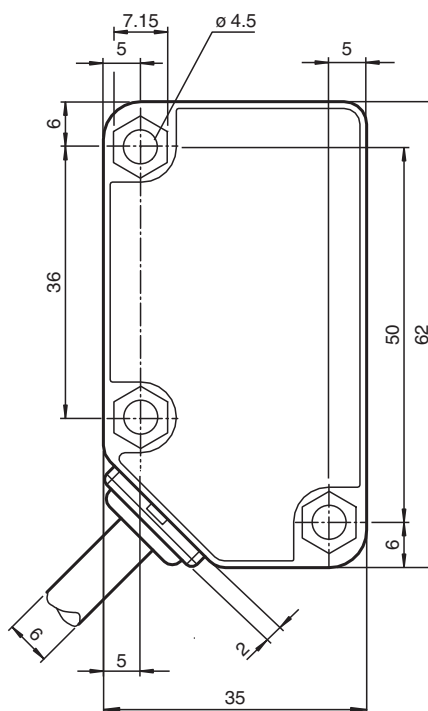
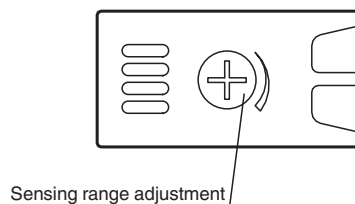


- Operating voltage AC / DC
- Highly visible LED
- Relay output, 1 potential free alternator
- Compact and stable housing
- Protection class II

CE CCC EAC UK CA



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



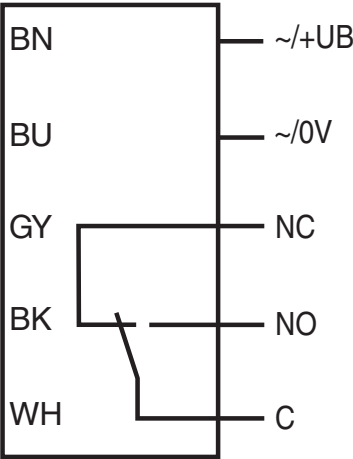
|                 |                          |
|-----------------|--------------------------|
| Detection range | 0 ... 1200 mm adjustable |
|-----------------|--------------------------|

## Technical Data

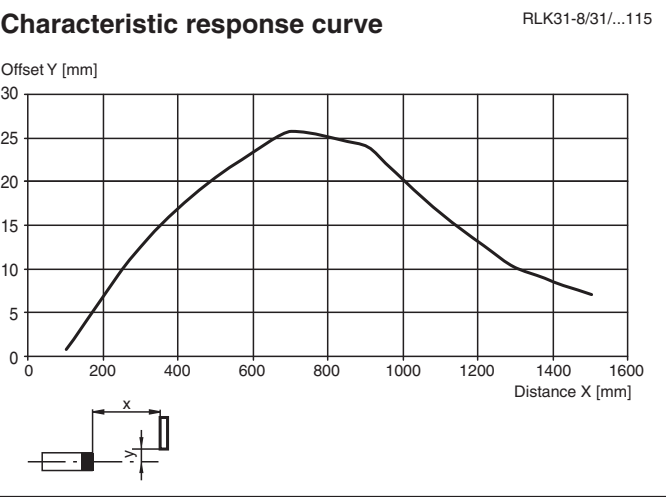
|                                             |                |                                                                                                                                                                                               |
|---------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Detection range max.                        |                | 0 ... 1200 mm                                                                                                                                                                                 |
| Reference target                            |                | standard white, 100 mm x 100 mm                                                                                                                                                               |
| Light source                                |                | LED                                                                                                                                                                                           |
| Light type                                  |                | modulated visible red light , 630 nm                                                                                                                                                          |
| Polarization filter                         |                | no                                                                                                                                                                                            |
| Diameter of the light spot                  |                | approx. 25 mm at a distance of 1.2 m                                                                                                                                                          |
| Opening angle                               |                | 2 °                                                                                                                                                                                           |
| Ambient light limit                         |                | 50000 Lux ; according 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<br>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                              |                | light-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>           |                |                                                                                                                                                                                               |
| EAC conformity                              |                | TR CU 020/2011<br>TR CU 004/2011                                                                                                                                                              |
| Protection class                            |                | II , rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1<br>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>            |                |                                                                                                                                                                                               |
| Housing width                               |                | 18 mm                                                                                                                                                                                         |
| Housing height                              |                | 62 mm                                                                                                                                                                                         |
| Housing depth                               |                | 35 mm                                                                                                                                                                                         |
| Degree of protection                        |                | IP67                                                                                                                                                                                          |
| Connection                                  |                | 2 m fixed cable , 5-wire                                                                                                                                                                      |
| <b>Material</b>                             |                |                                                                                                                                                                                               |
| Housing                                     |                | Polycarbonate                                                                                                                                                                                 |
| Optical face                                |                | PMMA                                                                                                                                                                                          |
| Mass                                        |                | 155 g                                                                                                                                                                                         |

Connection Assignment

Option:



Characteristic Curve



Accessories

|                                                                                     |                    |                                                                         |
|-------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------|
|  | <b>OMH-RL31-01</b> | Mounting bracket                                                        |
|  | <b>OMH-RL31-02</b> | Mounting bracket narrow                                                 |
|  | <b>OMH-RL31-03</b> | Mounting bracket narrow                                                 |
|  | <b>OMH-RL31-04</b> | Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm           |
|  | <b>OMH-RL31-05</b> | Mounting bracket for mounting on flat surfaces with 2 M4 screws         |
|  | <b>OMH-RL31-06</b> | Stainless steel mounting bracket with adjustable half clamp on the side |