ifm electronic

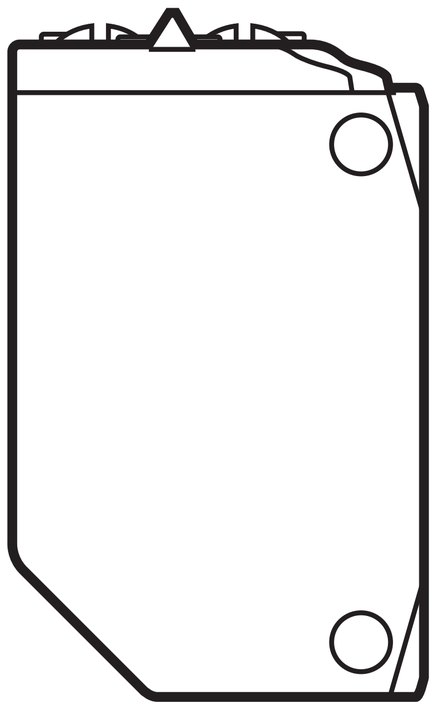
Operating instructions
Retro-reflective sensor

efector200®

UK

O6P3

O6P3IO / 00 01 / 2015



1 Preliminary note

1.1 Symbols used

▶ Instruction

> Reaction, result

[…] Designation of pushbuttons, buttons or indications

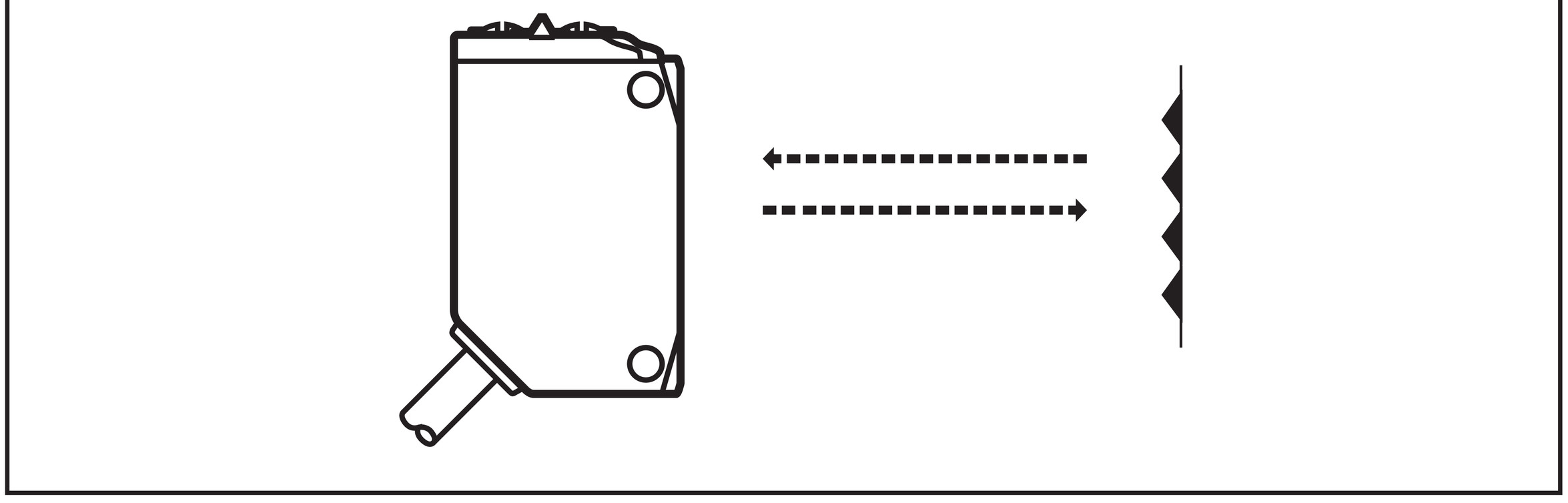
→ Cross-reference

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

2 Functions and features

In conjunction with a prismatic reflector or reflective tape the retro-reflective sensor detects objects and materials without contact and indicates their presence by a switching signal.

