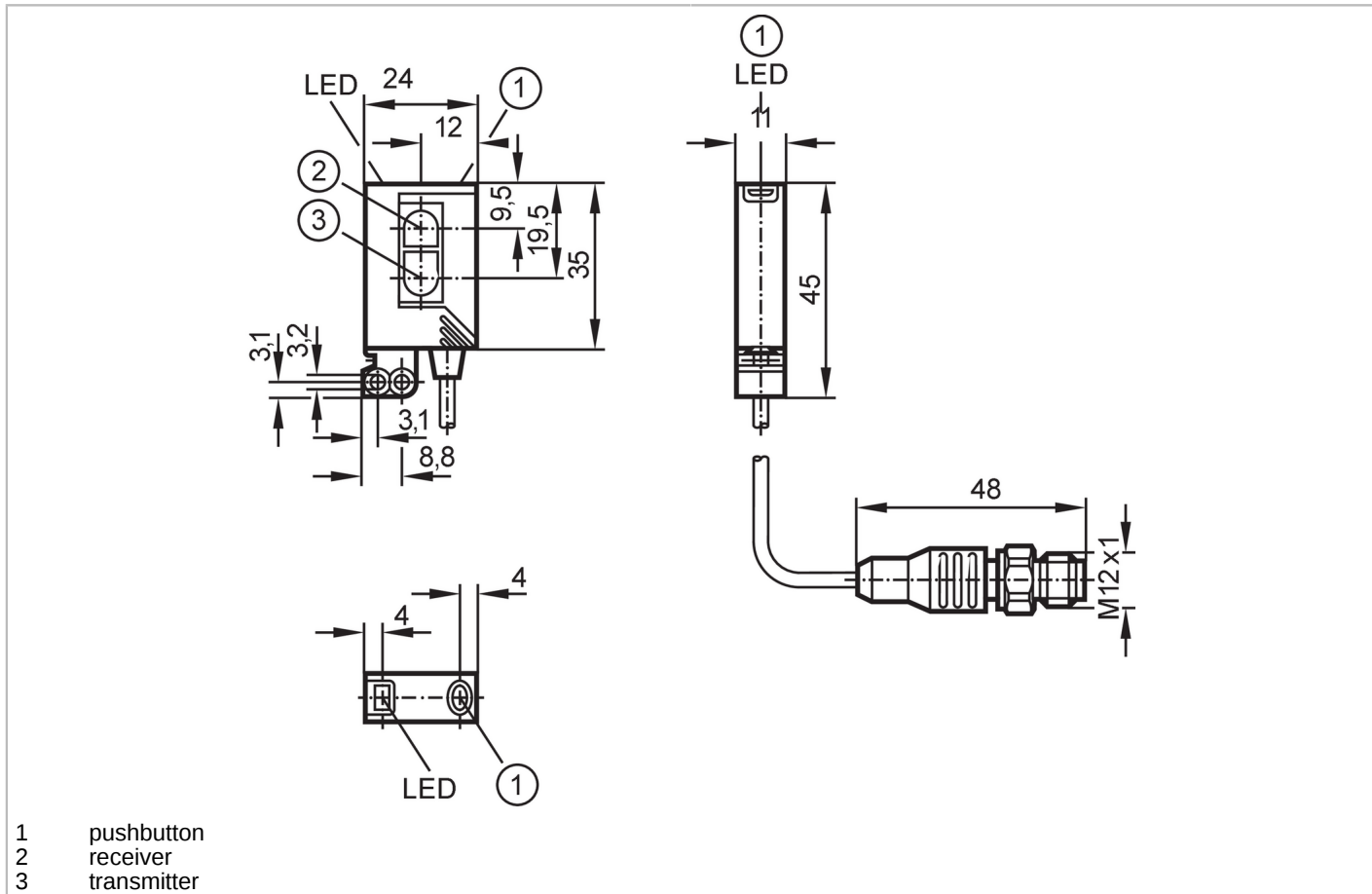




## Diffuse reflection sensor with background suppression

OJH-FPKG/FO/0,15M/US



| Product characteristics               |      |  |
|---------------------------------------|------|--|
| Type of light                         |      | red light  |
| Housing                               |      | rectangular  |
| Application                           |      |  |
| Special feature                       |      | Gold-plated contacts; Background suppression                   |
| Function principle                    |      | Diffuse reflection sensor                                      |
| Application                           |      | For applications in robotics, assembly and handling technology |
| 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  |
| Outputs                               |      |  |
| Electrical design                     |      | PNP  |
| Output function                       |      | light-on/dark-on mode; (programmable)                          |
| Max. voltage drop switching output DC | [V]  | 2.5  |

