-2 : 2020                |
| Impulsive Overvoltage Protection | Yes                                             |
| Insulation resistance            | >20 MΩ 500 Vdc, between electronics and housing |
| Contact resistance               | 500 Vac 1 min., between electronics and housing |

**Mechanical data**

|                         |                                        |
|-------------------------|----------------------------------------|
| Dimensions              | 11x31x19 mm                            |
| Housing material        | Plastic Polymer Fiber Glass reinforced |
| Active Head Material    | PMMA                                   |
| Operating temperature   | -25°C ... 55°C                         |
| Storage temperature     | - 25°C...+70°C                         |
| Plug connector material | Metal                                  |
| shaft material          | POM, PMMA                              |
| Diameter/Dimension      | Cubic                                  |
| Mechanical protection   | IP67                                   |

**Test/Approvals**

|                       |                                                                        |
|-----------------------|------------------------------------------------------------------------|
| Approvals             | CE cULus                                                               |
| EMC compatibility     | EN 60947-5-2                                                           |
| Shocks and vibrations | 0.5 mm amplitude, 10 ... 55 Hz frequency, for every axis (EN60068-2-6) |

## Generical Data

|                       |                |
|-----------------------|----------------|
| Operating Temperature | -25°C ... 55°C |
|-----------------------|----------------|

|                       |      |
|-----------------------|------|
| Mechanical Protection | IP67 |
|-----------------------|------|

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