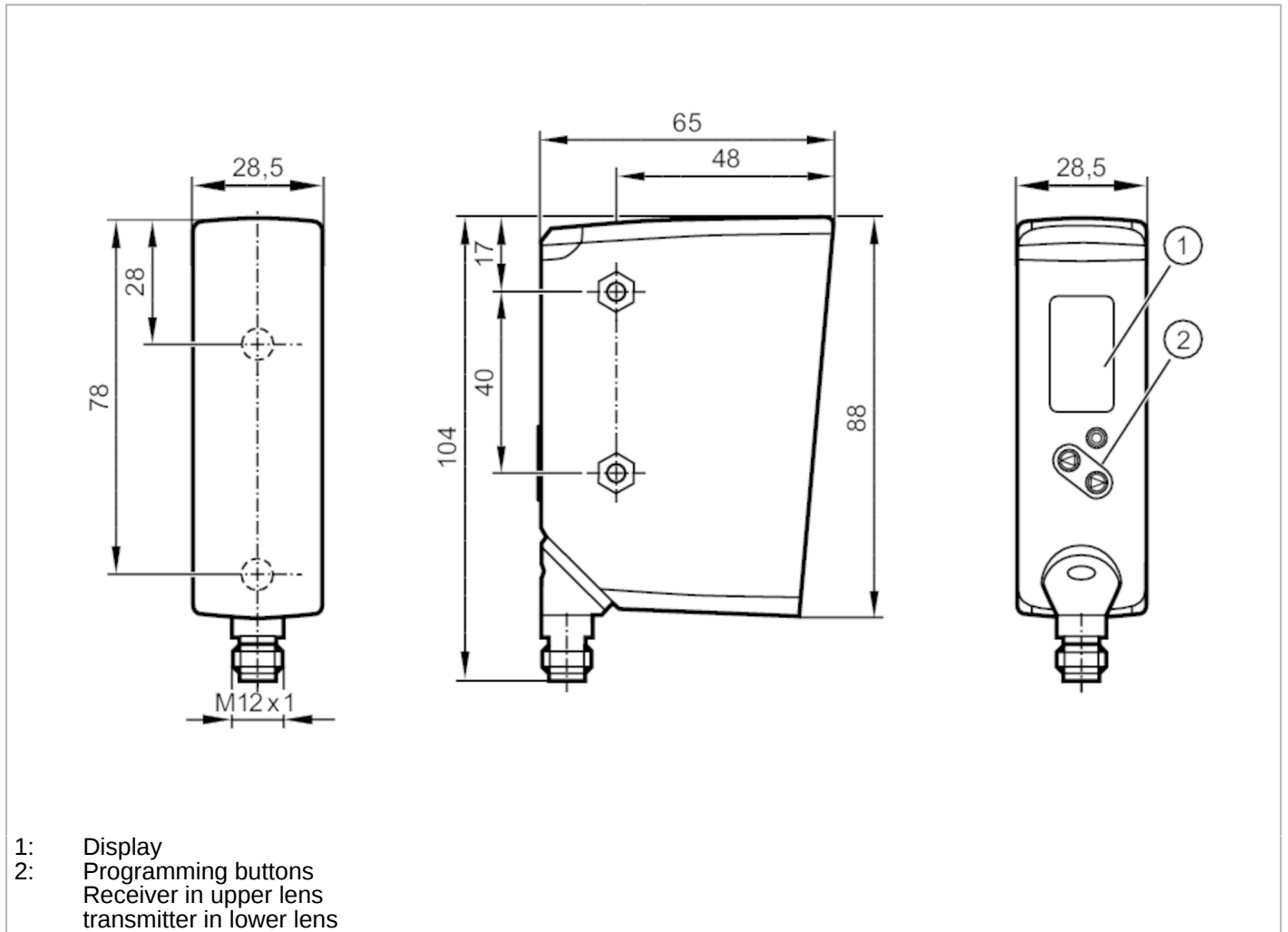


# OPD100



## Profile sensor

OPDLFPKG



### Product characteristics

Type of light	red light
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### Electrical data

Operating voltage	[V]	10...30 DC; (cULus - Class 2 source required)
Current consumption	[mA]	< 200
Current consumption reference voltage	[V]	10
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
------------------------------	---

### Inputs

Trigger	external
Number of digital inputs	1

# OPD100



## Profile sensor

OPDLFPKG

Outputs		
Electrical design	PNP/NPN; (configurable)	
Number of digital outputs	2	
Output function	2 x normally open / normally closed; (configurable)	
Max. current load per output [mA]	100	
Type of short-circuit protection	yes (non-latching)	
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	Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis	
SIO mode	yes	
Required master port class	A	
Min. process cycle time [ms]	2.3	
IO-Link process data (cyclical)	Function	bit length
	process value	16
	device status	4
	binary switching information	1
IO-Link functions (acyclical)	operating hours counter; number of trigger events; ROI setting	
Supported DeviceIDs	Type of operation	DeviceID
	default	1260
Note	For further information please see the IODD PDF file at "Downloads"	

