theben

309725
13/03/2025

EN **Motion detector**

TECTA D180 WH
1010100
TECTA D180 AN
1010101
TECTA D180i WH
1010105
TECTA D180i AN
1010106
TECTA D280i WH
1010110
TECTA D280i AN
1010111

1010100 1010101 | 1010105 1010106 | 1010110 1010111

1. General information

- Motion detector (PIR) for wall mounting in outdoor areas (e.g. entrances, garages, etc.) of detached houses
- The detector complies with EN 60669-2-1 when installed as intended
- Commissioning via mobile devices with app theSenda Plug (iOS/Android)
- Wireless networking of several detectors
- Digital adjustment of the detection areas (app)
- **Various versions**:
  TECTA D180: Basic → Detection area 180°, 12 m, potentiometer for follow-up time and brightness, no Bluetooth BLE
  TECTA D180i: Standard → Detection area 180°, 12 m, with Bluetooth BLE, night programme, networkable
  TECTA D280i: Performance → Detection area 280°, 16 m, with Bluetooth BLE, night programme, networkable, light group control
- **Optional accessories**:
  Corner bracket 10 (9070969/9080031); spacer frame 10 (9070971/9080032)

2. Safety

Assembly and installation should only be carried out by a qualified electrician, somebody who has completed appropriate professional training and has the knowledge and experience necessary to be able to recognise and avoid the potential dangers posed by electricity.

Before installation/disassembly, disconnect the mains voltage and ensure that the parts are no longer live.

Prior to commissioning and using the product, read and observe all the operating instructions.

3. Proper use

- Motion detector for automatic lighting control depending on ambient brightness and detected movement
- Suitable for wall mounting in outdoor areas (entrances, garages, gardens, etc.)

4. Installation

Installation instructions

As the detector reacts to variations in temperature, avoid the following situations:

➤ Do not point the motion detector at objects with highly reflective surfaces such as windows, etc.
➤ Do not install the motion detector near heat sources, such as heating outlets, air conditioning systems, lamps, etc.
➤ Do not direct the motion detector at objects that move in the wind, such as large plants, etc.
➤ Observe the direction of movement during the test run.

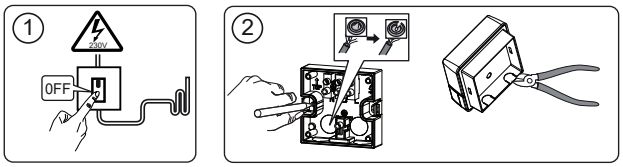
ⓘ If necessary, make adjustments to the potentiometers before installation (only for TECTA D180).

ⓘ Observe the recommended installation height on the wall of 1.8–2.5 m (2.5–6 m for TECTA D280i)!

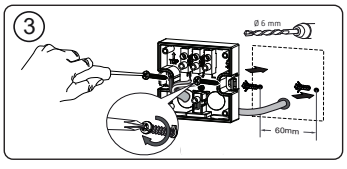
ⓘ Ensure a clear view, as infrared rays cannot penetrate solid objects.

➤ Disconnect power source.

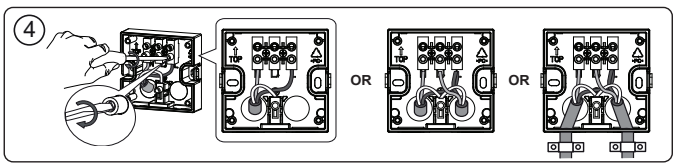
Wall mounting



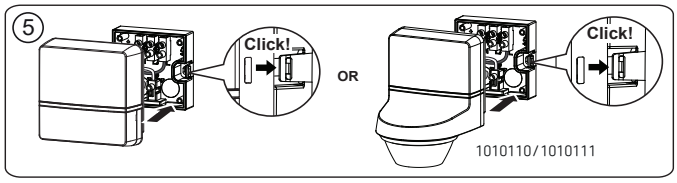
➤ If necessary, use optional corner bracket or spacer frame for flexible mounting.
➤ Switch off the voltage ①.
➤ Make markings for the holes on the wall and drill holes ②.



➤ Feed the cable through the seal of the plinth ③.
➤ Fasten the plinth to the wall.



