

1: pushbutton

Receiver in upper lens, transmitter in lower lens



Product characteristics

Diffuse reflection sensor

Rectangular, plastics

Quick disconnect

Electronic lock

Background suppression

External teach function

Side sensing

Range 15...400mm (Range referred to white paper 200 x 200 mm, 90 % remission)

adjustable

Electrical data

Electrical design

DC PNP

Operating voltage [V]

10...30 DC

Current consumption [mA]

25

Type of light

red light 660 nm

Protection class

III

Reverse polarity protection

yes

Outputs

Output function

light-on / dark-on programmable

Voltage drop [V]

< 2.5

Current rating [mA]

200

Short-circuit protection

yes (non-latching)

Overload protection

yes

Switching frequency [Hz]

1000

Monitoring range

Range [mm]

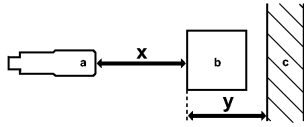
15...400 (Range referred to white paper 200 x 200 mm, 90 % remission)

Light spot diameter [mm]

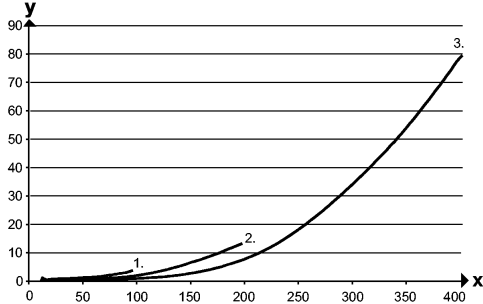
< 18 ( Range 150 mm )

Background suppression chart

**OJ5148 - Diffuse reflection sensor - eclass: 27270904 / 27-27-09-04**



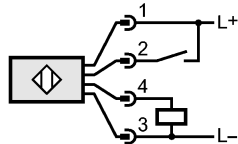
a: sensor  
 b: object  
 c: background  
 x: distance sensor / object  
 y: min. distance object / background



Values in [mm]  
 1 = object black (6 % remission), background white (90 % remission)  
 2 = object gray (18 % remission), background white (90 % remission)  
 3 = object white (90 % remission), background white (90 % remission)

|                                      |  |
|--------------------------------------|--|
| <b>Environment</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>               |  |
| Housing materials                    | housing: ABS; LED window: SEPS; pushbutton: SEPS |
| Lens material                        | PMMA   |
| Weight [kg]                          | 0.035  |
| <b>Displays / operating elements</b> |  |
| Output status indication LED         | yellow   |
| Power LED                            | green  |
| <b>Electrical connection</b>         |  |
| Connection                           | M8 connector                                     |

**Wiring**



**2: Teach**

|                        |   |
|------------------------|---|
| <b>Accessories</b>     |   |
| Accessories (included) | 2 mounting screws; 2 spring washers; 2 nuts |
| <b>Remarks</b>         |   |
| Remarks                | cULus - Class 2 source required             |
| Pack quantity [piece]  | 1   |