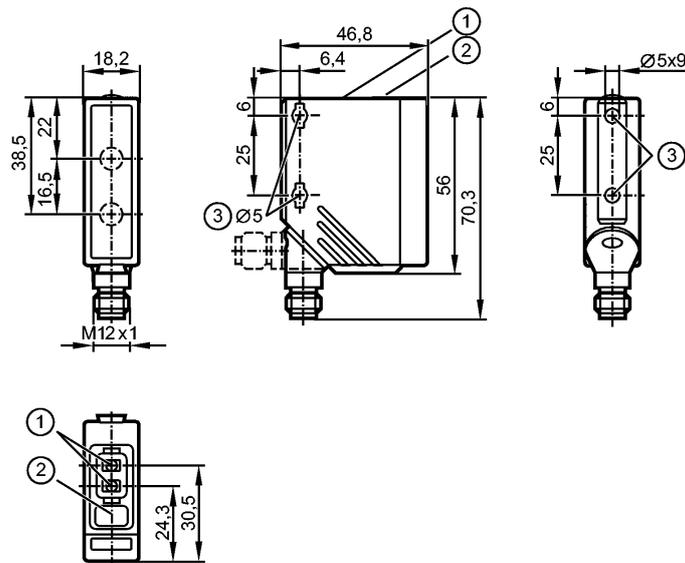


O5D150

O5DLCPKG/US

Photoelectric sensors



- 1: setting pushbuttons
- 2: 3-digit alphanumeric display
- 3: When a M5 mounting screw is used, the max. tightening torque is 2 Nm.



Product characteristics

Photoelectric distance sensor
Quick disconnect
Background suppression
Visible laser light, LASER CLASS 1
3-digit alphanumeric display [cm]
adjustable
Measuring range 0.03...2 m
Background suppression ...20 m

Electrical data

Electrical design	DC PNP
Operating voltage [V]	10...30 DC; cULus - Class 2 source required
Current consumption [mA]	75 (24 V)
Life expectancy typ. [h]	50000
Type of light	red light 650 nm
Protection class	III
Reverse polarity protection	yes

Outputs

Output function	2 switching outputs normally open / closed complementary
Current rating [mA]	2 x 100
Short-circuit protection	yes (non-latching)
Overload protection	yes
Switching frequency [Hz]	11

Monitoring range

Background suppression	...20 m
Light spot diameter [mm]	< 5 (Range 2 m)
Hysteresis [%]	< 4; black (6 % remission) at max. range

O5D150

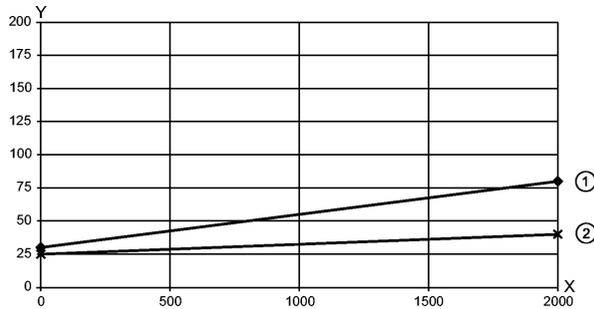
O5DLCPKG/US

Photoelectric sensors

Hysteresis graph

x: distance in [mm]

y: Hysteresis in [mm]



1 = background black (6 % remission)

2 = background white (90 % remission)

Measuring / setting range

Measuring range	[m]	0.03...2
Sampling rate	[Hz]	33

Interfaces

IO-Link Device		
Transfer type		COM2 (38.4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
IO-Link Device ID		372d / 00 01 74h
Profiles		Smart Sensor: Sensor Identification; Binary Data Channel; Process Value; Sensor Diagnosis
SIO mode		yes
Process data analogue		1
Process data binary		1
Min. process cycle time	[ms]	6.6

Environment

Immunity to extraneous light	[klx]	10; on the object
Ambient temperature	[°C]	-25...60, at ta < -10 °C warm-up is necessary, laser is off
Protection		IP 65 / IP 67

Tests / approvals

EMC		EN 60947-5-2
MTTF	[Years]	151

Mechanical data

Housing materials		housing: PA; Front framework: high-grade stainless steel; operator interface: TPU (urethane); lens: PMMA
Weight	[kg]	0.078

Displays / operating elements

Display		Switching status LED yellow switching output pin 4 Power LED green Display 3-digit alphanumeric display
Display unit		cm

Electrical connection

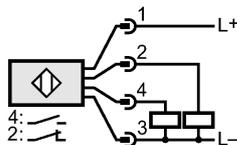
Connection		M12 connector
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Wiring

O5D150

O5DLCPKG/US

Photoelectric sensors



4: OUT / IO-Link

Remarks

Remarks	Laser light CLASS 1 LASER PRODUCT IEC 60825-1 : 2007 IEC 60825-1 : 2014 complies with 21 CFR 1040.10 except for deviations pursuant to Laser Notice No. 50, dated June 2007
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Pack quantity	[piece]	1
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Other data

Accuracy

- extraneous light on the object max.: 10 klx

distance	Accuracy	
	black (6 % remission)	white (90 % remission)
0 mm	± 25 mm	± 25 mm
500 mm	± 25 mm	± 25 mm
1000 mm	± 25 mm	± 25 mm
1500 mm	± 40 mm	± 30 mm
2000 mm	± 50 mm	± 30 mm