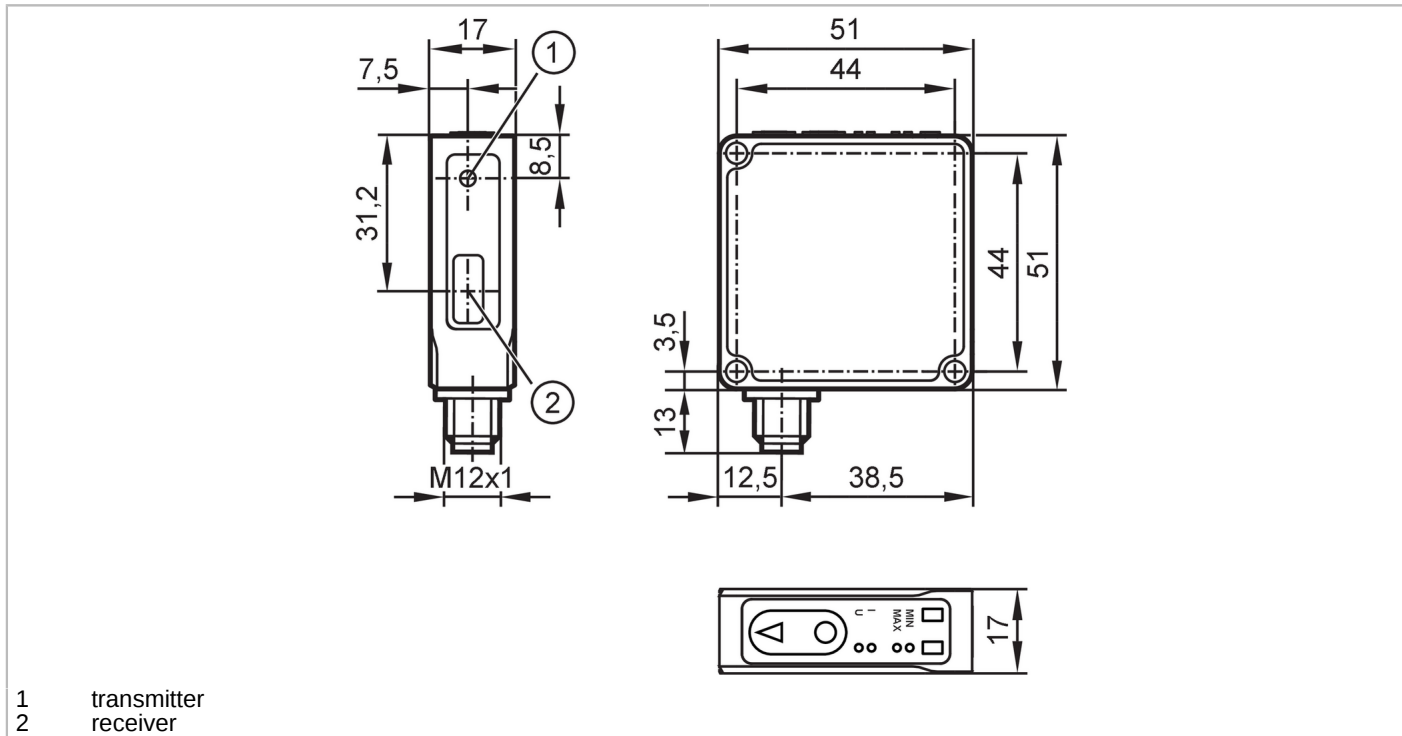


OMH553



Laser distance sensor

OMHLF8KG/IO-Link/US



Product characteristics

| | |
|------------------------|-------------|
| Type of light | red light |
| Laser protection class | 1 |
| Housing | rectangular |

Electrical data

| | | |
|-----------------------------|------|---|
| Operating voltage | [V] | 18...30 DC; (cULus - Class 2 source required) |
| Current consumption | [mA] | < 30 |
| Protection class | | III |
| Reverse polarity protection | | yes |
| Power-on delay time | [s] | < 0.3 |
| Type of light | | red light |
| Wave length | [nm] | 630 |
| Typ. lifetime | [h] | 50000 |

Inputs / outputs

| | |
|------------------------------|--|
| Number of inputs and outputs | Number of digital inputs: 1; Number of digital outputs: 1; Number of analog outputs: 1 |
|------------------------------|--|

Inputs

| | |
|--------------------------|---------------|
| Inputs | Laser On/ Off |
| Number of digital inputs | 1 |

Outputs

| | |
|---------------------------|--|
| Total number of outputs | 2 |
| Electrical design | PNP/NPN; (configurable) |
| Number of digital outputs | 1 |
| Output function | normally open / closed; (configurable) |