3 Installation

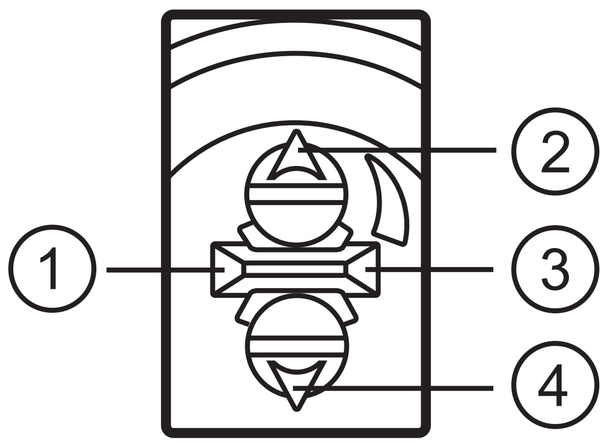


▶ Fit the prismatic reflector or the reflective tape behind the object to be detected.

▶ Align the retro-reflective sensor to it and secure it to a bracket.

Maximum range only with accurate alignment.

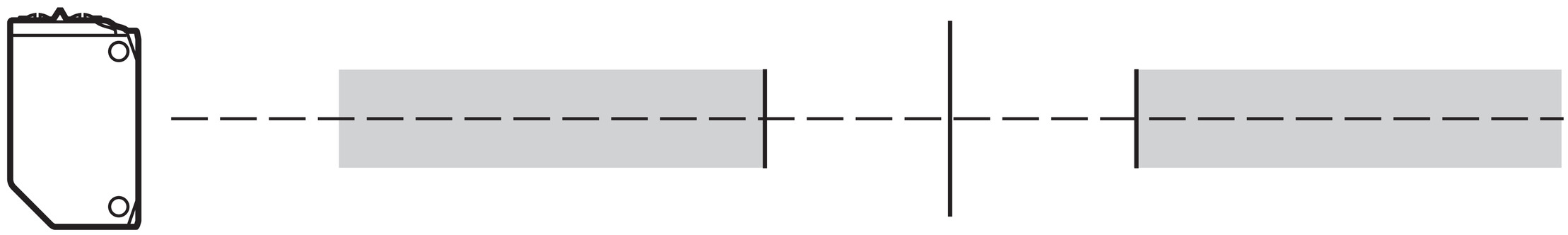
4 Operating and display elements



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.

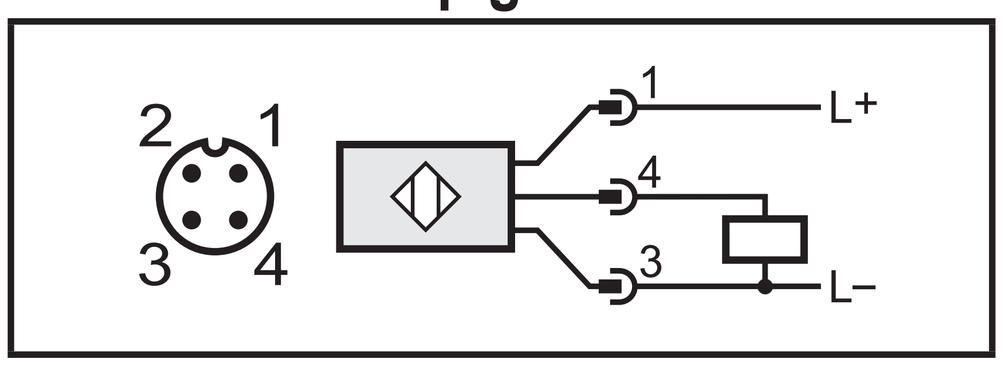
- ▶ The national and international regulations for the installation of electrical equipment must be adhered to.
- ▶ Ensure voltage supply to EN 50178.

