ifm electronic

CE

1 Preliminary note

1.1 Symbols used

▶   Instruction

>   Reaction, result

[…]   Designation of pushbuttons, buttons or indications
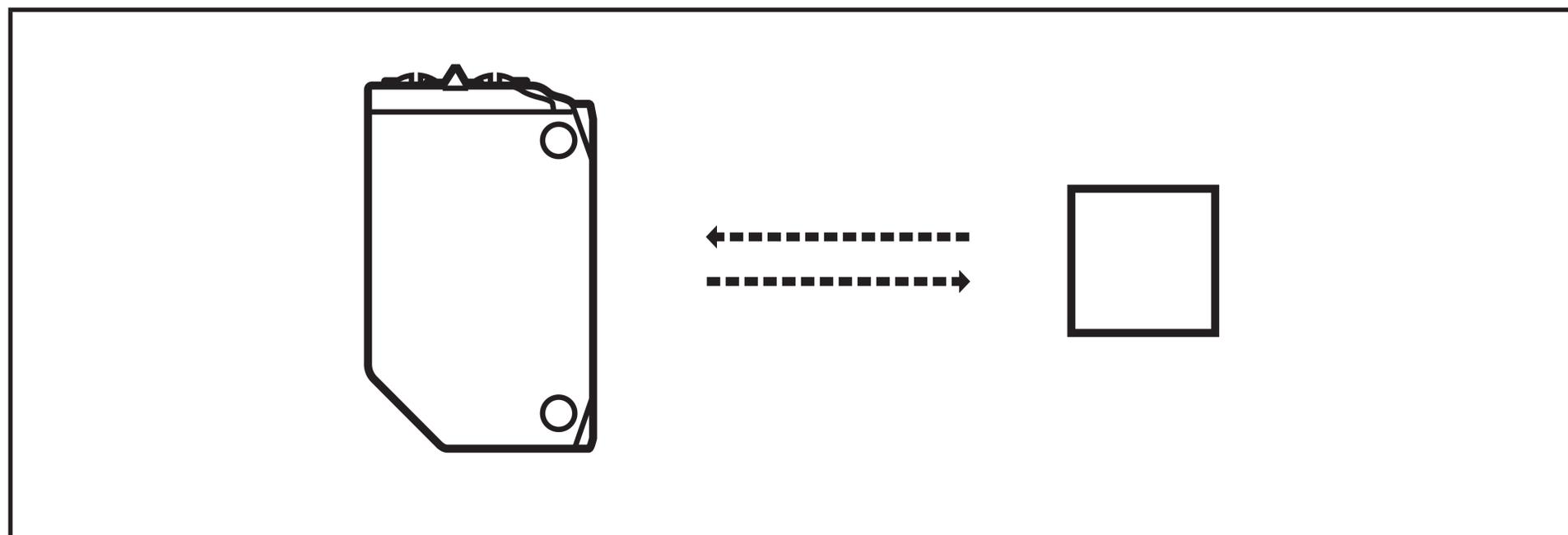
→   Cross-reference

[!]   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.
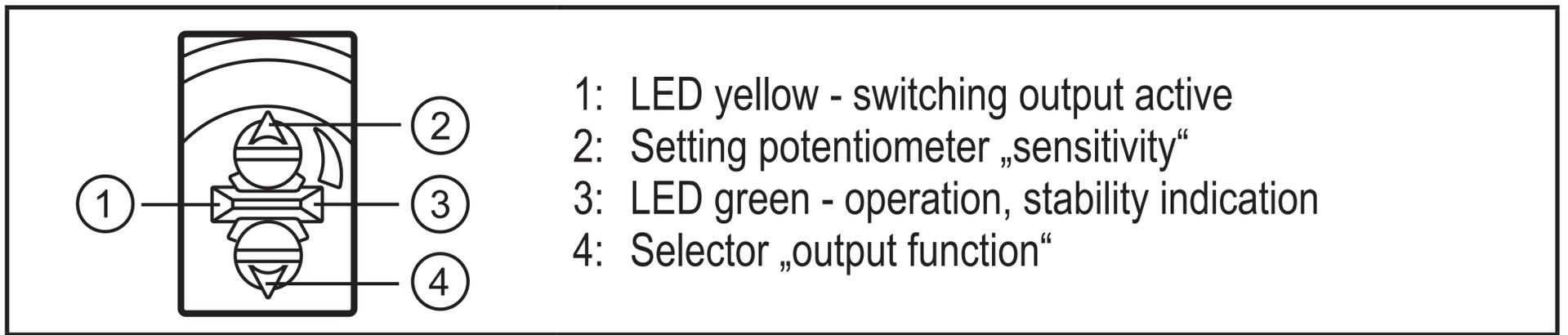
3 Installation

▶ Align the diffuse reflection sensor to the object to be detected.

▶ Secure it to a bracket.

