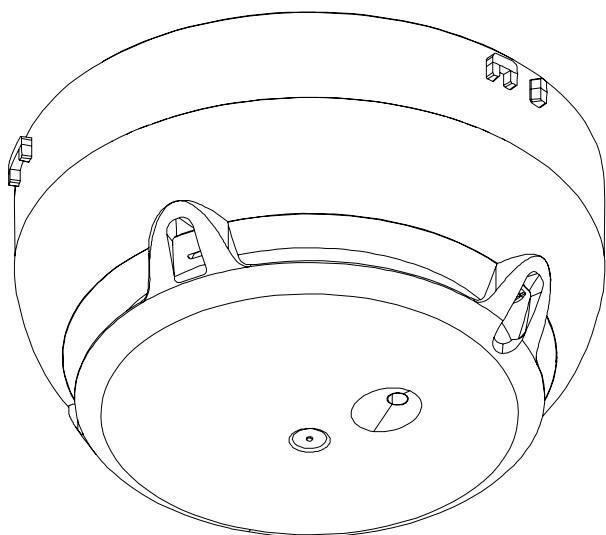


SIEMENS



FDOOT271, FDB271

Radio fire detector, detector base

Mounting

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1 About this document

Goal and purpose

This document contains all the information required to install detector base FDB271 and radio fire detector FDOOT271.

Prerequisites:

- The installation location of the radio fire detector has been established.
- Mounting should be performed by a specialist in compliance with safety regulations.

You will find more information on the radio fire detector in document A6V10227635 'Technical Manual Radio fire detector FDOOT271'.

You will find information on how to integrate the radio fire detector into a radio cell in document A6V10227639 'Technical manual Radio gateway FDCW241'.

Intended use

The radio fire detector FDOOT271 may only be used in a detector base FDB271 and together with a radio gateway FDCW241 in a fire detection system FS20/FS720.

1.1 Applicable documents

Document ID	Title
001508	Guidelines Connection factors, line resistances and capacitances for fire detection systems collective, AnalogPLUS, interactive, FDnet
008331	List of compatibility (for 'Sinteso™' product line)
009409	Data sheet Colored detectors, bases and base attachment FDO., FDOOT..., FDT..., FDB...
010030	Application guideline Sinteso Fire detectors
A6V10208552	Installation Detector locking device FDBZ293
A6V10227631	Planning Radio fire detection system SWING
A6V10227637	Installation Radio fire detector FDOOT271, Detector base FDB271
A6V10227639	Technical manual Radio gateway FDCW241
A6V10227643	User Guide SWING-Tool FXS2061
A6V10229261	List of compatibility (for 'Cerberus™ PRO' product line)
A6V10254740	Operating instructions Solo461 heat detector tester kit RE7T
A6V10271323	Data sheet SWING Neural radio fire detector FDCW241, FDOOT271, FDM273, FDM275, FDM275(F)
A6V10367669	Open-Source Software (OSS) Licenses SWING

2 Mounting / Installation

2.1 Required space

- Upon insertion of the detector, the detector base is stressed by compression, tension and torsion. The fixing must thus be designed accordingly.
- Detector bases must be placed flat on the ceiling.
- Avoid mounting on steps, concrete ribs, etc.
- When selecting the installation position, take into account any structures that may impair radio reception.
- There must be at least 50 cm of free space below and at least 2 cm to the sides of the detector, so that the detector can be removed with the detector exchanger.
- Contorted detector bases complicate or even impede the insertion of the detectors with the detector exchanger.

