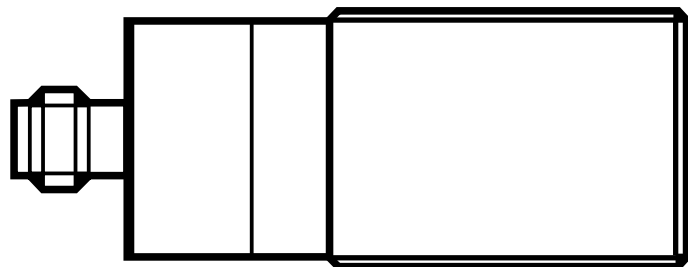


Operating instructions  
Optical distance sensor

UK

**OID25x**

11474461 / 00 04 / 2019



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# 1 Preliminary note

## 1.1 Symbols used

► Instructions

> Reaction, result

[...] Designation of keys, buttons or indications

→ Cross-reference



Important note

Non-compliance may result in malfunction or interference.



Information

Supplementary note

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## 2 Safety instructions

- Read this document prior to set-up of the unit. Ensure that the product is suitable for your application without any restrictions.
- Improper or non-intended use may lead to malfunctions of the unit or to unwanted effects in your application. That is why installation, electrical connection, set-up, operation and maintenance of the unit must be carried out by qualified personnel authorised by the machine operator.
- In case of malfunction of the unit please contact the manufacturer. If the unit is tampered with and/or modified, any liability and warranty is excluded.
- The unit complies with the standard EN 61000-6-4. The unit may cause radio interference in domestic areas. If interference occurs, the user must take appropriate remedial actions.

## According to cULus

Caution - Use of controls or adjustments or procedures other than those specified herein may result in hazardous radiation exposure.

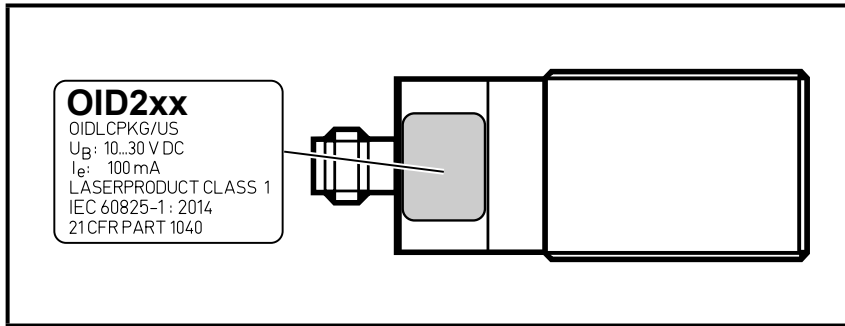


Visible laser light; CLASS 1 LASER PRODUCT.

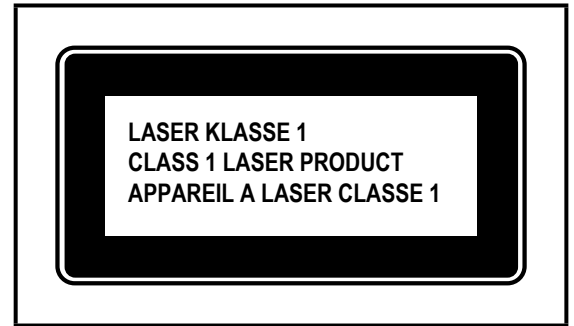
EN/IEC 60825-1 : 2007 and EN/IEC 60825-1 : 2014

Complies with 21 CFR 1040.10 except for deviations according to Laser Notice No. 50, dated June 2007

### Position of the product label



### Warning sign



## 3 Functions and features

The unit is used as an optical distance sensor.

### 3.1 Applications

- The optical distance sensor measures distances between 0.03 and 2 m.
- It has a background suppression of up to 20 m.
- The switching outputs are complementary.




The distance between the sensor and the background must be limited to max. 20 m by the customer. Otherwise measured values can be ambiguous → 4.1 Installation conditions.

## 4 Installation

### 4.1 Installation conditions


- ▶ Install the unit so that the object to be detected is within a measuring range of 0.03...2 m.

Any object between the set switch point and a distance of 20 m from the sensor is suppressed.

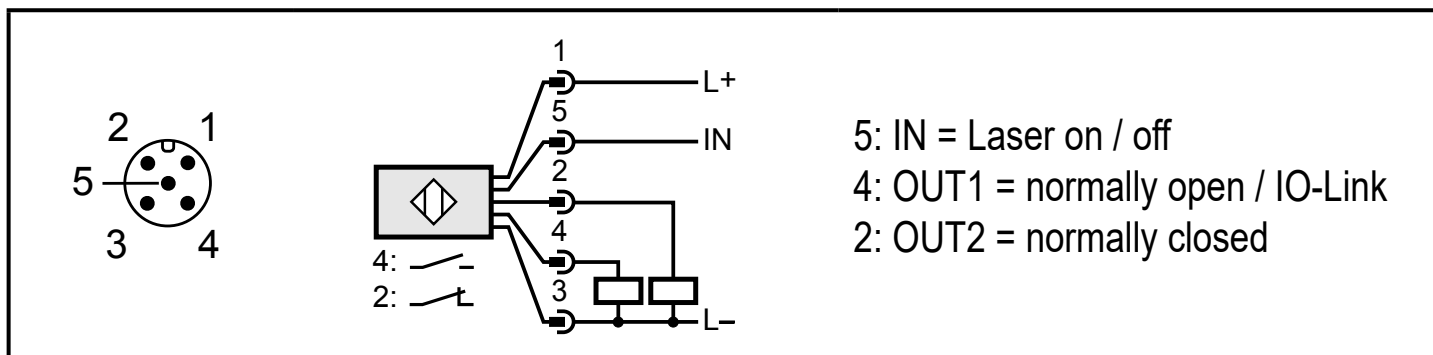
-  Reflecting surfaces in the direct beam path of the sensor – also in the range > 20 m – are to be avoided by the customer. Otherwise the measured values can be ambiguous.

