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INTUSENS DALI-2 BROADCAST

OPERATION AND NETWORKING

EN | 10495316 | 261028

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1. NOTES

Observe and follow the notes below:



NOTICE. Indicates hazards that may result in property damage or malfunctions..



TIP. Indicates information that contains advice or a useful note.

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2. CONNECTION TYPE

IntuSens DALI-2 Broadcast

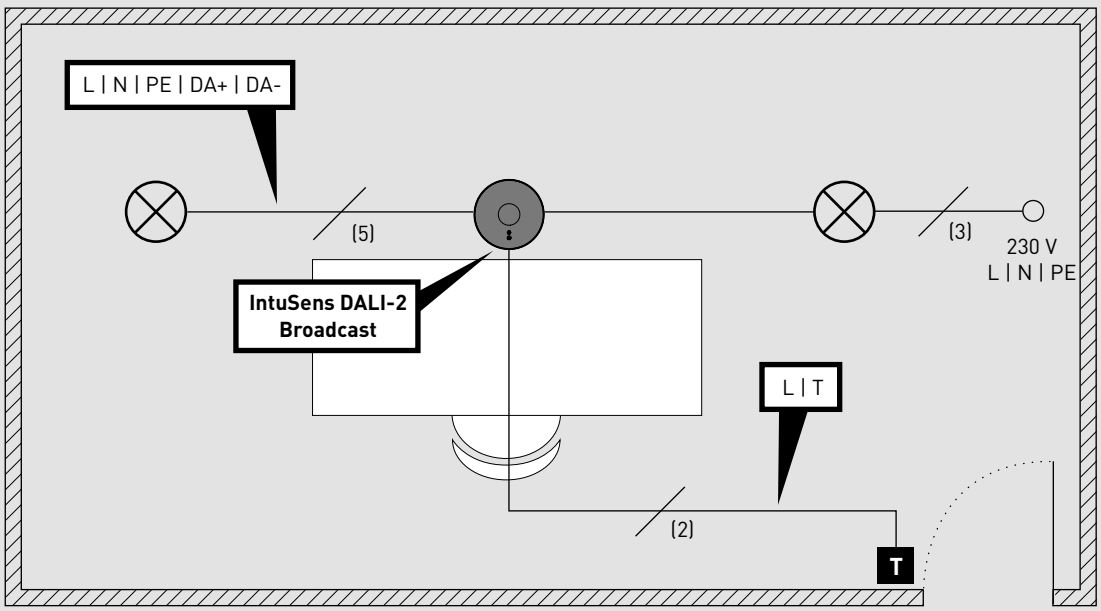
A DALI-2 certified sensor with PIR technology and a single-channel DALI output for connecting DALI luminaires. The PIR sensor provides daylight-dependent constant light control as well as presence and/or motion detection. Commissioning is carried out directly on the sensor, without an app or remote control.

TIP. The detection area can only be extended by adding further DALI-2 Input Device sensors.

2.1. Examples of networking variants

Example 1

Single-person office with IntuSens DALI-2 Broadcast.



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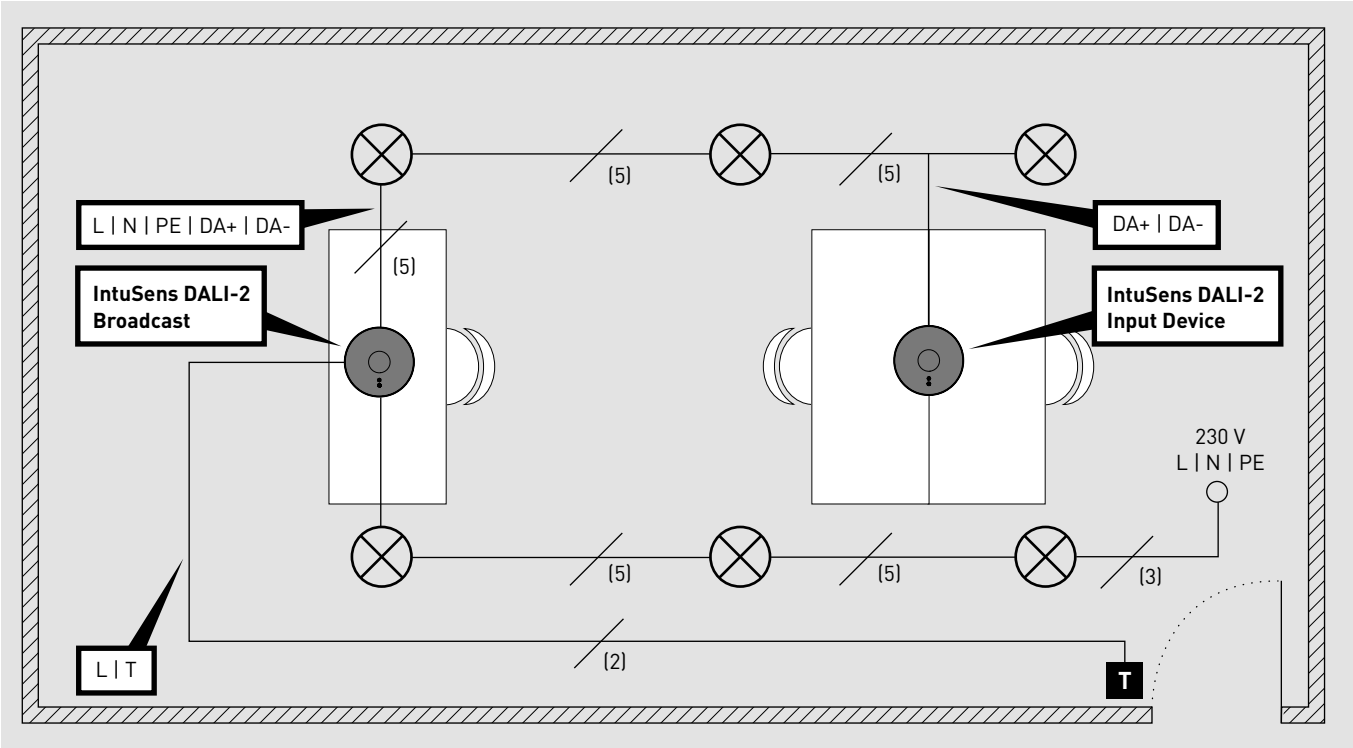
Example 2

3-person office with one IntuSens DALI-2 Broadcast and one IntuSens DALI-2 Input Device.



