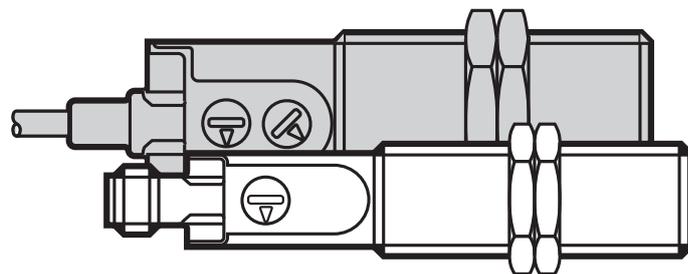


Operating instructions Capacitive sensors

UK

706413 / 01 06 / 2019



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1 Preliminary note

1.1 Symbols used

▶ Instruction

> Reaction, result

→ Cross-reference



Important note

Non-compliance may result in malfunction or interference.



Information

Supplementary note.

● LED on

○ LED off

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2 Safety instructions

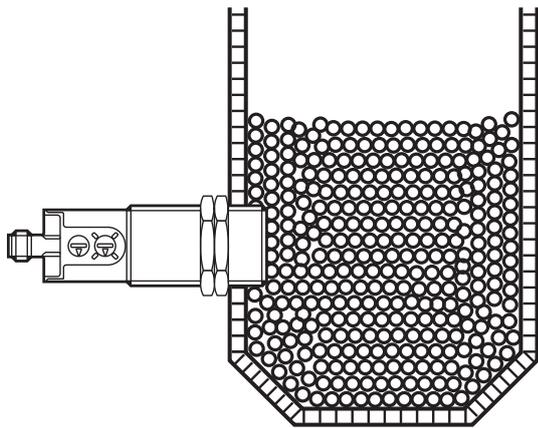
- Read this document before setting up the product and keep it during the entire service life.
- The product must be suitable for the corresponding applications and environmental conditions without any restrictions.
- Only use the product for its intended purpose (→ Functions and features).
- If the 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 product must be carried out by qualified personnel authorised by the machine operator.
- Protect units and cables against damage.

3 Functions and features

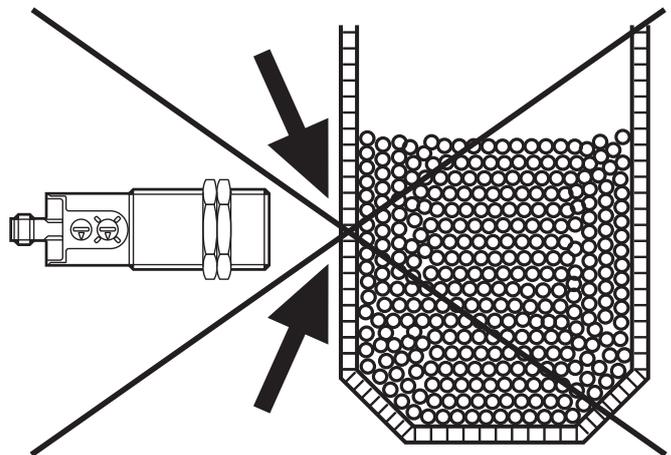
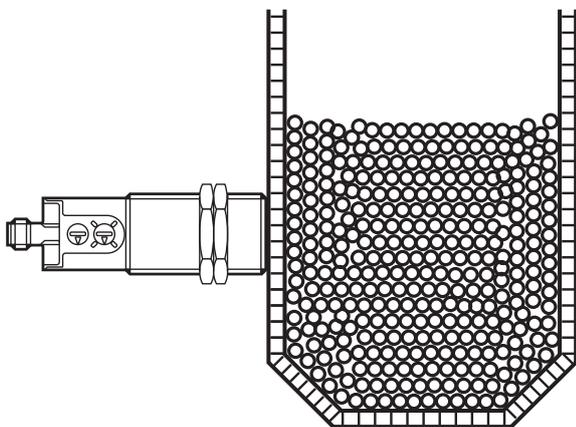
- Capacitive sensor for monitoring levels and positions.