▶ Disconnect power.

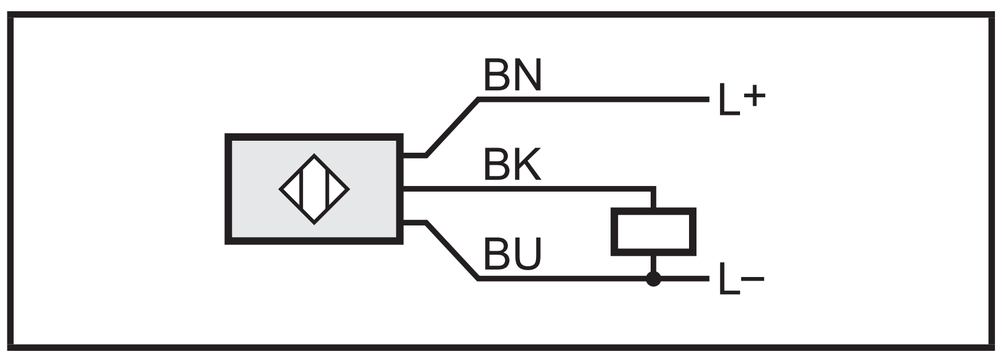
▶ Connect the unit as follows:

5.1 PNP

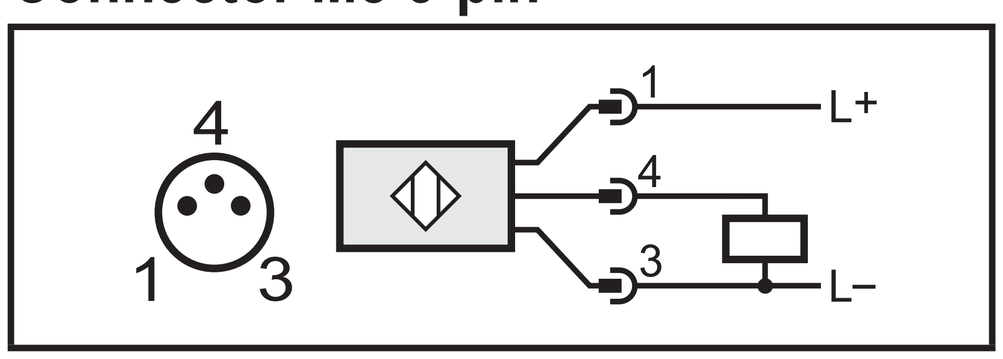
Connector M12 pigtail



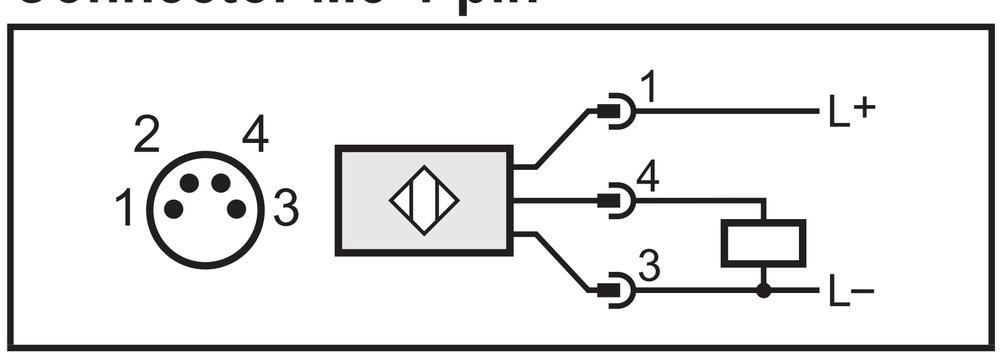