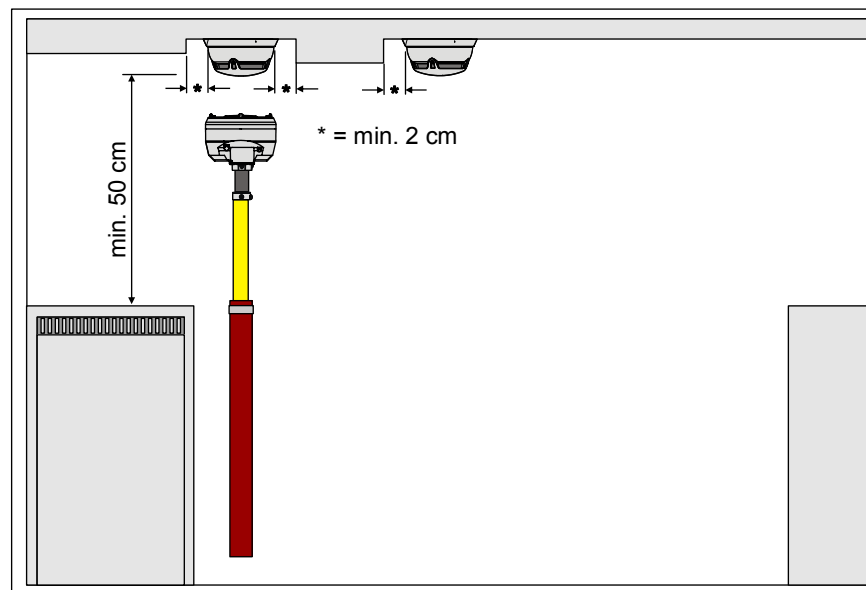


Figure 1: Minimum spacing when installing detector bases

2.2 Detector base FDB271

The detector base must be securely connected to the substructure.
 Screw the detector base securely onto the substructure using two screws.

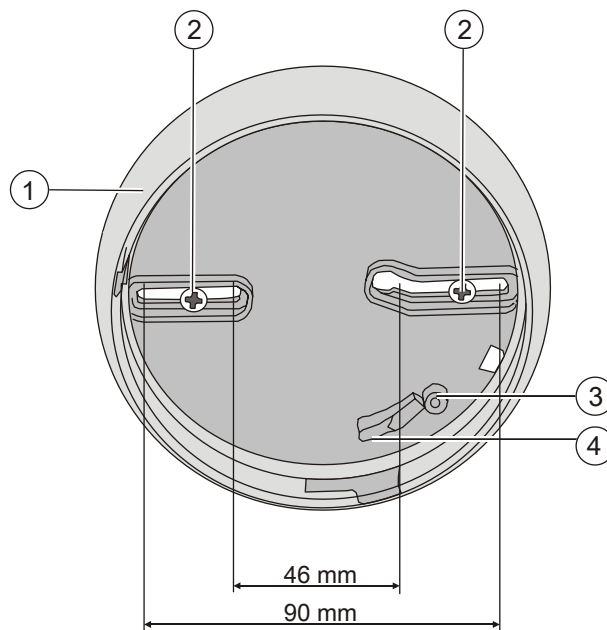


Figure 2: Mounting the detector base

- 1 Detector base
- 2 Screws with max. \varnothing of 4 mm
- 3 Holder for detector locking device
- 4 Switching cam

2.3 Installing the radio fire detector FDOOT271



The action of inserting the radio fire detector into the detector base activates it; the detector then logs on to other radio devices immediately. Therefore, start from the radio gateway and work outwards to install the individual radio fire detectors.

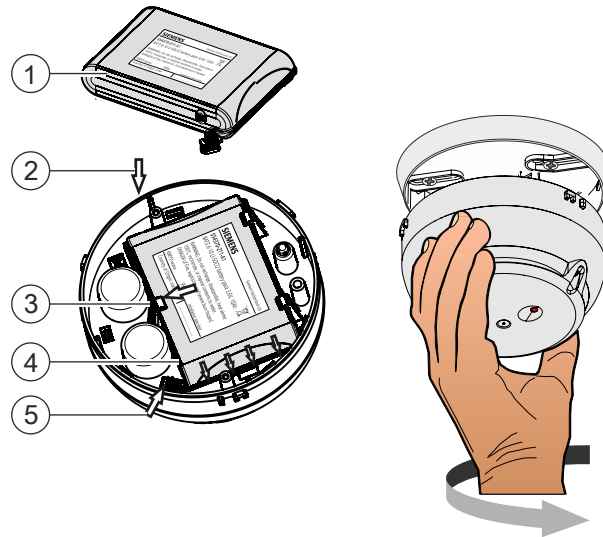


Figure 3: Mounting the radio fire detector

- | | |
|---------------------------------------|---------------------|
| 1 Battery pack BAT3.6-10 ¹ | 4 Battery cable |
| 2 Inserting the battery pack | 5 Battery connector |
| 3 Holder | |

¹ Not included in the scope of delivery




The flashing behavior of the internal alarm indicator is described in the 'Internal alarm indicator' chapter.

