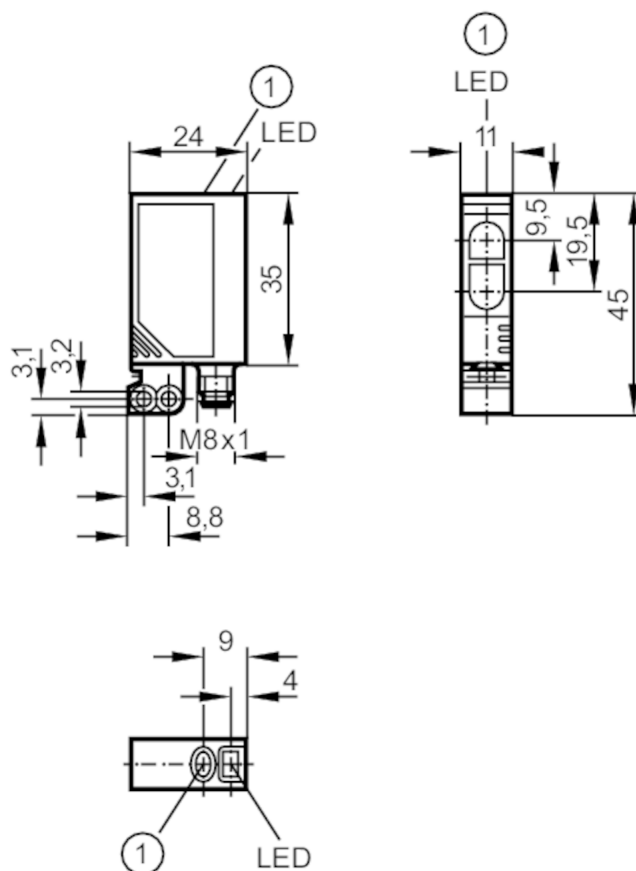




## Diffuse reflection sensor with background suppression

OJH-FPKG/SO/AS



- 1 pushbutton  
receiver in upper lens  
transmitter in lower lens



### Application

Function principle Diffuse reflection sensor

### Electrical data

|                             |      |            |
|-----------------------------|------|------------|
| Operating voltage           | [V]  | 10...30 DC |
| Current consumption         | [mA] | 25         |
| Protection class            |      | III        |
| Reverse polarity protection |      | yes        |
| Type of light               |      | red light  |
| Wave length                 | [nm] | 660        |



## Diffuse reflection sensor with background suppression

OJH-FPKG/SO/AS

| Outputs                                              |                                                                         |                 |
|------------------------------------------------------|-------------------------------------------------------------------------|-----------------|
| Electrical design                                    | PNP                                                                     |                 |
| 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...400; (white paper 200 x 200 mm 90 % remission)                     |                 |
| Range adjustable                                     | yes                                                                     |                 |
| Max. light spot diameter [mm]                        | 18                                                                      |                 |
| Light spot dimensions refer to                       | Range                                                                   |                 |
| Background suppression available                     | yes                                                                     |                 |
| Operating conditions                                 |                                                                         |                 |
| Ambient temperature [°C]                             | -25...60                                                                |                 |
| Protection                                           | IP 67                                                                   |                 |
| Tests / approvals                                    |                                                                         |                 |
| EMC                                                  | EN 60947-5-2                                                            |                 |
| MTTF [years]                                         | 556                                                                     |                 |
| Mechanical data                                      |                                                                         |                 |
| Weight [g]                                           | 47                                                                      |                 |
| 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                                                                     |                 |
| 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.                                                                  |                 |

## Diffuse reflection sensor with background suppression

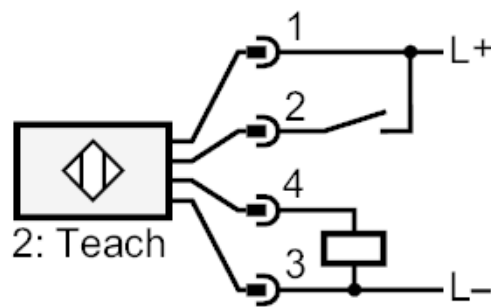
OJH-FPKG/SO/AS

### Electrical connection

Connector: 1 x M8

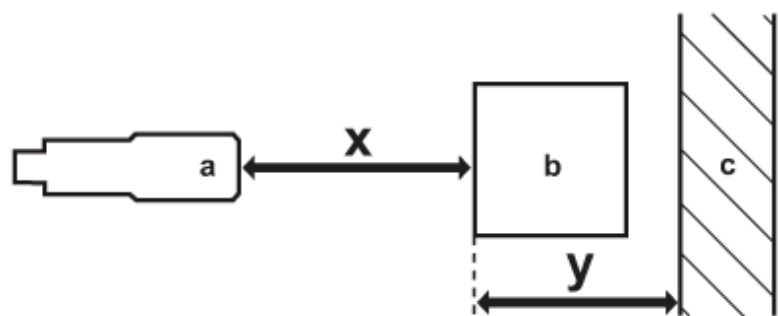


### Connection



2 Teach

### Diagrams and graphs



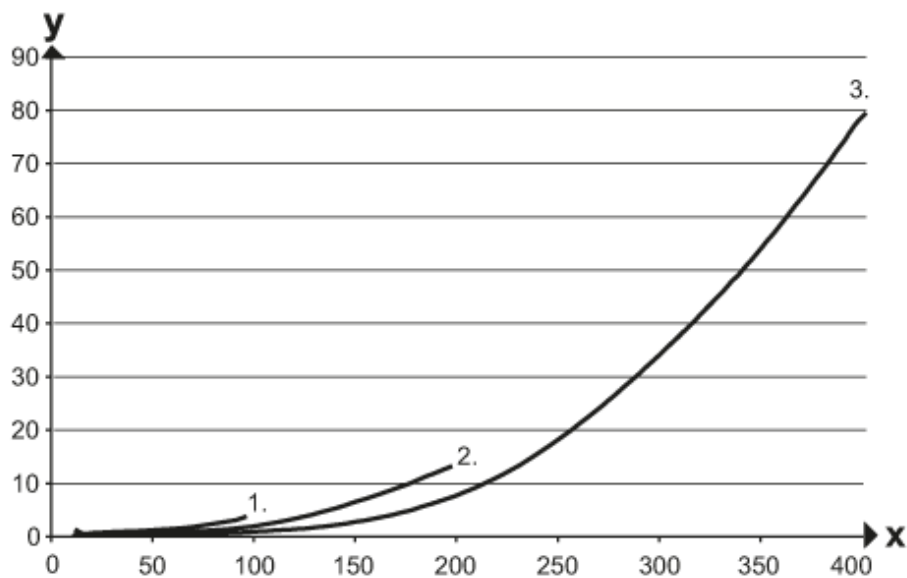
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



## Diffuse reflection sensor with background suppression

OJH-FPKG/SO/AS

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)