

ifm electronic

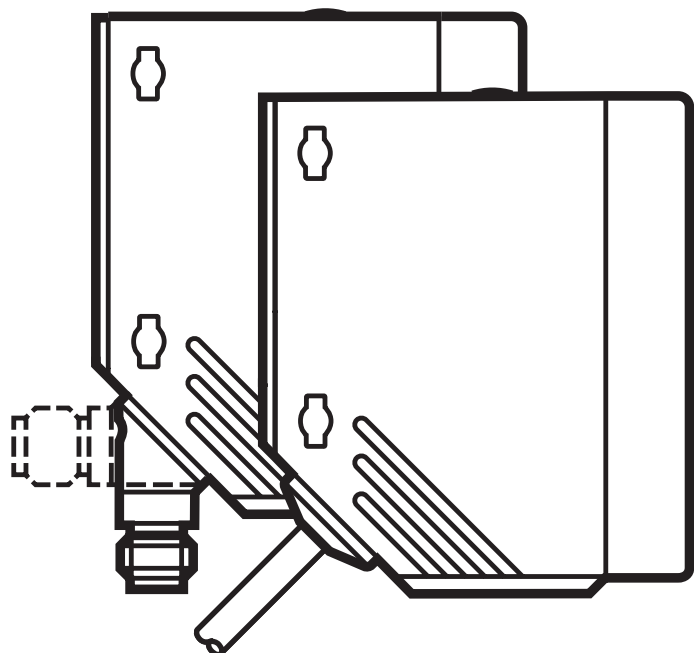


Operating instructions
Diffuse reflection sensor with
background suppression

efector200

O4H5xx

UK



1 Preliminary note

1.1 Symbols used

- ▶ Instruction
- > Reaction, result
- [...] Designation of pushbuttons, buttons or indications
- Cross-reference



Important note

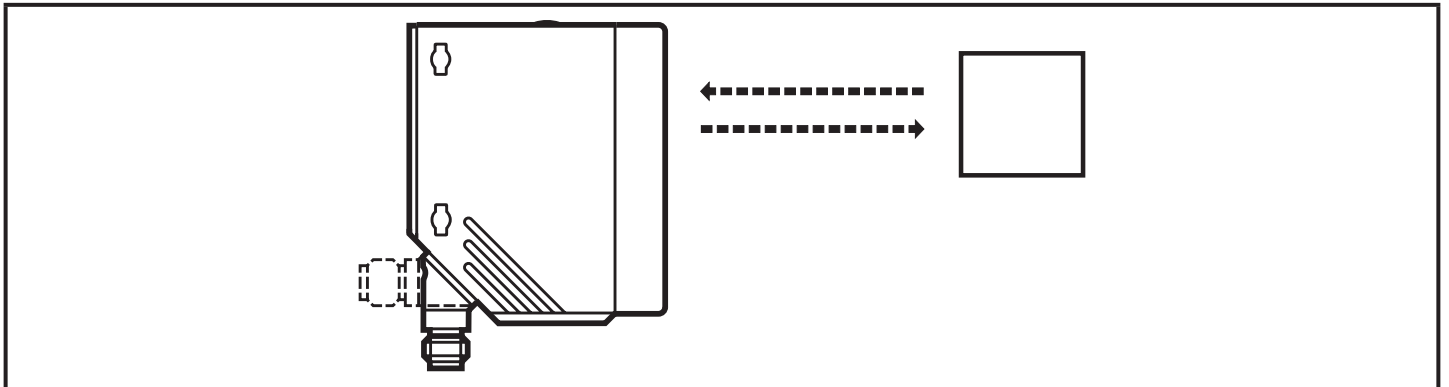
Non-compliance can result in malfunctions or interference.

2 Functions and features

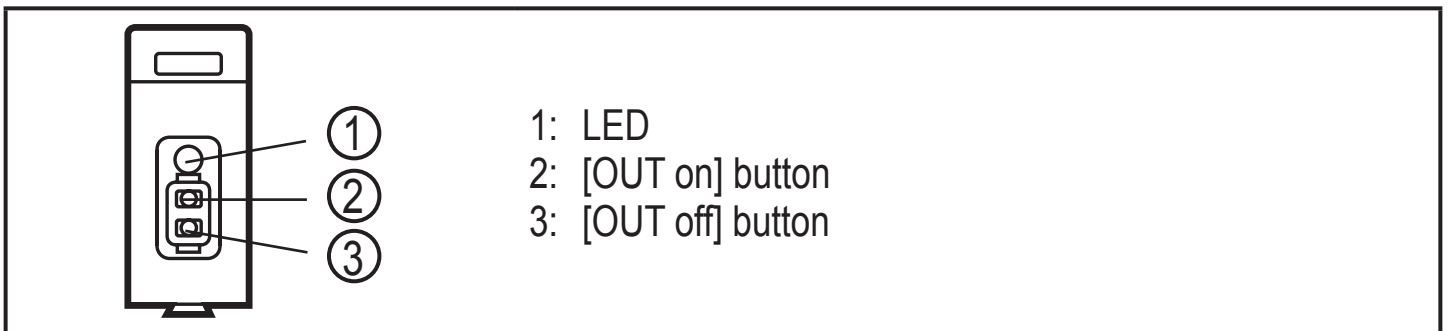
The diffuse reflection sensor detects objects and materials without contact and indicates their presence by a switching signal.