- ▷ The radio gateway has been activated and switched to maintenance mode.
- ▷ The radio fire detector is set to the factory settings. [→ 14]
- ▷ You have the battery pack and the required accessories to hand.
- ▷ The detector base FDB271 is mounted. [→ 7]

1. Install the accessories you require.
 2. Label the new battery pack (1) with the current date.
 3. Connect the battery connector (5) of the new battery pack.
 4. Insert the new battery pack (1), paying attention to the position of the battery cable (arrows at 4).
 5. Make sure that the holder (3) latches into place correctly.
 - ⇒ When the battery connector is connected, the internal alarm indicator lights up red for 5 seconds.
 - ⇒ After a further 10 seconds, the radio fire detector signals that it is not installed on the detector base and the internal alarm indicator flashes. If it flashes red, this indicates the factory settings. If it flashes green, this indicates that the radio fire detector has already been logged on to a radio gateway.
 - ⇒ If this does not happen, this means the battery pack is defective and must not be used.
 6. Insert the radio fire detector into the detector base.
 - ⇒ The internal alarm indicator flashes green and the radio fire detector is logged on to the radio gateway.
 - ⇒ If the process of logging on to the radio gateway is successful, the internal alarm indicator stops flashing.
- ⇒ The radio fire detector is now installed and is ready for commissioning.

See also

 [Detector base FDB271 \[→ 7\]](#)

2.4 Detector locking device FDBZ293

The detector can be protected against theft with the detector locking device FDBZ293.

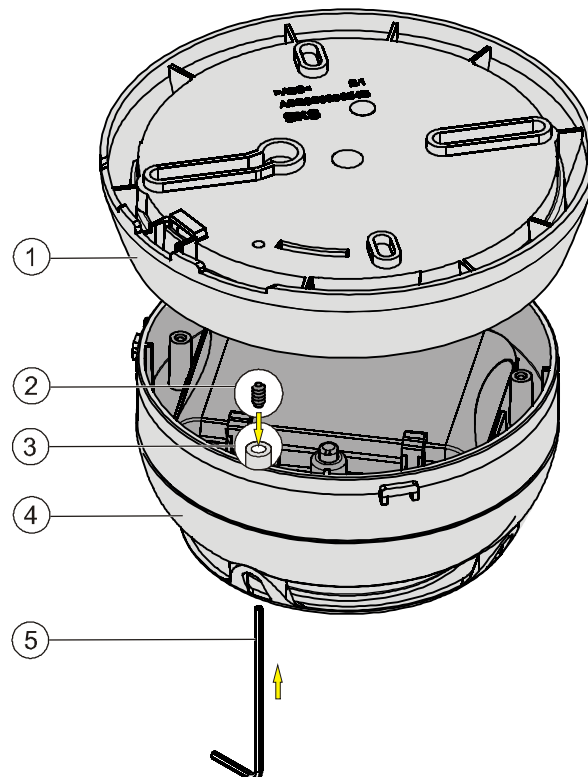


Figure 4: Mounting of detector locking device FDBZ293

- | | |
|-----------------------------------|-------------|
| 1 Detector base | 4 Detector |
| 2 Set screw with a hexagon socket | 5 Allen key |
| 3 Hole | |

1. Place the 'set screw with a hexagon socket' (2) in the hole (3) on the detector (4).
 2. Insert the detector (4) into the detector base (1).
 3. Using the Allen key provided (5), insert the 'set screw with a hexagon socket' (2) through the hole in the detector base (1) and tighten.
- ⇒ The detector can no longer be removed from the base without tools.

2.5 Designation plate FDBZ291

Designation plate FDBZ291 is used to assign a location address to the detector.

