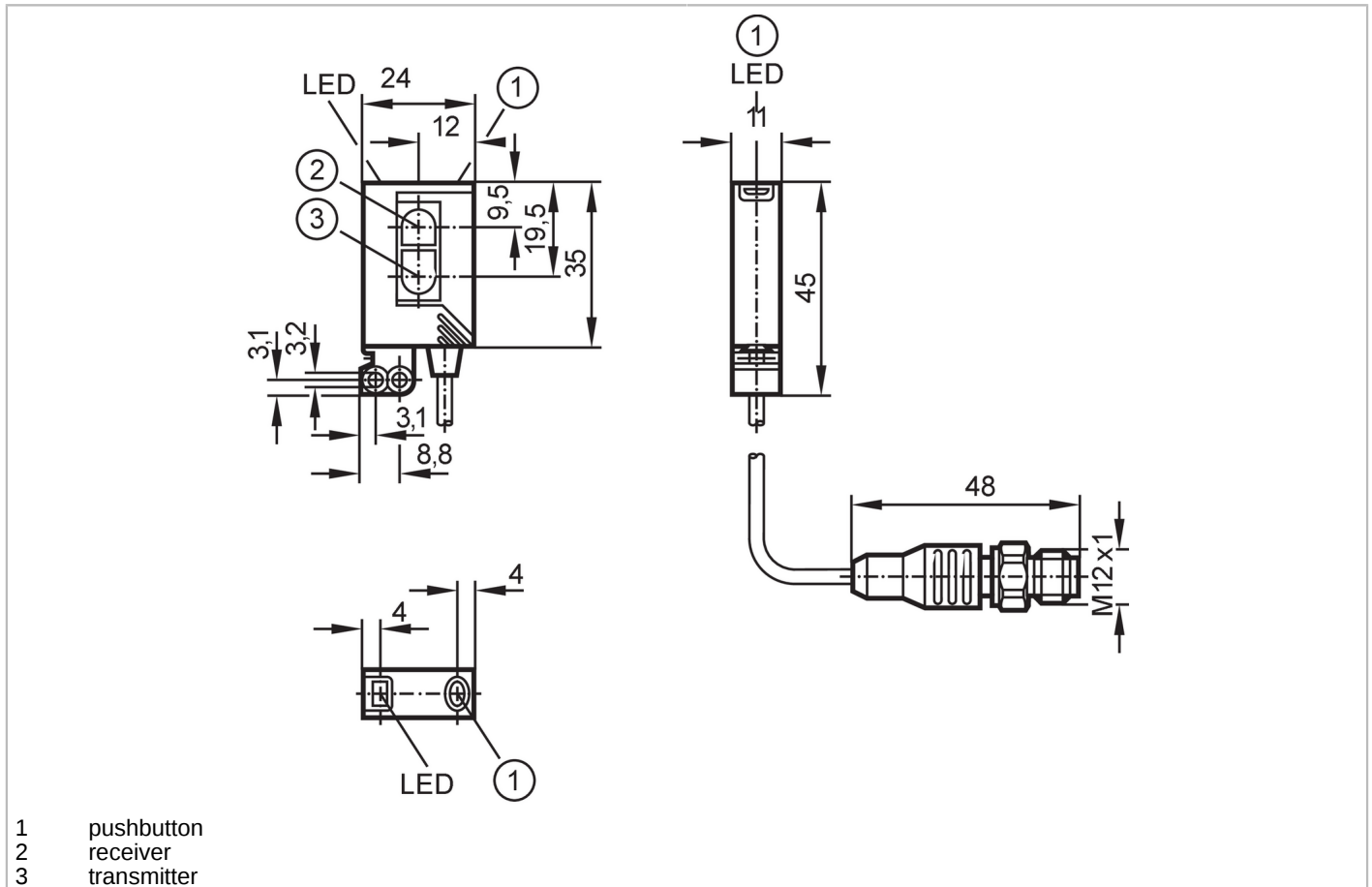




Diffuse reflection sensor with background suppression

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 |



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 |

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] | 40.9 |
| 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 |

Displays / operating elements

| | | |
|-----------------|------------------|-----------------|
| Display | switching status | 1 x LED, yellow |
| | operation | 1 x LED, green |
| Electronic lock | yes | |

Accessories

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

Remarks

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

Electrical connection

Cable: 0.15 m, PVC

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated; Moulded body: Hytrel 8068; Locking: stainless steel (316L/1.4404)



Diffuse reflection sensor with background suppression

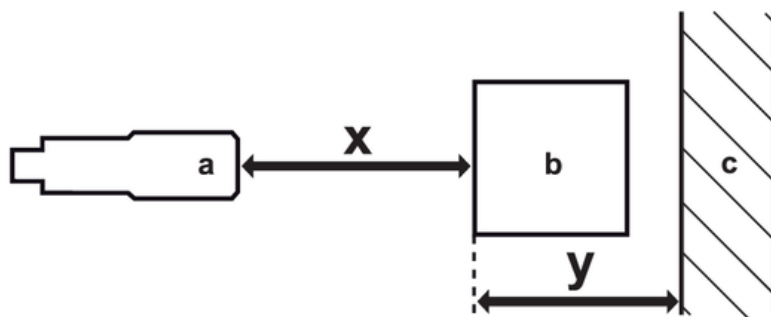
OJH-FPKG/FO/0,15M/US

Connection



2 Teach

Diagrams and graphs



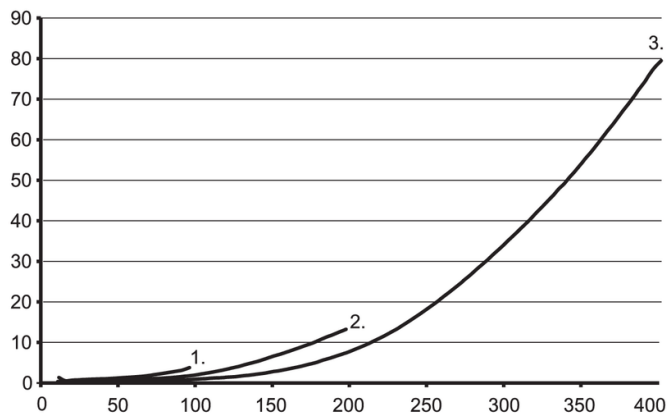
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



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)