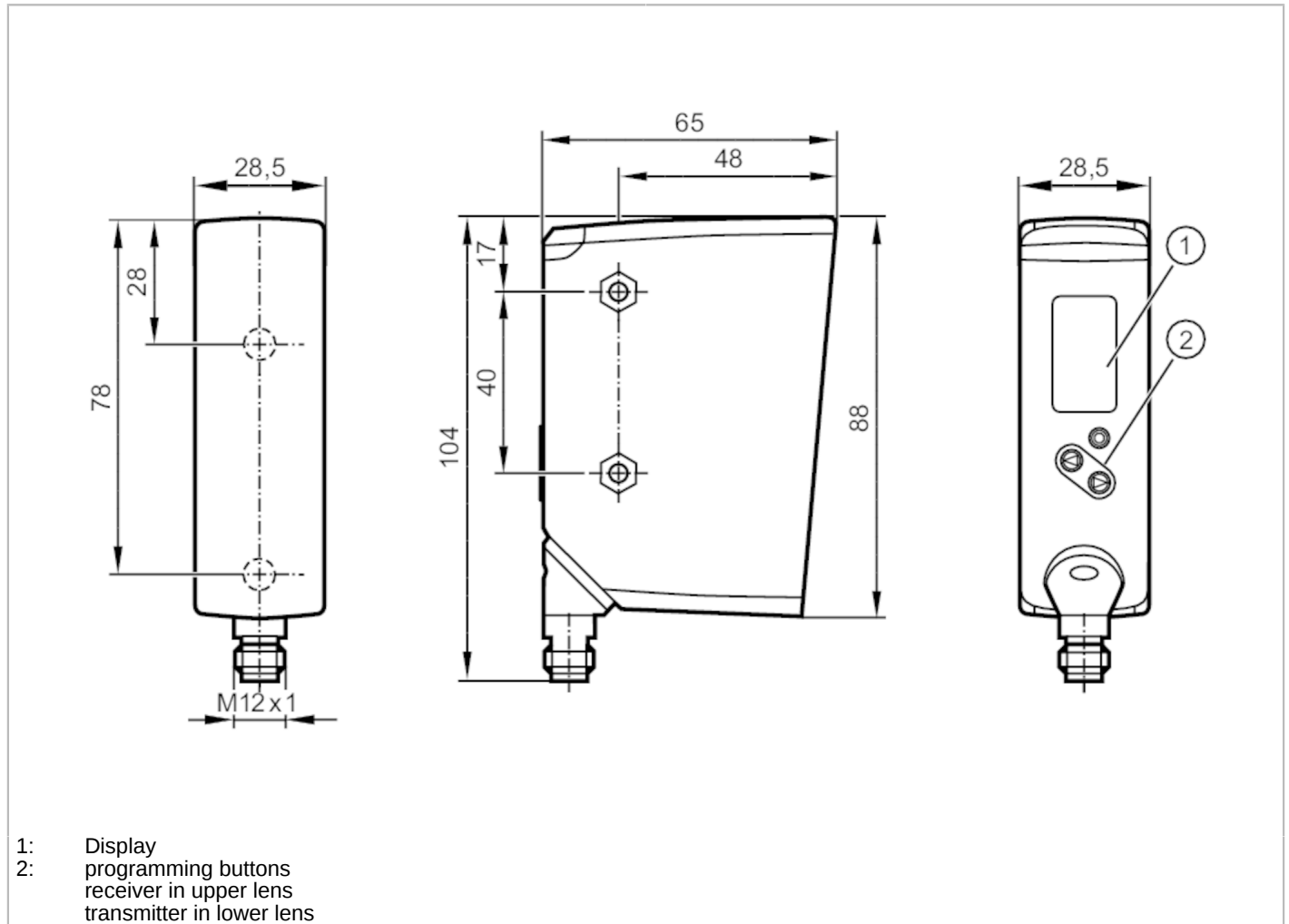


OPD100



Profile sensor

OPDLFPKG



| Product characteristics | |
|------------------------------|---|
| Type of light | red light |
| 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 |
| Number of digital inputs | 1 |

OPD100



Profile sensor

OPDLFPKG

| 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 | Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis | |
| SIO mode | yes | |
| Required master port type | 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 under "Downloads" | |
| Operating conditions | | |
| Ambient temperature [°C] | -10...55 | |

OPD100



Profile sensor

OPDLFPKG

| | | |
|-----------------------------------|-------|----------|
| 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 |
| | power supply | Class 2 |
| | File number UL | E174191 |