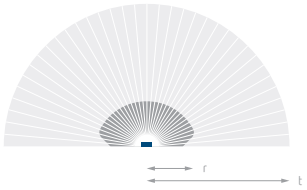
➤ Connect the individual wires to the corresponding terminal and tighten the screws ④.



➤ Place the motion detector on the plinth and snap into place ⑤.

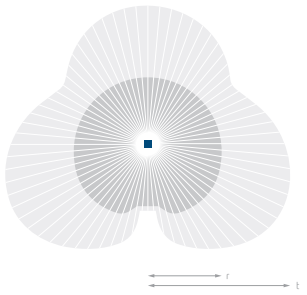
Detection area

TECTA D180 and TECTA D180i



Installation height (A)	transverse (t)	front-facing (r)
1.8 m	10 m	3 m
2.2 m	12 m	4 m
2.5 m	14 m	5 m

TECTA D280i



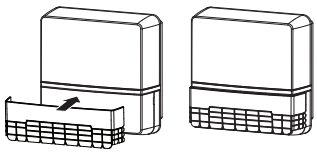
Installation height (A)	transverse (t)	front-facing (r)
2.5 m	12 m	5 m
3 m	16 m	6 m
3.5 m	16 m	6 m
4 m	18 m	7 m
4.5 m	20 m	7 m
5 m	22 m	7 m
6 m	25 m	10 m

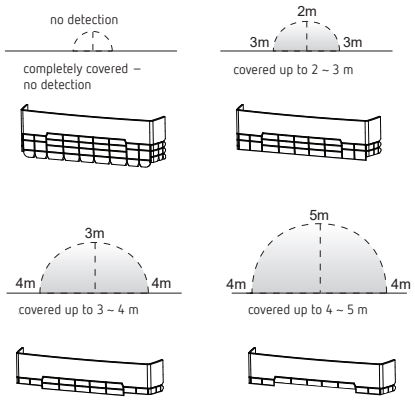
Limiting the detection area

The detection area can be easily adjusted. The enclosed cover clip can be used to hide unwanted areas and ensure targeted monitoring.

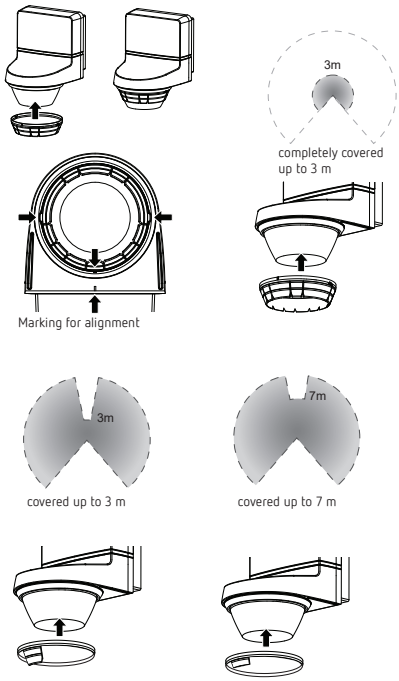
➤ Use the enclosed clipsto adjust the detector to the desired detection area.
➤ Remove the desired part of the clip.
➤ Then place it on the lens.

TECTA D180 and TECTA D180i





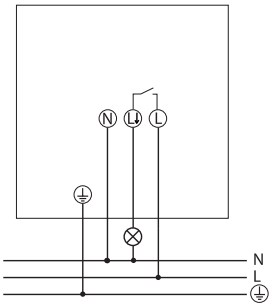
TECTA D280i



You can also easily set the area restriction in the app → see "Digital area restriction" Page 4.

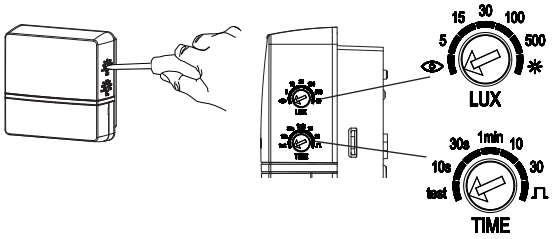
5. Connection

⚠ Protect the device with an upstream circuit breaker type B or C (EN 60898-1) of 10 A.



6. Settings via potentiometer

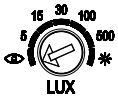
ⓘ If the light switched by the detector shines very brightly on the detector, the light can be switched on and off up to 5 times to calibrate the light measurement.



