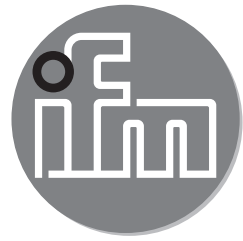


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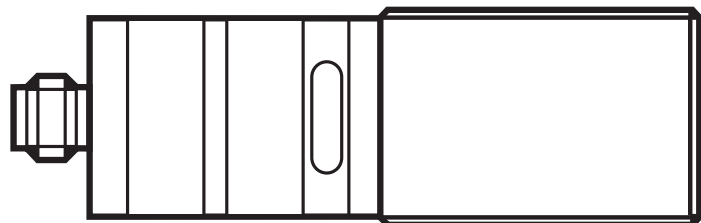
Operating instructions
Optical distance sensor

efector200[®]

OID20x

UK

80000235 / 00 08 / 2014





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1 Preliminary note

1.1 Symbols used

- Instruction
- > Reaction, result
- [...] Designation of pushbuttons, buttons or indications
- Cross-reference
-  Important note
Non-compliance can result in malfunctions or interference.
-  Information
Supplementary note.

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1.2 Warning signs used

WARNING

Warning of serious personal injury.
Death or serious irreversible injuries may result.

2 Safety instructions

- Please 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 only 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 conforms to 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.

⚠ WARNING

Visible laser light; laser protection class 2.

Use of controls or adjustments other than those specified herein may result in hazardous radiation exposure. Damage to the retina is possible.

- ▶ Do not stare into the laser beam!
- ▶ Apply the enclosed labels (laser warning) in the immediate vicinity of the unit.
- ▶ Adhere to the caution and warning notes on the product label.
- ▶ Use the enclosed label for the power supply cable.

Label for supply cable



ATTACH TO CABLE




WARNING:
CLASS 2 LASER PRODUCT
DO NOT STARE INTO BEAM
- AVOID EXPOSURE
- UNPLUG CONNECTOR TO
EXTINGUISH LASER BEAM

ifm electronic gmbh D-45128 Essen



Product label



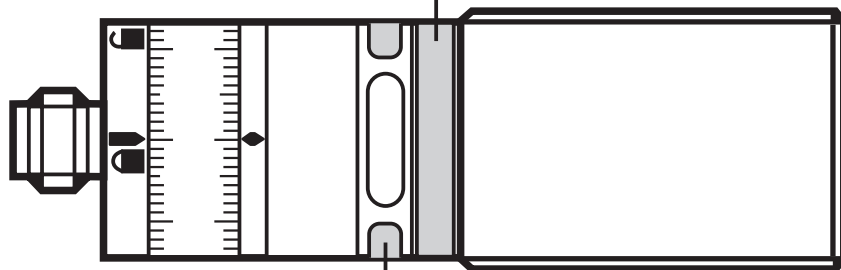
AVOID EXPOSURE
LASER RADIATION EMITTED
FROM THIS APERTURE



CAUTION LASER RADIATION
CLASS 2 LASER PRODUCT
21 CFR PART 1040, IEC 60825-1:2007



DO NOT STARE INTO BEAM
max. POWER $\leq 4.0\text{mW}$
PULSE 1.3ns, $\lambda = 650\text{nm}$



POWER	OID2xx	CLASS 2 LASER PRODUCT	www.ifm.com	CE	TS AA 1301	OUT
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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 complimentary.



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

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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 objects 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 may be ambiguous.