Range: → type label.

- ▶ Align the diffuse reflection sensor to the object to be detected.
- ▶ Secure it to a bracket.



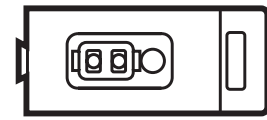
3 Operating and display elements



Note:

The objects to be detected are to move transversely to the lens of the sensor.

- ▶ In case of other directions of movement it should be tested before whether safe switching is guaranteed.



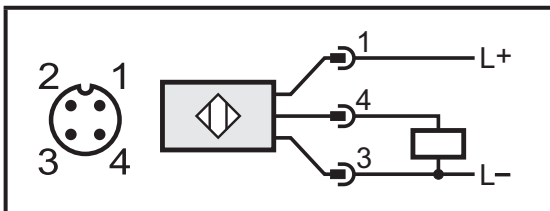
4 Electrical connection



The unit must be connected by a qualified electrician.

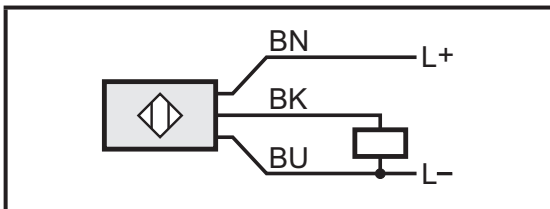
- ▶ The national and international regulations for the installation of electrical equipment must be adhered to.
 - ▶ Ensure voltage supply to EN 50178.
- ▶ Disconnect power.
- ▶ Connect the unit as follows:

Connector



pin 1 = L+
(pin 2 = not connected)
pin 3 = L-
pin 4 = load

Cable



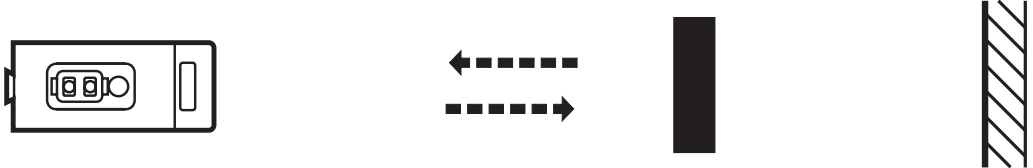
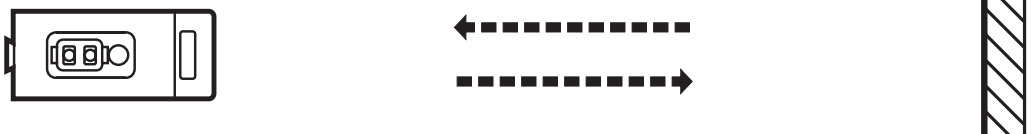
BN = L+
BU = L-
BK = load

Core colours: BN = brown, BU = blue, BK = black

5 Settings

5.1 Sensitivity setting

The sensor is to switch when the object is detected

1	<p>▶ Position the object.</p>  <p>▶ Press [OUT on] for 2 s. > The sensitivity is set to the object. The LED flashes.</p>
2	<p>▶ Remove the object.</p>  <p>▶ Press [OUT off]. > The sensitivity is set to the background. > The LED goes out. The setting operation is completed.</p>

The sensor is not to switch when the object is detected

- ▶ Position the object (see figure 1) and press [OUT off].
- ▶ Remove the object (see figure 2) and press [OUT on].

The settings can also be carried out first without object and then with object.

5.2 Setting of maximum sensitivity

- ▶ Align the sensor so that no light is reflected.

The sensor is to switch when the object is detected

- ▶ First press [OUT on], then [OUT off].

The sensor is to switch when the object is not detected

- ▶ First press [OUT off], then [OUT on].

5.3 Setting unsuccessful


- > The LED flashes quickly, 8 Hz.
- > The sensor returns to the normal operating mode with unchanged values.

Possible causes

- Insufficient difference in measurements
- Max. programming time of 15 min. exceeded

5.4 Electronic lock

The unit can be locked electronically to prevent unauthorised setting. On delivery the unit is not locked.

- | | |
|--|---|
| <ul style="list-style-type: none">▶ Press [OUT on] and [OUT off] simultaneously for 10 s.> Acknowledgement is indicated by a change of the LED status.▶ To unlock repeat this step. |  |
|--|---|



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6 Operation

- ▶ Check whether the unit operates correctly.
- > Display by LEDs.

7 Maintenance, repair, disposal

- ▶ Keep the lens of the sensor free from soiling.
- ▶ For cleaning do not use any solvents or cleaning agents which could damage the plastic parts.
- ▶ After use dispose of the unit in an environmentally friendly way in accordance with the applicable national regulations.

Faulty sensors must only be repaired by the manufacturer.

