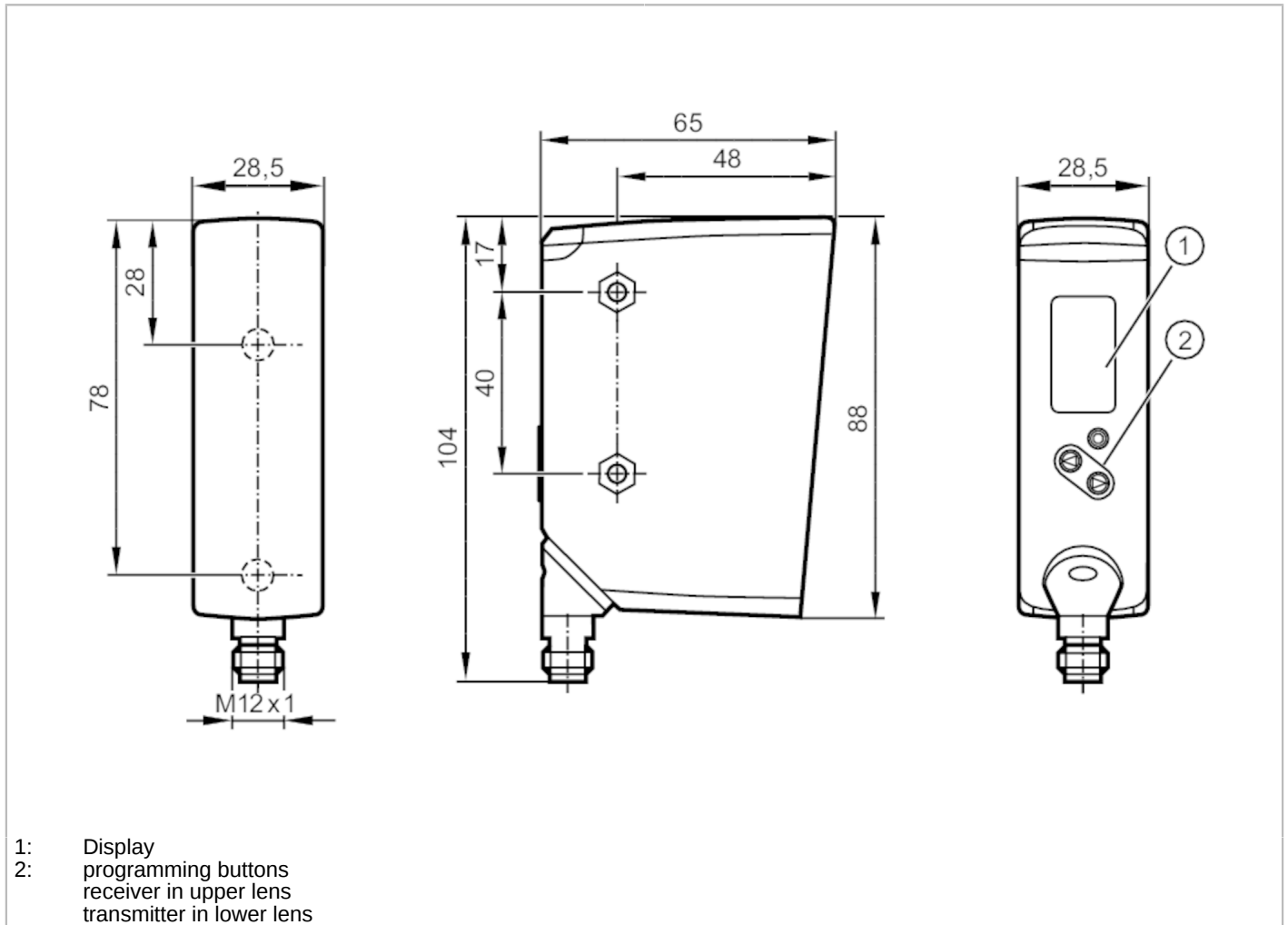


# OPD100



## Profile sensor

OPDLFPKG



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
Inputs	
Trigger	external

# OPD100



## Profile sensor

OPDLFPKG

Number of digital inputs	1								
<b>Outputs</b>									
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								
<b>Measuring/setting range</b>									
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								
<b>Accuracy / deviations</b>									
Measured value resolution	Z-direction 200 µm X-direction 250 µm								
Accuracy	Z-direction ± 500 µm X-direction ± 500 µm background white (90 % remission)								
<b>Software / programming</b>									
Number of profiles which can be stored	1								
Number of regions of interest	1								
<b>Interfaces</b>									
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)	<table border="1"><thead><tr><th>function</th><th>bit length</th></tr></thead><tbody><tr><td>process value</td><td>16</td></tr><tr><td>device status</td><td>4</td></tr><tr><td>binary switching information</td><td>1</td></tr></tbody></table>	function	bit length	process value	16	device status	4	binary switching information	1
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	<table border="1"><thead><tr><th>Type of operation</th><th>DeviceID</th></tr></thead><tbody><tr><td>default</td><td>1260</td></tr></tbody></table>	Type of operation	DeviceID	default	1260				
Type of operation	DeviceID								
default	1260								

