



# Diffuse mode sensor

## RLK31-8-2500-IR/31/59/115

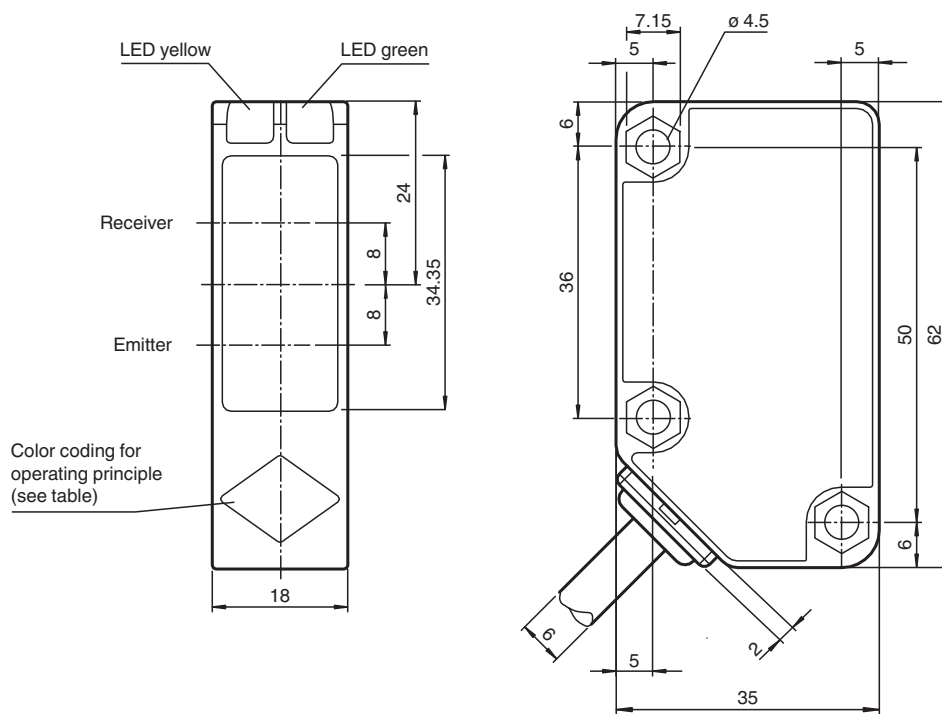


- Operating voltage AC / DC
- Highly visible LED
- Relay output
- Compact and stable housing
- Protection class II

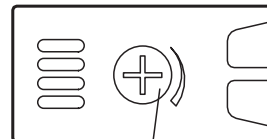
Diffuse mode sensor, plastic housing, 2500 mm adjustable detection range, AC/DC version, infrared light, dark on, relay contact output, fixed cable



### Dimensions



Operating principle	color
Retroreflective sensor	green
Retroreflective sensor without polarization filter	blue
Diffuse type sensor	white
Thru-beam sensor	grey
Convergent beam sensor	red



Sensing range adjustment

### Technical Data

#### General specifications

Detection range 0 ... 2500 mm adjustable

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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## Technical Data

Reference target		standard white 200 mm x 200 mm
Light source		IRE D
Light type		modulated infrared light , 850 nm
Polarization filter		no
Diameter of the light spot		approx. 50 mm at a distance of 2.5 m
Opening angle		2 °
Ambient light limit		50000 Lux ; according to EN 60947-5-2
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		790 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Indicators/operating means</b>		
Operation indicator		LED green: power on
Function indicator		LED yellow, lights up with receiver lit
Control elements		Sensing range adjuster
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	24 ... 240 V AC 12 ... 240 V DC
No-load supply current	I <sub>0</sub>	≤ 40 mA
Power consumption	P <sub>0</sub>	≤ 2 VA
<b>Output</b>		
Switching type		dark-on
Signal output		Relay, 1 alternator
Switching voltage		max. 240 V AC/DC
Switching current		max. 3 A
Switching power		DC: max. 150 W AC: max. 750 VA
Switching frequency	f	≤ 20 Hz
Response time		≤ 25 ms
<b>Conformity</b>		
Product standard		EN 60947-5-2
<b>Approvals and certificates</b>		
Protection class		II , rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 Output circuit basis insulation of input circuit according to EN 50178, rated insulation voltage 240 V AC
CCC approval		Certified by China Compulsory Certification (CCC)
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 55 °C (-13 ... 131 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
<b>Mechanical specifications</b>		
Degree of protection		IP67
Connection		2 m fixed cable , 5-wire
Material		
Housing		Polycarbonate
Optical face		PMMA
Mass		155 g
Dimensions		
Height		62 mm
Width		18 mm
Depth		35 mm