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## 5 Electrical connection

-  The unit must be connected by a qualified electrician.
- ▶ The national and international regulations for the installation of electrical equipment must be adhered to.
- ▶ Ensure voltage supply to EN 50178, SELV, PELV.
- ▶ Disconnect power.
- ▶ Connect the unit as follows:

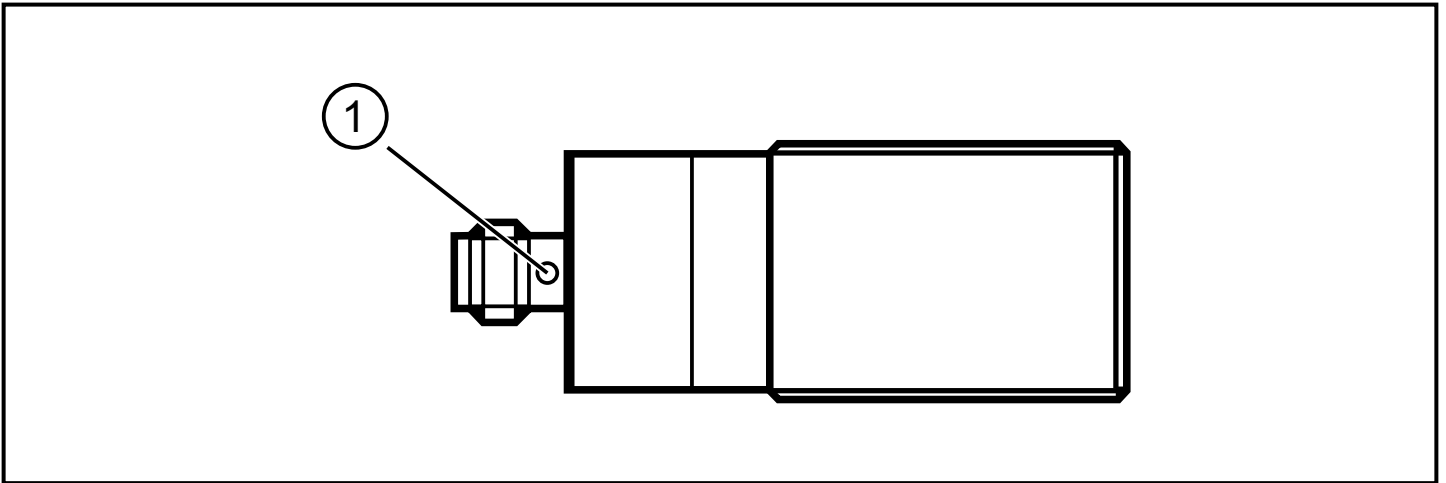
### DC PNP



Core colours of ifm sockets:

1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black), 5 = GR (grey)

## 6 Operating and display elements



1: LED yellow: Set value reached, output OUT1 = High (if OUT1 is configured as NO)

## 7 Settings / operation

The unit is set via the IO-Link interface. (→ 8 IO-Link)

On delivery the unit can also be used without IO-Link. Preset switch point: 2 m

- After installation, electrical connection and programming, check whether the unit operates correctly.



Lifetime of a laser diode: 50,000 hours

### 7.1 Switch off the laser

For safety and maintenance purposes the laser of the unit can be temporarily switched off via the input on pin 5.

Input signal at pin 5	Laser
Low / not connected	On
High	Off

## 8 IO-Link

### 8.1 General information

This unit has an IO-Link communication interface which requires an IO-Link-capable module (IO-Link master) for operation.

The IO-Link interface enables direct access to the sensor values and parameters and provides the possibility to set the parameters of the unit during operation. In addition communication is possible via a point-to-point connection with a USB adapter cable.

You will find more detailed information about IO-Link at [www.ifm.com](http://www.ifm.com).

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### 8.2 Device-specific information

You will find the IODDs necessary for the configuration of the IO-Link device and detailed information about sensor values, diagnostic information and parameters in the overview table at [www.ifm.com](http://www.ifm.com).

### 8.3 Parameter setting tools

You will find all necessary information about the required IO-Link hardware and software at [www.ifm.com](http://www.ifm.com).

## 9 Maintenance, repair, disposal

Faulty sensors must only be repaired by the manufacturer.

- ▶ Keep the front lens of the sensor clean.
- ▶ After use dispose of the unit in an environmentally friendly way in accordance with the applicable national regulations.
- ▶ Do not open the module housing. There are no user-serviceable components inside.