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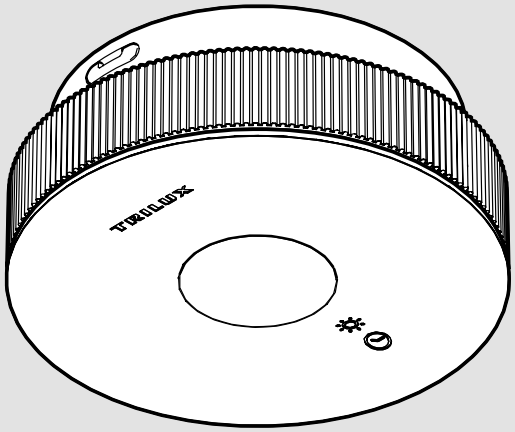
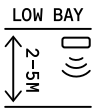
3. LOW BAY



Low Bay sensor with flush-mounted sensor optics.

Description
Thanks to the integrated presence detector, this PIR sensor variant is particularly suitable for offices, classrooms and meeting rooms. The PIR sensor detects presence by recognising even small movements, such as those made during seated activities.

- Mounting height: 2 m to 5 m
- Presence and motion detection with a detection range of up to 26 m in diameter



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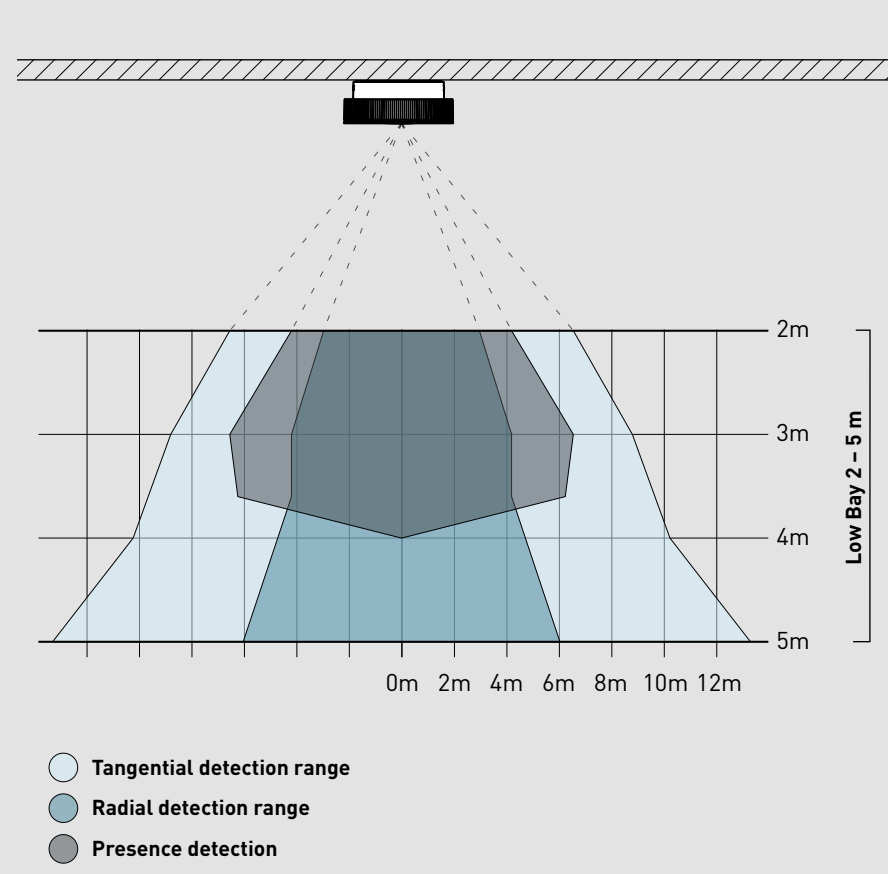
3.1. Low Bay sensor range



Sensor range
The detection range of the integrated PIR sensor varies depending on the mounting height. The following overview illustrates the detection ranges at different mounting heights.

Presence detection
In presence detection mode, the sensor detects even the smallest movements directly below the sensor. This allows it to detect subtle movements (e.g. computer mouse movements), making it ideal for applications where the presence of people at their workstations needs to be detected.

Mounting height (m)	Presence detection (m)
2 m	ø 8,2 m
3 m	ø 12,8 m
3,6 m	ø 12,2 m
4 m	ø 8,2 m

Radial detection range
With radial detection, the sensor reliably detects movements towards or away from the sensor. Even small movements can be detected, making it ideal for applications where people remain in a room for extended periods.

Mounting height (m)	Radial detection range (m)
2 m	ø 5,8 m
3 m	ø 8,2 m
3,6 m	ø 8,2 m
5 m	ø 11,8 m

Tangential detection range
With tangential detection, the sensor reliably detects movements across the detection area. This allows larger areas to be monitored effectively, making it ideal for applications where people move sideways across the sensor's detection area.

Mounting height (m)	Tangential detection range (m)
2 m	ø 12,8 m
3 m	ø 17,2 m
4 m	ø 20 m
5 m	ø 26 m

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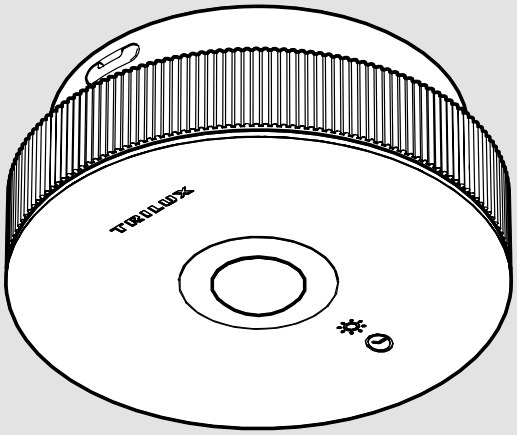
4. HIGH BAY



High Bay with convex sensor optics.

Description
Thanks to the integrated PIR sensor, this sensor variant is particularly suitable for stairwells and industrial halls. The PIR sensor detects larger movements, such as people or objects moving within the detection area.