# OJ5068



## Diffuse reflection sensor with background suppression

OJH-FPKG/FO/0,15M/US

|  |        |
|--|--------|
| 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    |

|                                  |  |
|----------------------------------|--|
| <b>Detection zone</b>            |  |
| 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  |

|                             |          |
|-----------------------------|----------|
| <b>Operating conditions</b> |          |
| Ambient temperature [°C]    | -25...60 |
| Protection                  | IP 67    |

|                          |              |
|--------------------------|--------------|
| <b>Tests / approvals</b> |              |
| EMC                      | EN 60947-5-2 |
| MTTF [years]             | 556          |

|                        |   |
|------------------------|---|
| <b>Mechanical data</b> |   |
| Weight [g]             | 49.9  |
| Housing                | rectangular   |
| Dimensions [mm]        | 35 x 24 x 11  |
| Materials              | housing: ABS; fixture: diecast zinc; LED window: SEPS; pushbutton: SEPS |
| Lens material          | front pane:PMMA   |
| Lens alignment         | front lens  |

|                                      |                  |                 |
|--------------------------------------|------------------|-----------------|
| <b>Displays / operating elements</b> |                  |                 |
| Display                              | switching status | 1 x LED, yellow |
|                                      | operation        | 1 x LED, green  |
| Electronic lock                      | yes              |                 |

|                    |                          |
|--------------------|--------------------------|
| <b>Accessories</b> |                          |
| Items supplied     | Basic clip: 1, E20964    |
|                    | screws: 2 x (M3 x 16 mm) |
|                    | spring washers: 2        |
|                    | Nuts: 2                  |

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

|                              |  |
|------------------------------|--|
| <b>Electrical connection</b> |  |
| Cable: 0.15 m, PUR           |  |

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated; Moulded body: PUR; Locking: brass





## Diffuse reflection sensor with background suppression

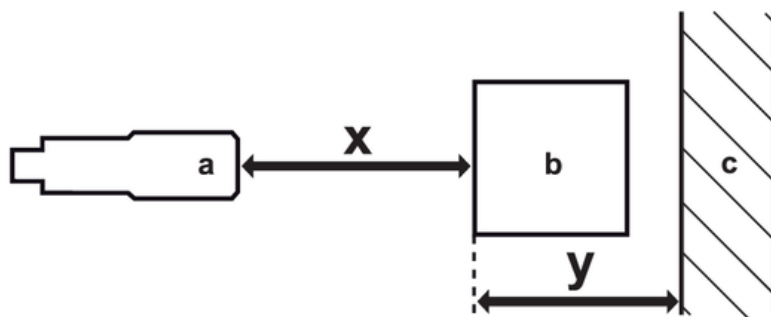
OJH-FPKG/FO/0,15M/US

### Connection



2 Teach

### Diagrams and graphs



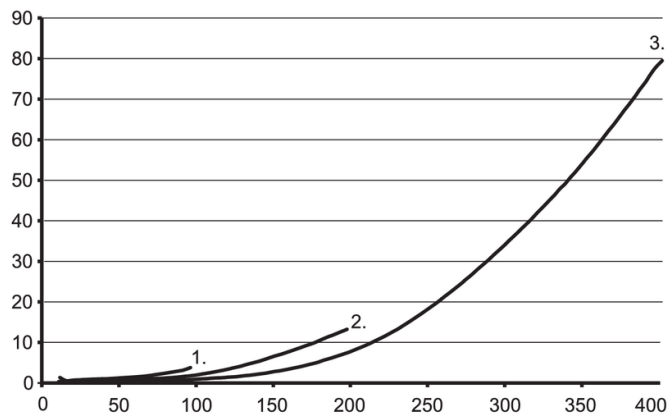
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



## Diffuse reflection sensor with background suppression

OJH-FPKG/FO/0,15M/US

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)