Only the TECTA D180 motion detector (1010100/1010101) has 2 potentiometers for setting the brightness (LUX) and run-on time (TIME).

Setting the brightness (LUX)

You can use the potentiometer for brightness to set various brightness values (default setting5 lx).



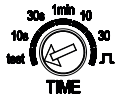
➤ Set the potentiometer to the desired switch-on brightness (5–500 lux/on).
In the **on/sun** position, the detector always reacts to movement, regardless of the brightness.

You can use the Teach-in function to memorise the brightness values:
➤ With the desired brightness, set the potentiometer to 👁.
The new value is taught in after 15 seconds.
➤ Leave the potentiometer at position 👁.

ⓘ The measured brightness value is influenced by the installation location, the incidence of light, the position of the sun, weather conditions, etc. Therefore, the lux values are guide values.

Setting the time delay (TIME)

If the motion detector detects no further movement, it switches off after the set time delay. If you want to change the preset time (default setting 30 s)



➤ Set the potentiometer to the desired time (e.g. 10 s, 30 s, 1 min, 10 min, 30 min).

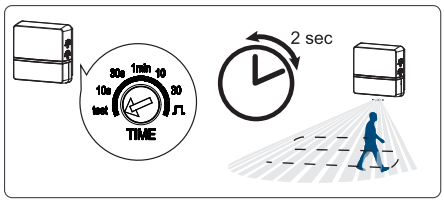
If you want to use the pulse function (e.g. for a staircase light timer)
➤ Set the potentiometer to ⎍ (0.5 s on, 10 s off).

Test detection area (test mode or walking test)

The test mode is used to test the detection area and to restrict it if necessary.

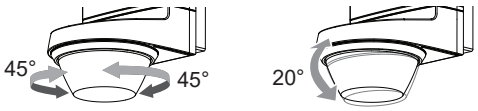
➤ Set the TIME potentiometer to **test**.
→ The motion detector only reacts to movements, brightness measurement is switched off.
→ After the detector has detected a movement, it switches on the connected light for the shortest follow-up time (approx. 5 s). At the same time, the red LED on the detector lights up for the duration of the detected motion.

ⓘ If the test mode is activated via the potentiometers, it must also be deactivated via the potentiometers.



7. Align motion detector with sensor head

The sensor head can be rotated 20° downwards and 90° to the left and right (only with TECTA D280i).



8. Settings via the app

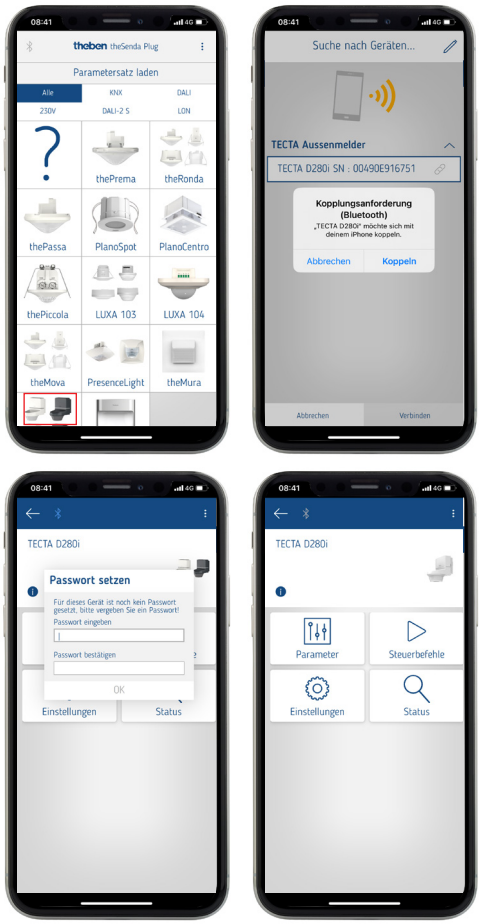
ⓘ Bluetooth must always be activated on the mobile device!

Connect motion detector with mobile device

➤ Open theSenda Plug app.

Download on the App Store
GET IT ON Google Play

➤ Select TECTA devices.
→ Devices are searched for and listed.
➤ Select the desired device and press **Connect**.
→ The detector is now connected to the mobile device.

