UK

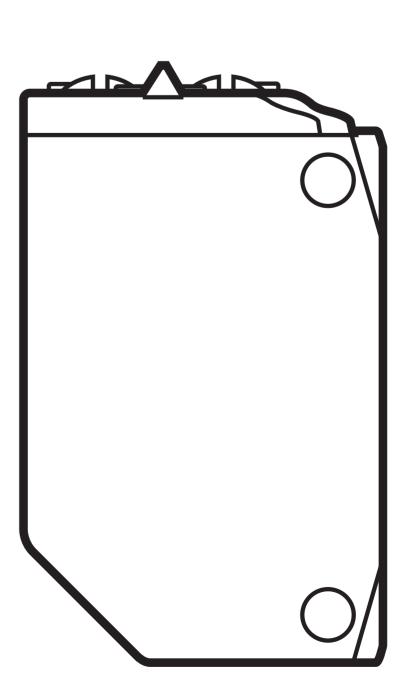


Operating instructions
Diffuse reflection sensor with
background suppression

efectoreos 06H3



CE



# 1 Preliminary note

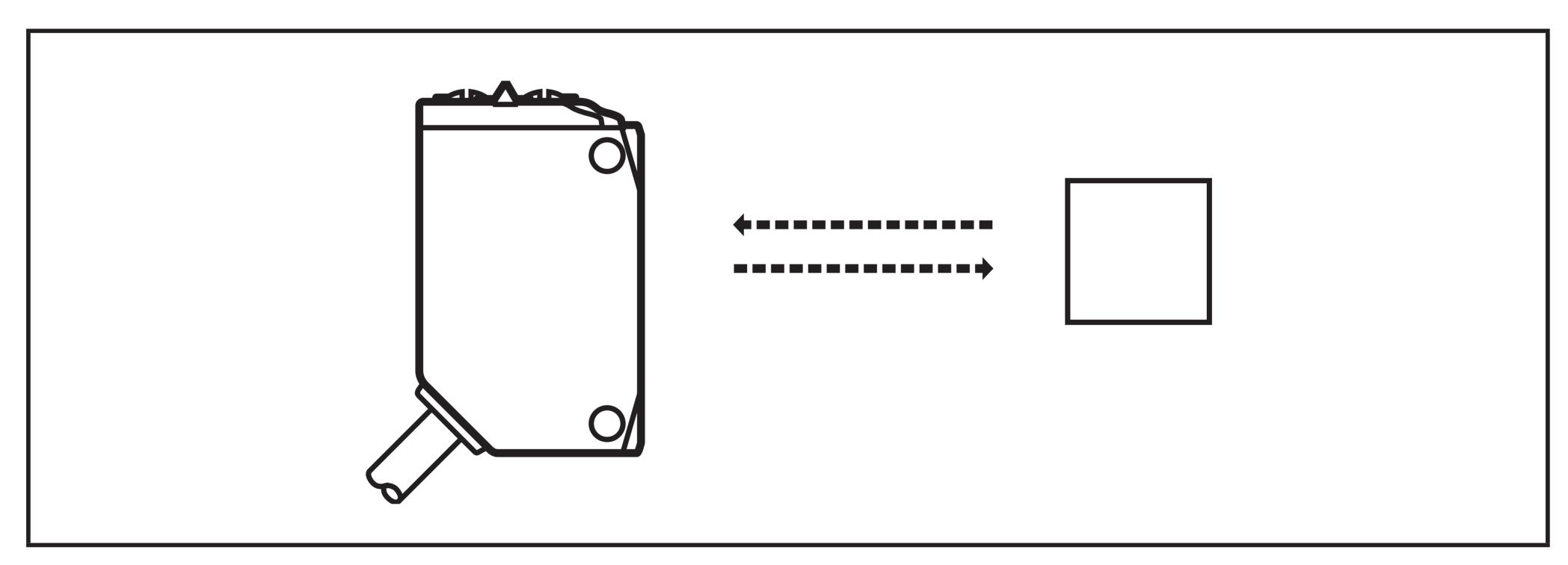
### 1.1 Symbols used

- 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

