

## Background suppression sensor RLK23-8-H-500-RT/31/116

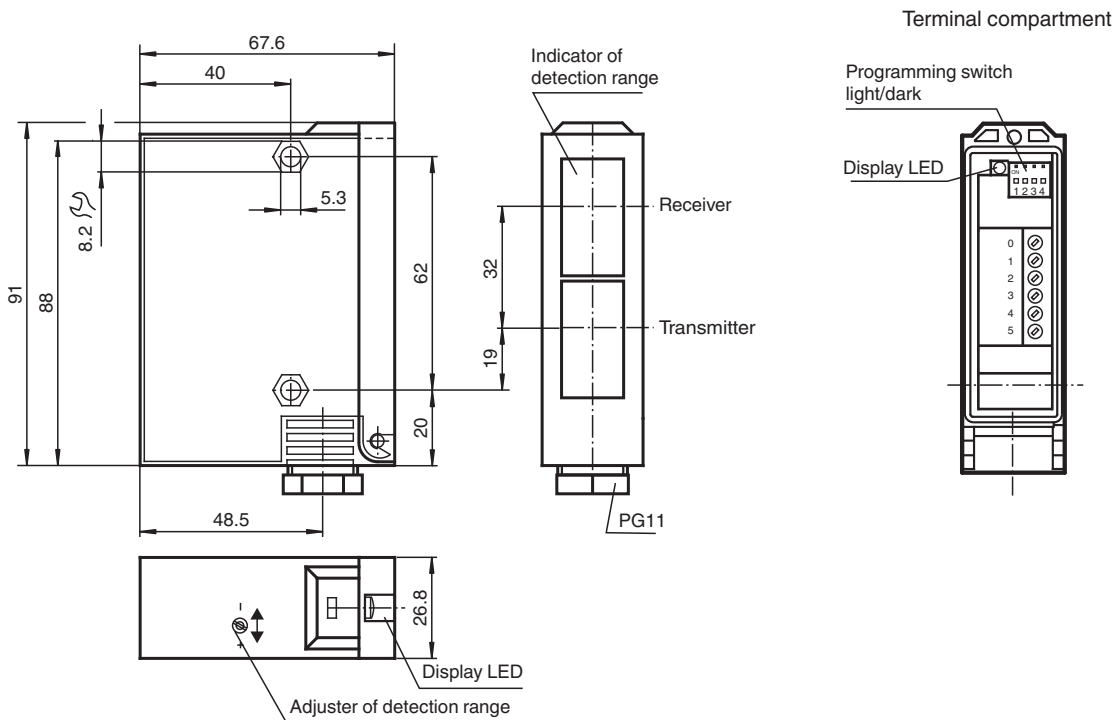


- Adjustable background suppression
- Visible red light
- Sturdy plastic housing
- Optical surface made of scratch-resistant glass

### Background suppression sensor



### Dimensions



### Technical Data

#### General specifications

|                      |                             |
|----------------------|-----------------------------|
| Detection range      | 50 ... 500 mm               |
| Detection range min. | 50 ... 150 mm               |
| Detection range max. | 50 ... 500 mm               |
| Light source         | LED                         |
| Light type           | modulated visible red light |

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

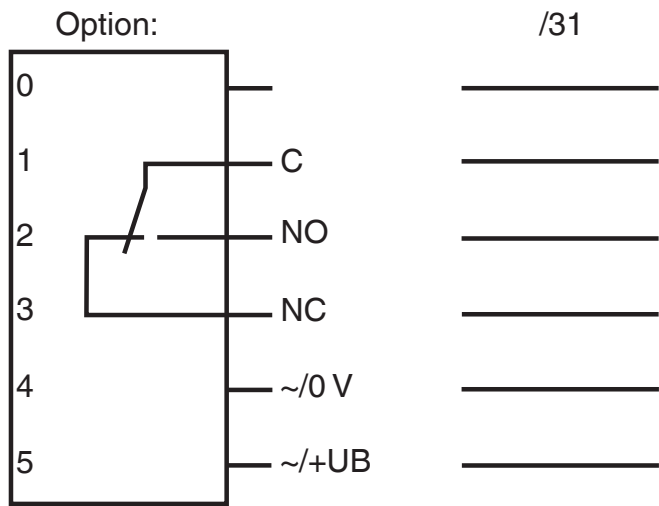
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

