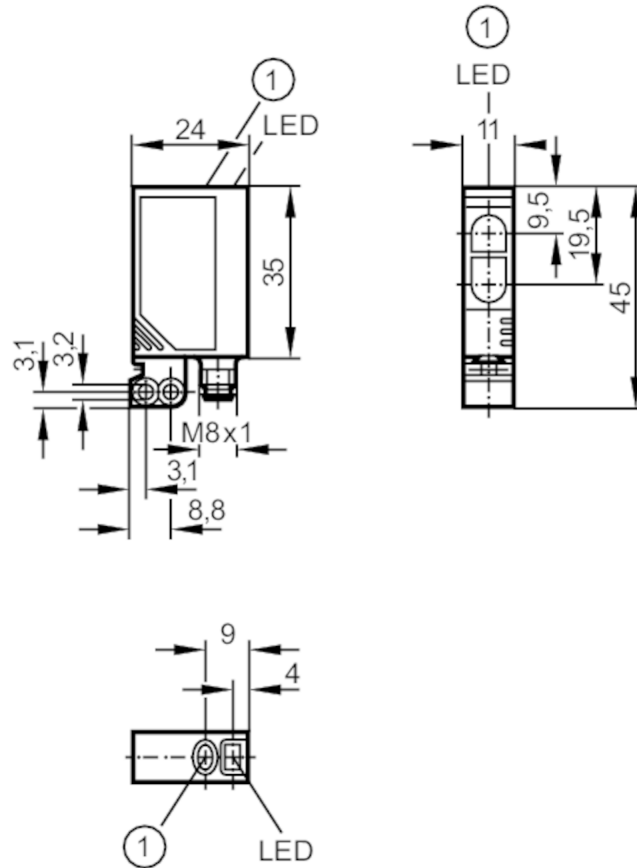




## Laser diffuse reflection sensor

OJHLFNKG/SO/AS



1 pushbutton



### Product characteristics

|                        |              |
|------------------------|--------------|
| Type of light          | red light    |
| Laser protection class | 1            |
| Housing                | rectangular  |
| Dimensions [mm]        | 35 x 11 x 24 |

### Application

|                    |                           |
|--------------------|---------------------------|
| Special feature    | Background suppression    |
| Function principle | Diffuse reflection sensor |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | 13         |
| Protection class            | III        |
| Reverse polarity protection | yes        |
| Type of light               | red light  |
| Wave length [nm]            | 650        |
| Typ. lifetime [h]           | 50000      |



## Laser diffuse reflection sensor

OJHLFNKG/SO/AS

| Outputs   |                  |   |
|---|------------------|---|
| Electrical design                               |                  | NPN   |
| Output function                                 |                  | light-on/dark-on mode; (programmable)   |
| Max. voltage drop switching output DC           | [V]              | 2.5   |
| Permanent current rating of switching output DC | [mA]             | 200   |
| Switching frequency DC                          | [Hz]             | 1000  |
| Short-circuit protection                        |                  | yes   |
| Type of short-circuit protection                |                  | pulsed  |
| Overload protection                             |                  | yes   |
| Detection zone                                  |                  |   |
| Range   | [mm]             | 15...200; (white paper 200 x 200 mm 90% remission)  |
| Range adjustable                                |                  | yes   |
| Diameter of the smallest detectable object      | [mm]             | 2   |
| Max. light spot width                           | [mm]             | 2   |
| Max. light spot height                          | [mm]             | 1   |
| Background suppression available                |                  | yes   |
| Operating conditions                            |                  |   |
| Ambient temperature                             | [°C]             | -10...60  |
| Protection                                      |                  | IP 67   |
| Tests / approvals                               |                  |   |
| EMC   |                  | EN 60947-5-2  |
| Laser protection class                          |                  | 1   |
| Notes on laser protection                       | Caution:         | laser light   |
|   | laser class:     | 1   |
|   |                  | EN / IEC60825-1:2007  |
|   |                  | EN / IEC60825-1:2014  |
|   |                  | Complies with 21 CFR 1040 except for deviations pursuant to Laser Notice No. 50, dated June 2007. |
| MTTF  | [years]          | 516   |
| Mechanical data                                 |                  |   |
| Weight  | [g]              | 40.4  |
| Housing   |                  | rectangular   |
| Dimensions                                      | [mm]             | 35 x 11 x 24  |
| Materials                                       |                  | housing: ABS; fixture: diecast zinc; LED window: SEPS; pushbutton: SEPS                           |
| Lens material                                   |                  | PMMA  |
| Lens alignment                                  |                  | side lens   |
| Displays / operating elements                   |                  |   |
| Display   | switching status | 1 x LED, yellow   |
|   | operation        | 1 x LED, green  |
| Electronic lock                                 |                  | yes   |