- Mounting height: 5 m to 18 m
- Motion detection with a detection range of up to 22 m in diameter



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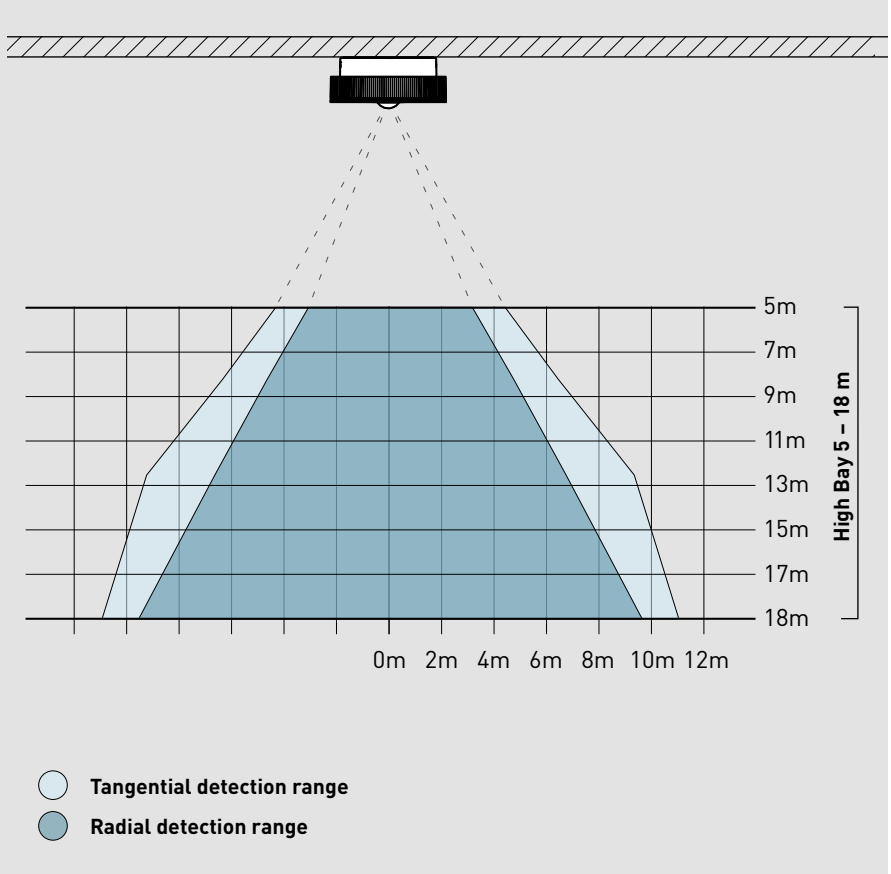
4.1. High Bay sensor range



Sensor range
The detection range of the integrated PIR sensor varies depending on the mounting height. The following overview illustrates the detection ranges at different mounting heights.

Radial detection range
With radial detection, the sensor reliably detects movements towards or away from the sensor. Even small movements can be detected, making it ideal for applications where people remain in a room for extended periods.

Mounting height (m)	Radial detection range (m)
4 m	ø 5,2 m
8 m	ø 9,4 m
12 m	ø 13,4 m
18 m	ø 19,2 m

Tangential detection range
With tangential detection, the sensor reliably detects movements across the detection area. This allows larger areas to be monitored effectively, making it ideal for applications where people move sideways across the sensor's detection area.

Mounting height (m)	Tangential detection range (m)
4 m	ø 7,4 m
8 m	ø 12,8 m
12 m	ø 18,6 m
18 m	ø 22 m

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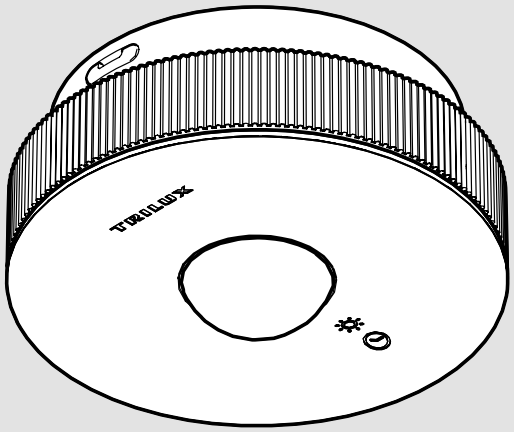
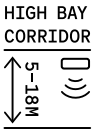
5. HIGH BAY CORRIDOR



High Bay Corridor with strongly convex sensor optics.

Description
Thanks to the integrated PIR sensor and its specific detection range, this sensor variant is particularly suitable for hallways, passageways and corridors. The PIR sensor detects movement, such as people or objects moving within the detection area.

- Mounting height: 5 m to 18 m
- Motion detection with a special corridor detection range of up to 28 m x 10.6 m in corridor areas



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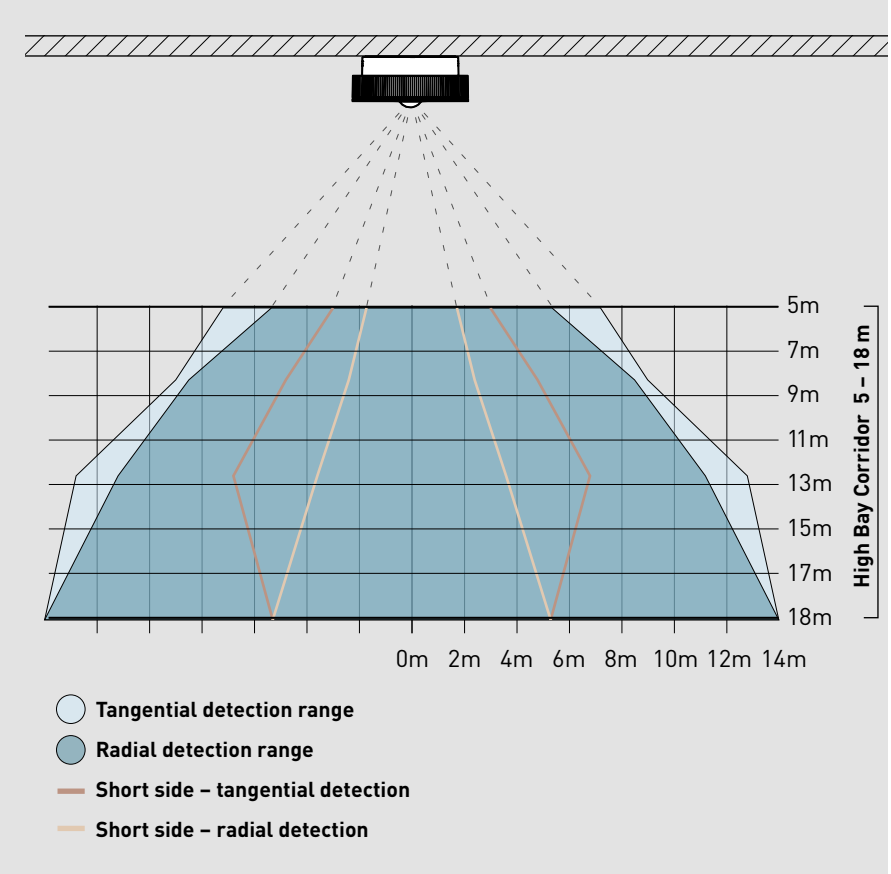
5.1. High Bay Corridor sensor range



Sensor range
The detection range of the integrated PIR sensor varies depending on the mounting height. The following overview illustrates the detection ranges at different mounting heights.