1. Label the designation plate.
2. Slide the designation plate into the detector base from the side.

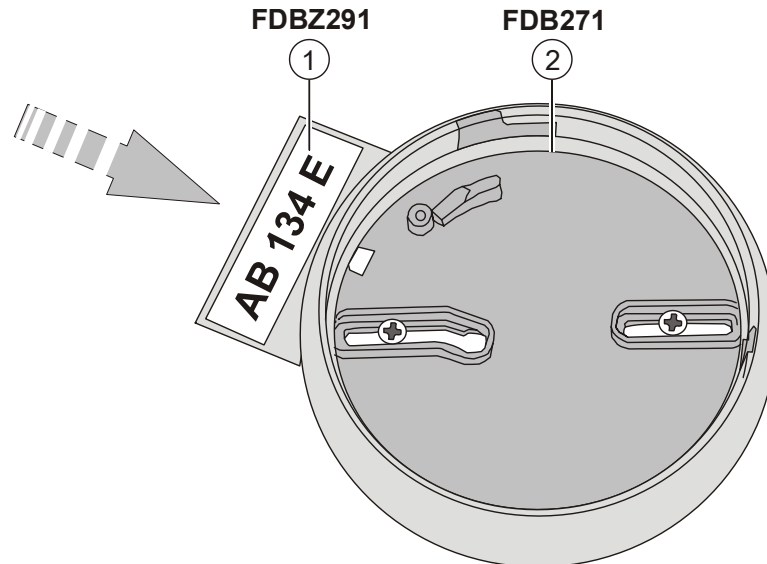


Figure 5: Installing the designation plate

1 Designation plate

2 Detector base

2.6 Detector dust cap FDZ291

During the construction phase the detector may be covered with a detector dust cap FDZ291 to protect it from dust and dirt.