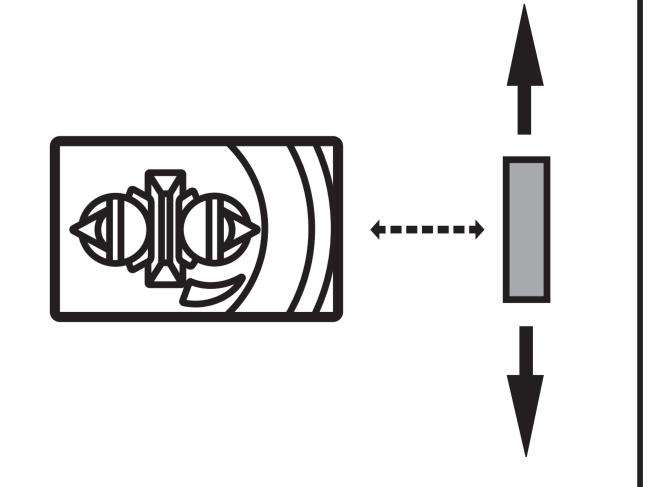


- ► Align the diffuse reflection sensor to the object to be detected.
- Secure it to a bracket.

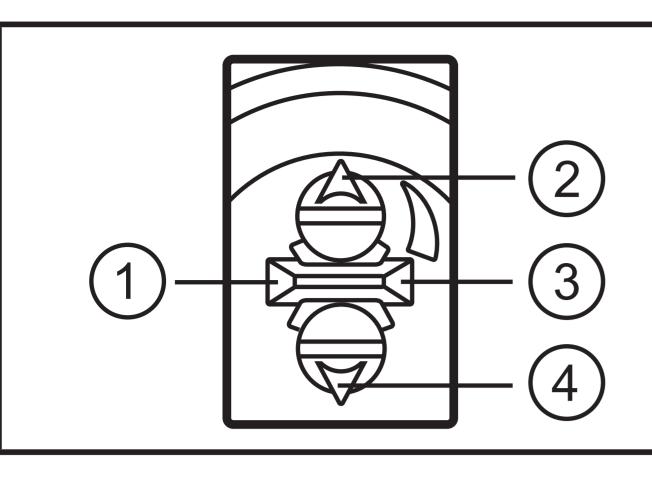
### Note:

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.