Radial detection range
With radial detection, the sensor reliably detects movements towards or away from the sensor. Even small movements can be detected, making it ideal for applications where people remain in a room for extended periods.

Mounting height (m)	Radial detection range (m)
4 m	ø 8,6 m x 3 m
8 m	ø 17 m x 4,8 m
12 m	ø 22,4 m x 7,2 m
18 m	ø 28 m x 10,6 m

Tangential detection range
With tangential detection, the sensor reliably detects movements across the detection area. This allows larger areas to be monitored effectively, making it ideal for applications where people move sideways across the sensor's detection area.

Mounting height (m)	Tangential detection range (m)
4 m	ø 13,2 m x 4,8 m
8 m	ø 18 m x 9,6 m
12 m	ø 25,6 m x 13,6 m
18 m	ø 28 m x 10,6 m

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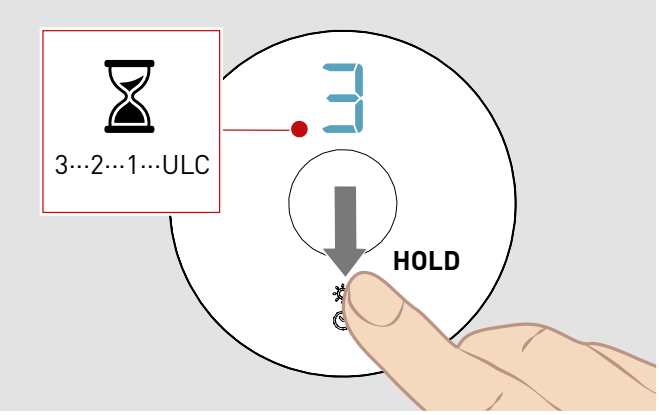
6. SETTINGS

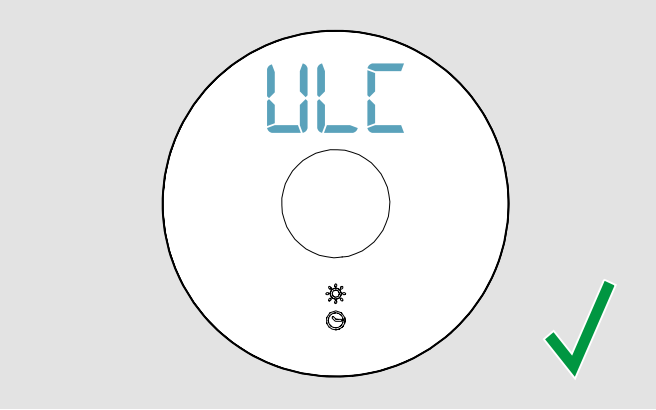
6.1. Factory settings

Thanks to the factory configuration of the IntuSens sensors, they can be commissioned according to the plug-and-play principle after wiring. Configuration or adjustment of individual parameters is possible at any time, but is not required for commissioning. The IntuSens sensors are supplied with the following default settings:

- Constant light control: Set to 80% illuminance
- Switch-off delay: 10 minutes
- Background lighting: Disabled
- Automatic mode: Enabled
- User interface: Locked

6.2. Unlocking the sensor





To make settings on the sensor, you must first unlock it:

1. Press and hold the push-button for **3 seconds**.
2. A counter appears in the display: **3..2..1.. "ULC"** for unlocked
3. The sensor is now **unlocked**.

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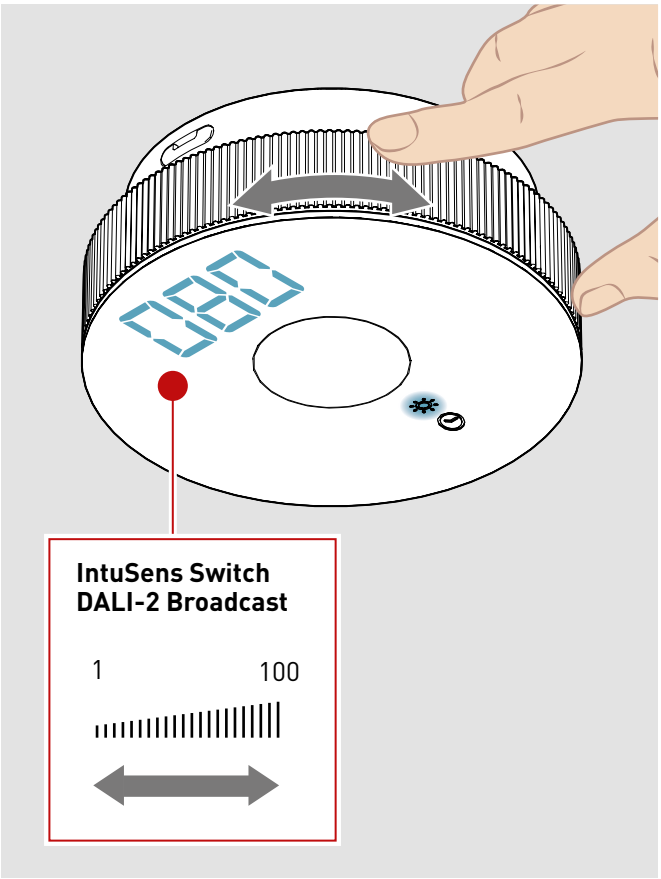
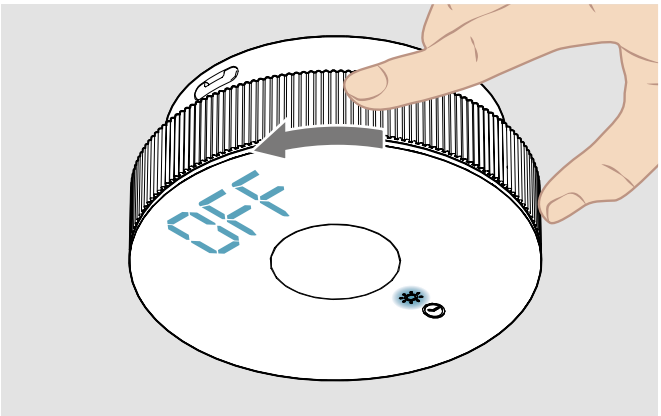
6.3. Illuminance threshold