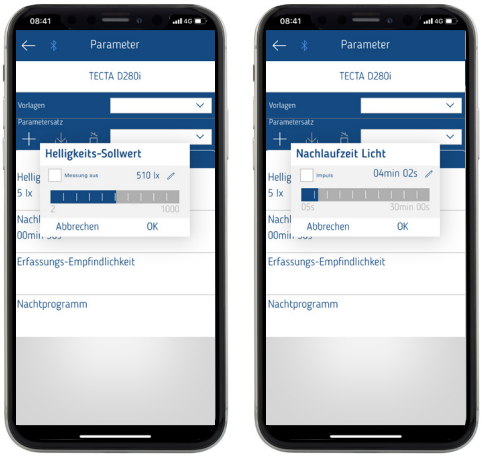


A password must then be assigned.

1. Parameters

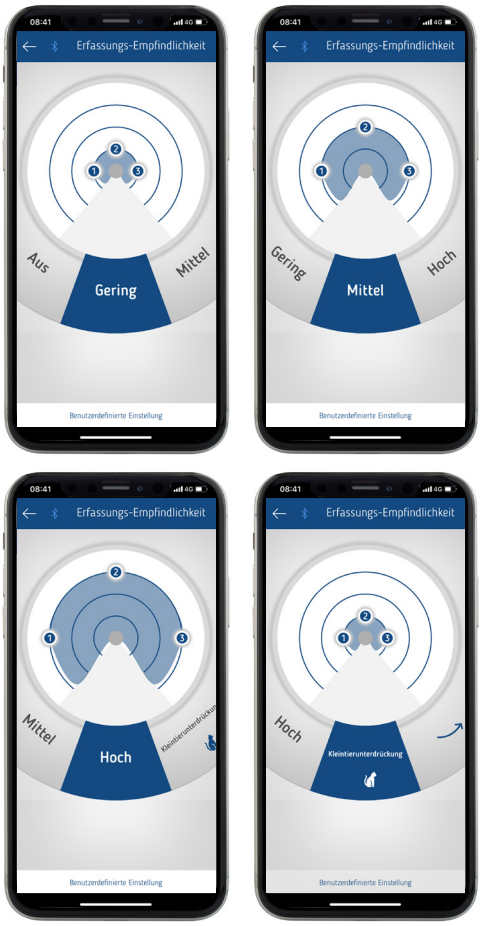
Brightness setpoint

Light run-on time



The brightness value of 2 – 1000 lx, measurement off and the run-on time can be set here (default 5 lx, 30 s).

Detection sensitivity – digital range restriction



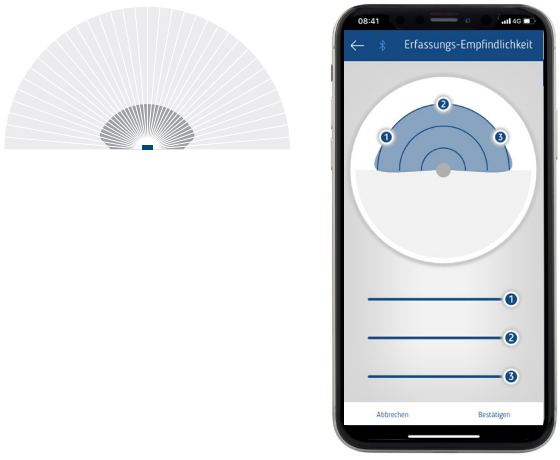
You can choose between the following functions: off, low, medium, high and small animal suppression (only for TECTA D280i, 1010110/1010111).

ⓘ The detection sensitivity can be customised once again via **User-defined setting**.

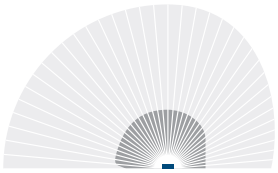
Small animal suppression

This function suppresses false alarms caused by small animals moving in the detection area. This mode reduces the overall sensitivity and switches off the creep protection function.

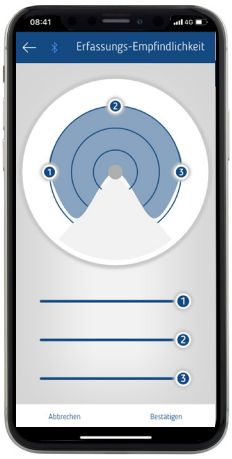
Range restriction using the example of TECTA D180 – user-defined setting



The detection area can be set individually using the sliders 1 – 3.



