



# FG

## FGRS/0N-0A

**Photo.Midi,NPN-NO/NC,Cable,BGS**  
COMPACT PHOTOELECTRIC SWITCH SENSORS WITH  
HIGH PERFORMANCES AND HIGH DETECTION DISTANCES

## OVERVIEW

- Cable output or with revolving connector, NPN or PNP output (DC models) and SPDT voltage free relay output (AC models)
- Selectable LO/DO output status
- Totally protected against electrical damages
- Background suppressions models: 310 mm, 600 mm
- Reflex polarized sensitivity adjustment 12 m
- Emitter and Receiver with max detecting range of 50 m
- Double Multifunction LED indicator: output state and using the pointing
- Sensitive adjustment models



## TECHNICAL FEATURES

### Detection properties

|                                       |   |
|---------------------------------------|---|
| Nominal sensing distance              | 310mm   |
| Sensitivity adjustment                | Potentiometer 2 turns with position indicator |
| Minimum sensing distance (blind zone) | 90mm  |

### Application

|                    |                                    |
|--------------------|------------------------------------|
| Function Principle | Background suppression             |
| Notes              | white target Kodak 90% 100 x 100mm |
| Optic position     | Axial                              |

#### Outputs

|                     |                    |
|---------------------|--------------------|
| Output type         | NPN L/D Selectable |
| Output Function     | L/D Selectable     |
| Switching frequency | 160Hz              |
| Response time       | 3,125ms            |

#### Electrical data

|                                |   |
|--------------------------------|---|
| Operating Voltage              | 10...30VDC                                      |
| No-Load supply current         | $\leq 35\text{mA}$                              |
| Load current                   | $\leq 100\text{mA}$                             |
| Output voltage drop            | $\leq 1,8\text{V}@I_{\text{load}}=100\text{mA}$ |
| Max ripple content             | 5Vpp  |
| LED indicators                 | Green (powerON) Yellow (status output)          |
| Time delay before availability | $\leq 200\text{ms}$                             |
| Short-circuit protection       | Yes   |
| Reverse Polarity Protection    | Yes   |

|                                  |   |
|----------------------------------|---|
| Emission                         | LED Red   |
| Interference to external light   | 10,000Lux (minimum sunlight), 3,000 min HF lamp |
| Impulsive Overvoltage Protection | Yes   |

#### Mechanical data

|                       |               |
|-----------------------|---------------|
| Dimensions            | 20x44,9x60mm  |
| Material              |               |
| Housing material      | ABS           |
| Weight                | 150g          |
| Connections           | 2m PVC cable  |
| Active Head Material  | PMMA          |
| Operating temperature | -25°C...+55°C |
| Diameter/Dimension    | Cubic         |

#### Test/Approvals

|                       |  |
|-----------------------|--|
| Approvals             | CE UR  |
| EMC compatibility     | EN 60947-5-2                                   |
| Shocks and vibrations | Vibration IEC 60068-2-6 / Shock IEC 60068-2-28 |
| Degree of protection  | IP67   |

#### Accessories

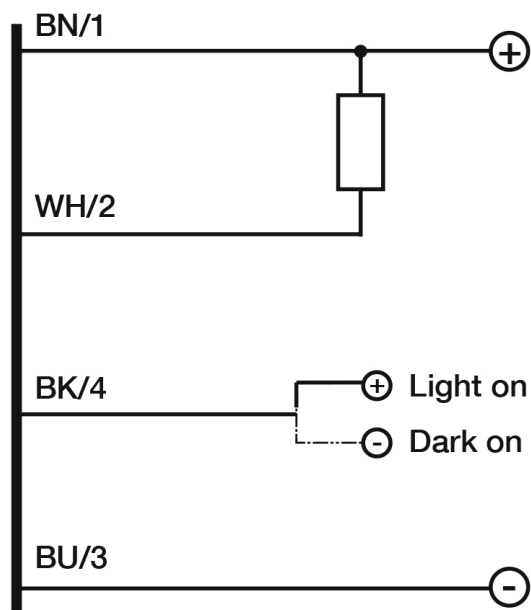
|                      |                          |
|----------------------|--------------------------|
| Supplied Accessories | Mounting bracket STFG 00 |
|----------------------|--------------------------|

## Generical Data

|                       |                                  |
|-----------------------|----------------------------------|
| Dimensions            | 20x44,9x60mm                     |
| Operating Temperature | - 25°C...+ 55°C (Without freeze) |
| Mechanical Protection | IP67                             |

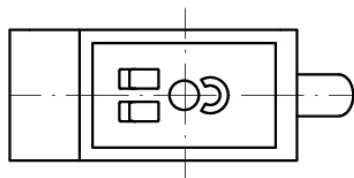
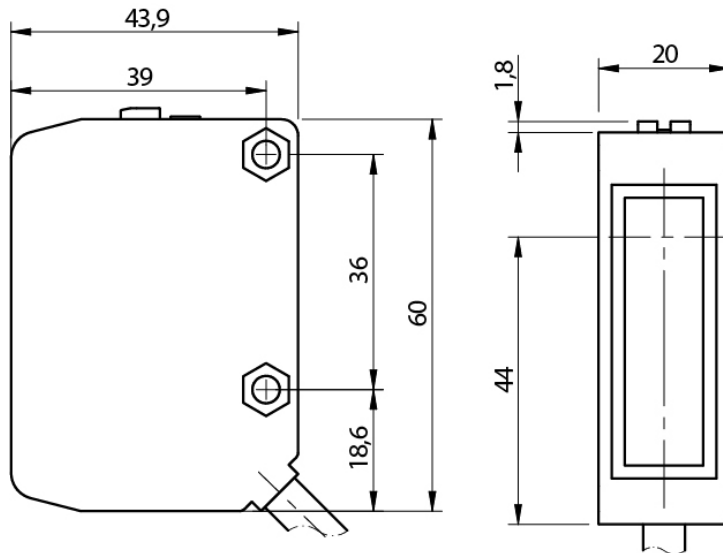
# CONNECTIONS

Electrical diagram

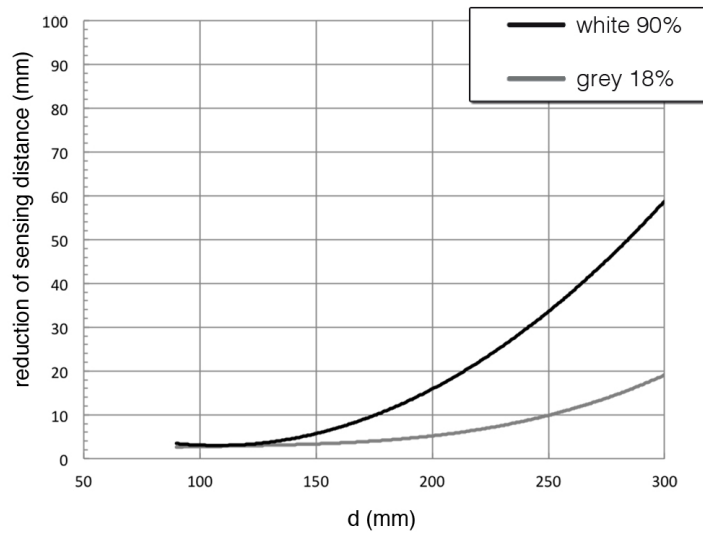


# OTHERS

Dimensions



Response curves



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