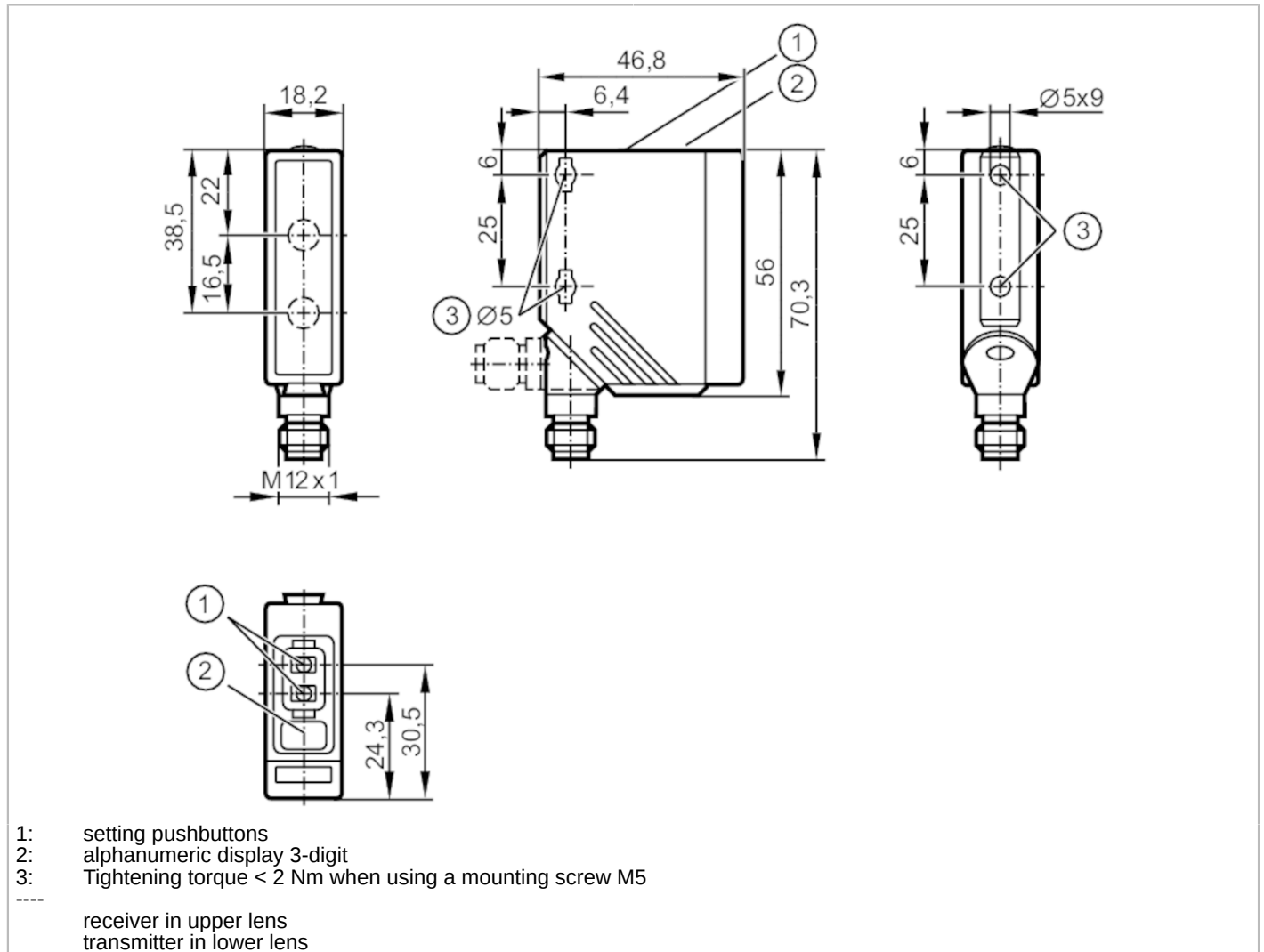


O5D150



Photoelectric distance sensor

O5DLCPKG/US



Product characteristics	
Type of light	red light
Laser protection class	1
Housing	rectangular
Application	
Special feature	Background suppression
Electrical data	
Operating voltage [V]	10...30 DC; ("supply class 2" to cULus)
Current consumption [mA]	75; (24 V)
Protection class	III
Reverse polarity protection	yes
Type of light	red light
Wave length [nm]	650
Typ. lifetime [h]	50000