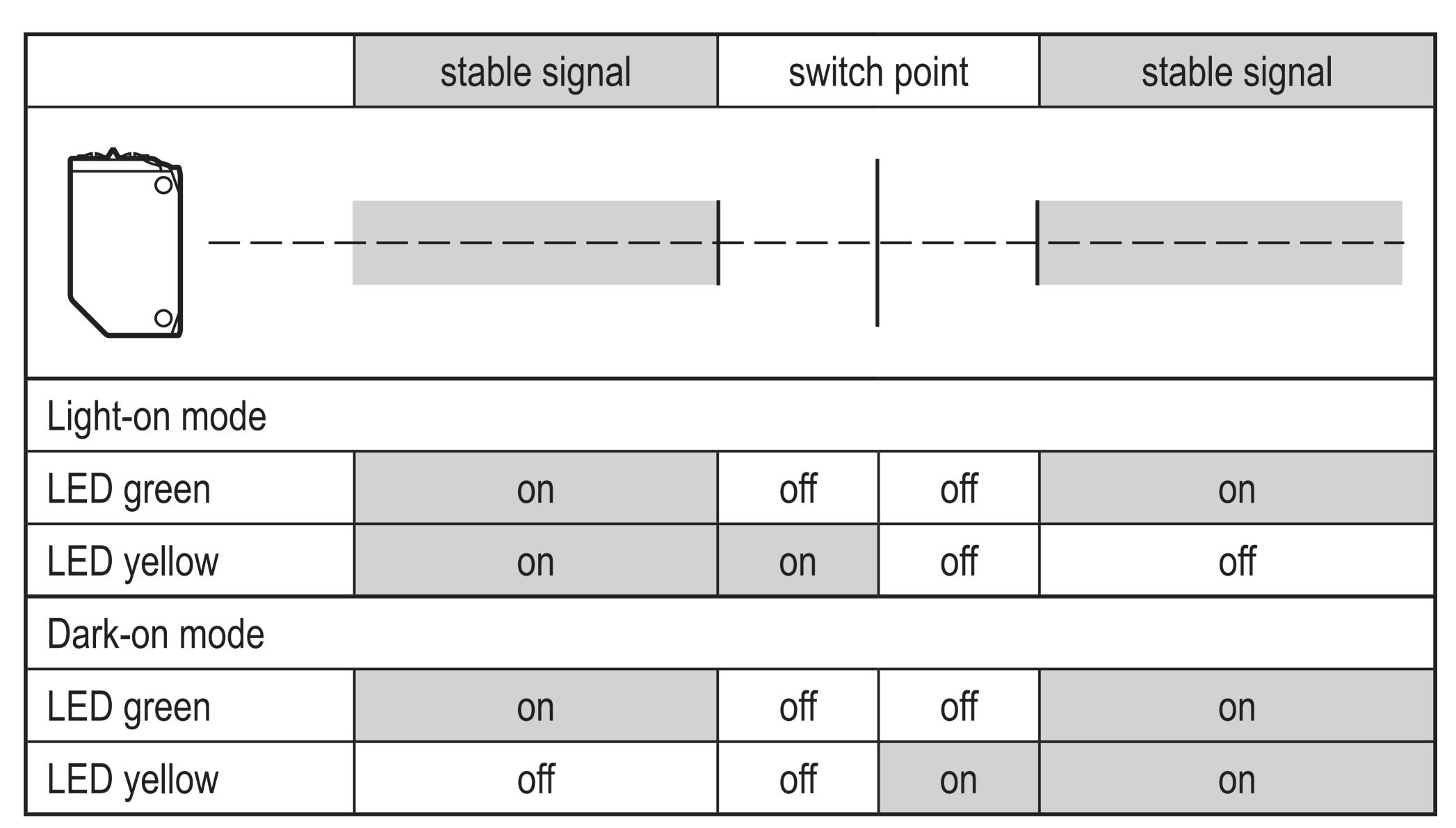
# 4 Operating and display elements



- 1: LED yellow switching output active
- 2: Setting potentiometer "range"
- 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 the sensor signal is stable.



### 5 Electrical connection

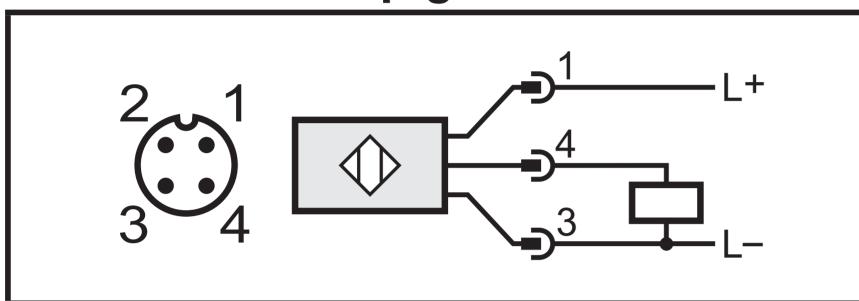


The unit must be connected by a qualified electrician.