Range restriction using the example of TECTA D280i



Night programme

In the **night programme**, you can programme the motion detector individually, i.e. select a different function at night than in the morning or evening hours, for example. You can therefore combine different operating states with each other. To do this, divide the night into 1, 2 or 3 segments.

The following functions are available:

AUTO

The lighting is switched on and off automatically (depending on movement and the set brightness setpoint and light delay time parameters).

D-Mode

When the brightness falls below the set brightness setpoint, the light is switched on permanently and switched off again when the brightness setpoint is exceeded. This mode is independent of movement.

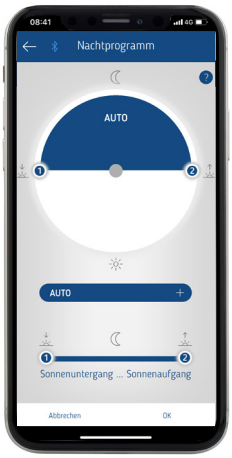
ON

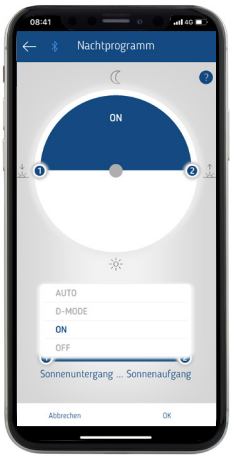
Manual ON mode: the light is independent of brightness and movement

OFF

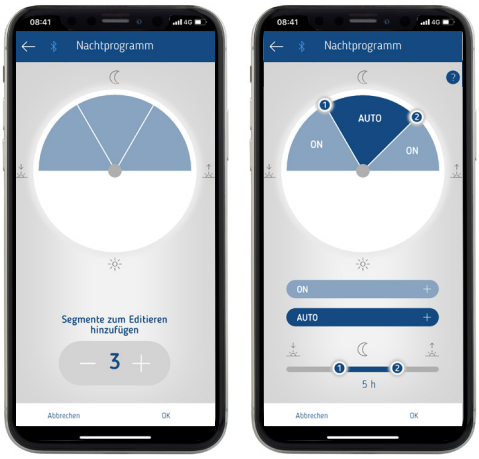
Manual OFF mode: the light is independent of brightness and movement

Example 1: The light is off during the day and always switched on at night



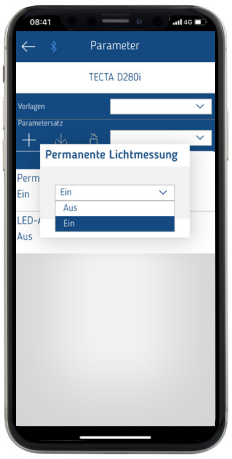


Example 2: the light is switched on at dusk, at night only when required



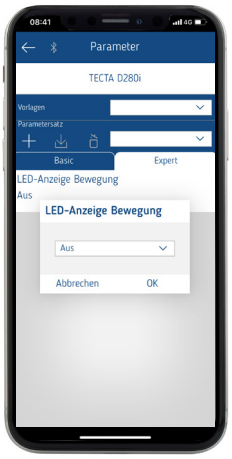
Permanent light measurement

The device has permanent light measurement; this enables the light to be switched off when there is sufficient brightness, even if movement is detected continuously.



Permanent light measurement can be switched off in the parameter settings (Expert).
This function is used if the light measurement is unfavourably influenced by external light sources; for example, if the light is switched off even though the brightness outside the area of influence of the external light source is not yet sufficient.

LED motion indicator



Motion detection is indicated by the red LED and can be activated here.

2. Control commands

The teach-in, light and night programme on/off, etc., functions can be activated in the control commands.

Teach-in

The detector saves the current surrounding brightness as the new switch-on brightness.

Switch light

The **Switch light** control command can be used to switch the light on or off for a maximum of 6 hours, depending on requirements.
After 6 hours, the prioritised override is reset and the detector operates in the configured mode again.

