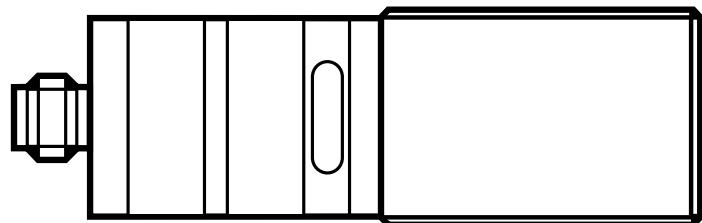


Operating instructions  
Optical distance sensor

UK

**OID25x**

11474460 / 00 04 / 2019



# Contents

1 Preliminary note.....	3
1.1 Symbols used .....	3
2 Safety instructions .....	3
3 Functions and features .....	4
3.1 Applications .....	4
4 Installation.....	5
4.1 Installation conditions .....	5
5 Electrical connection.....	5
6 Setting /operation.....	6
7 IO-Link .....	6
7.1 General information .....	6
7.2 Device-specific information.....	7
7.3 Parameter setting tools.....	7
8 Maintenance, repair, disposal.....	7

# 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

UK

## 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.

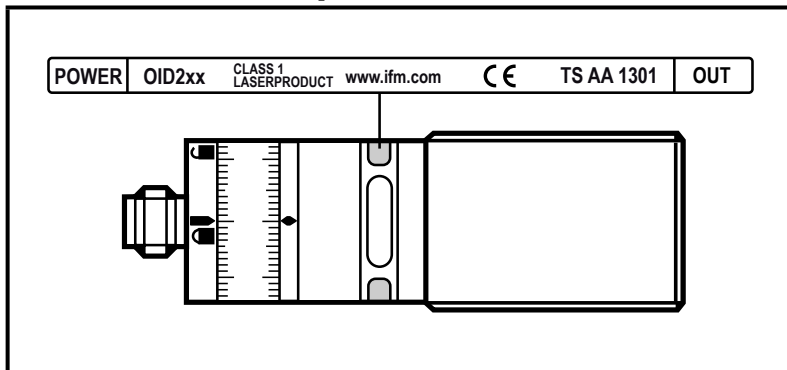


Visible laser light; CLASS 1 LASER PRODUCT.

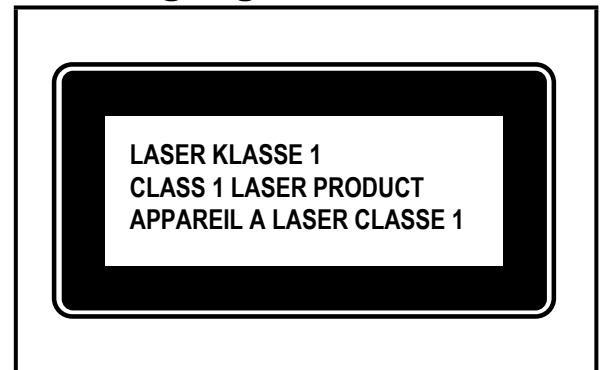
EN/IEC 60825-1 : 2007 and EN/IEC 60825-1 : 2014

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.

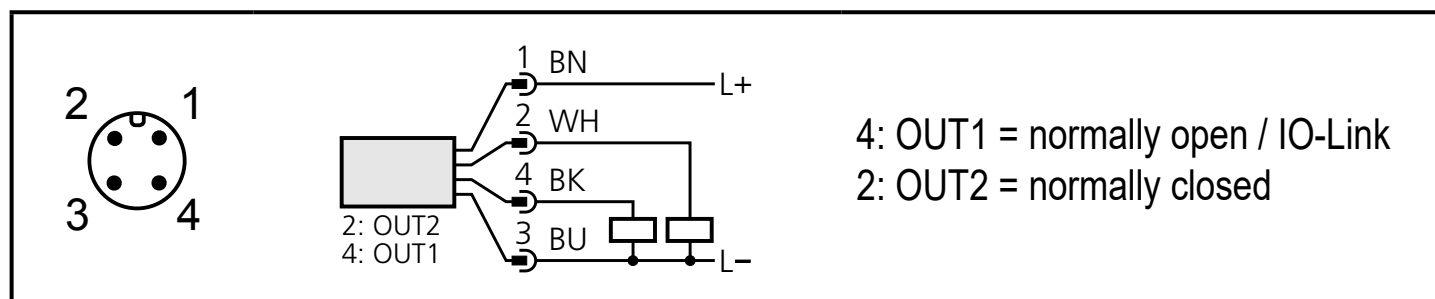
-  Reflecting surfaces in the direct beam path of the sensor – also in the range > 20 m – are to be avoided by the customer. Otherwise the measured values can be ambiguous.