4 Installation

In contact with the medium



Not in contact with the medium (only for non-metallic tanks)



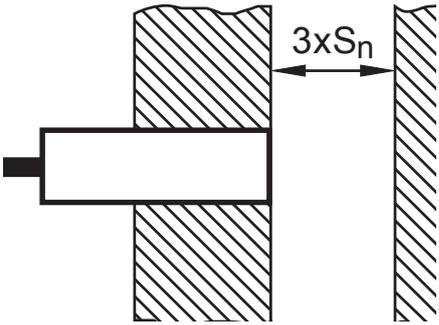
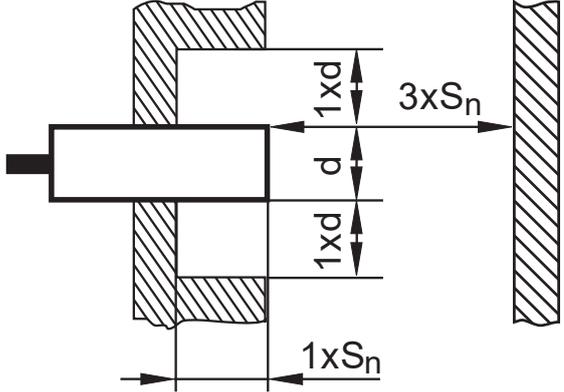
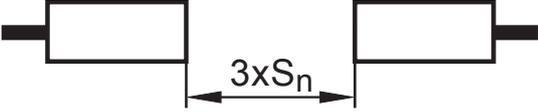
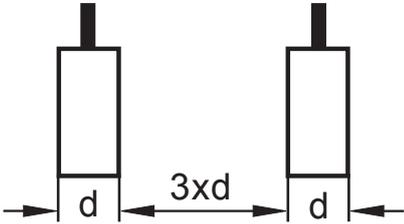
4.1 Notes on flush and non-flush installation



For flush installation of non-flush units the sensor properties change and the sensor can remain permanently switched (loss of function).



Quasi-flush sensors may be installed **flush** in non conductive materials and have to be installed **non flush** in conductive materials.

Flush	Non-flush
	
Minimum distances when mounting several switches of the same type	
	

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4.2 Notes on laying of the connection cable

- Lay cable as straight as possible and do not coil it.

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.

► Disconnect the system from power and connect the unit.

5.1 Wiring

	Cable	Connector
PNP		
NPN		
	BN = brown BK = black BU = blue	

BK / PIN 4: OUT / IO-Link

6 Operating and display elements

1 potentiometer	2 potentiometers

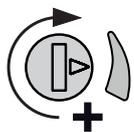
- 1: Potentiometer (switching function)
- 2: Potentiometer (sensing range)
- 3: LED yellow (switching status indication)
- 4: LEDs green (signal indication)

7 Settings

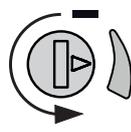
7.1 Sensing range

Use the potentiometer to set the sensing range:

→ 6 Operating and display elements (2)



increase the sensing range



reduce the sensing range

7.2 Normally open / normally closed (optional)

Use the potentiometer to set the switching function:

→ 6 Operating and display elements (1)



normally closed



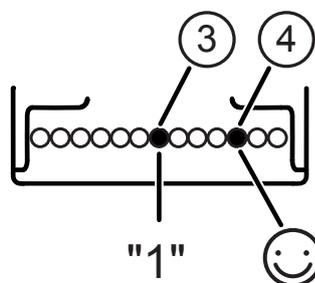
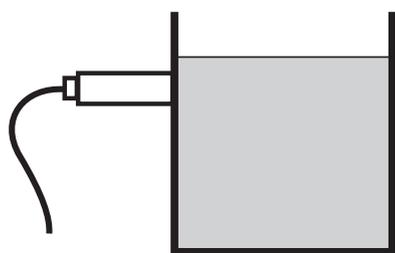
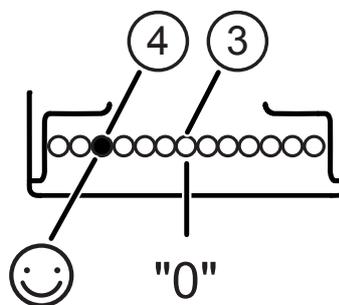
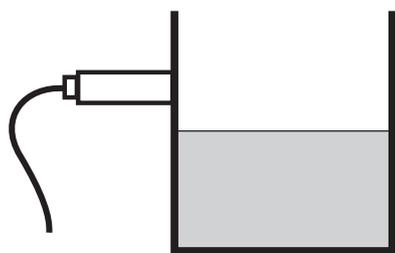
normally open

7.3 Signal display (optional)

LED yellow (3): switching status indication (centre)

LEDs green (4): indicate the distance to the switch point.

Optimum adjustment of the switch point:



7.4 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.

8 Operation

Check whether the unit operates correctly. Bring about a sensor response by taking suitable measures.

Display by LEDs (independent of the programmed output configuration):

LED yellow OUT:	"0" switching output disabled
LED yellow ON:	"1" switching output enabled
LED green:	readiness for operation (optional)

9 Maintenance, repair and disposal

The operation of the unit is maintenance-free. For a correct function note:

- Keep the sensing face and a clear space, if any, free from deposits and foreign bodies.

It is not possible to repair the unit.

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

Technical data and further information at www.ifm.com