Presence test (test mode or walk test)

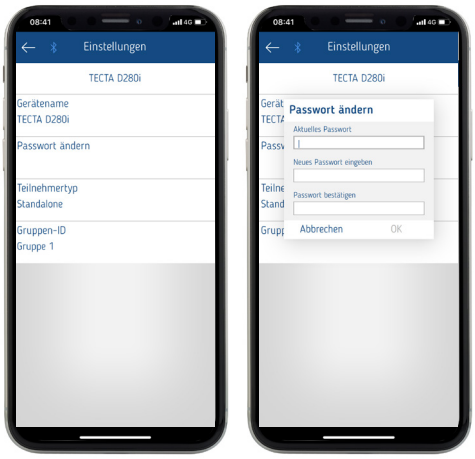
➤ Press ON.
→ The detector always reacts to movement (regardless of the settings and the current operating mode).
→ After the detector has detected movement, the contact switches on for the shortest possible follow-up time.
→ The LED lights up red as long as motion is detected.

Factory settings

Parameters	
Brightness setpoint	5 lx
Light run-on time	30 s
Operating mode	AUTO
Participant type	standalone
LED motion indicator	off
Night programme	not active
Group ID	none
Detection sensitivity	high
Permanent light measurement	on

3. Settings

In the settings, you can change the password, network devices with each other, etc.

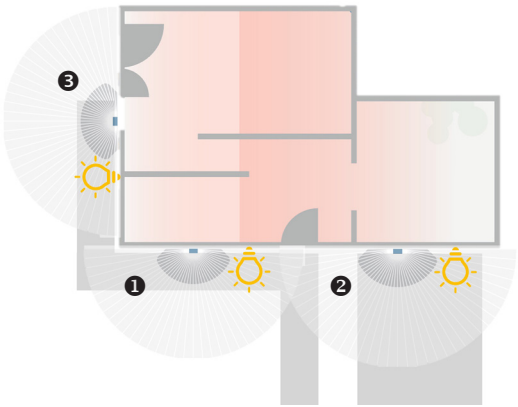


Networking devices to extend the area

It is possible to wirelessly network several detectors with each other to extend the detection area.

ⓘ All lights that are assigned to a group ID are switched.

Example: Detectors 1 and 2 are to be connected to each other so that all lights at the front of the house are switched together.
The example can be used for connecting both lights to one detector or for connecting one light to each detector.



❶ Detector 1
Settings in the app:
- Participant type: Leader
- Group ID: Front door
- Function: Detector switches the light, measures the light and runs the night programme

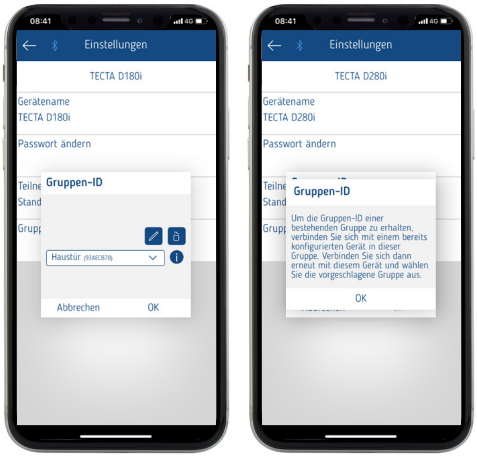
❷ Detector 2
Settings in the app:
- Participant type: Member
- Group ID: Front door
- Function: Detector sends "Presence" info to the leader to extend the detection area

❸ Detector 3
Setting in the app:
- Participant type: Standalone

To set this in the app, proceed as follows:

➤ Connect detector 1 to the app.
➤ Select the **Leader participant type** in the **Settings** menu.
➤ Set a new **group ID**, e.g. "Front door".
➤ Set further configurations such as "Detection area, night programme or follow-up time".

Connectdetector 2 to the app.
➤ Select the **Member participant type** in the **Settings** menu.
➤ Select the already defined **group ID** "Front door".
➤ Set the detection area.
No further settings are effective for the Member detector; no night programme and no run-on time are processed.



Password/unlock device

The user is prompted to set a password that is required to unlock the device each time a connection is made.
If you have lost the password, the following reset option is available to deactivate this password:
➤ Disconnect the device from the power supply.
➤ Switch on the device for 5 s (+/ – 2 s tolerance).
➤ Disconnect the device from the power supply again.
→ The password is no longer active and must be reassigned.

Switch-on behaviour

Warm-up phase (approx. 30 s) after restoration of power
→ The red LED flashes every second, the light switching contact is closed.
→ The detector does not respond, settings via the app are not possible.
→ If no one is present, the contact opens after the end of the warm-up phase.