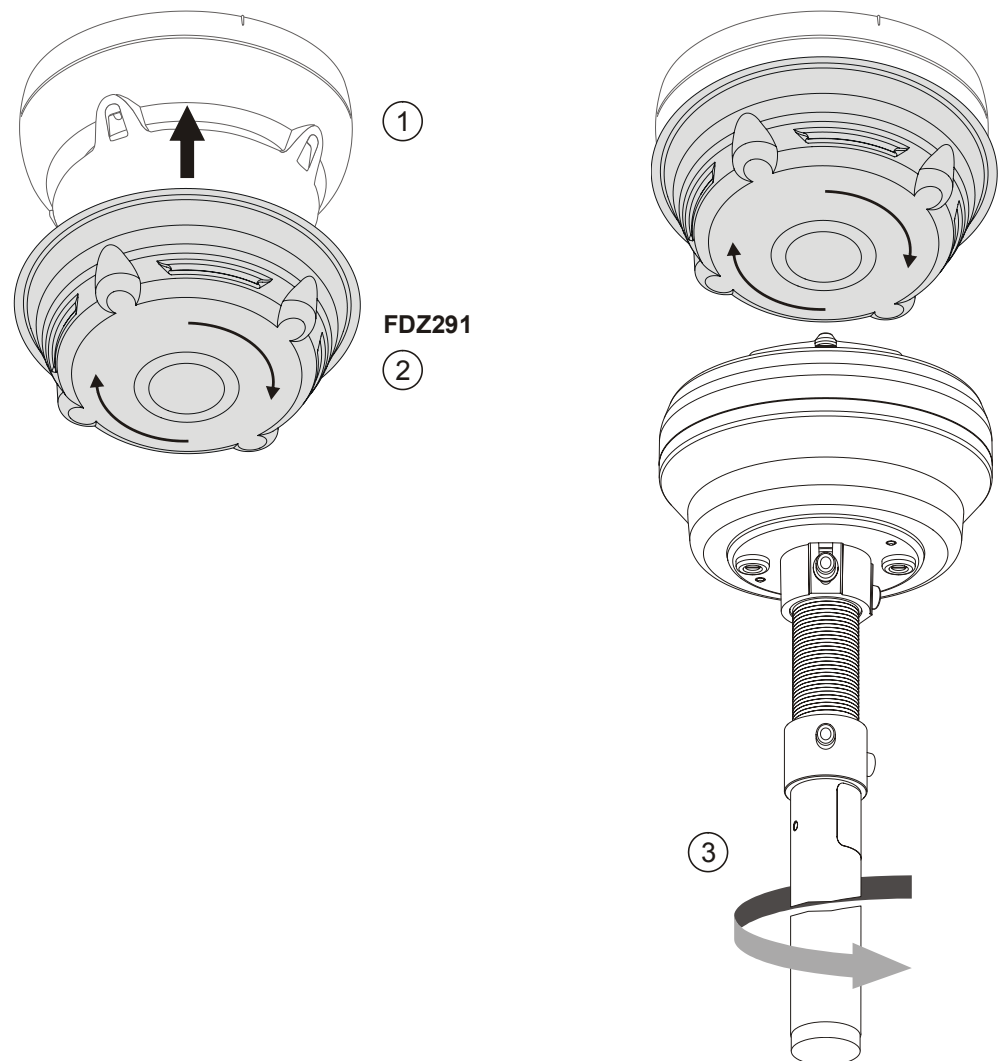


Figure 6: Mounting / removal of detector dust cap FDZ291

- 1 Detector
- 2 Detector dust cap
- 3 Removing detector dust cap by turning it to the right



The detector dust cap can be put on or removed either manually or using the detector exchanger, e.g., FDUD291.

2.7 Detector base seal RS720

- Use the detector base seal RS720 to install point detectors in wet rooms. Protection category: IP42.
- Not compatible with designation plate FDBZ291.

Installing the detector base seal

1. **NOTICE! Excessively large holes in the detector base seal will impair the potential protection category.** Do not cut or drill holes in the detector base seal.
2. Fit the detector base seal RS720 between the ceiling and the detector base or the sounder base.

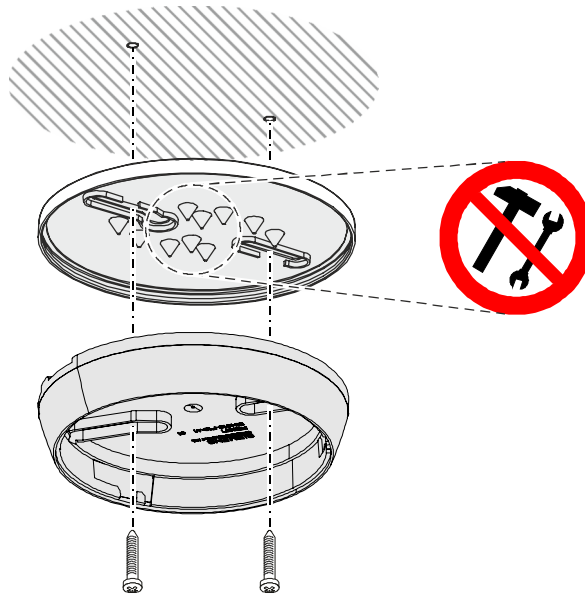


Figure 7: Mounting detector base seal RS720

2.8 Establishing factory settings

All existing settings are deleted and reset to the factory settings.

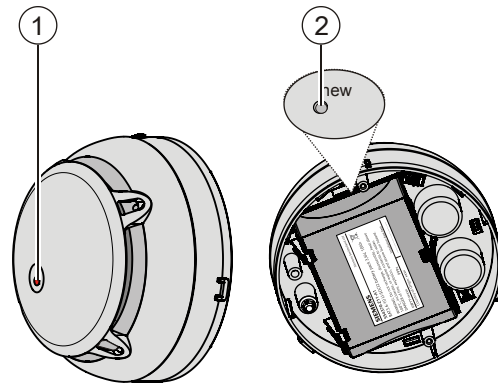


Figure 8: Establishing factory settings

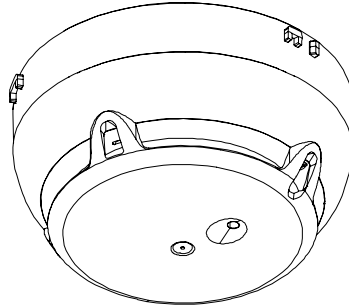
- 1 Internal alarm indicator
- 2 'new' opening with button