UK

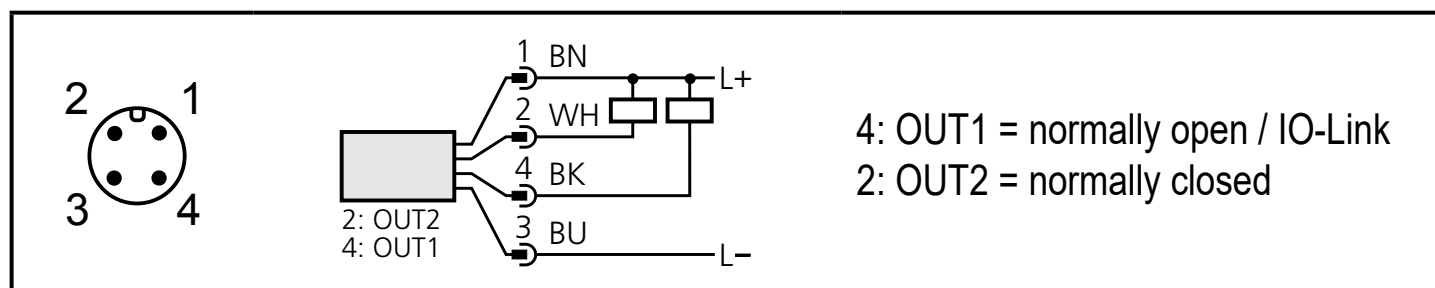
## 5 Electrical connection

-  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



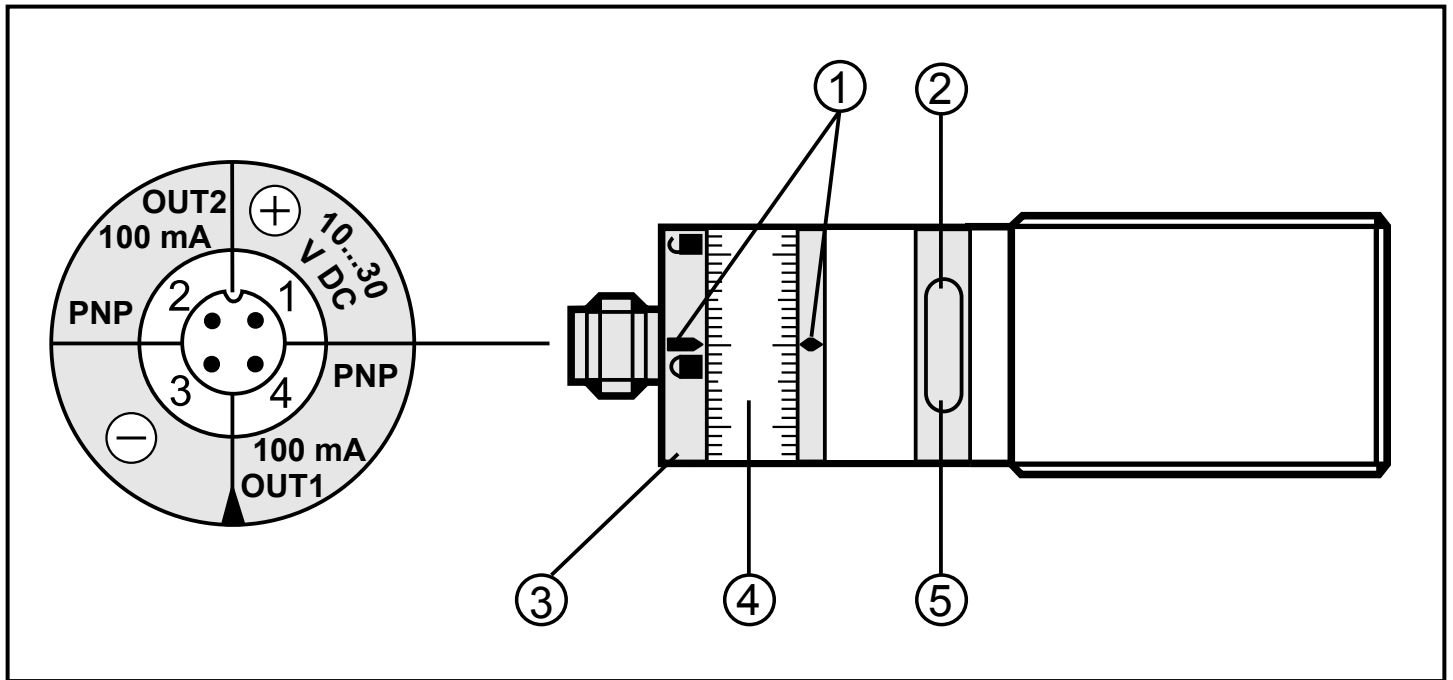
### DC NPN



Core colours of ifm sockets:

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

## 6 Setting /operation



1: Setting marks

2: LED yellow: Set1 value reached, output = ON

3: Locking ring

4: Setting ring (manually adjustable after unlocking)

5: LED green: operating voltage OK

- To achieve the setting accuracy: First position the setting ring to the upper end stop value, then to the requested value.

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



Lifetime of a laser diode: 50,000 hours

## 7 IO-Link

### 7.1 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).

## 7.2 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).

## 7.3 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).

# 8 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.

UK