# OJ5055



## Laser diffuse reflection sensor

OJHLFNKG/SO/AS

| Accessories            |                         |
|------------------------|-------------------------|
| Accessories (supplied) | Basic clip: 1 x, E20964 |
|                        | screws: 2 x x M3 x 16   |
|                        | spring washers: 2 x     |
|                        | Nuts: 2 x               |

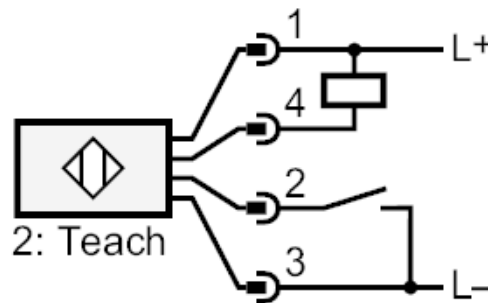
| Remarks       |   |
|---------------|---|
| Remarks       | operating voltage "supply class 2" according to cULus |
| Pack quantity | 1 pcs.  |

### Electrical connection

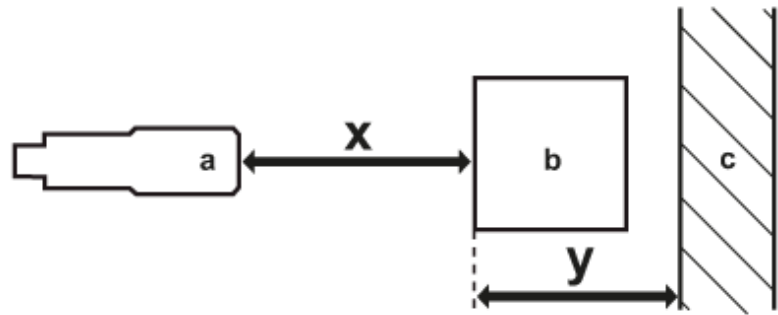
Connector: 1 x M8



### Connection

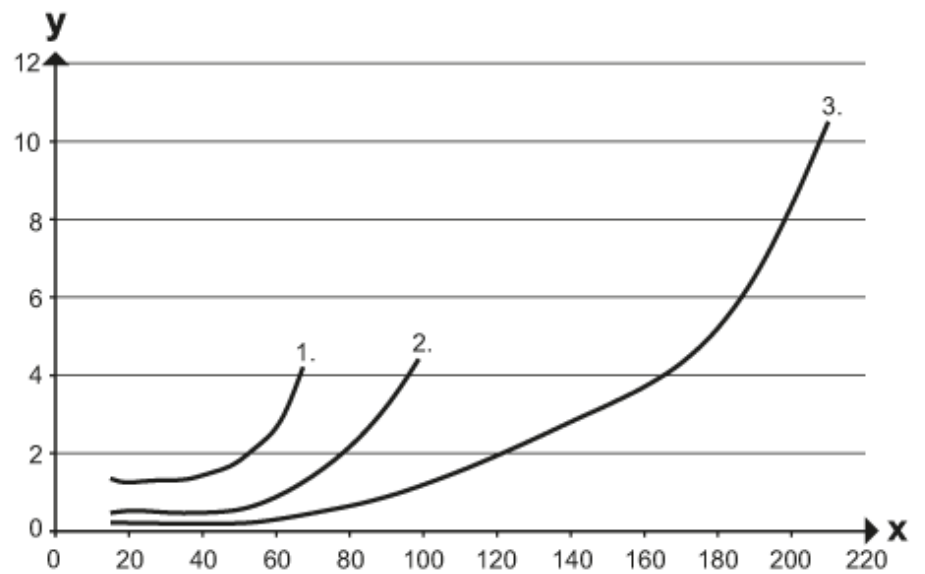


### Diagrams and graphs



- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]

### accuracy graph



- x: distance sensor/object [mm]
- y: min. distance object/background [mm]
- 1 = object black (6 % remission) , background (white 90 % remission)
- 2 = object grey (18 % remission) , background (white 90 % remission)
- 3 = object white (90 % remission) , background (white 90 % remission)