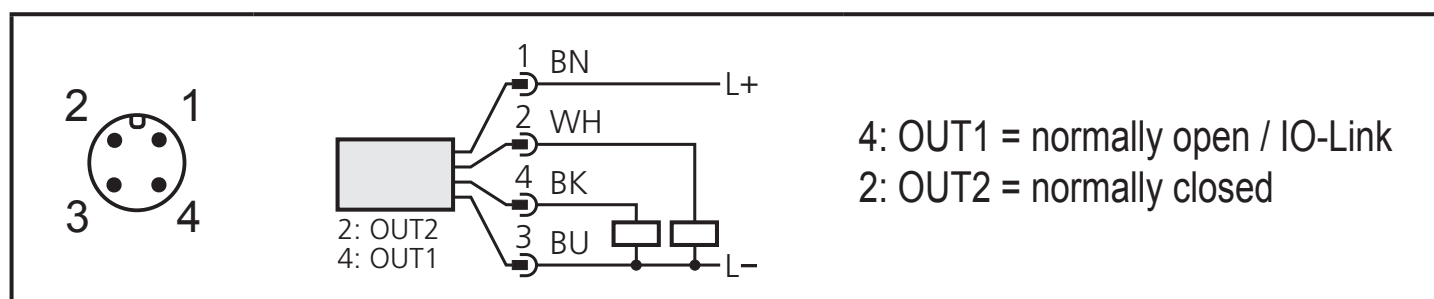
5 Electrical connection



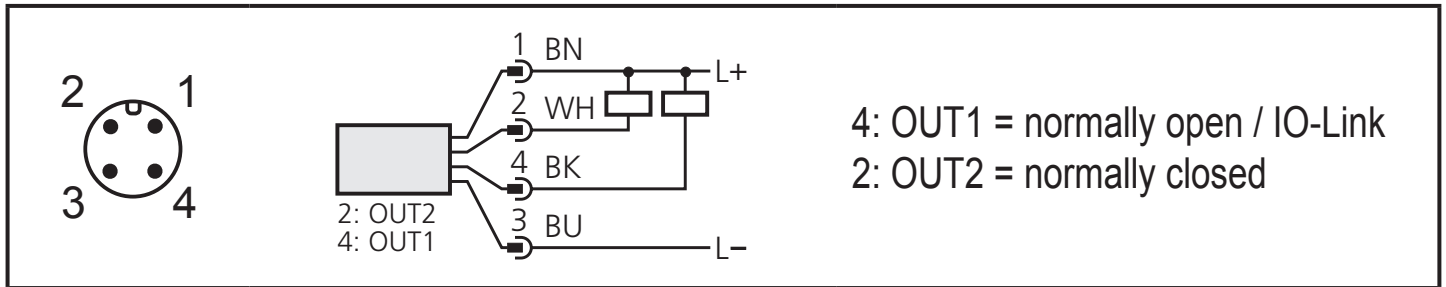
The unit must be connected by a qualified electrician.

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

DC PNP



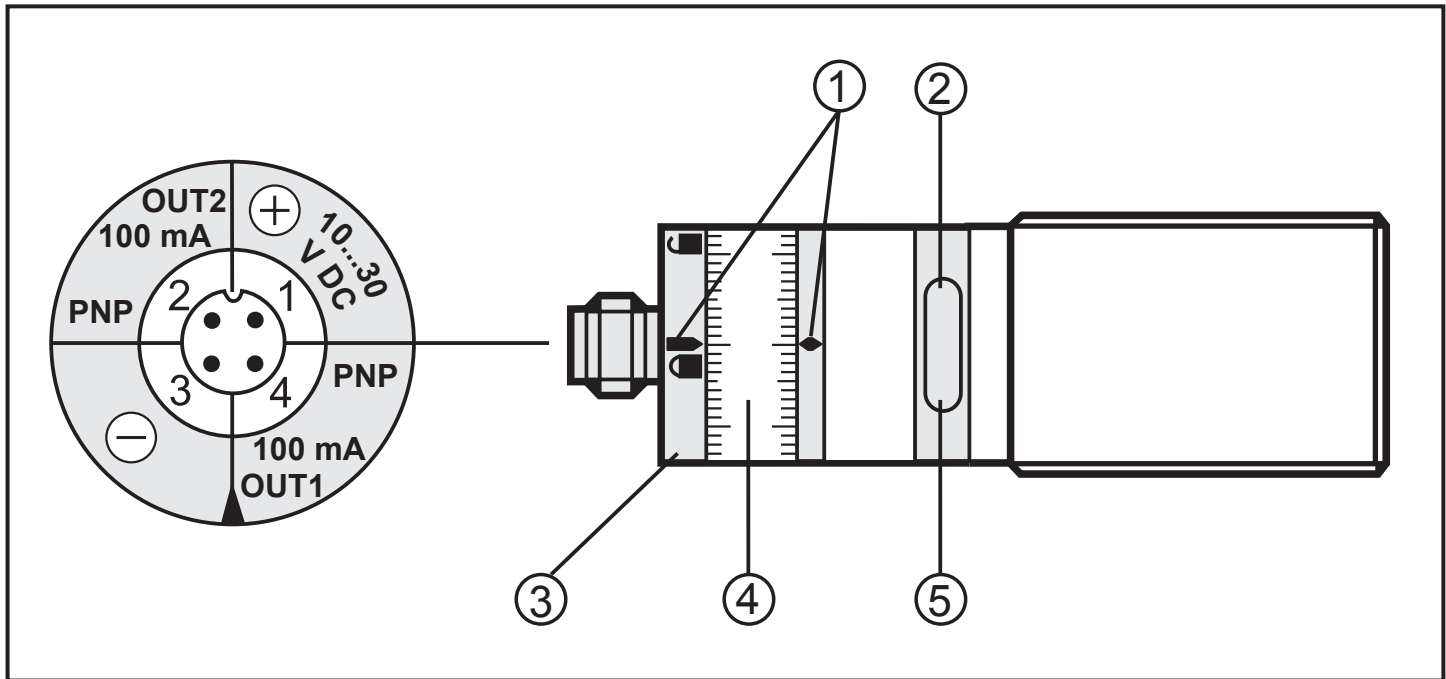
DC NPN



Core colours of ifm sockets:

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

6 Setting / Operation



1: Setting marks

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

3: Locking ring

4: Setting ring (manually adjustable after unlocking)

5: Green LED: supply voltage O.K.

- To obtain the setting accuracy: Set the ring to the maximum value, then set the requested value.

► After mounting, wiring 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/uk/io-link.

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7.2 Device-specific information

You will find the IODDs necessary for the configuration of the IO-Link unit and detailed information about sensor values, diagnostic information and parameters in the overview table at www.ifm.com/uk/io-link.

7.3 Parameter setting tools

You will find all necessary information about the required IO-Link hardware and software (e.g. ifm LINERECORDER SENSOR ZGS210) at www.ifm.com/uk/io-link.

8 Maintenance, repair and disposal

Faulty sensors must only be repaired by the manufacturer.

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

Technical data and further information at www.ifm.com
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