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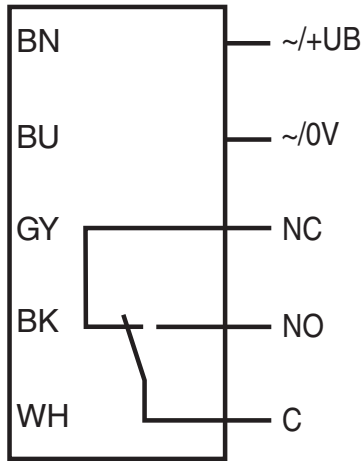
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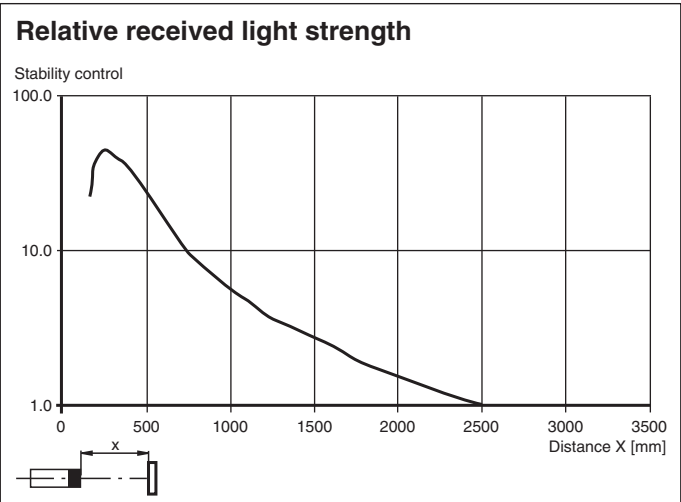
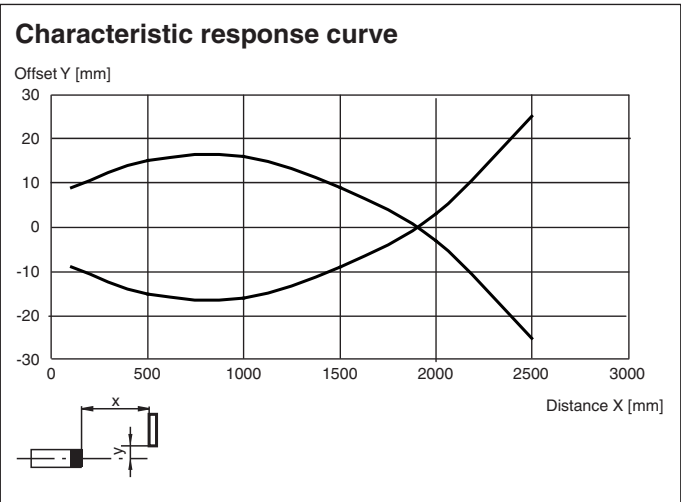
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**Connection Assignment**

Option:



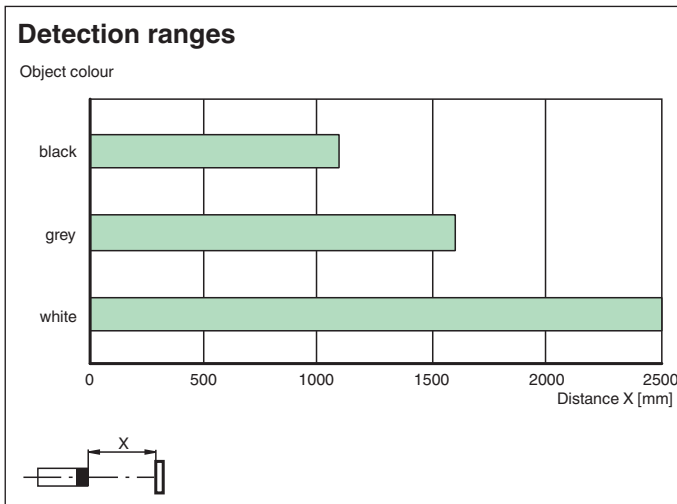
**Characteristic Curve**



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