ifm electronic
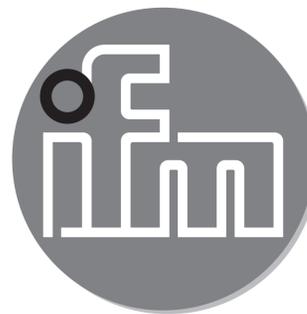
CE
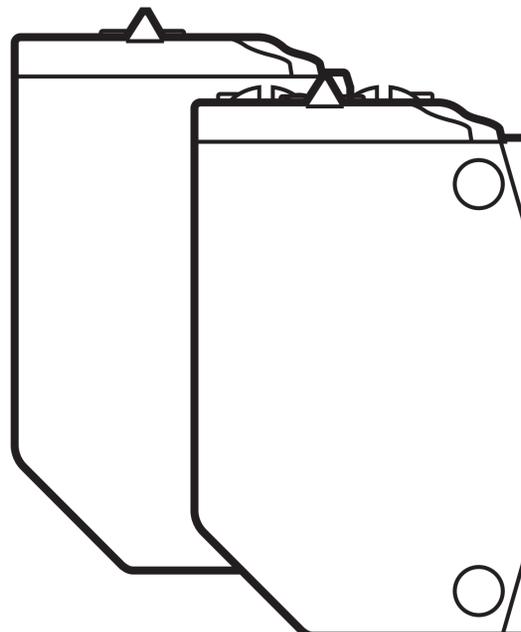
Operating instructions
Through-beam sensor

efector200

O6E3 / O6S3

1 Preliminary note

1.1 Symbols used

▶ Instruction

\> Reaction, result

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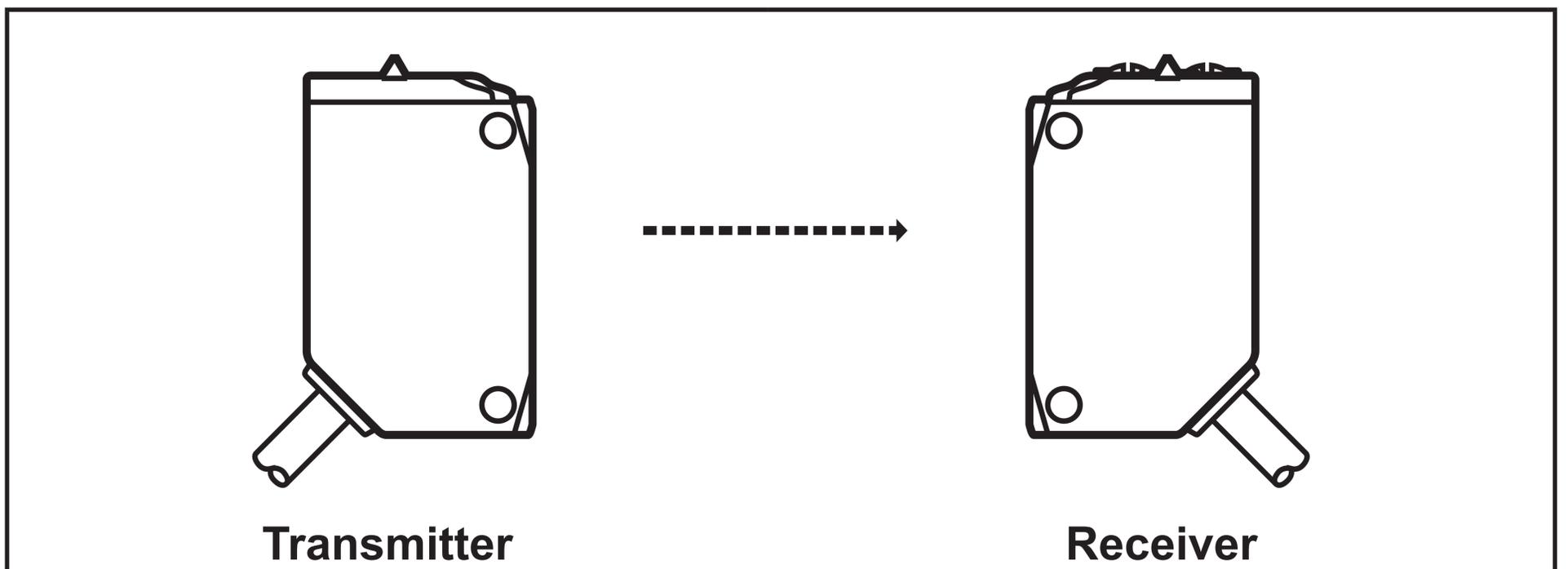
→ Cross-reference

