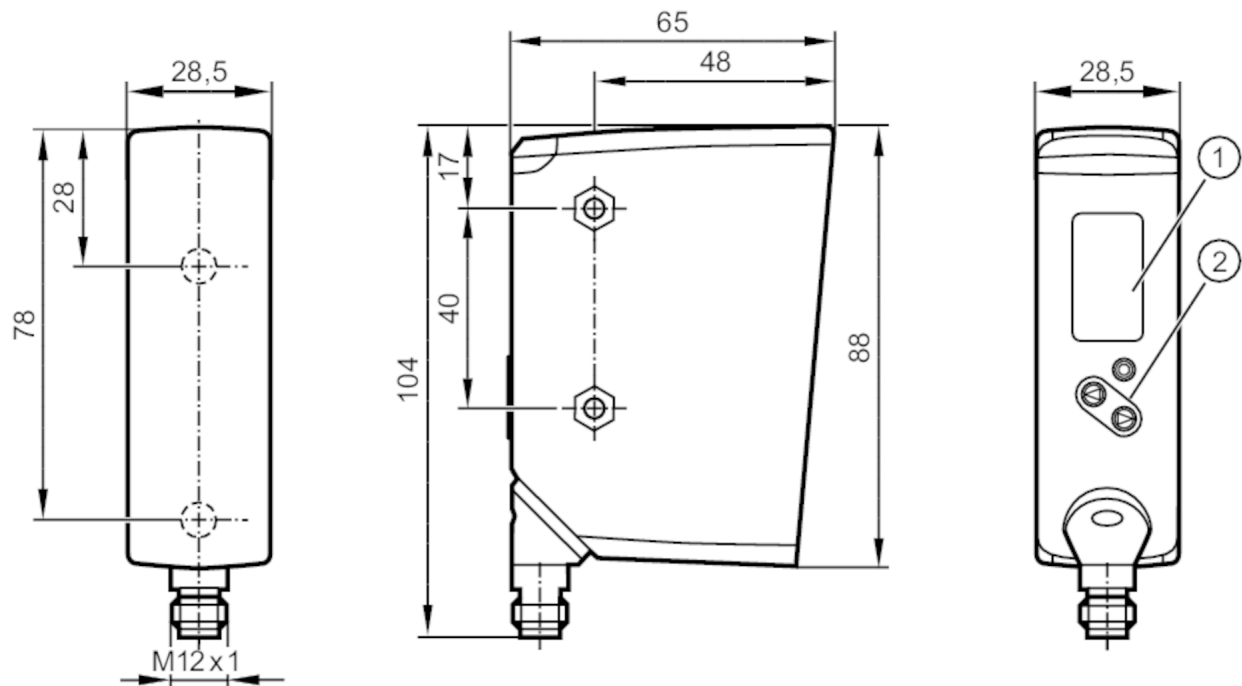


OPD100



Profile sensor

OPDLFPKG



- 1: Display
2: programming buttons
receiver in upper lens
transmitter in lower lens



Product characteristics

Type of light	red light
Laser protection class	1
Housing	rectangular

Electrical data

Operating voltage	[V]	10...30 DC; ("supply class 2" to cULus)
Current consumption	[mA]	< 200; (10 V)
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	2
Type of light		red light
Wave length	[nm]	650

Inputs / outputs

Number of inputs and outputs	Number of digital inputs: 1; Number of digital outputs: 2
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Inputs

Trigger	external
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OPD100



Profile sensor

OPDLFPKG

Number of digital inputs	1
Outputs	
Electrical design	PNP/NPN; (parameterisable)
Number of digital outputs	2
Output function	2 x normally open / normally closed; (parameterisable)
Max. current load per output [mA]	100
Type of short-circuit protection	pulsed
Overload protection	yes
Measuring/setting range	
Measuring distance (Z-direction) [mm]	150...300
Width of the measuring range (X-direction) at min. measuring distance [mm]	45; (distance = 150mm)
Width of the measuring range (X-direction) at max. measuring distance [mm]	90; (distance = 300mm)
Sampling rate [Hz]	5
Accuracy / deviations	
Measured value resolution	Z-direction 200 µm X-direction 250 µm
Accuracy	Z-direction ± 500 µm X-direction ± 500 µm background white (90 % remission)
Software / programming	
Number of profiles which can be stored	1
Number of regions of interest	1
Interfaces	
Communication interface	IO-Link
Transmission type	COM3 (230,4 kBaud)
IO-Link revision	1.1
SDCI standard	IEC 61131-9
Profiles	Common - I&D Identification and Diagnosis Function Multiple switching signal Function Measurement data, standard resolution
SIO mode	yes
Required master port type	A
Min. process cycle time [ms]	2.3
IO-Link process data (cyclical)	function process value device status binary switching information bit length 16 4 1
IO-Link functions (acyclical)	operating hours counter; number of trigger events; ROI setting
Supported DeviceIDs	Type of operation default DeviceID 1260



Profile sensor

OPDLFPKG

Note For further information please see the IODD PDF file under "Downloads"

Operating conditions

Ambient temperature	[°C]	-10...55
Storage temperature	[°C]	-40...60
Protection		IP 65
Max. immunity to extraneous light	[klx]	20