O5D150



Photoelectric distance sensor

O5DLCPKG/US

Inputs / outputs					
Number of inputs and outputs	Number of digital outputs: 2				
Outputs					
Total number of outputs	2				
Electrical design	PNP				
Number of digital outputs	2				
Output function	normally open / normally closed; (complementary)				
Max. current load per output [mA]	100				
Switching frequency DC [Hz]	11				
Short-circuit protection	yes				
Type of short-circuit protection	pulsed				
Overload protection	yes				
Detection zone					
Max. light spot diameter [mm]	5				
Light spot dimensions refer to	2 m				
Detection range hysteresis [%]	< 4				
Note on monitoring range hysteresis	black 6% remission				
Background suppression available	yes				
Background suppression [m]	< 20				
Measuring/setting range					
Measuring range [m]	0.03...2				
Sampling rate [Hz]	33				
Interfaces					
Communication interface	IO-Link				
Transmission type	COM2 (38,4 kBaud)				
IO-Link revision	1.1				
SDCI standard	IEC 61131-9				
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				
Supported DeviceIDs	<table><thead><tr><th>Type of operation</th><th>DeviceID</th></tr></thead><tbody><tr><td>default</td><td>372</td></tr></tbody></table>	Type of operation	DeviceID	default	372
Type of operation	DeviceID				
default	372				
Operating conditions					
Ambient temperature [°C]	-25...60				
Note on ambient temperature	at ta < -10 °C warm-up is necessary, laser is off				
Protection	IP 65; IP 67				
Max. immunity to extraneous light [klx]	10; (on the object)				

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Tests / approvals		
EMC	EN 60947-5-2	
Vibration resistance	DIN EN 60068-2-6	10 g (10...55 Hz) / 120 min. per axis (x, y, z)
Shock resistance	DIN EN 60068-2-27	50 g 6 shocks / 11 ms half-sine (x, y, z)
Laser protection class		1
Notes on laser protection	Caution:	laser light
	laser class:	1
		EN / IEC60825-1:2007
		EN / IEC60825-1:2014
		Complies with 21 CFR 1040.10 except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56, dated May 8, 2019.
MTTF	[years]	151

Mechanical data		
Weight	[g]	61
Housing		rectangular
Dimensions	[mm]	56 x 18.2 x 46.8
Materials		housing: PA; bezel: stainless steel; operator interface: TPU; lens: PMMA
Lens alignment		side lens

Displays / operating elements		
Display	switching status	LED, yellow switching output PIN 4
	operation	LED, green
	display	alphanumeric display, 3-digit
Display unit		cm

Remarks		
Pack quantity		1 pcs.

Electrical connection

Connector: 1 x M12; coding: A



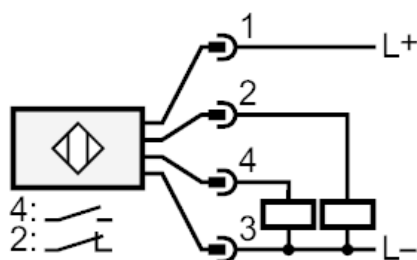
O5D150



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Connection



4: OUT / IO-Link

Other data

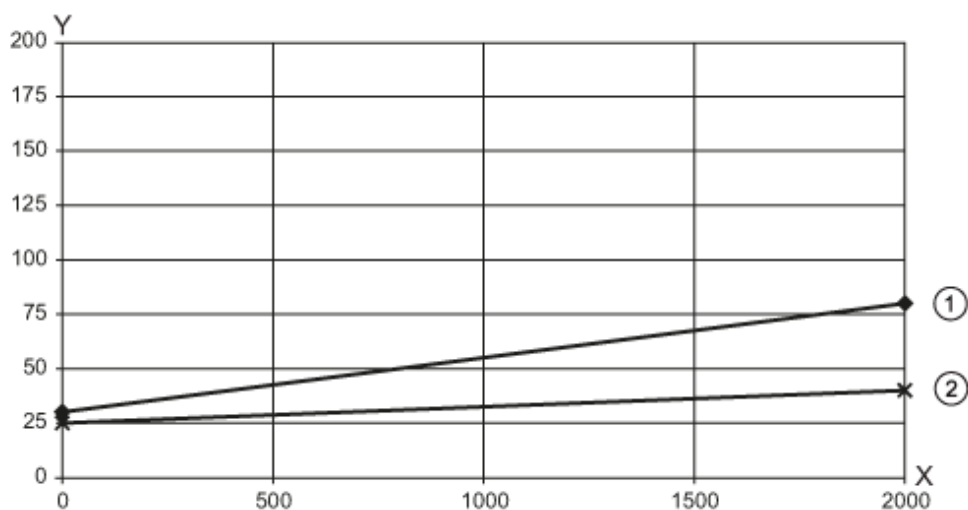
accuracy

	accuracy			
distance	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		

Extraneous light on the object < 10 klx

Diagrams and graphs

hysteresis graph



x: distance [mm]

y: Hysteresis [mm]

1 = background black 6% remission

2 = background white 90% remission