Operating instructions
Capacitive sensor

KI53xA

$C \epsilon$

Contents

1 Preliminary note

You will find instructions, technical data, approvals and further information using the QR code on the unit / packaging or at www.ifm.com.

1.1 Symbols used

✓ Requirement

▶ Instruction

▷ Reaction, result

[...] Designation of keys, buttons or indications

→ Cross-reference

! Important note
Non-compliance can result in malfunction or interference

ñ Information
Supplementary note

2 Safety instructions

- The device described is a subcomponent for integration into a system.
  - The system architect is responsible for the safety of the system.
  - The system creator undertakes to perform a risk assessment and to create documentation in accordance with legal and normative requirements to be provided to the operator and user of the system. This documentation must contain all necessary information and safety instructions for the operator, the user and, if applicable, for any service personnel authorised by the architect of the system.
- 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).
- Only use the product for permissible media (→ Technical data).
- 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 product must be carried out by qualified personnel authorised by the machine operator.
- Protect units and cables against damage.

3 Functions and features

The unit monitors the levels of dry bulk materials and liquids.

4 Function

- The unit detects position and level according to the capacitive measuring principle.
- The unit has an IO-Link interface.

4.1 IO-Link

This unit has an IO-Link communication interface which enables direct access to process and diagnostic data. In addition it is possible to set the parameters of the unit while it is in operation. Operation of the unit via the IO-Link interface requires an IO-Link master.

With a PC, suitable IO-Link software and an IO-Link adapter cable, communication is possible while the system is not in operation.

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.

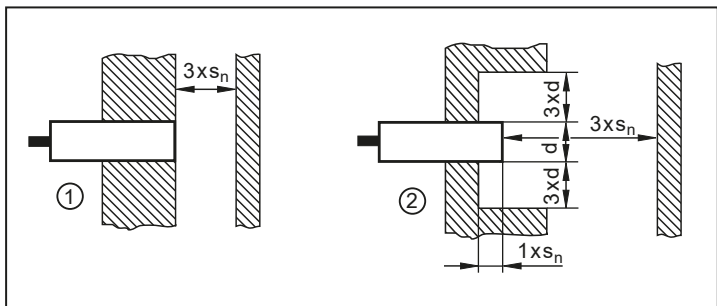The IO-Link interface provides the following functions using suitable hardware and software:

- Remote parameter setting of the unit
- Noise-immune signal transmission without measured value losses
- Transmission of the parameter settings to a replaced unit or to other units of the same type
- Simultaneous reading of all process values and the binary switching signals

- Comprehensive display of error and event messages.
- Evaluation of the process values and diagnostic data via IO-Link master.
- Paperless logging of parameter sets, process values and diagnostic information
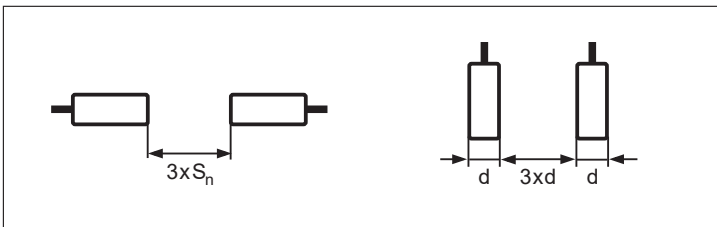
5 Mounting

5.1 Free space around the sensing face

1: flush   2: non flush

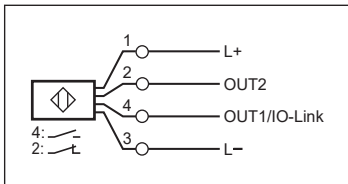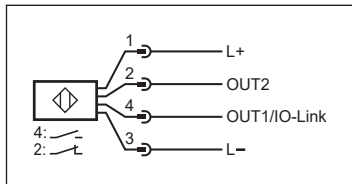## 5.2 Minimum clearance when installing several units

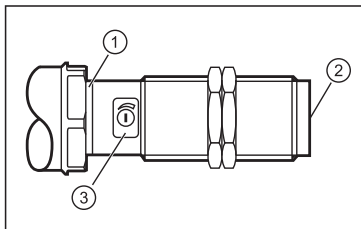# 6 Electrical connection

⚠️ The unit must be connected by a qualified electrician.

The national and international regulations for the installation of electrical equipment must be adhered to.

▶ Disconnect power.

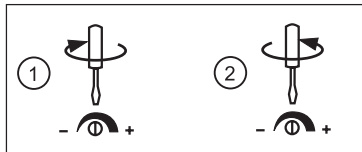▶ Connect the unit as follows:

7 Operating and display elements

1: LED ring yellow
2: Sensing face
3: Potentiometer

8 Settings

8.1 Sensing range

▶ Set the sensing range via the potentiometer using a screwdriver.

1: increase the sensing range
2: reduce the sensing range

9 Maintenance, repair and disposal

The operation of the unit is maintenance-free.

To ensure correct functioning, please note the following:

▶ Keep the sensing face and any clear spaces free from deposits and foreign bodies.

It is not possible to repair the unit.

After use dispose of the device in an environmentally friendly way in accordance with the applicable national regulations.