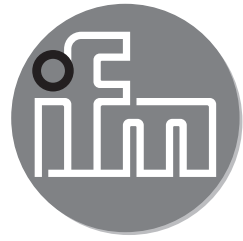


ifm electronic



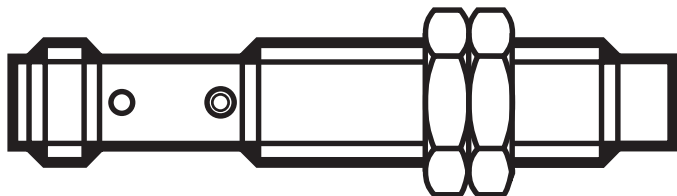
Operating instructions
Capacitive sensors

efector150[®]

KF

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706157/00 02/2012



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1 Preliminary note

1.1 Notes on this document



It is part of the device and contains information about the correct handling of the product.

This document is intended for qualified electricians. These specialists are people who are qualified by their training and their experience to see and to avoid possible hazards that may be caused during operation of the device.

- ▶ Read this document before using the device.
- ▶ Keep this document during the service life of the device.

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1.2 Symbols used

- ▶ Instruction
- > Reaction, result
- [...] Designation of pushbuttons, buttons or indications
- Cross-reference
-  Important note
Non-compliance can result in malfunction or interference
-  Information
Supplementary note

2 Functions and features

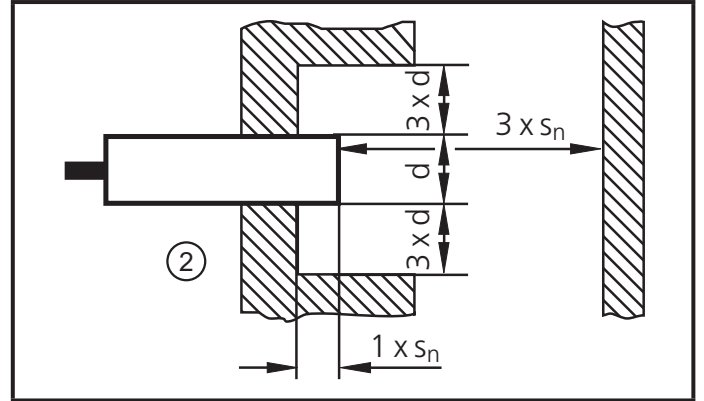
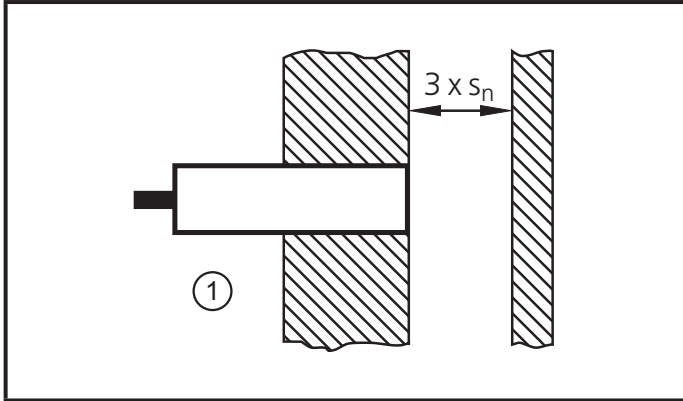
- The capacitive sensor detects without contact metals, almost all plastics, glass, ceramics, wood and paper and indicates their presence by providing a switched signal.
- Not suited for level detection.

3 Installation

Notes on flush and non-flush installation

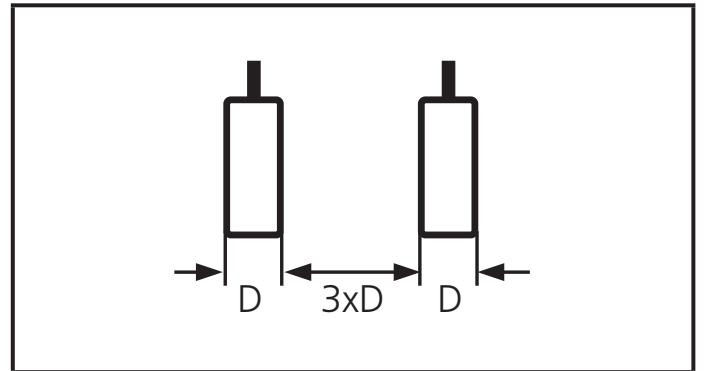
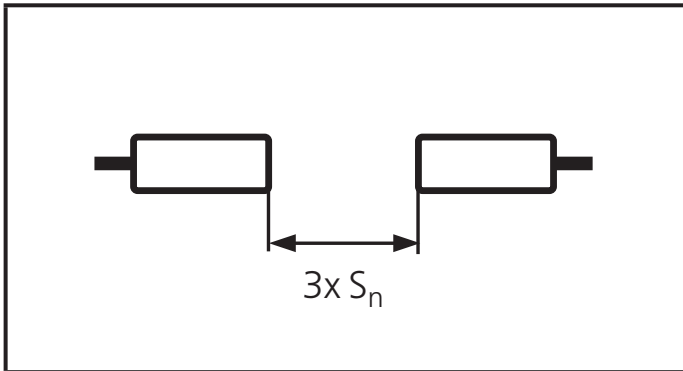
For flush installation of non-flush units the sensor properties change and the sensor can remain permanently switched (loss of function).