[!] Important note
Non-compliance can result in malfunctions or interference.

2 Functions and features

The through-beam sensor detects objects and materials without contact and indicates their presence by a switching signal.

3 Installation

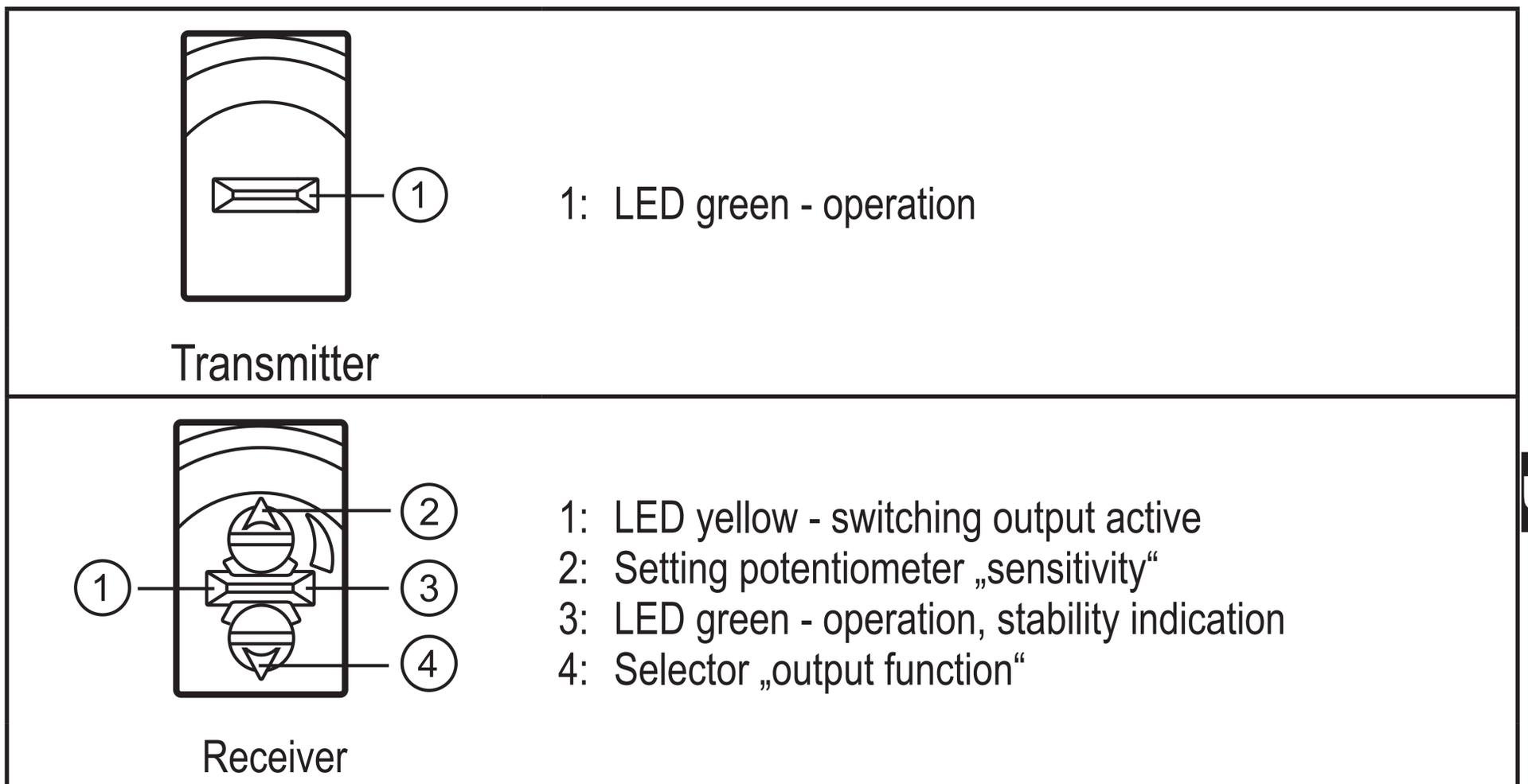**Transmitter**   **Receiver**

▶ Install the receiver (O6E...) and secure it to a bracket.

▶ Align the transmitter (O6S...) to the receiver and fix it.

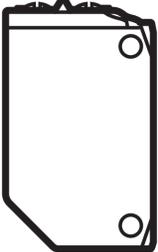Maximum range only with accurate alignment.

4 Operating and display elements