This value defines the threshold at which the sensor switches the connected luminaires on or off. To set the illuminance, proceed as follows:

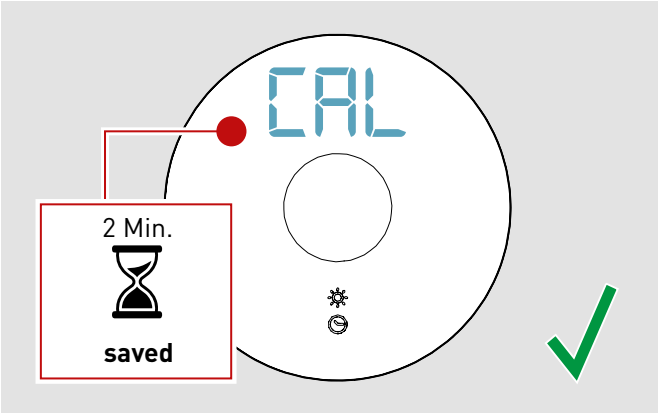
1. **Unlock the sensor** (see 6.2).
2. The LED for illuminance lights up and the **set value** is shown in the display.
3. Turn the ring to change the **set value**.

TIP. With the IntuSens DALI-2 Broadcast, the value can be adjusted from 1% to 100% in increments of 1%. A lux meter can be used to set the desired illuminance level in lux.



TIPP. If the value is set **below 1**, **"OFF"** appears in the display. The light sensor is deactivated.

4. The set value is saved when no changes are made for **10 seconds**. **"CAL"** appears in the display.



TIP. Calibration mode remains active for 2 minutes. This gives you time to clear the area below the sensor for the measurement. After the 2 minutes have elapsed, the sensor determines the reference value for the light sensor. This ensures that the light sensor uses the original reflection value as its reference, not the reflection from a ladder or work platform.

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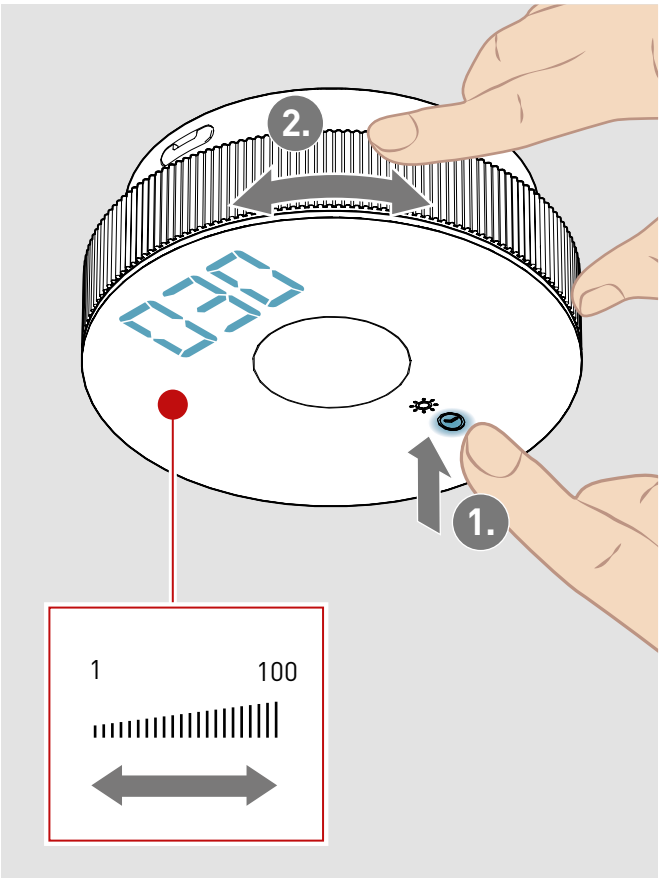
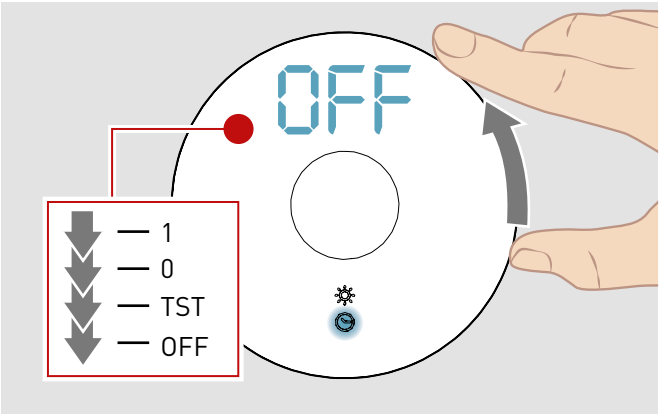
6.4. Switch-off delay



This value defines the period after which the sensor switches off the connected luminaires. The switch-off delay starts automatically as soon as the PIR sensor no longer detects motion. To set the switch-off delay, proceed as follows:

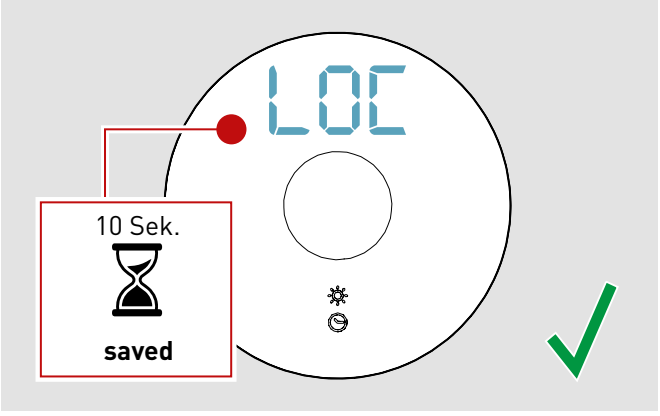
1. **Unlock the sensor** (see 6.2).
2. Press the **push-button once**. The **LED** changes to motion detection and the set value is shown in the display.
3. **Turn** the ring to change the value. The value can be set in increments of 1 from **1 to 100 minutes**.



TIP. If the value is set below 1, "TST" appears in the display. The sensor is now in test mode. Test mode switches the lighting on or off when motion is detected, alternating each time. This test mode remains active until the user changes the ring setting.

TIP. If the ring is turned further, **"OFF"** appears in the display. Motion detection is **deactivated**.

4. The set value is **saved** when no changes are made for **10 seconds**. **"LOC"** appears in the display. The settings are now **saved** and the sensor is locked again.



