

1: pushbutton  
Receiver in upper lens  
transmitter in lower lens



Product characteristics  
Diffuse reflection sensor  
Rectangular, plastics  
Quick disconnect  
Electronic lock  
Visible laser light, LASER CLASS 1  
LASER diffuse reflection sensor  
Background suppression  
External teach function  
Front sensing

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

Electrical data

Electrical design

DC NPN

Operating voltage [V]

10...30 DC

Current consumption [mA]

13

Type of light

red light 650 nm

Life expectancy typ. [h]

50000

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

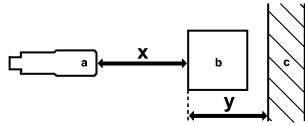
Smallest detectable object [mm]

2

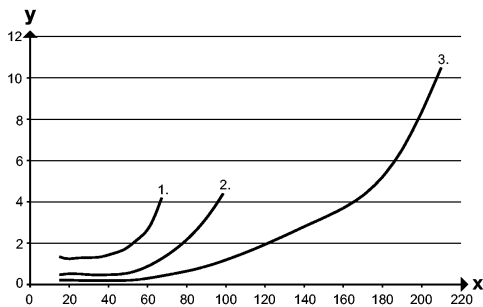
**OJ5053 - Diffuse reflection sensor - eclass: 27270904 / 27-27-09-04**

Light spot diameter [mm] 2 x 1 ( vertical )

**Background suppression chart**



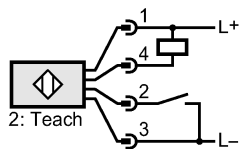
- a: sensor
- b: object
- c: background
- x: distance sensor / object
- y: min. distance object / background



- 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)

Environment	
Ambient temperature [°C]	-10...60
Protection	IP 67
Tests / approvals	
EMC	EN 60947-5-2
MTTF [Years]	516
Mechanical data	
Housing materials	housing: ABS; fixture: diecast zinc; LED window: SEPS; pushbutton: SEPS
Lens material	PMMA
Weight [kg]	0.046
Displays / operating elements	
Output status indication LED	yellow
Power LED	green
Electrical connection	
Connection	M8 connector

**Wiring**



Accessories	
Accessories (included)	Basic clip; E20964; 2 mounting screws; M3 x 16; 2 spring washers; 2 nuts
Remarks	
Remarks	Laser light CLASS 1 LASER PRODUCT IEC 60825-1 : 2007 complies with 21 CFR 1040.10 except for deviations pursuant to Laser Notice No. 50, dated June 2007 cULus - Class 2 source required
Pack quantity [piece]	1

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