Cable *



Connector M8 3-pin



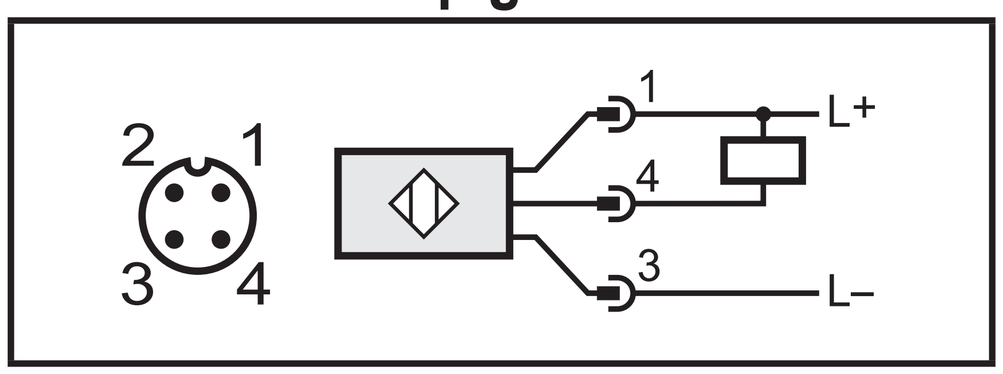
Connector M8 4-pin



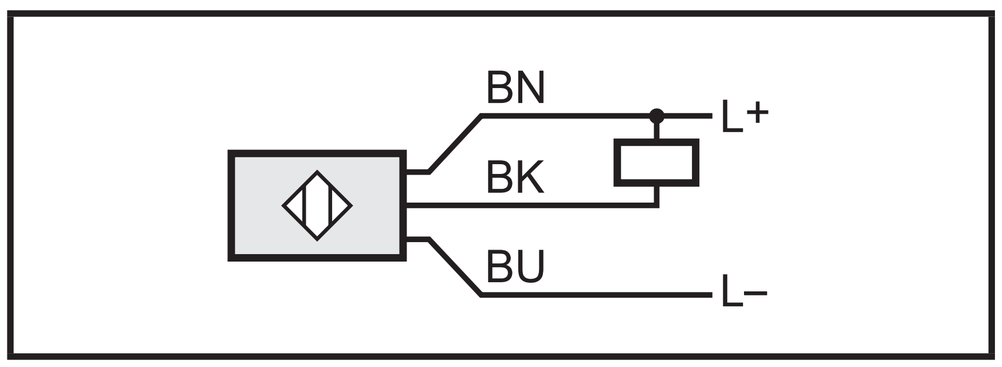
* Core colours: BN = brown, BU = blue, BK = black

