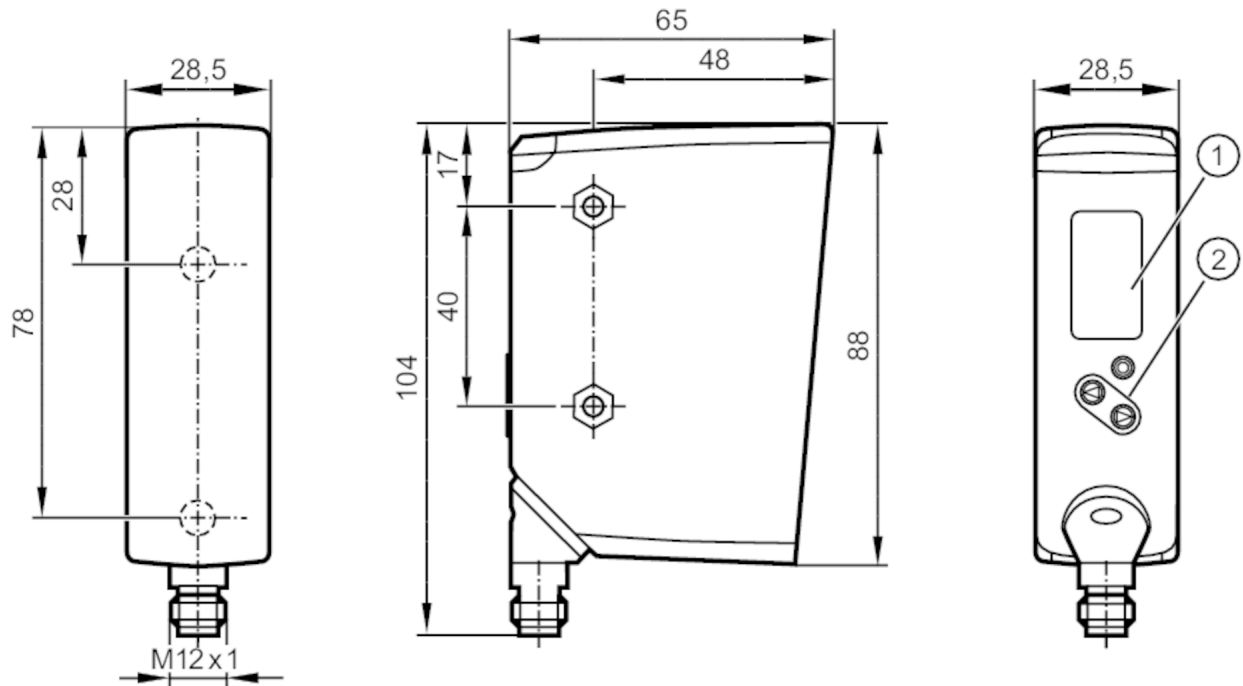


OPD100



Contour 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 |
| Dimensions [mm] | 88 x 65 x 28.5 |

Electrical data

| | |
|---|------------|
| Operating voltage [V] | 10...30 DC |
| Current consumption [mA] | < 200 |
| Current consumption reference voltage [V] | 10 |
| Protection class | III |
| Reverse polarity protection | yes |
| 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 |
|------------------------------|---|

OPD100



Contour sensor

OPDLFPKG

| Inputs | | |
|--|--|------------|
| Number of digital inputs | 1 | |
| Trigger | external | |
| 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) | | |
| Interfaces | | |
| Communication interface | IO-Link | |
| Transmission type | COM3 (230 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 functions (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 | 1260d / 04 ECh | |
| Note | For further information please see the IODD PDF file at "Downloads" | |

OPD100



Contour sensor

OPDLFPKG

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

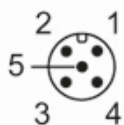
| Tests / approvals | | |
|---------------------------|--------------|---|
| EMC | EN 60947-5-2 | |
| Laser protection class | | 1 |
| Notes on laser protection | Caution: | laser light |
| | laser class: | 1 |
| | | EN / IEC60825-1:2007 |
| | | EN / IEC60825-1:2014 |
| | | Complies with 21 CFR 1040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

| Mechanical data | | |
|-----------------|---|----------------|
| Weight | [g] | 484.9 |
| Dimensions | [mm] | 88 x 65 x 28.5 |
| Materials | 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 |
| | Display | colour display |