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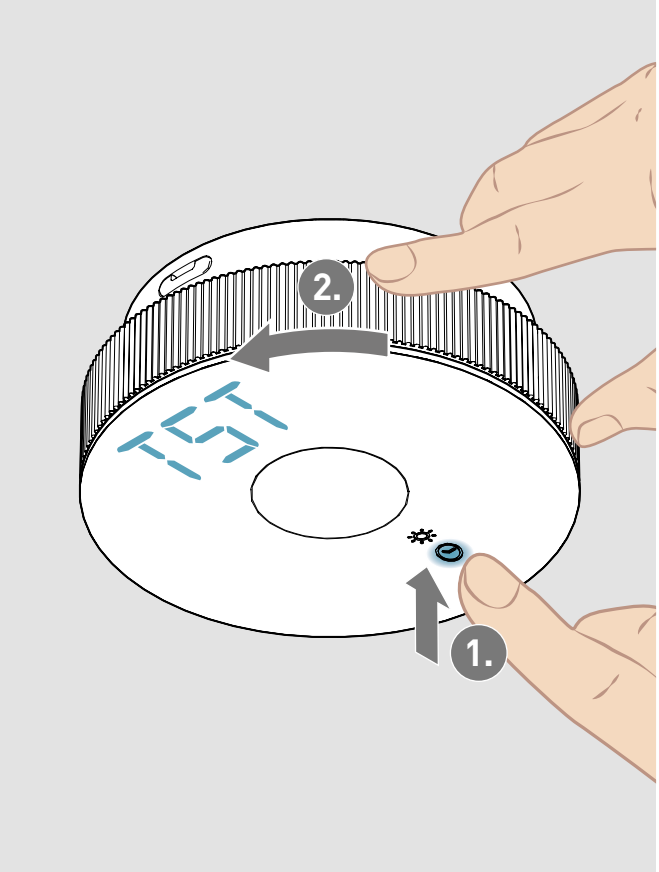
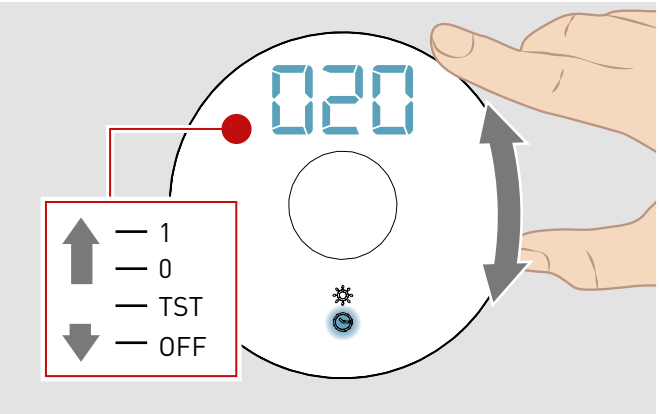
6.5. Test mode

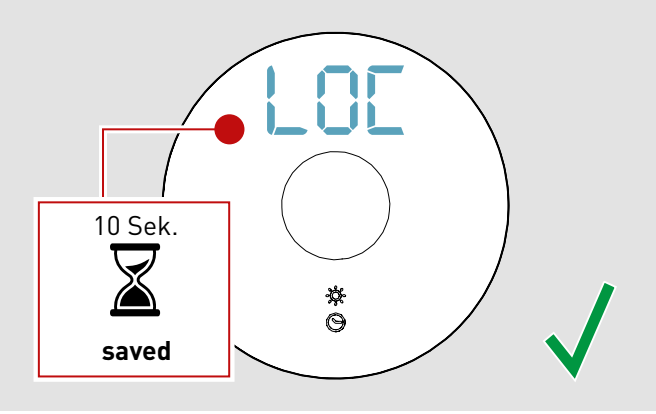


Test mode switches the lighting on or off when motion is detected, alternating each time. This test mode remains active until the user changes the ring setting. To activate test mode, proceed as follows:

1. **Unlock** the sensor (see 6.2).
2. **Press** the push-button **twice**. The LED changes to **motion detection** and the set value is shown in the display.
3. **Turn** the ring counterclockwise until **"TST"** appears in the display. The sensor is now in test mode.



4. To **exit** test mode, use the ring to set a value from 1 to 100, or select "OFF" to deactivate motion detection.
5. The setting is **saved** when no changes are made for **10 seconds**. **"LOC"** appears in the display. Test mode is now deactivated.



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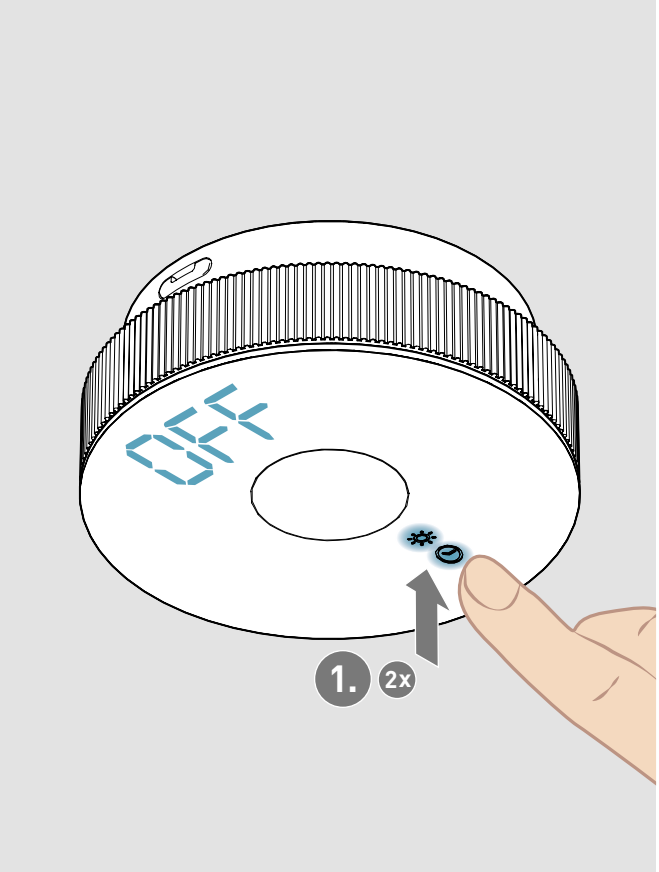
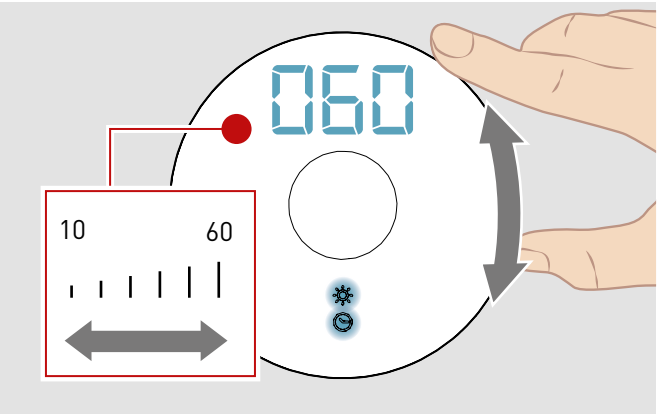
6.6. Basic light mode