Tests / approvals

EMC	EN 60947-5-2	
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]	155
UL approval	Ta	-10...55 °C
	Enclosure type	Type 1
	power supply	Class 2
	File number UL	E174191

Mechanical data

Weight	[g]	535.8
Housing		rectangular
Dimensions	[mm]	88 x 28.5 x 65
Materials		housing: diecast zinc; PPSU; ABS; PMMA; PBT / PC; EPDM; front pane: PMMA

Displays / operating elements

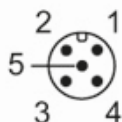
Display	switching status	1 x LED, yellow
	Display operation	1 x LED, green
		colour display

Remarks

Pack quantity	1 pcs.
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Electrical connection

Connector: 1 x M12; coding: A



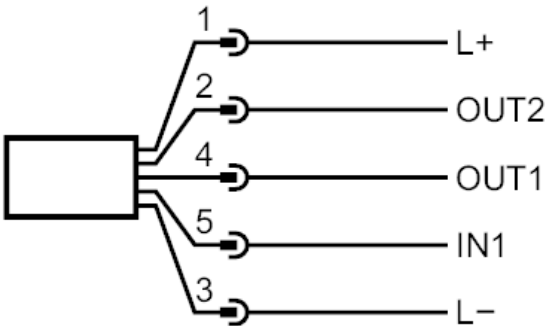
OPD100



Profile sensor

OPDLFPKG

Connection



- 4: OUT1 switching output or IO-Link
- 2: OUT2 switching output
- 5: trigger input

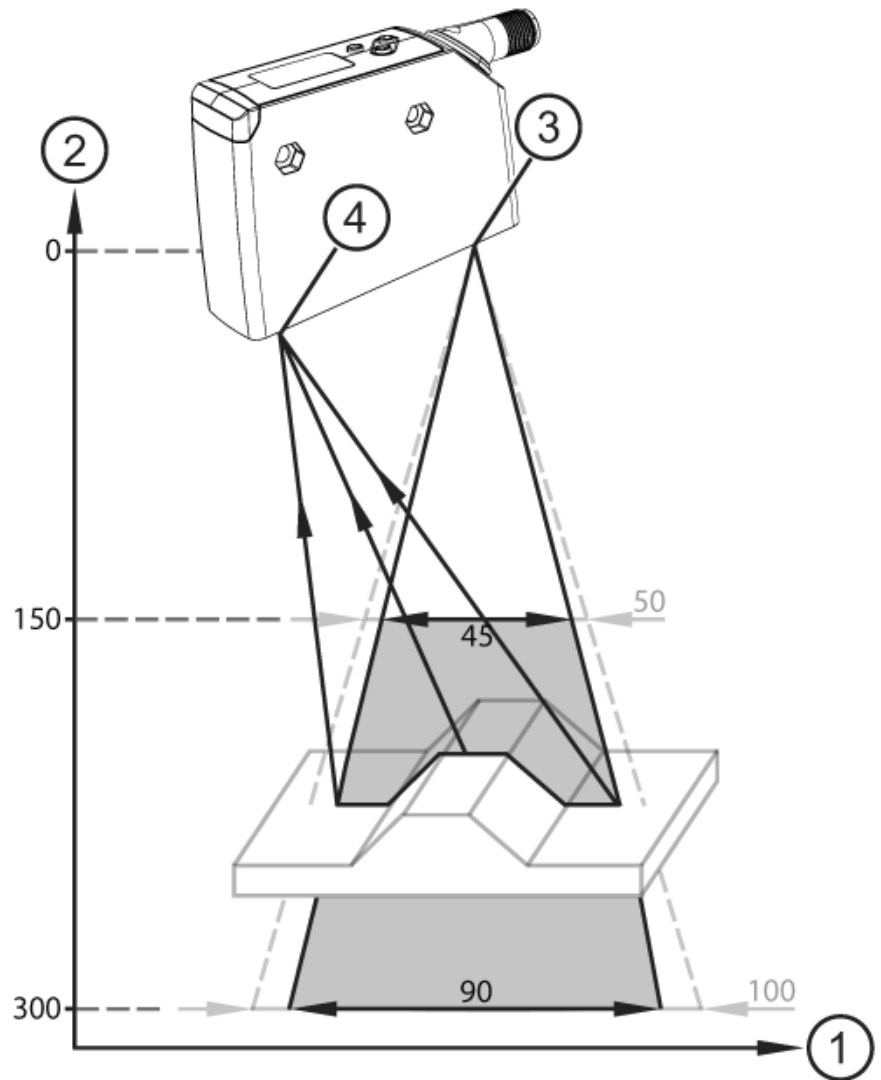
Other data

light line

measuring distance (Z-direction)	light line
150 mm	50 x 1 mm
300 mm	100 x 1 mm
The values apply at	
Extraneous light on the object	< 20 klx
constant ambient conditions	23 °C / 960 hPa
minimum power-on time in minutes	10



Diagrams and graphs



- 1 X-direction
- 2 Z-direction
- 3 laser beam aperture
- 4 receiver