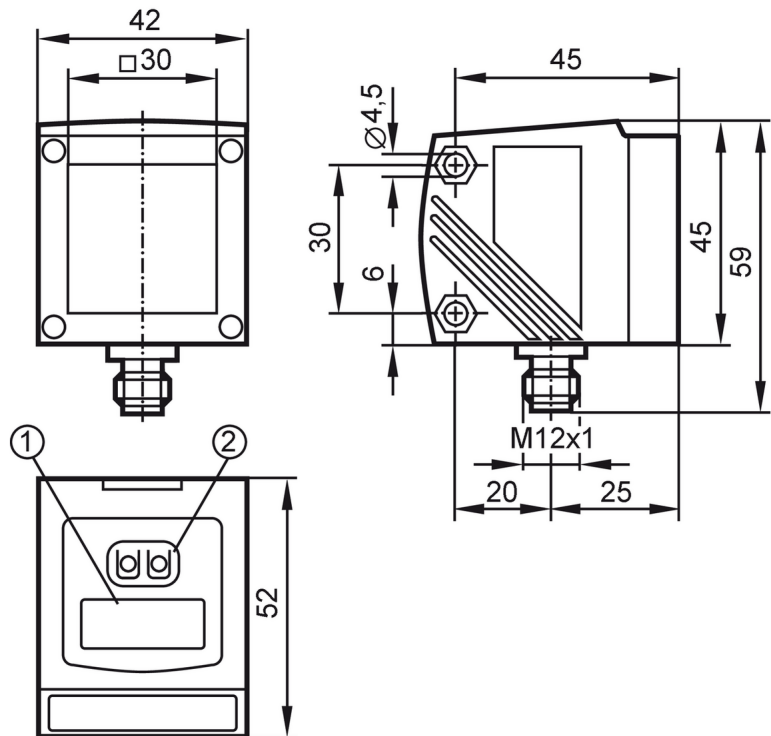


# O1D121

## Laser distance sensor

O1DLF3KG



- 1 alphanumeric display 4-digit  
2 Programming buttons



### Product characteristics

|                        |             |
|------------------------|-------------|
| Laser protection class | 2           |
| Housing                | rectangular |

### Application

|             |                         |
|-------------|-------------------------|
| Application | Industrial applications |
|-------------|-------------------------|

### Electrical data

|                             |                                               |
|-----------------------------|-----------------------------------------------|
| Operating voltage [V]       | 23...25 DC; (cULus - Class 2 source required) |
| Current consumption [mA]    | < 150; (250: <5 °C)                           |
| Protection class            | III                                           |
| Reverse polarity protection | yes                                           |
| Typ. lifetime [h]           | 50000                                         |

### Inputs / outputs

|                              |                                                           |
|------------------------------|-----------------------------------------------------------|
| Number of inputs and outputs | Number of digital outputs: 2; Number of analog outputs: 1 |
|------------------------------|-----------------------------------------------------------|

### Outputs

|                                   |                                        |
|-----------------------------------|----------------------------------------|
| Total number of outputs           | 2                                      |
| Electrical design                 | PNP                                    |
| Number of digital outputs         | 2                                      |
| Output function                   | normally open / closed; (programmable) |
| Max. current load per output [mA] | 200                                    |
| Number of analog outputs          | 1                                      |
| Analog current output [mA]        | 4...20; (IEC 61131-2)                  |

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|                                  |                                    |                                                                                                                                     |
|----------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Max. load                        | [Ω]                                | 250                                                                                                                                 |
| Analog voltage output            | [V]                                | 0...10; (IEC 61131-2)                                                                                                               |
| Min. load resistance             | [Ω]                                | 5000                                                                                                                                |
| Short-circuit protection         |                                    | yes                                                                                                                                 |
| Type of short-circuit protection |                                    | yes (non-latching)                                                                                                                  |
| Overload protection              |                                    | yes                                                                                                                                 |
| <b>Monitoring range</b>          |                                    |                                                                                                                                     |
| Max. light spot diameter         | [mm]                               | 25                                                                                                                                  |
| Light spot dimensions refer to   |                                    | 10 m                                                                                                                                |
| Background suppression           | [m]                                | < 19                                                                                                                                |
| <b>Measuring/setting range</b>   |                                    |                                                                                                                                     |
| Measuring range                  | [m]                                | 0.2...10; (white paper 200 x 200 mm 90 % remission)                                                                                 |
| Sampling rate                    | [Hz]                               | 1...50                                                                                                                              |
| <b>Operating conditions</b>      |                                    |                                                                                                                                     |
| Ambient temperature              | [°C]                               | -26...60                                                                                                                            |
| Protection                       |                                    | IP 67                                                                                                                               |
| <b>Tests / approvals</b>         |                                    |                                                                                                                                     |
| EMC                              | EN 60947-5-2                       |                                                                                                                                     |
| Laser protection class           | 2                                  |                                                                                                                                     |
| Notes on laser protection        | Caution:                           | Laser light                                                                                                                         |
|                                  | Power:                             | ≤ 4,0 mW                                                                                                                            |
|                                  | Wave length:                       | 650 nm                                                                                                                              |
|                                  | pulse:                             | 1,3 ns                                                                                                                              |
|                                  | Do not stare into beam.            |                                                                                                                                     |
|                                  | Avoid exposure to the laser light. |                                                                                                                                     |
|                                  | laser class:                       | 2                                                                                                                                   |
|                                  |                                    | 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. |
| UL approval                      | Ta                                 | -10...60 °C                                                                                                                         |
|                                  | Enclosure type                     | Type 1                                                                                                                              |
|                                  | voltage supply                     | Class 2                                                                                                                             |
|                                  | File number UL                     | E174191                                                                                                                             |
| <b>Mechanical data</b>           |                                    |                                                                                                                                     |
| Weight                           | [g]                                | 249.2                                                                                                                               |
| Housing                          |                                    | rectangular                                                                                                                         |
| Dimensions                       | [mm]                               | 59 x 42 x 52                                                                                                                        |
| Material                         |                                    | housing: diecast zinc; front lens: glass; LED window: PC                                                                            |
| Lens alignment                   |                                    | Side sensing                                                                                                                        |

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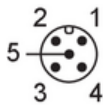
| Displays / operating elements |                       |                               |
|-------------------------------|-----------------------|-------------------------------|
| Display                       | Switching status      | 2 x LED, yellow               |
|                               | Power                 | LED, green                    |
|                               | Distance, programming | alphanumeric display, 4-digit |
| Operating elements            |                       | Electronic lock, activated    |

| Accessories            |                          |
|------------------------|--------------------------|
| Accessories (optional) | Protective cover, E21133 |

| Remarks       |                                     |
|---------------|-------------------------------------|
| Remarks       | Temperature-controlled lens heating |
| Pack quantity | 1 pcs.                              |

Electrical connection - plug

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



Connection