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

Electrical connection
Connector: 1 x M12



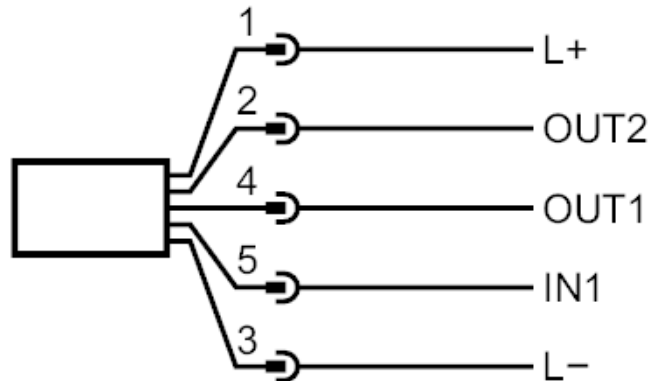
OPD100



Contour 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 |

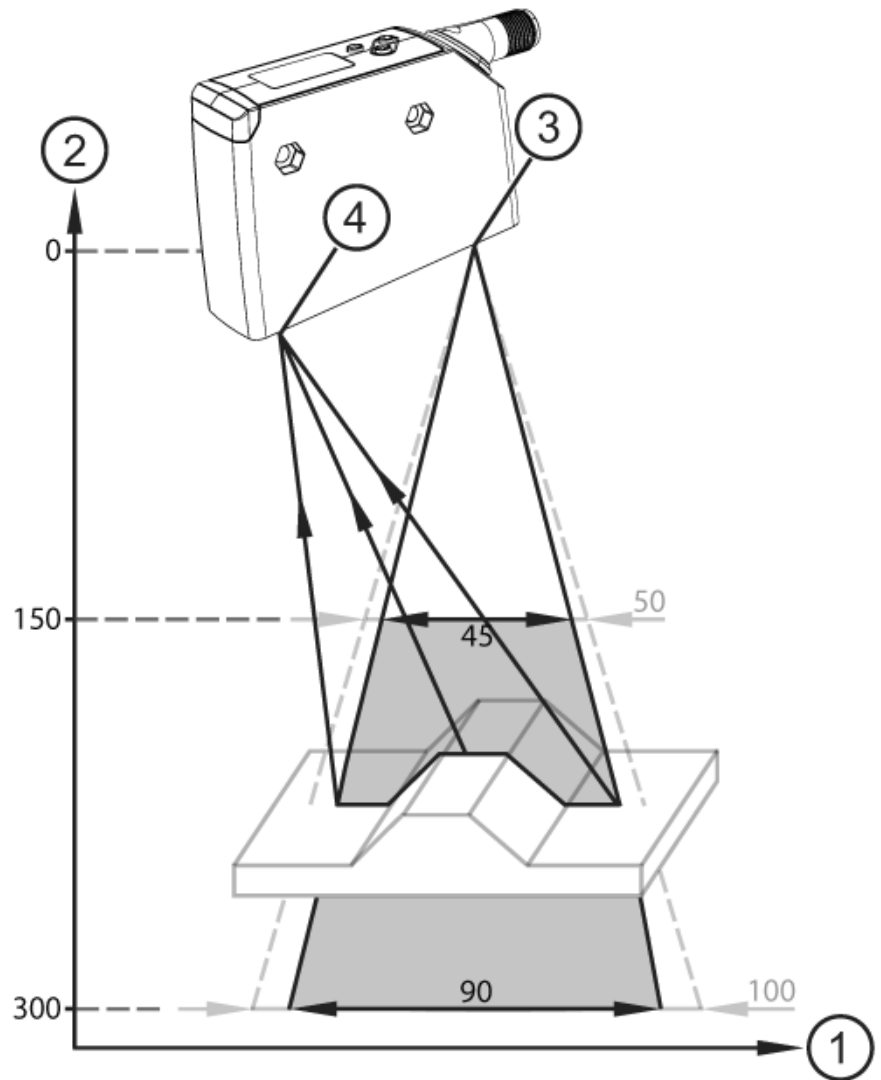
OPD100

Contour sensor

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Diagrams and graphs



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