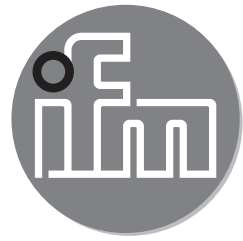


ifm electronic



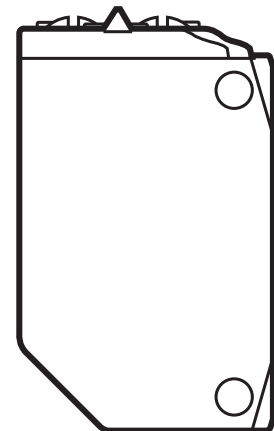
Operating instructions
Diffuse reflection sensor with
background suppression

efector200

O6H4

UK

O6H400 / 00 10 / 2015



1 Preliminary note

1.1 Symbols used

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



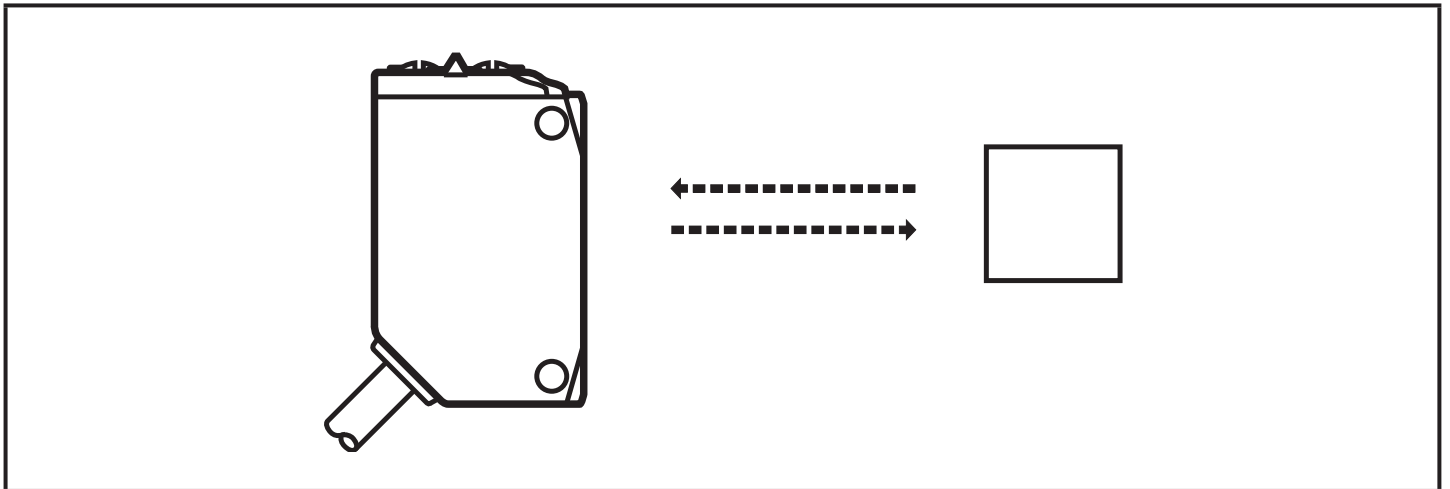
Important note

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.

3 Installation

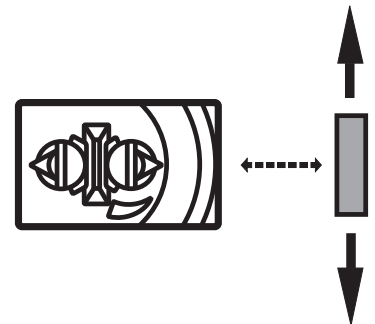


- ▶ Align the diffuse reflection sensor to the object to be detected.
- ▶ Secure it to a bracket.

