CE
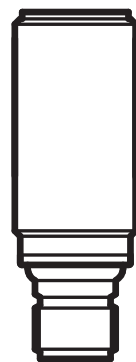
Operating instructions
Ultrasonic diffuse-reflection sensor

UGT527   UK

1 Preliminary note

1.1 Symbols used

▶   Instructions

\>   Reaction, result

→   Cross-reference

⚠ Important note
Non-compliance may result in malfunction or interference.

ℹ Information
Supplementary note
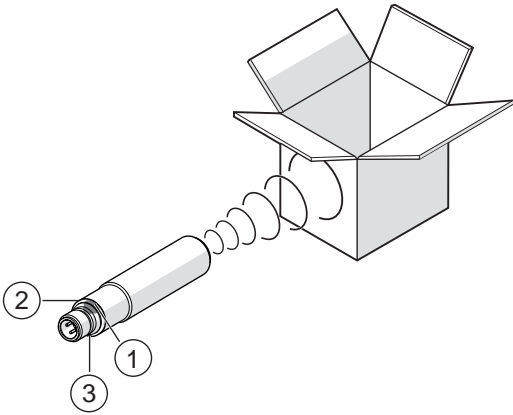
2 Safety instructions

- Read this document before setting up the product and keep it during the entire service life.

- The product must be suitable for the corresponding applications and environmental conditions without any restrictions.

- Only use the product for its intended purpose (→ Functions and features).

- If the operating instructions or the technical data are not adhered to, personal injury and/or damage to property may occur.

- The manufacturer assumes no liability or warranty for any consequences caused by tampering with the product or incorrect use by the operator.

- Installation, electrical connection, set-up, operation and maintenance of the unit must be carried out by qualified personnel authorised by the machine operator.

- Protect units and cables against damage.

3 Functions and features

Ultrasonic sensors detect objects of various materials without any contact. Detected objects are signalled via a switching output.

4 Installation

UGB

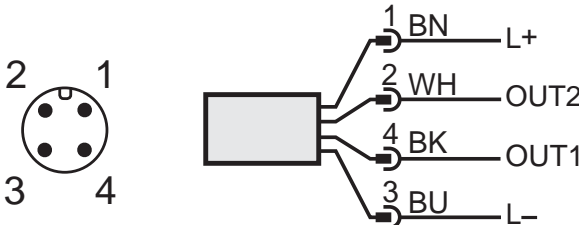1: Status LED P1 (yellow) 2: Status LED P2 (yellow) 3: Echo LED (green)

▶ Position object.

▶ Align the ultrasonic sensor so that it directly faces the object or the background and secure it to a bracket.

> Object / background is detected when the echo LED (green) lights.

⚠ Sound-absorbing surfaces have a negative effect on a reliable function.

⚠ During installation of the device, consider the dead zone.

5 Electrical connection

▶ Disconnect power.

▶ Connect device (depending on the type selected):

Core colours				
BK	black		1 BN — L+	OUT1: switching output / IO-Link
			2 WH — OUT2	
BN	brown		4 BK — OUT1	
BU	blue		3 BU — L–	OUT2: switching output
WH	white			
Colours to DIN EN 60947-5-2				

6 Set-up

Note the LED behaviour for the set-up:

Echo LED green	
On	Echo is received.
Off	No echo (object / background not detected).
Off	For the time of resetting to factory setting.

7 Settings / operation

The unit is set via the IO-Link interface ($\rightarrow$ 4.78 and $\rightarrow$ 79)

> On delivery the unit can also be used without IO-Link setting with the preset switch points.

8 IO-Link

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 process and diagnostic data 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.

The IODDs necessary for the configuration of the unit, detailed information about process data structure, diagnostic information, parameter addresses and the necessary information about the required IO-Link hardware and software can be found at www.ifm.com

8.1 Process data via IO-Link

All process data is available via IO-Link:

• The unit is laid out for fully bidirectional communication.

• The following options are available:

- Remote display: Read and display the current status.

- Remote parameter setting: Read and change the current parameter setting.

9 Parameter setting

ⓘ The unit can only be configured via IO-Link function.

The parameters can be set prior to installation and set-up of the unit or while in operation.

❗ Changing parameters during operation can influence the function of the plant.

▶ Ensure that there will be no malfunctions in the plant.

9.1 Parameter setting via PC

For parameter setting an IO-Link software is necessary
(e.g. LR SENSOR, LR DEVICE).
IO-Link interfaces from ifm are available for the connection of the unit via the USB interface of a computer → www.ifm.com.

▶ Prepare computer, software and interface.

▶ Connect unit with IO-Link interface.

▶ Follow the menu of the IO-Link software.

▶ Set the parameters.

▶ Put the unit into operation.

10 Operation

▶ Check whether the unit operates correctly.

> Display by LEDs:

Green LED lights	Echo is received.
Yellow LED P1 lights	Output 1 is switched
Yellow LED P2 lights	Output 2 is switched
LED green flashes	Short circuit at the output.

❗ The minimum distance between the "metal housing of the proximity sensor" and a "non-isolated part outside the sensor" must be 12.7 mm.

More information at www.ifm.com