# OPD100



## 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

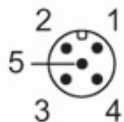
Mechanical data		
Weight	[g]	535.8
Housing		rectangular
Dimensions	[mm]	88 x 28.5 x 65
Materials		housing: diecast zinc; PPSU; ABS; PMMA; PBT / PC; EPDM; front pane: PMMA

Displays / operating elements		
Display	switching status	1 x LED, yellow
	Display operation	1 x LED, green
		colour display

Remarks		
Pack quantity		1 pcs.

## Electrical connection

Connector: 1 x M12; coding: A



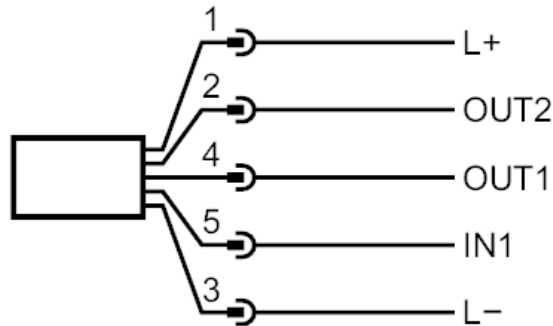
# OPD100



## 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

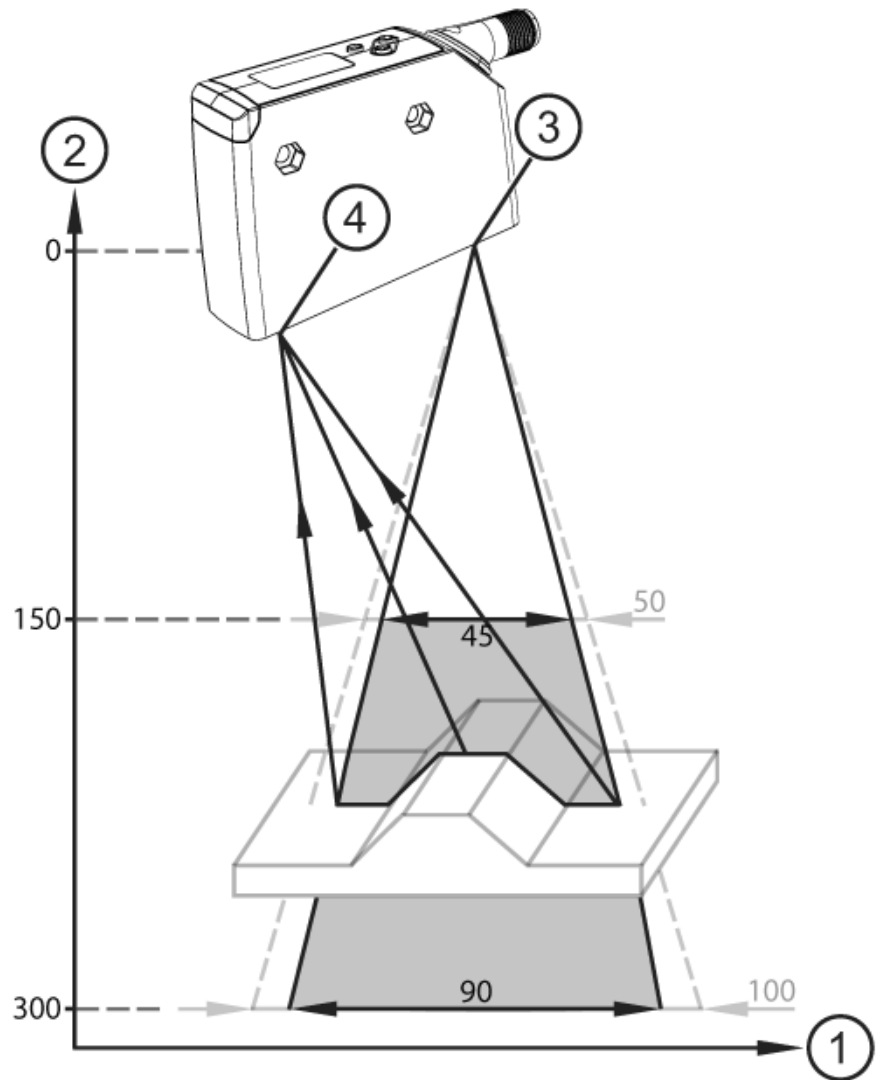
# OPD100

## Profile sensor

OPDLFPKG



### Diagrams and graphs



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