To create the factory settings on the radio fire detector, proceed as follows:

- ▷ The radio fire detector is being supplied with power.
 - ▷ You have a slim pen or pencil to hand.
1. Remove the radio fire detector from the detector base.
 2. Wait until the internal alarm indicator (1) flashes green (2-second interval).
 - ⇒ The detector is 'out of base'.
 3. Press the pen or pencil into the 'new' opening (2) for 5 seconds.
 - ⇒ The internal alarm indicator flashes red (2-second interval).
 - ⇒ The radio fire detector is set to the factory settings.

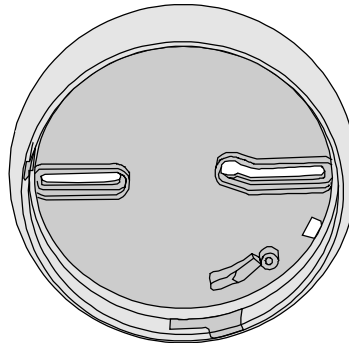
3 Details for ordering

3.1 Radio fire detector FDOOT271



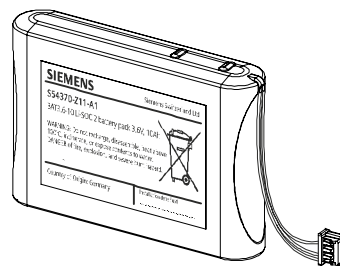
- For the SWING radio fire detection system
- Attached to detector base FDB271
- Power supplied by battery pack BAT3.6-10
- Can be configured using MCL-USB adapter (radio) FDUZ227 with SWING tool FXS2061
- FDOOT271-W order number: S54313-F12-A1
- FDOOT271-R order number: S54313-F12-A2 + RAL no.

3.2 Detector base FDB271



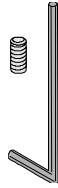
- For installing radio fire detectors
- Directly attached to the mounting surface
- Fastened with two screws
- Compatible with:
 - Radio fire detector FDOOT271
 - Wireless alarm sounder FDS271
- FDB271-W order number: S54319-F12-A1
- FDB271-R order number: S54xxx-Fx-Ax

3.3 Battery pack BAT3.6-10



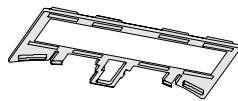
- For supplying radio devices and the radio gateway with power
- Lithium batteries
 - BAT3.6-10 LI-SOCI2 battery pack 3.6 V, 10 Ah
- Batteries with battery cable
- Connector system with protection against polarity reversal
- Inscription field for commissioning date
- Compatible with:
 - Radio gateway FDCW241
 - Radio manual call point FDM273
 - Radio manual call point FDM275
 - Radio manual call point FDM275(F)
 - Radio fire detector FDOOT271
- Order number: S54370-Z11-A1

3.4 Detector locking device FDBZ293



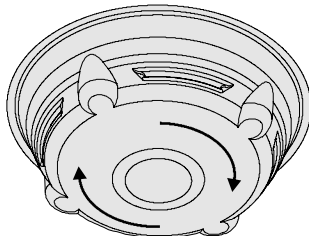
- For protection against theft
- Compatible with:
 - Point detectors from the 'Sinteso' product line
 - Alarm sounder FDS221
 - Alarm sounder with supplementary optical indication FDS229
 - Interbase FDSB22x
- Order number: A5Q00005035

3.5 Designation plate FDBZ291



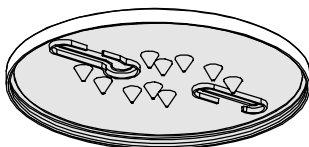
- To identify the location
- Compatible with:
 - Detector base FDB2xx/-AA
 - Detector base FDB271
 - Sounder base FDSB29x
 - Base attachment FDB291
 - Interbase FDSB22x
 - Base (wall mounting) FDB226-x
 - Base deep (wall mounting) FDB227-x
- Order number: A5Q00002621

3.6 Detector dust cap FDZ291



- To protect the point detector from dust
- Compatible with:
 - Point detectors from the 'Sinteso' product line
- Order number: A5Q00004814