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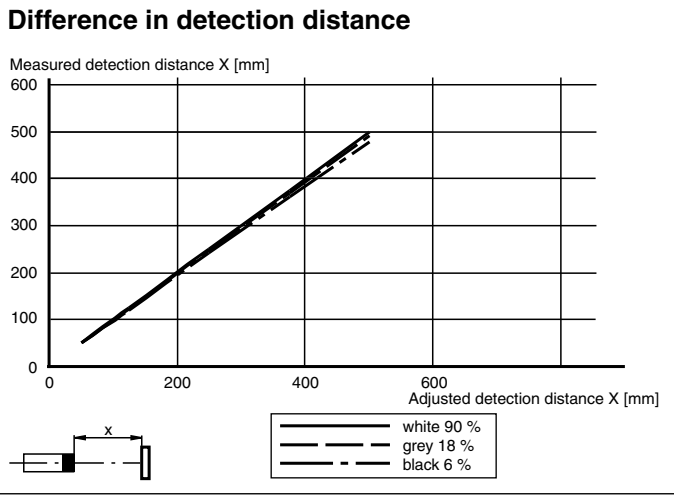
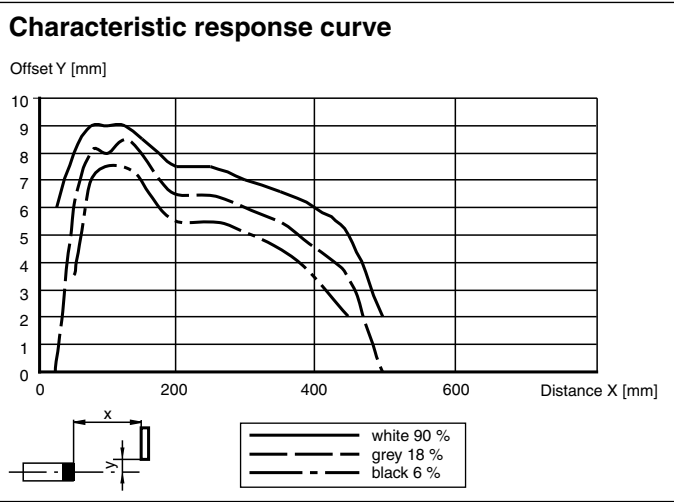
## Technical Data

|                                             |                |                                                   |
|---------------------------------------------|----------------|---------------------------------------------------|
| Black-white difference (6 %/90 %)           |                | < 5 %                                             |
| Diameter of the light spot                  |                | 12 mm at 500 mm sensor range                      |
| Opening angle                               |                | 1.5 °                                             |
| Ambient light limit                         |                | 12000 Lux                                         |
| <b>Functional safety related parameters</b> |                |                                                   |
| MTTF <sub>d</sub>                           |                | 850 a                                             |
| Mission Time (T <sub>M</sub> )              |                | 20 a                                              |
| Diagnostic Coverage (DC)                    |                | 0 %                                               |
| <b>Indicators/operating means</b>           |                |                                                   |
| Function indicator                          |                | LED yellow, lights up with receiver lit           |
| Control elements                            |                | Programming switch for light/dark switching       |
| Control elements                            |                | Sensing range adjuster                            |
| <b>Electrical specifications</b>            |                |                                                   |
| Operating voltage                           | U <sub>B</sub> | 12 ... 240 V AC/DC (automatic adaption to +UB)    |
| Power consumption                           | P <sub>0</sub> | 3 VA                                              |
| <b>Output</b>                               |                |                                                   |
| Switching type                              |                | light/dark on switchable                          |
| Signal output                               |                | 1 relay, 1 alternator                             |
| Switching voltage                           |                | max. 240 V AC                                     |
| Switching current                           |                | max. 2 A                                          |
| Switching frequency                         | f              | 10 Hz                                             |
| Response time                               |                | 50 ms                                             |
| <b>Conformity</b>                           |                |                                                   |
| Product standard                            |                | EN 60947-5-2                                      |
| <b>Approvals and certificates</b>           |                |                                                   |
| UL approval                                 |                | cULus                                             |
| CCC approval                                |                | Certified by China Compulsory Certification (CCC) |
| <b>Ambient conditions</b>                   |                |                                                   |
| Ambient temperature                         |                | -20 ... 60 °C (-4 ... 140 °F)                     |
| Storage temperature                         |                | -20 ... 75 °C (-4 ... 167 °F)                     |
| <b>Mechanical specifications</b>            |                |                                                   |
| Degree of protection                        |                | IP65                                              |
| Connection                                  |                | terminal compartment                              |
| <b>Material</b>                             |                |                                                   |
| Housing                                     |                | Terluran® GV15                                    |
| Optical face                                |                | glass                                             |
| Mass                                        |                | 180 g                                             |
| <b>Dimensions</b>                           |                |                                                   |
| Height                                      |                | 91 mm                                             |
| Width                                       |                | 26.8 mm                                           |
| Depth                                       |                | 67.6 mm                                           |

Connection Assignment



Characteristic Curve



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Light-on/dark-on changeover switch

|                                                                                                                                                                               |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <div>ON</div> <div><div>1</div><div>2</div><div>3</div><div>4</div></div> <div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div> | Dark on  |
| <div>ON</div> <div><div>1</div><div>2</div><div>3</div><div>4</div></div> <div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div> | Light on |

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