# OPD100



## Profile sensor

OPDLFPKG

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 except for deviations pursuant to Laser Notice No. 50, dated June 2007.
MTTF	[years]	155
UL approval	Ta	-10...55 °C
	Enclosure type	Type 1
	voltage supply	Class 2
	File number UL	E174191

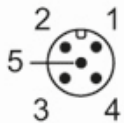
Mechanical data		
Weight	[g]	535.8
Dimensions	[mm]	88 x 65 x 28.5
Material	Housing: diecast zinc; PPSU; ABS; PMMA; PBT / PC; EPDM; front lens: PMMA	

Displays / operating elements		
Display	Switching status	1 x LED, yellow
	Display operation	1 x LED, green
		Color display

Remarks		
Pack quantity		1 pcs.

### Electrical connection

Connector: 1 x M12; coding: A



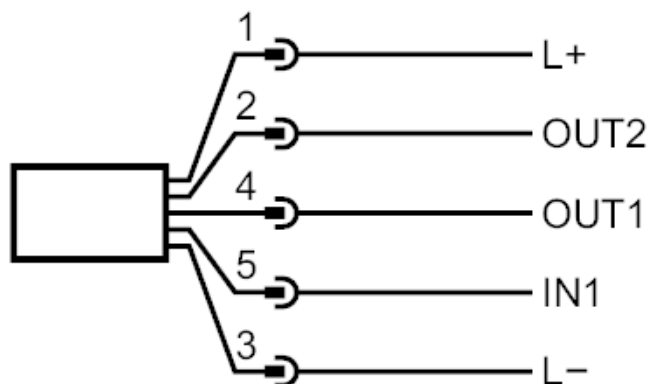
# OPD100



## 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

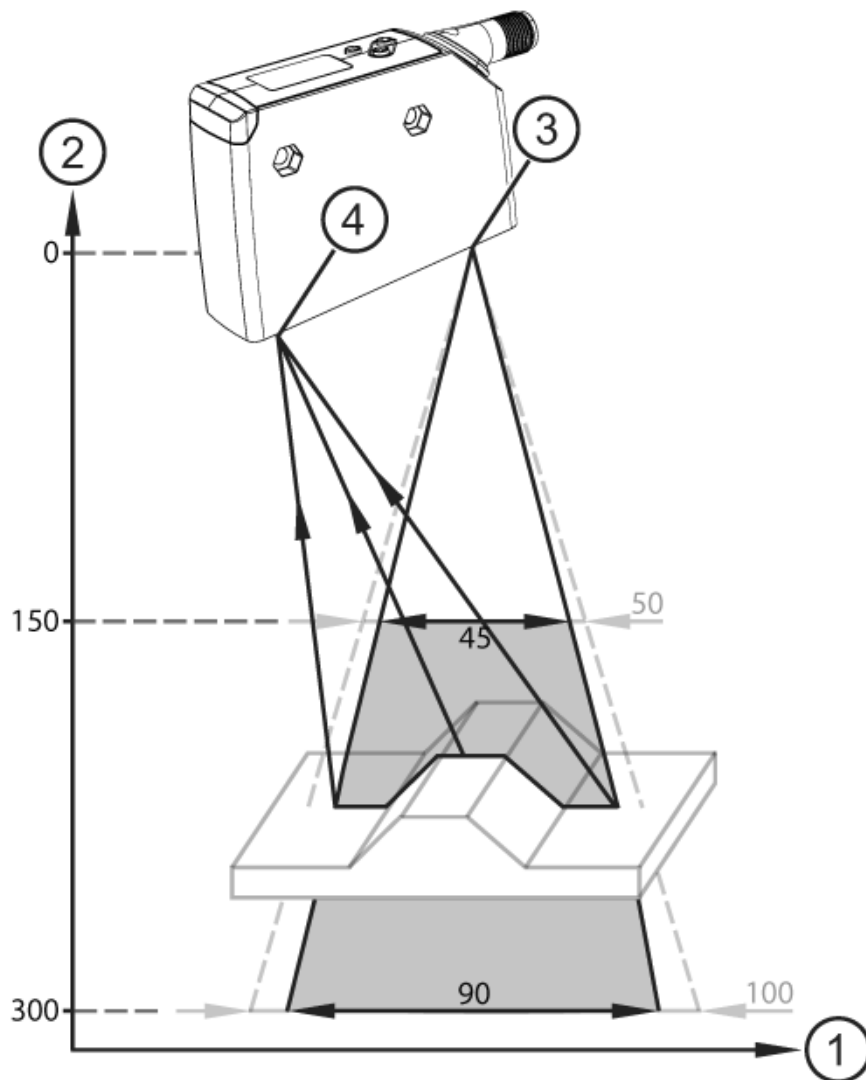
# OPD100

## Profile sensor

OPDLFPKG



### Diagrams and graphs



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