3.7 Detector base seal RS720



- For mounting in wet rooms
- Protection category IP42
- Compatible with:
 - Detector base (collective) DB110
 - Detector base (collective) DB110x
 - Detector base (collective) DB110xx
 - Detector base FDB271
 - Detector base FDB271-R
- Not compatible with:
 - Designation plate FDBZ291
- Order number: S54319-F8-A1

4 Specifications

4.1 Technical data

You will find information on approvals, CE marking, and the relevant EU directives for this device (these devices) in the following document(s); see 'Applicable documents' chapter:

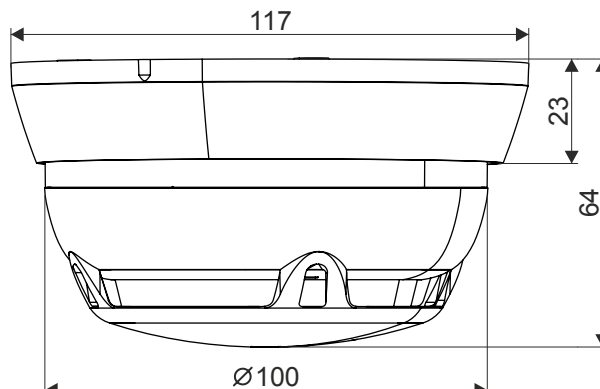
- Document A6V10271323

Device characteristics	Response sensitivity	2.3...12 %/m
	Compensation speed	≤1/45 voltage increase for detection/h
	Detector diagnosis	With SWING tool or connected fire control panel
Radio	Sending/receiving aerials	Dual band aerial
	Frequency range	433.05...434.79 MHz in band 44b and 45b ¹ 868...870 MHz in band 48, 49, 50, 54b, and 56b ¹
	Channel grid	50 kHz
	Number of channels	27 in 868-MHz band 20 in 433-MHz band
	Transmitting power	≤10 mW ERP in band 44b, 45b, and 49 ¹ Type 10 (max. ≤25) mW ERP in band 48, 50, 54b, and 56b ¹
	Range	See document 'A6V10227631'
		¹ 2013/752/EU: according Official Journal of the European Union, COMMISSION IMPLEMENTING DECISION of 11 December 2013 amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by short-range devices and repealing Decision 2005/928/EC (notified under document C(2013) 8776) (Text with EEA relevance)
Battery pack BAT3.6-10	Lithium battery pack	BAT3.6-10 LI-SOCI2 battery pack 3.6 V, 10 Ah
	Battery service life	At least 3 years depending on ambient conditions
	Service life in 'battery low' operation	>3 months
	Battery voltage monitored	Yes
	Weight	0.093 kg

Ambient conditions	Operating temperature:	-10...+55 °C
	Storage temperature	-30...+75 °C
	Air humidity	≤95 % rel.
	Protection category (IEC 60529):	IP44
	Electromagnetic compatibility:	
	100 kHz...2.5 GHz	30 V/m
	Permissible wind speed:	Max. 5 m/s
Mechanical data	Weight without accessories	0.132 kg
	Housing material	Acrylonitrile-butadiene-styrene (ABS)
	Color	~RAL 9010 pure white
Standards	European standards	<ul style="list-style-type: none">• EN 54-11• EN 54-25• EN 300220-2• EN 301489-3• EN 60950-1

4.2 Dimensions

Radio fire detector FDOOT271 with detector base FDB271



4.3 Environmental compatibility and disposal



This equipment is manufactured using materials and procedures which comply with current environmental protection standards as best as possible. More specifically, the following measures have been undertaken:

- Use of reusable materials
- Use of halogen-free plastics
- Electronic parts and synthetic materials can be separated

Larger plastic parts are labeled according to ISO 11469 and ISO 1043. The plastics can be separated and recycled on this basis.



Electronic parts and batteries must not be disposed of with domestic waste.

- Take electronic parts and batteries to local collection points or recycling centers.
- Contact local authorities for more information.
- Observe national requirements for disposing of electronic parts and batteries.

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