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| | | |
|---|------|-----------------------|
| Max. voltage drop switching output DC | [V] | 2.2 |
| Permanent current rating of switching output DC | [mA] | 100 |
| Switching frequency DC | [Hz] | 200 |
| Notes on switching frequency | [Hz] | standard |
| Number of analog outputs | | 1 |
| Analog current output | [mA] | 4...20; (IEC61131-2) |
| Max. load | [Ω] | 500 |
| Analog voltage output | [V] | 0...10; (IEC 61131-2) |
| Min. load resistance | [Ω] | 5000 |
| Short-circuit protection | | yes |
| Overload protection | | yes |

Monitoring range

| | | |
|--------------------------------|------|------------------|
| Range adjustable | | yes |
| Max. light spot diameter | [mm] | 1 |
| Light spot dimensions refer to | | at maximum range |

Measuring/setting range

| | | |
|-----------------|-----|---------------------------------|
| Measuring range | [m] | 0.05...0.2; (6...90% remission) |
|-----------------|-----|---------------------------------|

Accuracy / deviations

| | | |
|-----------------------------------|------|--|
| Temperature compensation | | yes |
| Repeatability | [mm] | 0.1 |
| Linearity error of analog output | [%] | ±0,07 |
| Resolution | [mm] | 0,05 |
| Notes on the accuracy / deviation | | The indicated values are reached after a warm-up time of 20 minutes. |

Software / programming

| | | |
|---------------------------|--|---|
| Parameter setting options | | hysteresis / window / 2-point; Switch-on and switch-off delay; switch-on operations; Teach function; filter; light-on/dark-on mode; laser switch-off; Type of operation |
|---------------------------|--|---|

Interfaces

| | | |
|----------------------------|--------------------------|---|
| Communication interface | | IO-Link |
| Transmission type | | COM2 (38,4 kBaud) |
| IO-Link revision | | 1.1 |
| SDCI standard | | IEC 61131-9 |
| Profiles | Smart Sensor - SSP 4.1.1 | Measuring and Switching Sensor, 1 channel |
| | Common - I&D | Identification and Diagnosis |
| | Extension | Sensor control |
| | Extension | Teach two point |
| | Function | Locator |
| | Function | ProductURI |
| SIO mode | | yes |
| Required master port class | | A |
| Min. process cycle time | [ms] | 3.2 |

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| IO-Link process data (cyclical) | Function | bit length |
|---------------------------------|---|------------|
| | process value | 16 |
| | device status | 4 |
| | binary switching information | 2 |
| IO-Link functions (acyclical) | application specific tag; operating hours counter | |
| Supported DeviceIDs | Type of operation | DeviceID |
| | default | 1608 |
| Note | For further information please see the IODD PDF file at "Downloads" | |

| Operating conditions | | |
|----------------------|------|--------------|
| Ambient temperature | [°C] | 0...60 |
| Storage temperature | [°C] | -10...65 |
| Protection | | IP 65; IP 67 |

| Tests / approvals | | |
|---------------------------|---------------------------|---|
| EMC | EN 61000-4-2 ESD | 4 kV CD / plastics 8 kV AD / metal |
| | EN 61000-4-3 HF radiated | 10 V/m |
| | EN 61000-4-6 HF conducted | 10 V |
| | EN 61000-4-4 Burst | 2 kV |
| | EN 55011 | class B |
| Vibration resistance | EN 60068-2-6 Fc | (10-55) Hz 1 mm amplitude, vibration duration 5 min., 30 min. per axis with resonance or 55 Hz |
| Shock resistance | EN 60068-2-27 Ea | 30 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes |
| Laser protection class | | 1 |
| Notes on laser protection | Caution: | Laser light |
| | laser class: | 1 |
| | | EN/IEC 60825-1 2007 |
| | | EN/IEC 60825-1 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] | 552 |
| UL approval | voltage supply | Class 2 |

| Mechanical data | | |
|-------------------|------|---|
| Weight | [g] | 127.5 |
| Housing | | rectangular |
| Dimensions | [mm] | 51 x 51 x 17 |
| Material | | housing: diecast zinc; front lens: plastics |
| Tightening torque | [Nm] | 5 |

| Displays / operating elements | | |
|-------------------------------|------------------|---------------|
| Display | Switching status | 1 LED, yellow |
| | supply voltage | 1 LED, green |
| | Operating mode | 4 LED, white |
| Teach function | | yes |

| Remarks |
|---------|
| Remarks |

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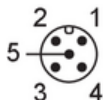
OMHLF8KG/IO-Link/US

Pack quantity

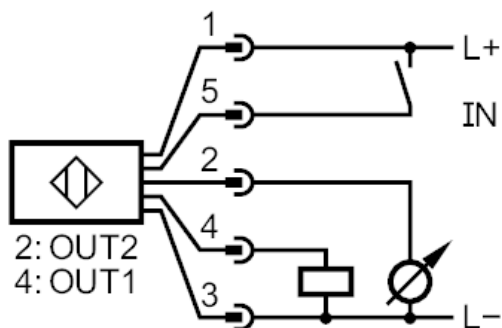
1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 5



Connection



- 2: OUT2: 4...20 mA / 0...10 V
- 4: OUT1: switching output or IO-Link
- 5: IN1: Laser On/ Off