Mechanical data

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

Displays / operating elements

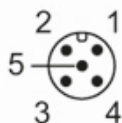
| | | |
|---------|-------------------|-----------------|
| Display | switching status | 1 x LED, yellow |
| | Display operation | 1 x LED, green |
| | | colour display |

Remarks

| | |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

Electrical connection

Connector: 1 x M12; coding: A



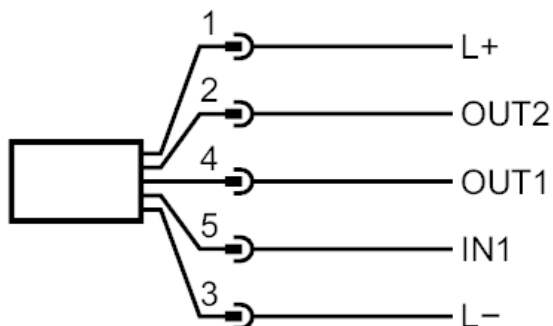
OPD100



Profile sensor

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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 |

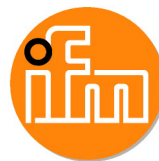
The values apply at

| | |
|----------------------------------|-----------------|
| Extraneous light on the object | < 20 klx |
| constant ambient conditions | 23 °C / 960 hPa |
| minimum power-on time in minutes | 10 |

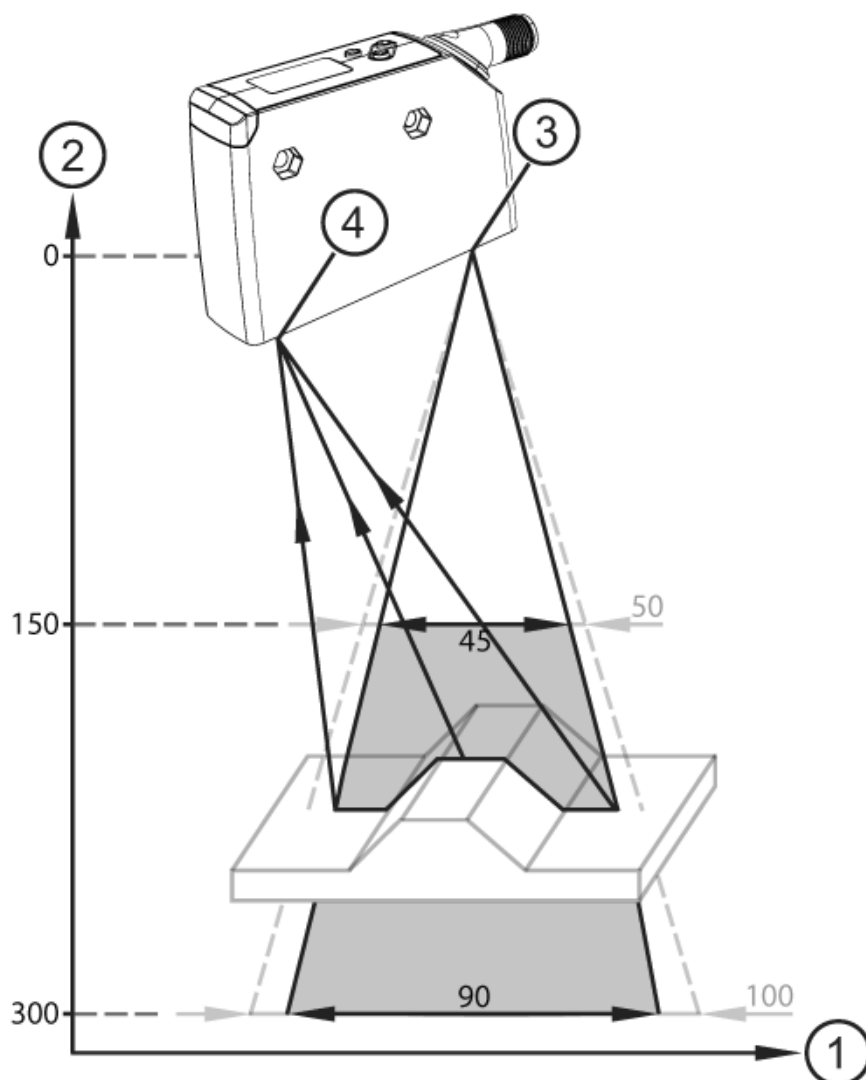
OPD100

Profile sensor

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Diagrams and graphs



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