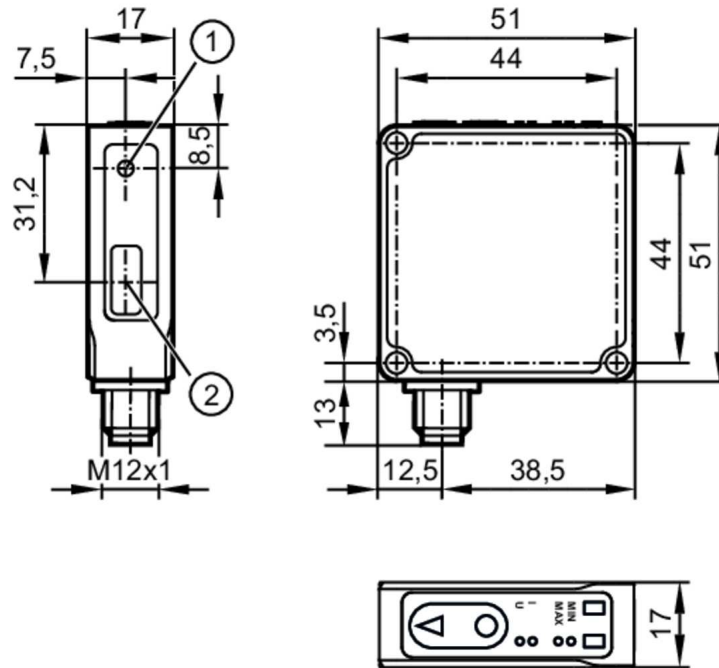


# OMH555



## Laser distance sensor

OMHLF8KG/IO-Link/US



- 1 transmitter
- 2 receiver



### Product characteristics

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

### Electrical data

|                             |      |   |
|-----------------------------|------|---|
| Operating voltage           | [V]  | 10...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) |

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|  |   |
|--|---|
| Number of digital outputs                            | 1   |
| Output function                                      | normally open / closed; (configurable)  |
| Max. voltage drop switching output DC [V]            | 2.2   |
| Permanent current rating of switching output DC [mA] | 100   |
| Switching frequency DC [Hz]                          | 150   |
| Notes on switching frequency [Hz]                    | standard  |
| Number of analog outputs                             | 1   |
| Analog current output [mA]                           | 4...20; (IEC61131-2)  |
| Max. load [ $\Omega$ ]                               | 500   |
| Analog voltage output [V]                            | 0...10; (IEC 61131-2)   |
| Min. load resistance [ $\Omega$ ]                    | 5000  |
| Short-circuit protection                             | yes   |
| Overload protection                                  | yes   |
| <b>Monitoring range</b>                              |   |
| Range adjustable                                     | yes   |
| Max. light spot diameter [mm]                        | 1   |
| Light spot dimensions refer to                       | at maximum range  |
| <b>Measuring/setting range</b>                       |   |
| Measuring range [m]                                  | 0.05...0.5; (6...90% remission)   |
| <b>Accuracy / deviations</b>                         |   |
| Temperature compensation                             | yes   |
| Linearity error of analog output [%]                 | $\pm 0,22$  |
| Notes on the accuracy / deviation                    | The indicated values are reached after a warm-up time of 20 minutes.  |
| <b>Measuring range (50...300 mm)</b>                 |   |
| Repeatability [mm]                                   | 0.3   |
| Resolution [mm]                                      | 0,3   |
| <b>Measuring range (300...500 mm)</b>                |   |
| Repeatability [mm]                                   | 1   |
| Resolution [mm]                                      | 0,5   |
| <b>Software / programming</b>                        |   |
| 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 |
| <b>Interfaces</b>                                    |   |
| Communication interface                              | IO-Link   |
| Transmission type                                    | COM2 (38,4 kBaud)   |
| IO-Link revision                                     | 1.1   |
| SDCI standard  | IEC 61131-9   |
| Profiles   | Measuring and Switching Sensor, 1 channel, Identification and Diagnosis, Sensor Control, Teach two value, Locator, ProductURI   |
| SIO mode   | yes   |
| Required master port class                           | A   |

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|                                 |   |                   |
|---------------------------------|---|-------------------|
| Min. process cycle time [ms]    |   | 3.2               |
| IO-Link process data (cyclical) | <b>Function</b>   | <b>bit length</b> |
|                                 | process value   | 16                |
|                                 | device status   | 4                 |
|                                 | binary switching information  | 2                 |
| IO-Link functions (acyclical)   | application specific tag; operating hours counter                   |                   |
| Supported DeviceIDs             | <b>Type of operation</b>  | <b>DeviceID</b>   |
|                                 | default   | 1571              |
| 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 |

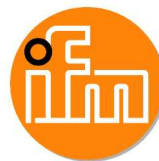
| Tests / approvals         |                           |   |
|---------------------------|---------------------------|---|
| EMC                       | EN 61000-4-2 ESD          | 4 kV CD / plastics<br>8 kV AD / metal   |
|                           | EN 61000-4-3 HF radiated  | 10 V/m  |
|                           | 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   |
| 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 except for deviations pursuant to Laser Notice No. 50, dated June 2007. |
| MTTF [years]              |                           | 552   |
| UL approval               | voltage supply            | Class 2   |

| Mechanical data        |  |   |
|------------------------|--|---|
| Weight [g]             |  | 127.3                                       |
| 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 |  | cULus - Class 2 source required |

# OMH555



## Laser distance sensor

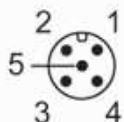
OMHLF8KG/IO-Link/US

Pack quantity

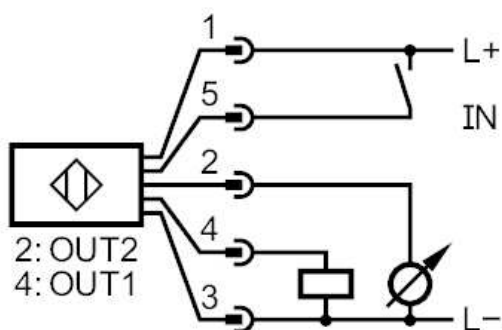
1 pcs.

### Electrical connection

Connector: 1 x M12; coding: A



### Connection



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