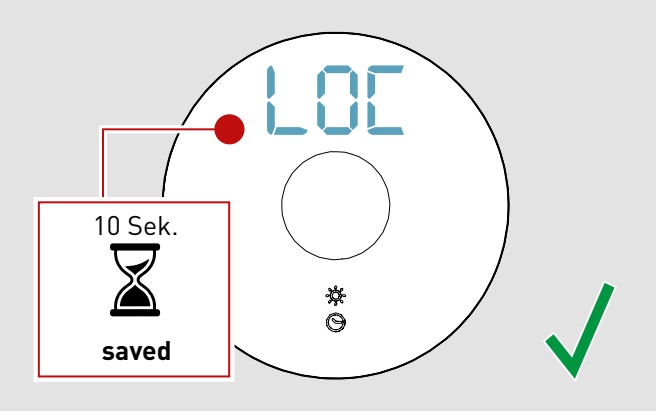


When basic light mode is set and the lighting system has switched off because there is too much light, the basic light is automatically deactivated. It is reactivated when the light value falls below the threshold. The basic light switch-off delay is the same time that is set as the switch-off delay for motion detection. The light then switches off. To activate basic light mode, proceed as follows:

1. **Unlock** the sensor (see 6.2).
2. Press the **push-button twice**. The LED changes to **motion detection** and the set value is shown in the display.
3. Press the **push-button once** more. Both LEDs light up and **"OFF"** (factory setting) is shown in the display.



4. **Turn** the ring to set the basic light value in increments of 10 from **10 to 60%**.
5. The setting is **saved** when no changes are made for **10 seconds**. **"LOC"** appears in the display. Basic light mode is now set.



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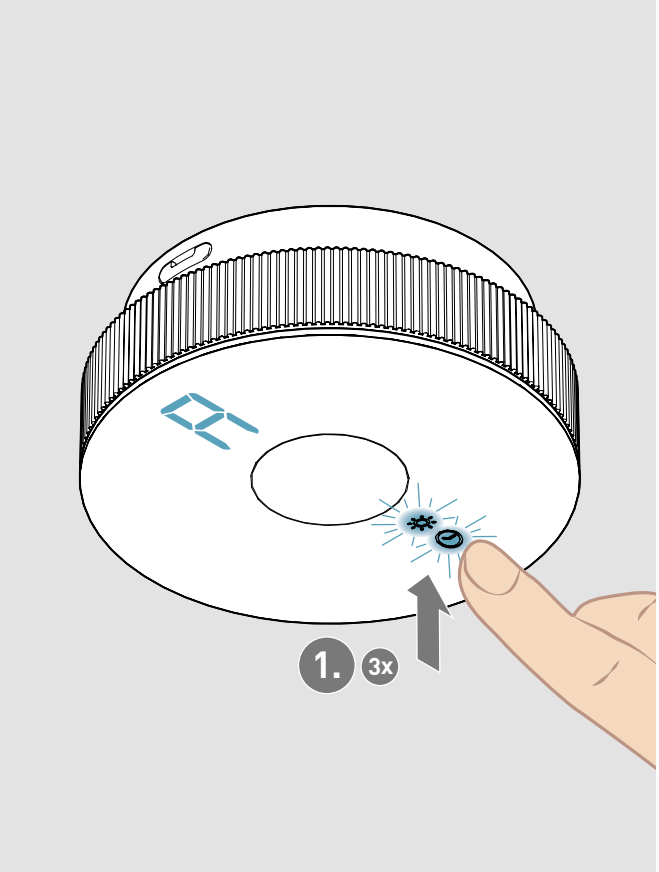
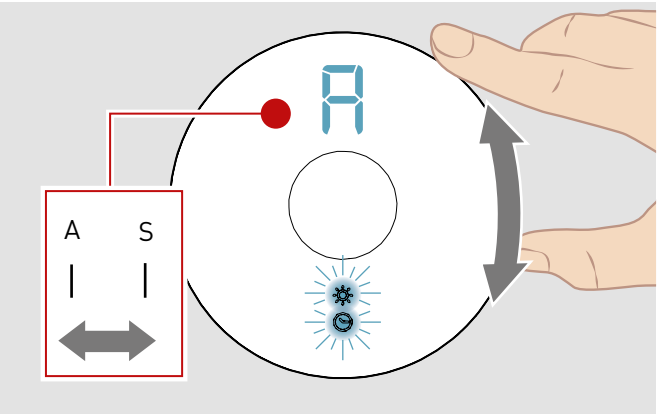
6.7. Setting automatic mode

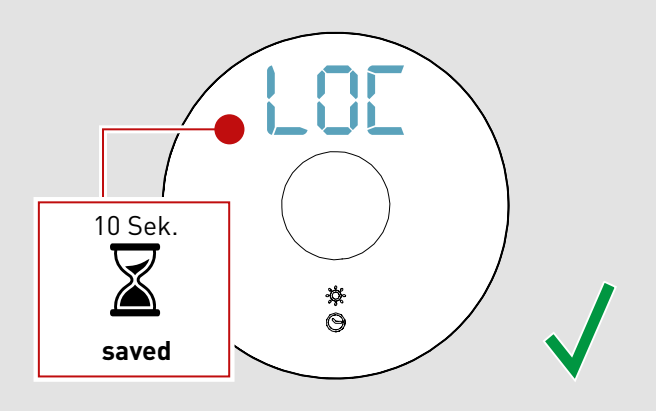


The IntuSens DALI-2 Broadcast can be used in two modes. To set automatic mode, proceed as follows:

1. **Unlock** the sensor (see 6.2).
2. Press the **push-button twice**.
   The LED changes to **motion detection** and the set value is shown in the display.
3. Press the **push-button once more**. Both LEDs light up and the value for basic light mode is shown in the display.
4. Press the **push-button once more**. Both LEDs start flashing and "**A" (factory setting: automatic operation**) is shown in the display.



