



# FG

## FGRS/0N-0E

Photo.Midi,NPN-NO/NC,M12 plug,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	40g
Connections	M12 plug
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
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## Generical Data

Dimensions

20x44,9x60mm

Operating Temperature

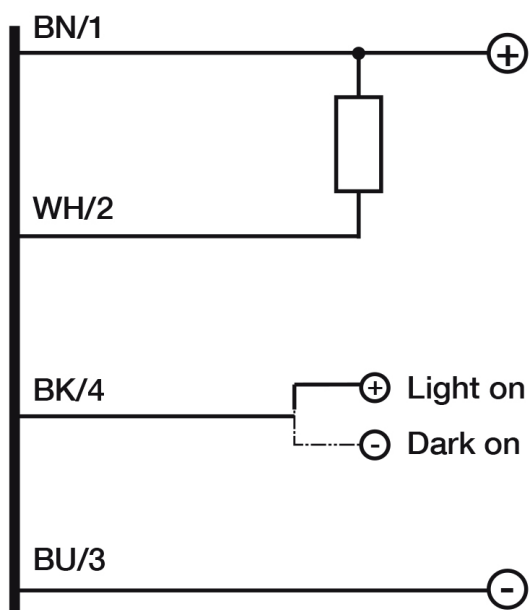
- 25°C...+ 55°C (Without freeze)

Mechanical Protection

IP67

# CONNECTIONS

Electrical diagram

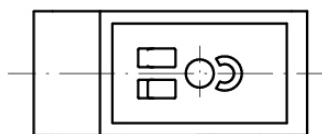
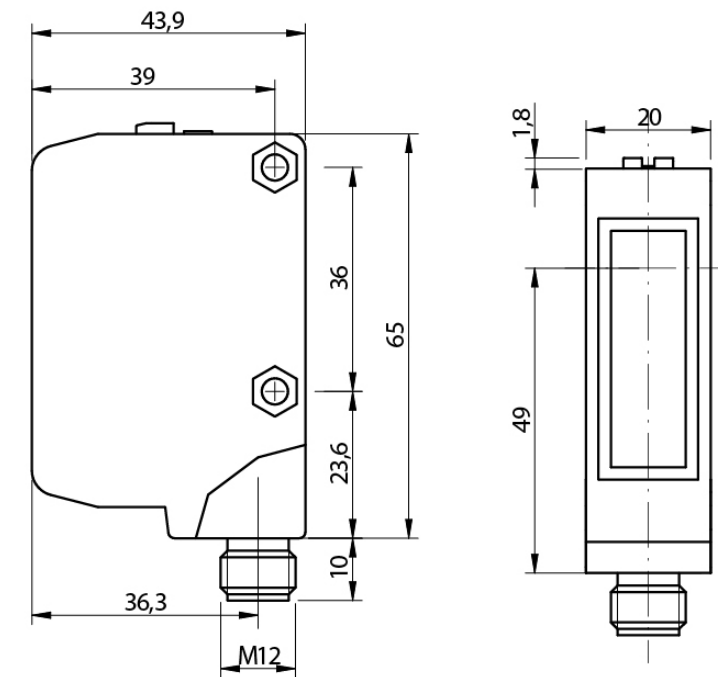


Connector

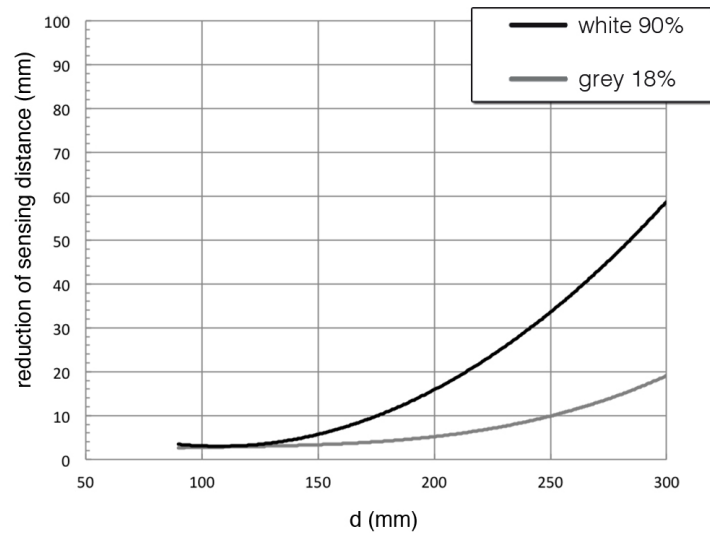


## OTHERS

Dimensions



Response curves



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