1: LED green - operation

Transmitter

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

Receiver

4.1 Stability indication

The green LED on the receiver 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

3

5 Electrical connection
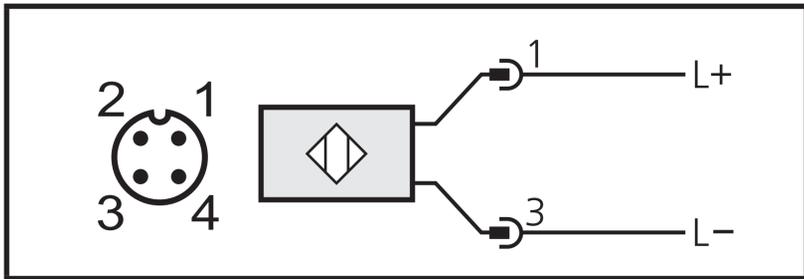
The unit must be connected by a qualified electrician.

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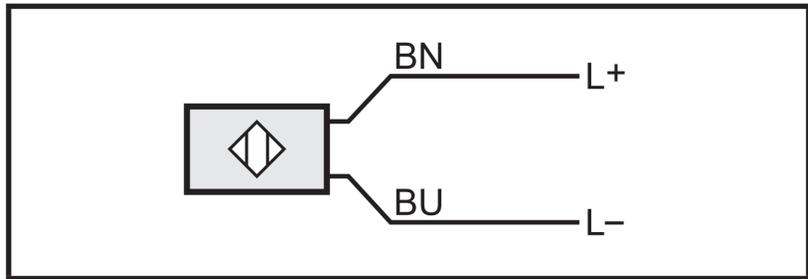
▶ Ensure voltage supply to EN 50178.

▶ Disconnect power.

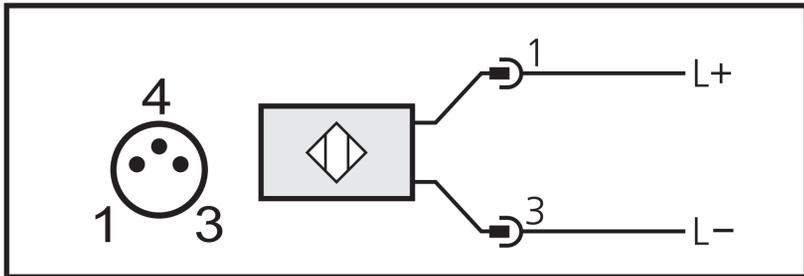▶ Connect the unit as follows:

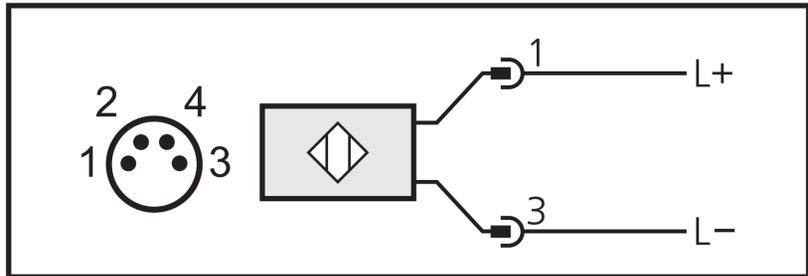## 5.1 Transmitter

Connector M12 pigtail

Cable *

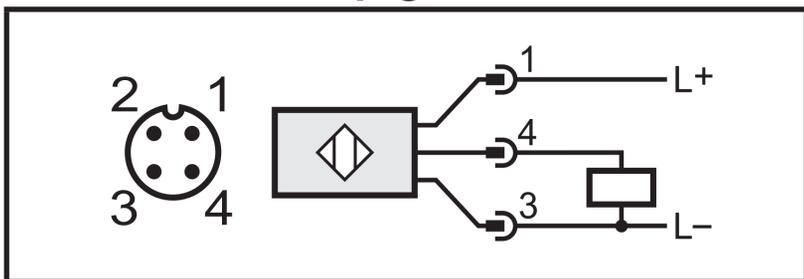**Connector M8 3-pin**

Connector M8 4-pin

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

5.2 Receiver

5.2.1 PNP

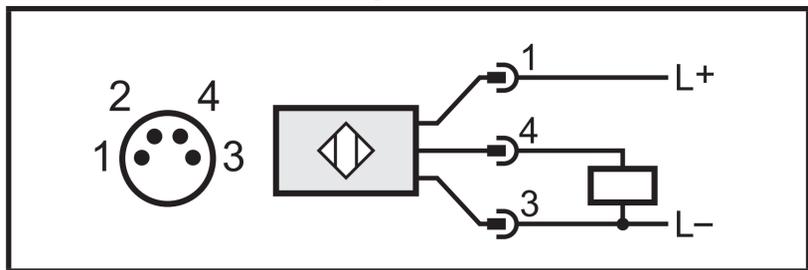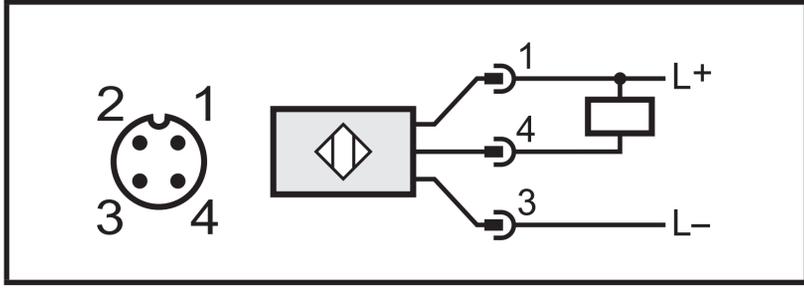**Connector M12 pigtail**
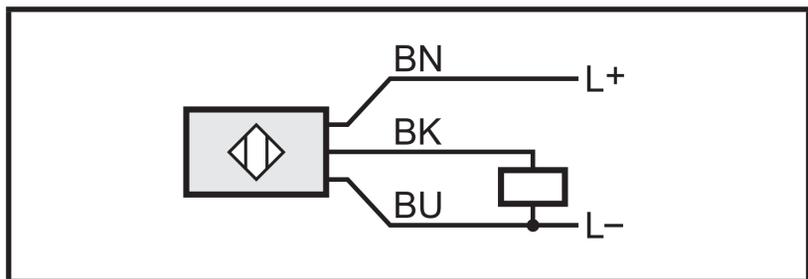
Cable *
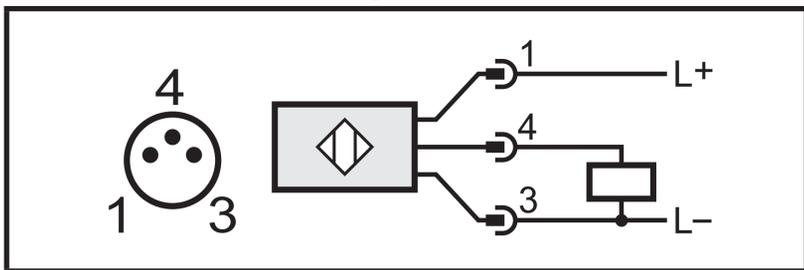
Connector M8 3-pin