Operation

→ The detector is ready for operation (red LED off).

LED display

LED*	Description
red flashes slowly	The detector is in the warm-up phase.
red flashes quickly	The command sent by the app via BLE has been accepted by the detector.
red lights up briefly	The command sent by the app via BLE has been rejected by the detector. The command is not valid. Check parameters in the app.
red lights up or flickers irregularly	The detector is in "Test presence" mode or the "Motion LED indicator" is activated.
blue flashes	The detector flashes for identification.
blue lights up	as long as there is a BLE connection to the app

* If two LED flashing patterns are active at the same time, both LED colours (red and blue) are mixed. The LED then lights up purple.

Troubleshooting

Fault	Cause
Light does not switch on	Brightness setpoint too low; light was switched off manually; a night programme is active in which the OFF operating state is programmed; group has no leader
Light does not switch off	Brightness setpoint too high; light was switched on manually; a night programme is active in which the ON operating state is programmed; group has no leader; see also next line "Light switches on"; Detector could also be in D mode
Light switches on	Sources of interference in the detection area: moving objects (vehicle, tree/bush, etc.), thermal sources of interference (ventilation, lamps, etc.); electrical sources of interference: loads (lamps, relays) not suppressed
Light switches off	Brightness setpoint too low; an operating status change was triggered by the night programme; extraneous light could influence the light measurement and lead to switch-off (switch off permanent light measurement)

9. Technical data

Operating voltage	230 V AC, + 10% / – 15%
Frequency	50 Hz
Standby power	0.4 W; 0.2 W (only with TECTA D180)
Switching capacity max.	10 A (at 230 V AC, cos φ = 1)
Switching capacity	6 A (at 230 V AC, cos φ = 0.6)
Switching capacity min.	< 10 mA
Type of contact	Normally open contact, µ-contact
Operating temperature	– 25°C ... + 55°C
Brightness setting range	2 – 1000 lx; 5 – 500 lx (only with TECTA D180)
Follow-up time	5 s – 30 min; 10 s – 30 min (only with TECTA D180)
Detection angle	180°; 280° (only with TECTA D280i)
Detection area	TECTA D180 and TECTA D180i: (at 2.2 m): transverse: 12 m frontal walking: 4 m TECTA D280i (at 3 m): transverse walking: 16 m frontal walking: 6 m
Installation height	1.8 – 2.5 m; 2.5 – 6 m (only with TECTA D280i)
Incandescent lamp load	2300 W
Halogen lamp load	2300 W
Fluorescent lamps (VVG low-loss ballasts): uncompensated series-compensated parallel-compensated	 1150 VA 600 VA 400 W
Compact fluorescent lamps (EB)	150 W
LED lamps	600 W; 400 W (only with TECTA D180)
Protection rating	IP 55
Protection class	II subject to designated installation
Software class	A
Torque screw terminals	0.64 – 0.8 Nm
BLE – Radio frequency/transmitting power – Transmission range	(not with TECTA D180) BLE 2.4 ... 2.48 GHz, max. + 4 dBm approx. 100 m in free field

Theben AG herewith declares that this type of radio installation complies with Directive 2014/53/EU. The complete text of the EU Declaration of Conformity is available at the following Internet address:
www.theben.de/red-konformitaet

Cleaning and service

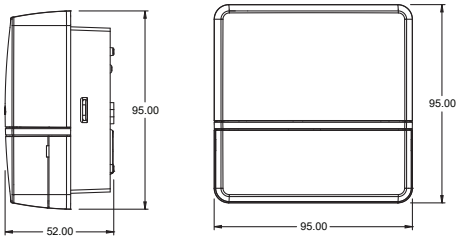
➤ Clean device surface with a soft cloth only.
➤ Do not use any cleaning agents or solvents.

Disposal

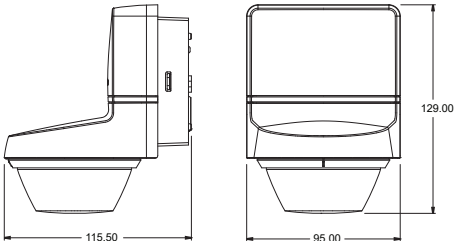
Dispose of the device separately from domestic waste at an official collection point.

10. Dimensions diagrams

TECTA D180 and TECTA D180i



TECTA D280i



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