4 Operating and display elements

1: LED yellow - switching output active
2: Setting potentiometer „sensitivity"
3: LED green - operation, stability indication
4: Selector „output function"

4.1 Stability indication

The green LED is lit when the supply voltage is applied and there is sufficient excess gain. Under these conditions the sensor receives a stable signal.

	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
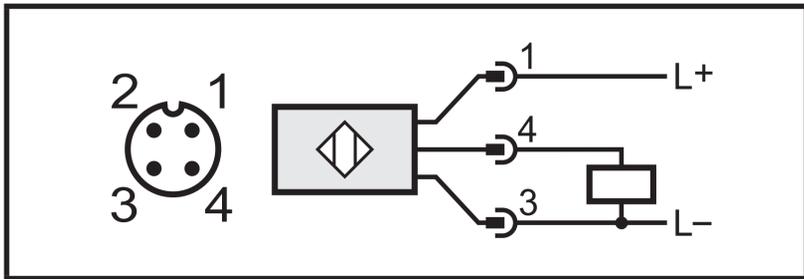
The unit must be connected by a qualified electrician.

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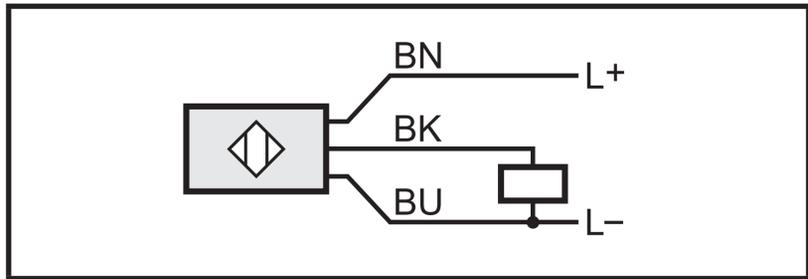
▶ Ensure voltage supply to EN 50178.

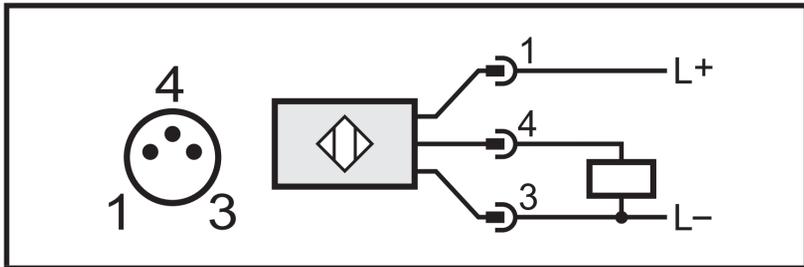▶ Disconnect power.

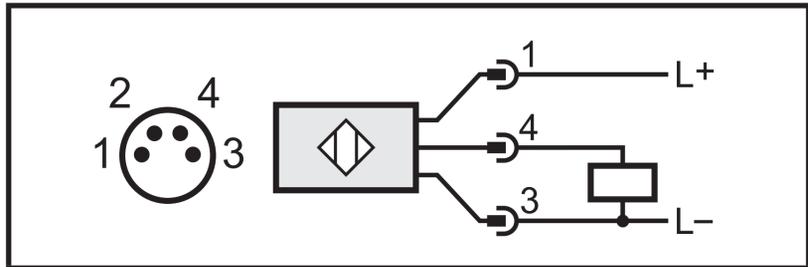▶ Connect the unit as follows:

5.1 PNP

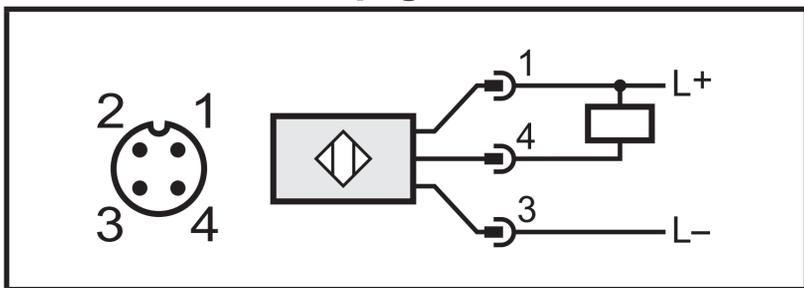**Connector M12 pigtail**

Cable *
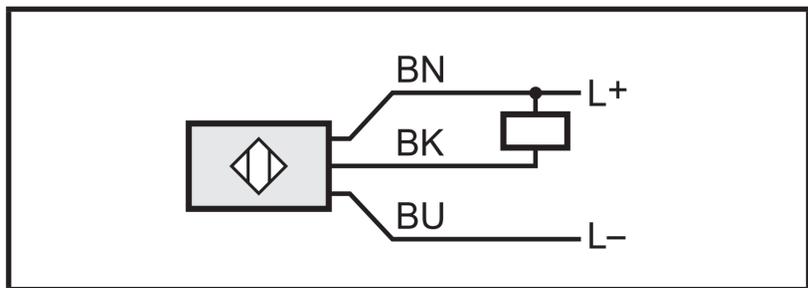

Connector M8 3-pin

Connector M8 4-pin

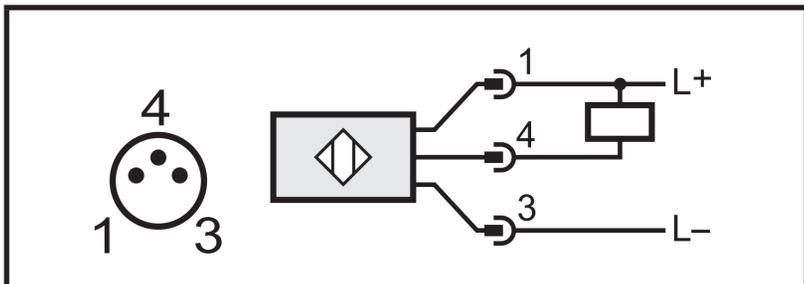* Core colours: BN = brown, BU = blue, BK = black
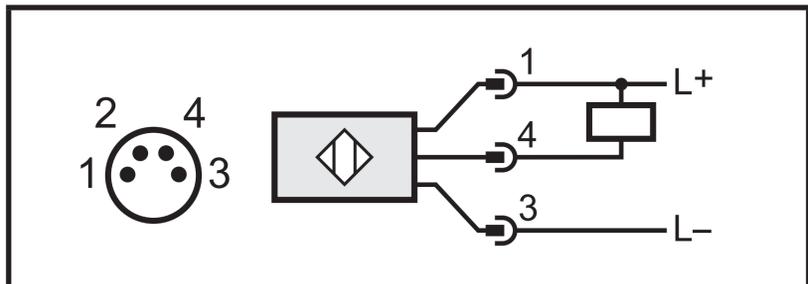
5.2 NPN

Connector M12 pigtail
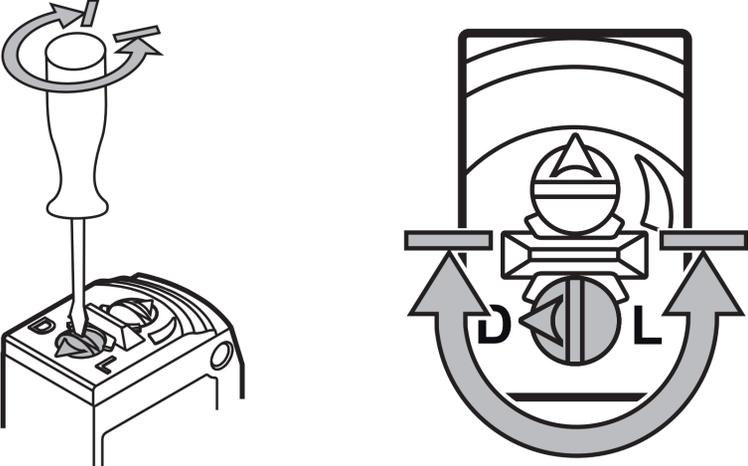

Cable *

Connector M8 3-pin

Connector M8 4-pin
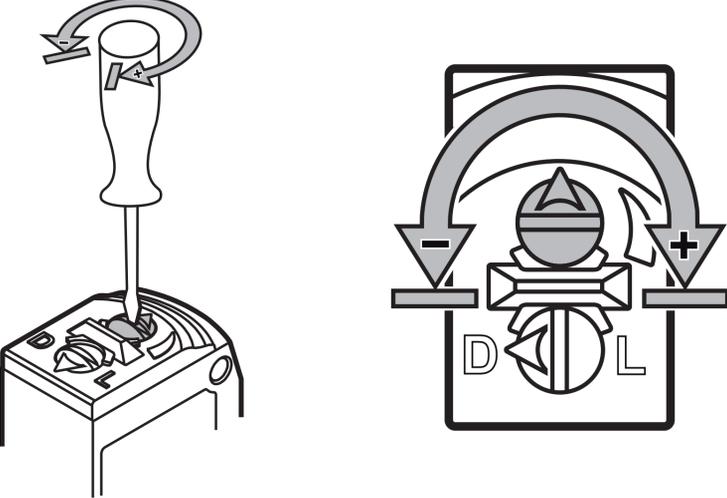

* Core colours: BN = brown, BU = blue, BK = black

6 Settings

6.1 Set the output function

▶ Setting D: dark-on mode

▶ Setting L: light-on mode

6.2 Set the sensitivity

▶ Increase sensitivity: turn the setting screw of the potentiometer clockwise.

▶ Decrease sensitivity: turn the setting screw of the potentiometer anti-clockwise.

7 Operation

▶ Check whether the unit operates correctly.

> The green LED is lit when the supply voltage is applied and there is sufficient excess gain.

> 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