5. **Turn** the ring to switch between two modes:
   - **Automatic (A)**
   - **Semi-Automatic (S)**
6. The setting is **saved** when no changes are made for **10 seconds**. **"LOC"** appears in the display.



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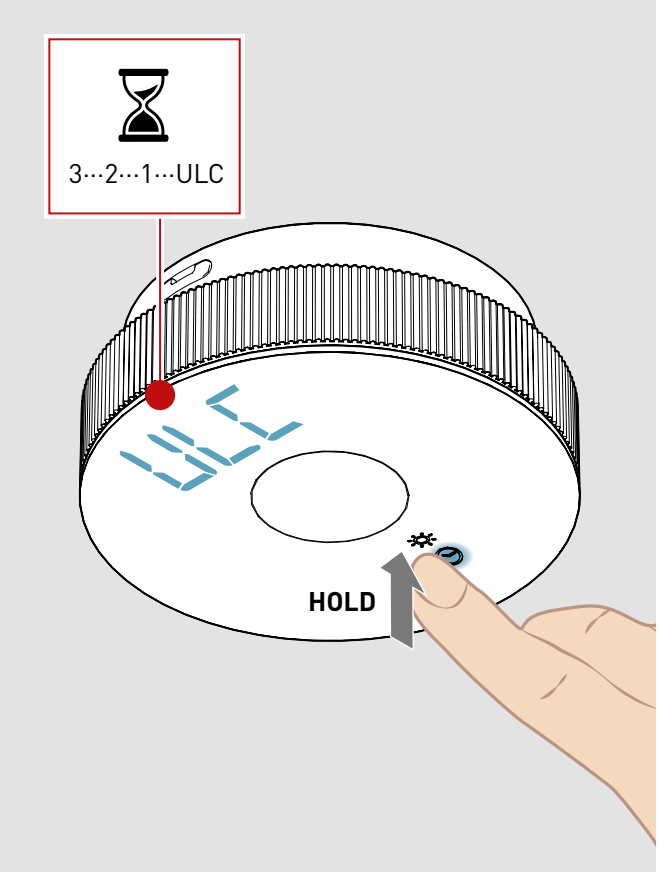
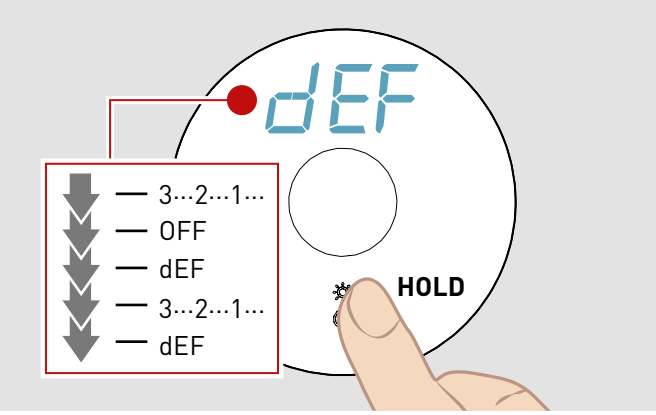
7. RESETTING TO FACTORY SETTINGS

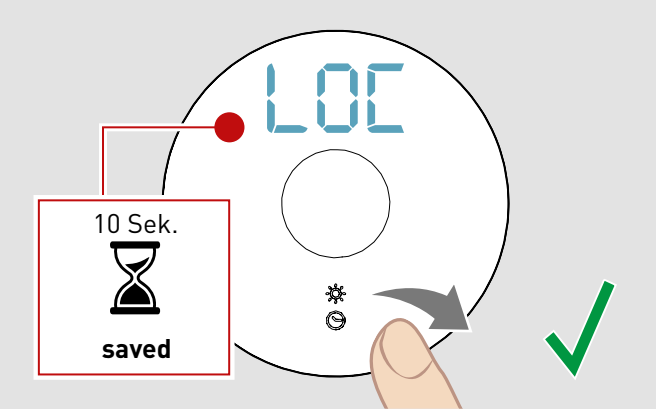


Resetting to the factory settings is possible as follows:

1. Unlock the sensor (see Section 6.2).
2. Press and hold the button again until "ULC" appears, then release the button. The LED for the illuminance setting lights up.



3. Press and hold the push-button again for approximately 10 seconds until the **counter 3 2 1** appears and **"dEF"** then lights up in the display. **Only release the push-button now.**
4. **"LOC"** appears in the display and the sensor has been **reset** to the factory settings.



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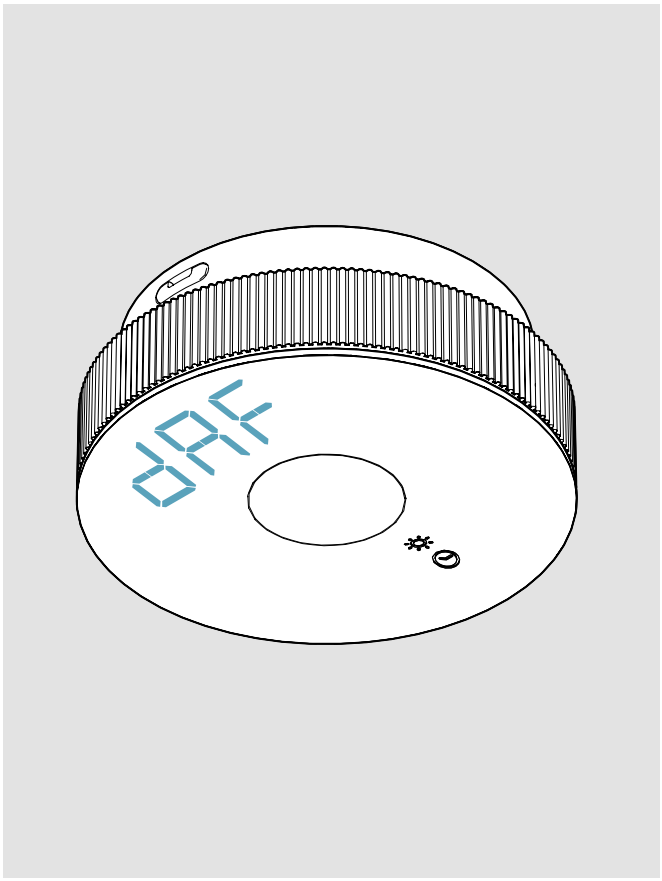
8. DALI SHORT CIRCUIT



In the event of a DALI short circuit, the message **“dAF”** appears in the display for DALI failure.

NOTICE. The message will only **disappear** automatically once the short circuit has been **rectified**.

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