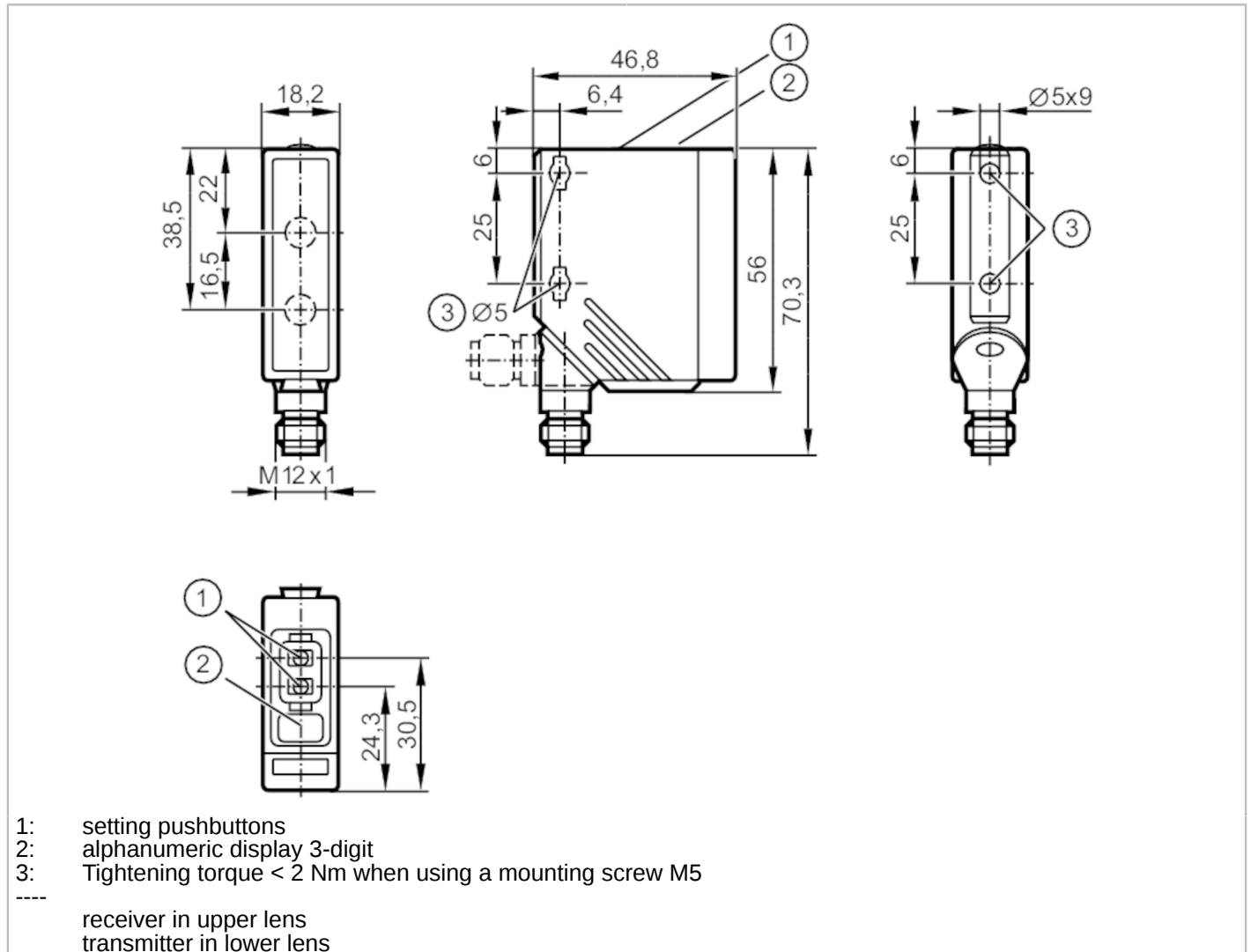


# O5D150



## Photoelectric distance sensor

O5DLCPKG/US



Product characteristics	
Electrical design	PNP
Output function	normally open / normally closed; (complementary)
Communication interface	IO-Link
Housing	rectangular
Dimensions [mm]	56 x 18.2 x 46.8
Application	
Special feature	Background suppression

# O5D150



## Photoelectric distance sensor

O5DLCPKG/US

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
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

# O5D150



## Photoelectric distance sensor

O5DLCPKG/US

Interfaces	
Communication interface	IO-Link
Transmission 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

Operating conditions	
Ambient temperature [°C]	-25...60
Note on ambient temperature	at $t_a < -10$ °C warm-up is necessary, laser is off
Protection	IP 65; IP 67
Max. immunity to extraneous light [klx]	10; (on the object)

Tests / approvals		
EMC	EN 60947-5-2	
Laser protection class	1	
Notes on laser protection	Caution: laser class:	laser light 1
		EN / IEC60825-1:2007
		EN / IEC60825-1:2014
		Complies with 21 CFR 1040 except for deviations pursuant to Laser Notice No. 50, dated June 2007.
MTTF [years]	151	

Mechanical data	
Weight [g]	85
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	

# O5D150

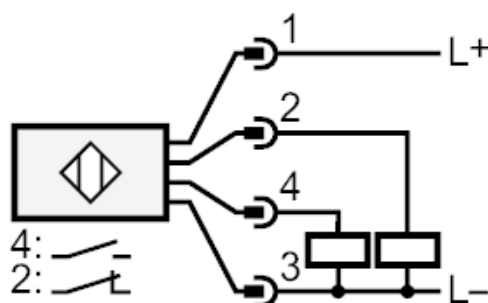


## Photoelectric distance sensor

O5DLCPKG/US



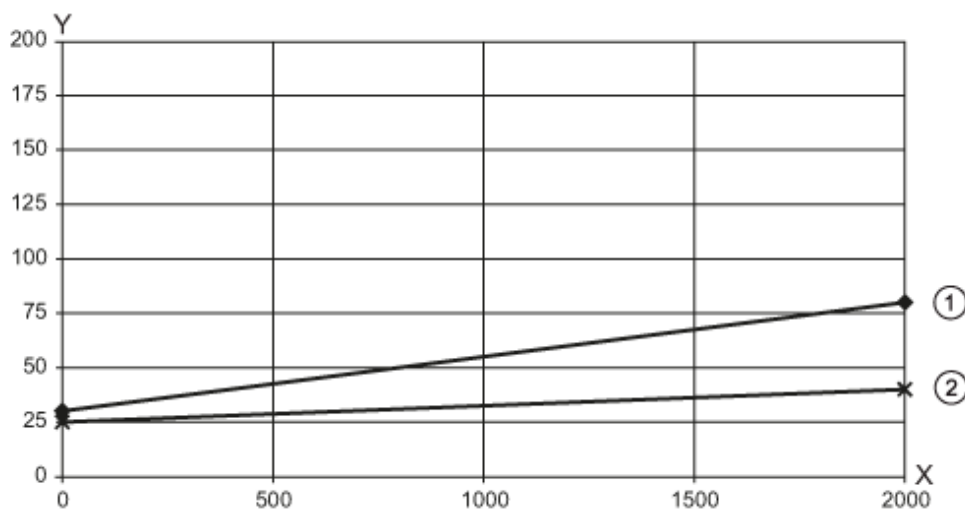
### Connection



4: OUT / IO-Link

### Diagrams and graphs

hysteresis graph



x: distance [mm]

y: Hysteresis [mm]

1 = background black 6% remission

2 = background white 90% remission