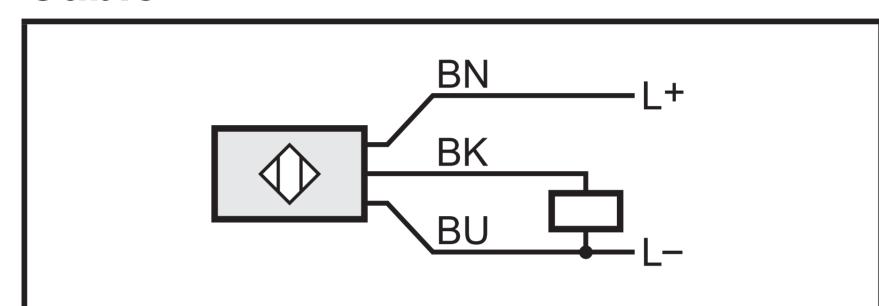
- ► The national and international regulations for the installation of electrical equipment must be adhered to.
- ► Ensure voltage supply to EN 50178.
- Disconnect power.
- Connect the unit as follows:

#### **5.1 PNP**

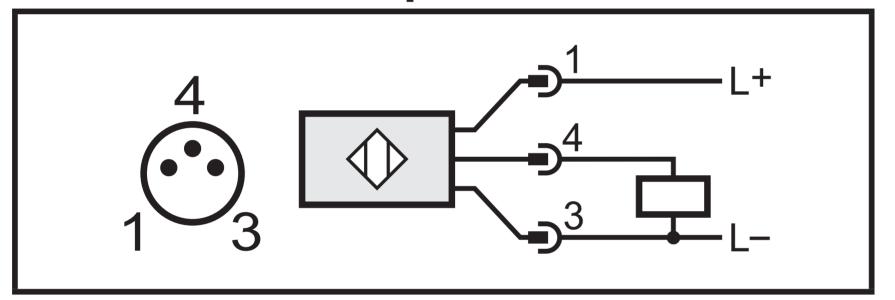
#### **Connector M12 pigtail**



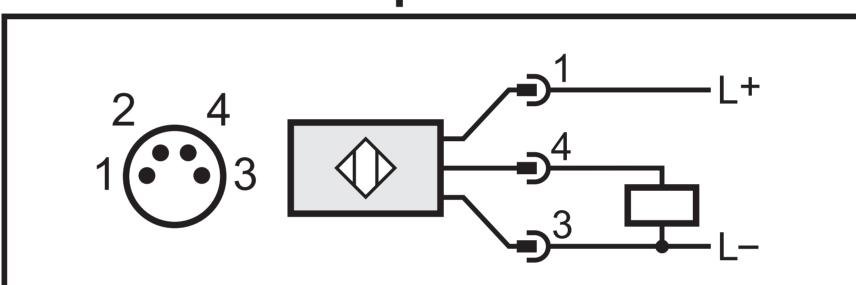
#### Cable \*



### Connector M8 3-pin



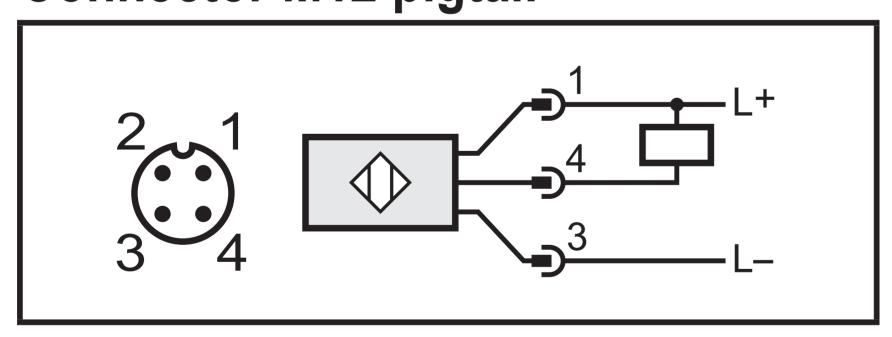
#### Connector M8 4-pin



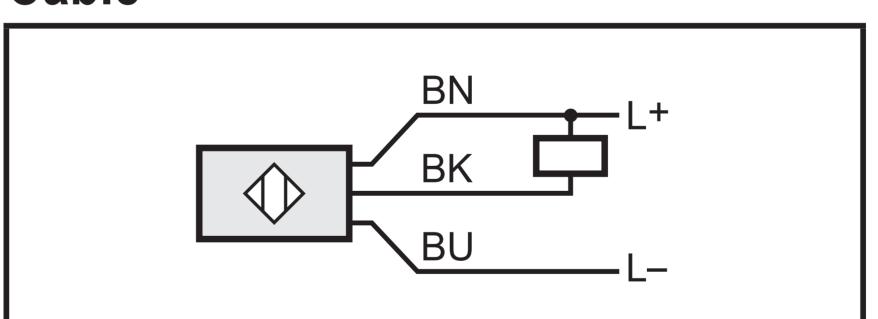
<sup>\*</sup> Core colours: BN = brown, BU = blue, BK = black