Free space around the sensing face



- 1: flush
- 2: non flush

Minimum distances when mounting several switches of the same type



4 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.

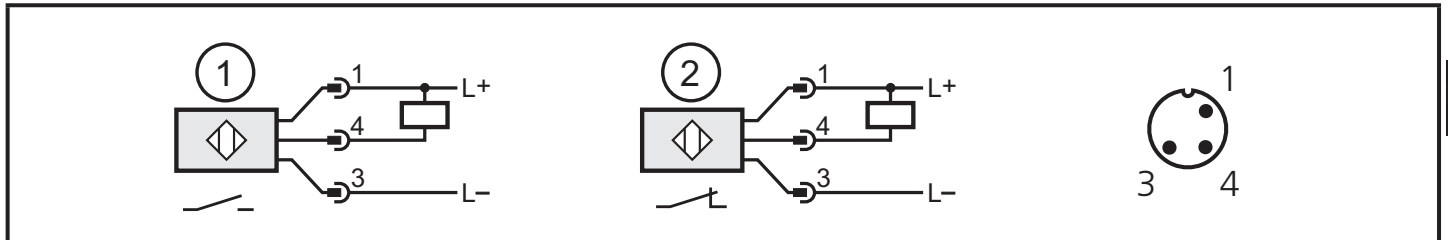
Voltage supply to EN50178, SELV, PELV.

- ▶ Disconnect power.
- ▶ Connect the unit.

4.1 Wiring



positive switching (type...PKG...)



negative switching (type ...NKG...)

1: NO

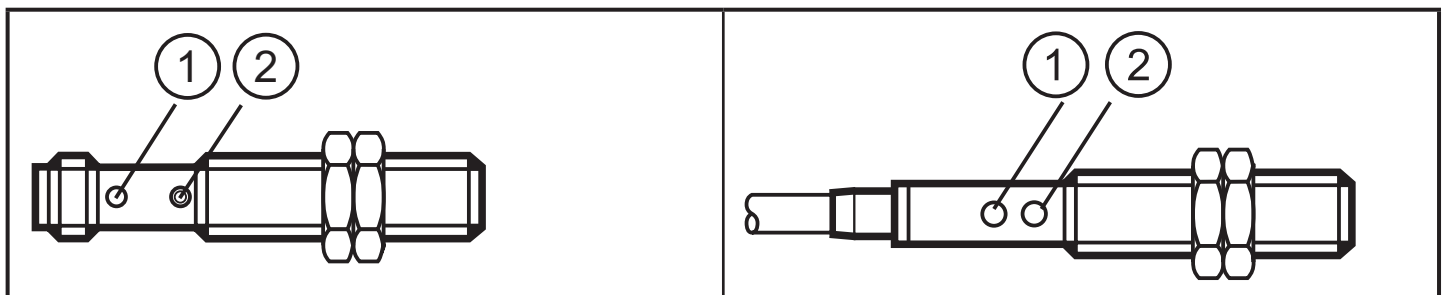
2: NC



positive switching (type...PKG...)

BN brown / BK black / BU blue

5 Operating and display elements



1: LED


2: potentiometer

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6 Operating modes

6.1 Adjustment

NO	NC
<ul style="list-style-type: none">▶ place the target material in the safe sensing range> LED is lit	<ul style="list-style-type: none">▶ place the target material in the safe sensing range> LED goes out
<ul style="list-style-type: none">▶ decrease the sensing range> LED goes out	<ul style="list-style-type: none">▶ decrease the sensing range> LED is lit
<ul style="list-style-type: none">▶ increase the sensing range> LED is lit	<ul style="list-style-type: none">▶ increase the sensing range> LED goes out

 Do not increase the sensing range beyond S_n .

7 Operation

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

Display by LEDs:

LED yellow OFF: switching output disabled

LED yellow ON: switching output enabled


Do not operate units with high field intensity (e.g. walkie-talkies) at close range to the sensor.

8 Technical data

8.1 Data sheets

 Data sheets can be found at: www.ifm.com → data sheet search → article. no.

9 Approvals/standards

 The EC declaration of conformity and approvals can be found at: www.ifm.com → data sheet search → article. no. → Approvals

10 Maintenance, repair and disposal

The operation of the unit is maintenance-free. To ensure a correct function:

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

When removing the unit or changing the medium, a new adjustment might be necessary.

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

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