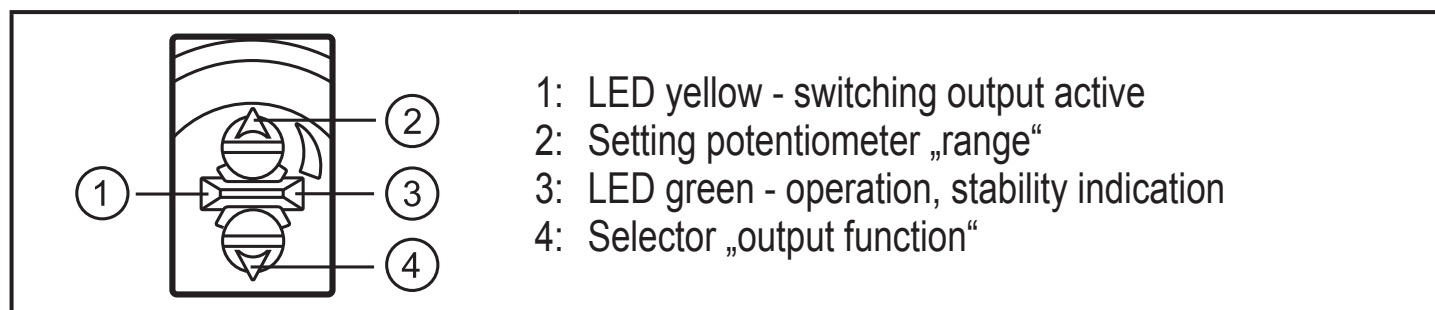
Note:

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.



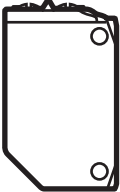


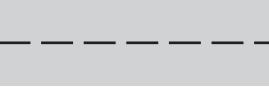
4 Operating and display elements



4.1 Stability indication

The green LED is lit when the supply voltage is applied and the sensor signal is stable.

UK

	stable signal	switch point		stable signal
				
Light-on mode				
LED green	on	off	off	on
LED yellow	on	on	off	off
Dark-on mode				
LED green	on	off	off	on
LED yellow	off	off	on	on

5 Electrical connection



The unit must be connected by a qualified electrician.

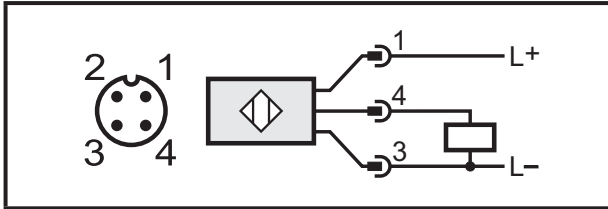
- ▶ The national and international regulations for the installation of electrical equipment must be adhered to.
- ▶ Ensure voltage supply to EN 50178.

▶ Disconnect power.

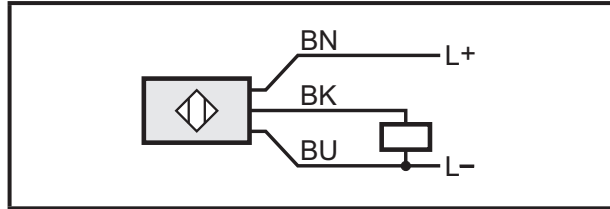
▶ Connect the unit as follows:

5.1 PNP

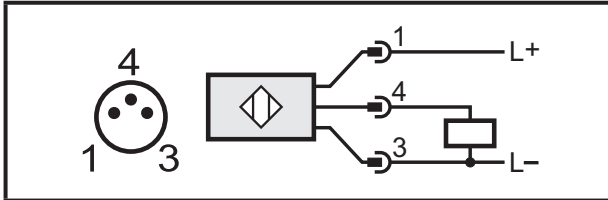
Connector M12 pigtail



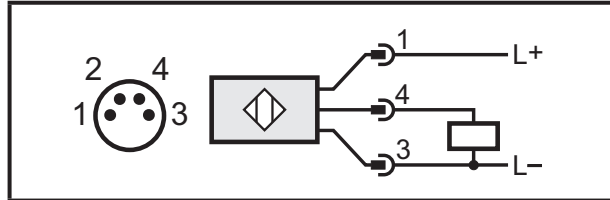
Cable *



Connector M8 3-pin



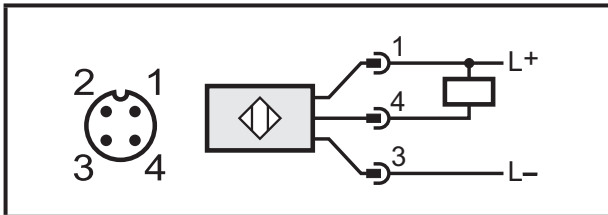
Connector M8 4-pin



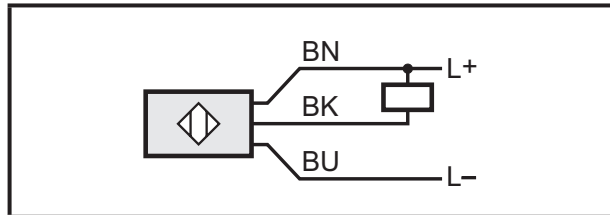
* Core colours: BN = brown, BU = blue, BK = black

5.2 NPN

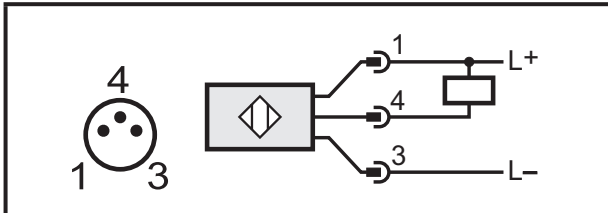
Connector M12 pigtail



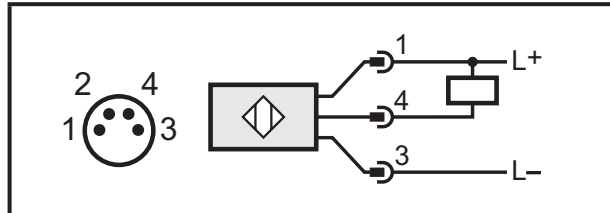
Cable *



Connector M8 3-pin



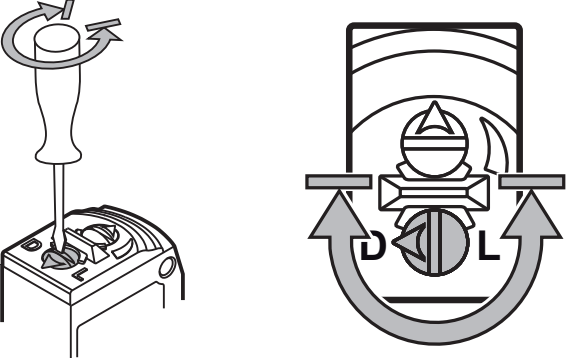
Connector M8 4-pin



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

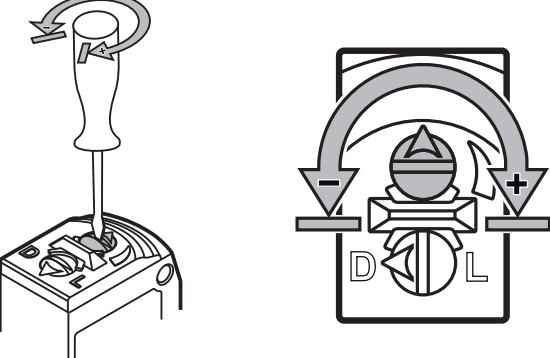
6 Settings

6.1 Set the output function

 <p>The diagram on the left shows a sensor unit with a vertical probe and a circular arrow indicating rotation. The diagram on the right shows a potentiometer with a central knob and two positions labeled 'D' and 'L'. Arrows indicate the range of movement.</p>	<ul style="list-style-type: none">▶ Setting D: dark-on mode▶ Setting L: light-on mode
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6.2 Set the range

 <p>The diagram on the left shows the sensor unit. The diagram on the right shows the potentiometer with a central knob and two positions labeled 'D' and 'L'. Arrows indicate the range of movement, with a '-' sign on the left and a '+' sign on the right.</p>	<ul style="list-style-type: none">▶ Increase range: turn the setting screw of the potentiometer clockwise.▶ Decrease range: turn the setting screw of the potentiometer anti-clockwise.
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7 Operation

- ▶ Check whether the unit operates correctly.
 - > The green LED is lit when the sensor is ready for operation.
 - > Dark-on mode: the output is switched / the yellow LED is lit when no object is detected.
 - > Light-on mode: the output is switched / the yellow LED is lit when an object is detected.

8 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.

Technical data and further information at unter www.ifm.com