## 5.2 NPN

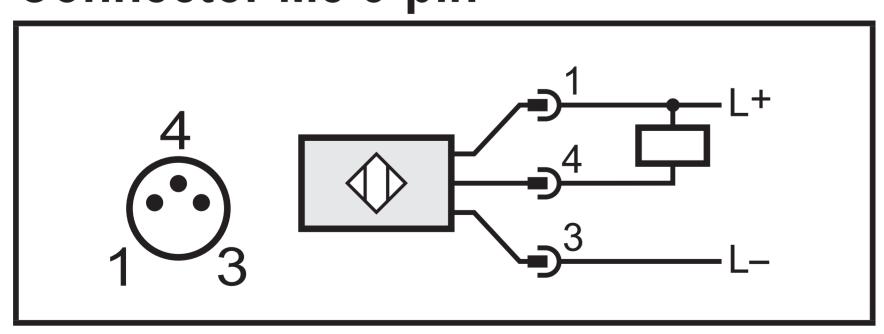
## **Connector M12 pigtail**



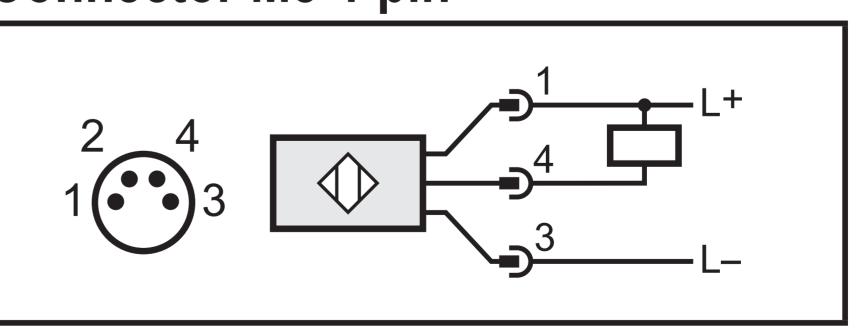
### Cable \*



# Connector M8 3-pin



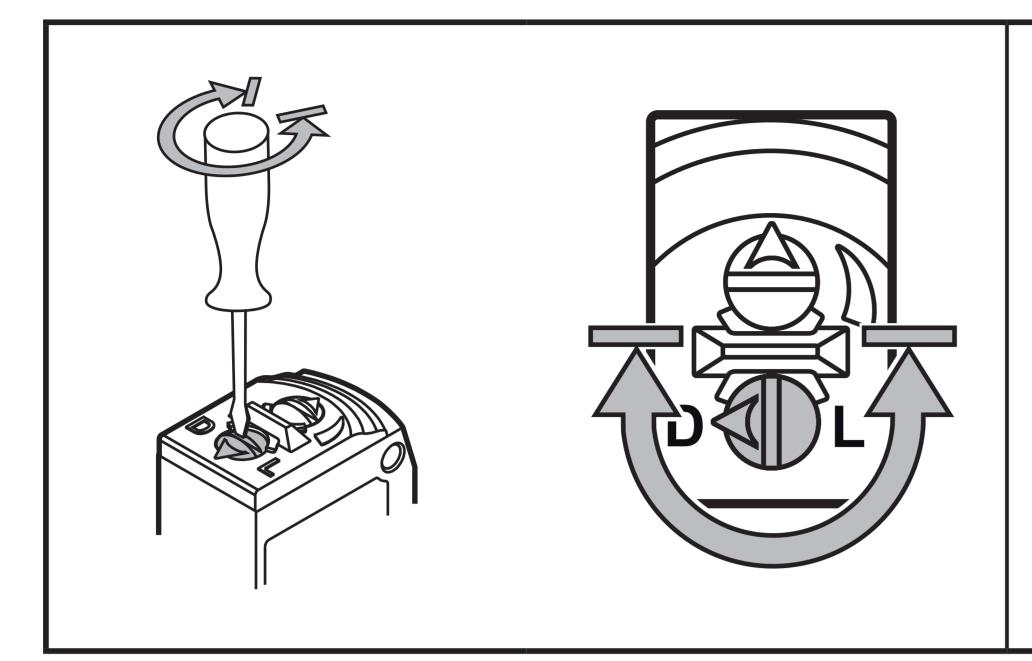
# Connector M8 4-pin



<sup>\*</sup> Core colours: BN = brown, BU = blue, BK = black

# 6 Settings

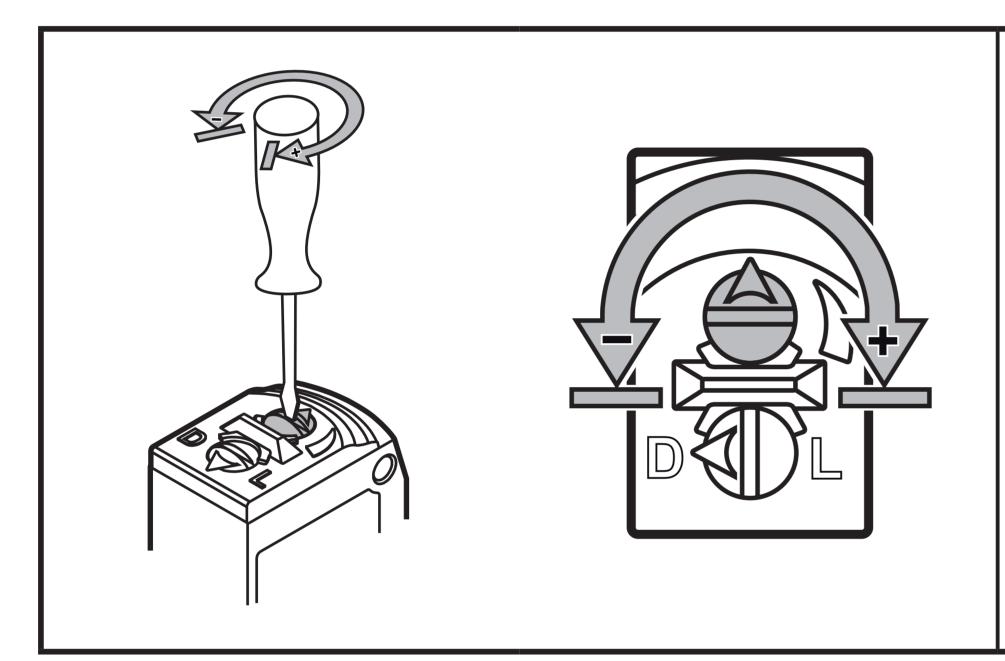
## 6.1 Set the output function



► Setting D: dark-on mode

► Setting L: light-on mode

### 6.2 Set the range



- Increase range: turn the setting screw of the potentioneter clockwise.
- ▶ Decrease range: turn the setting screw of the potentiometer 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 no object is detected.
- > Light-on mode: the output is switched / the yellow LED is lit when an 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