5.2 NPN

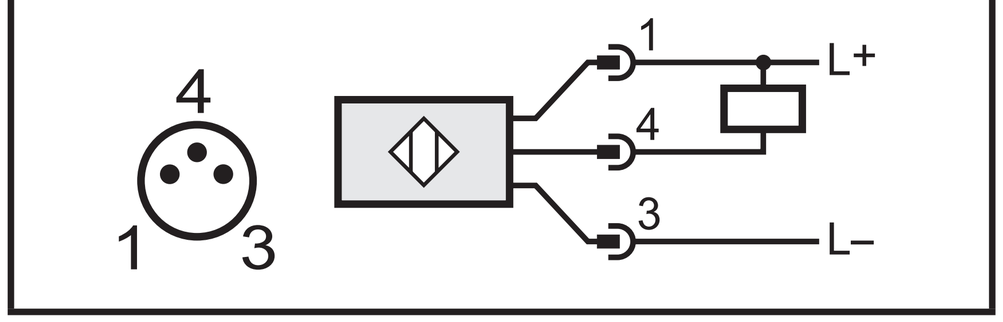
Connector M12 pigtail



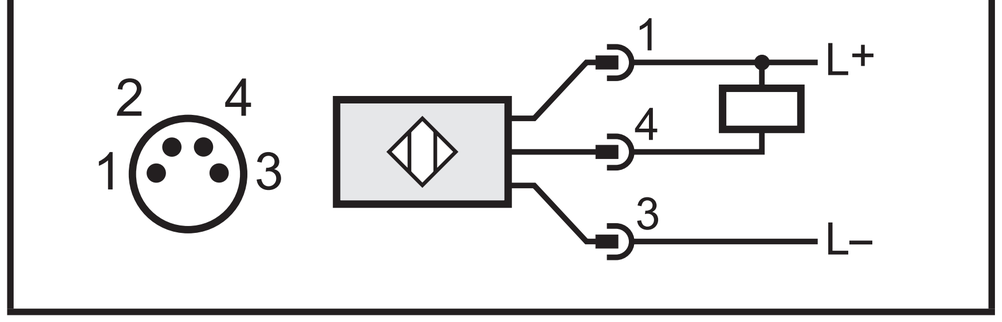
Cable *



Connector M8 3-pin



Connector M8 4-pin



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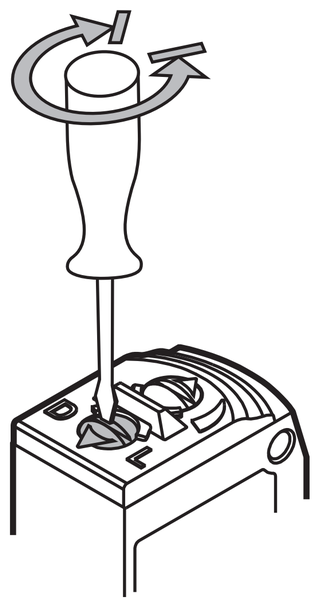
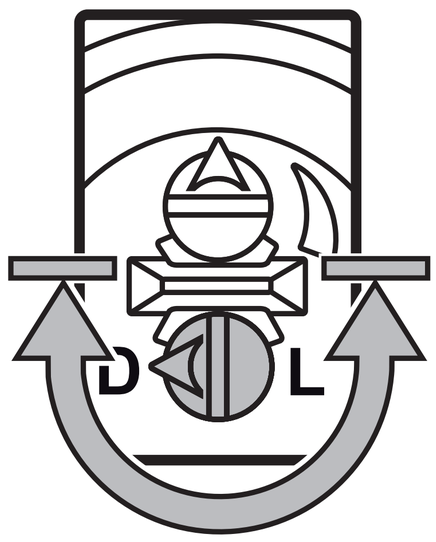
6 Settings

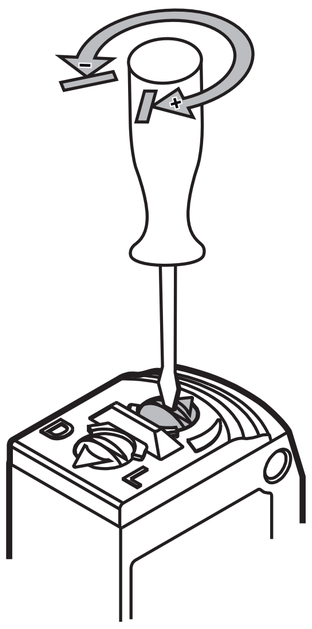
6.1 Set the output function

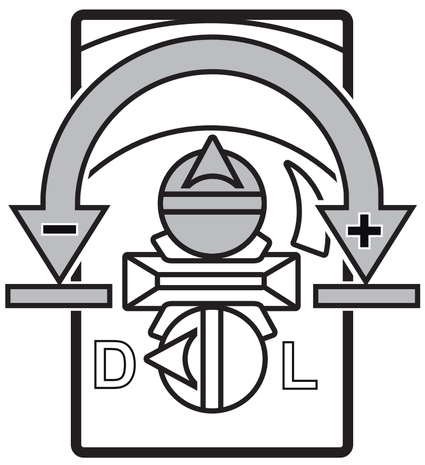




- ▶ Setting D: dark-on mode
- ▶ Setting L: light-on mode

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 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.