Connector M8 4-pin

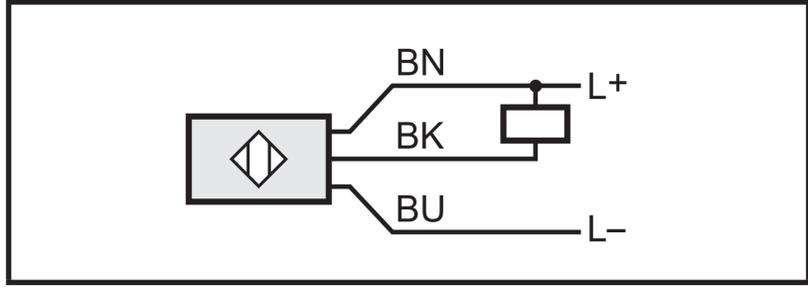* Core colours: BN = brown, BU = blue, BK = black

5.2.2 NPN

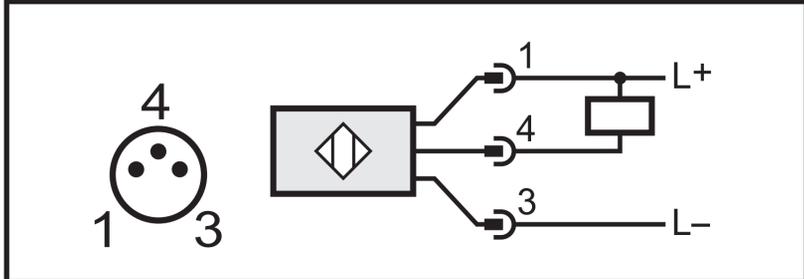**Connector M12 pigtail**

Cable *

Connector M8 3-pin

Connector M8 4-pin
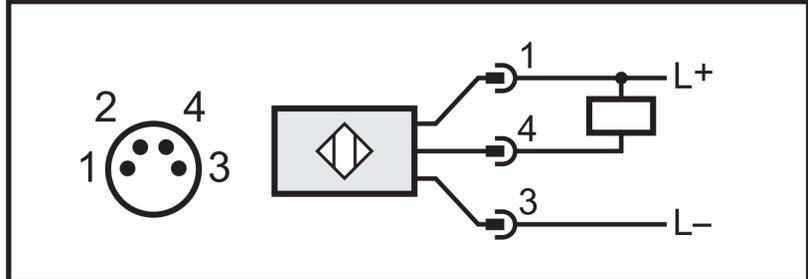
* Core colours: BN = brown, BU = blue, BK = black

6 Settings

6.1 Set the output function

Receiver

▶ Setting D: dark-on mode

▶ Setting L: light-on mode

6.2 Set the sensitivity

Receiver

▶ Increase sensitivity:
  turn the setting screw of the potenti-
  ometer clockwise.

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

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 an object is detected.

> Light-on mode: the output is switched / the yellow LED is lit when no object is detected.

8 IO-Link

8.1 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.

8.2 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.

8.3 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.

9 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

UK