FDM273
Radio manual call point
Mounting
Imprint

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1 About this document

Overview
The FDM273 radio manual call point is intended for use in areas of a house where a fire can be detected by people who can manually trigger an alarm.
The FDM273 radio manual call point consists of a housing, a switching unit, and a battery pack.

Goal and purpose
This document contains all the information required to install the FDM273 manual call point.
Prerequisites:
- The installation location of the radio manual call point has been established.
- Mounting should be performed by a specialist in compliance with safety regulations.
You will find more information on the FDM273 radio manual call point in document A6V10347733.

Applicable documents

<table>
<thead>
<tr>
<th>Document ID</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6V10271323</td>
<td>Data sheet SWING Neural radio fire detector FDCW241, FDOOT271, FDM273, FDM275, FDM275(F)</td>
</tr>
<tr>
<td>A6V10227631</td>
<td>Planning Radio fire detection system SWING</td>
</tr>
<tr>
<td>A6V10347733</td>
<td>Technical Manual Radio manual call point FDM273</td>
</tr>
</tbody>
</table>

Intended use
The radio manual call point FDM273 may only be used together with a radio gateway FDCW241 in a fire detection system FS20/FS720.
2 Mounting and installation

2.1 Preparation

Secure the housing at a height of 0.9…1.6 m on an even surface. Observe the country-specific regulations for the exact mounting height!

Figure 1: Opening the housing and identifying the screw holes

1 Screw opening
2 Door sign
3 Break-out points

- The position of the radio manual call point has been established.
- You have the housing, switching unit, and battery pack to hand.
- You have a tool and two screws for securing purposes. The screws have a Ø 2.5…3 mm shaft and a Ø >8 mm head surface.

1. Push the keyhole cover to the right.
2. Open the door with the key supplied.
3. NOTICE! Keep the key in a safe place.
4. Push the keyhole cover back into place.
5. For securing purposes, select two screw positions that are spaced far apart from one another. Use screw position (1) if possible. There are additional securing points in the back box.
   - Working from the rear of the housing, break out an appropriate screw hole at one of the marked break-out points (3) in the back box.
6. Replace the window sign (2) if necessary.
   - The housing is now ready for installation.
### 2.2 Installing the housing

The housing is ready for mounting. See the chapter 'Preparation'.

- Screw the housing securely onto the substructure using two screws.
- The housing has been installed.

![Diagram](image-url)

*Figure 2: Example of securing onto the substructure using two screws*
2.3 Installation

The flashing behavior of the internal alarm indicator is described in document A6V10347733 in the 'Internal alarm indicator' chapter.

- The housing has been installed.
- The radio gateway has been activated and switched to maintenance mode.
- The battery pack and switching unit are available.
- The switching unit is set to the factory settings.
- The door (5) is open.
- The alarm button (10) on the switching unit (2) has not been pressed and is protruding by about 5 mm.

1 Not included in the scope of delivery
1. If the alarm button has been pressed, push the black locking lever (8) in the direction of the arrow until it clicks.
   ⇨ The alarm button is now protruding by approx. 5 mm.
2. Remove the adhesive label with the serial number from the type plate on the switching unit. Use the adhesive label to mark the position of the radio manual call point FDM273 on the device location plan.
3. Turn over the window sign if necessary, or use a different one.
4. Label the battery pack (6) with the current date.
5. Lay the connection cable and connect the battery connector (3).
   ⇨ When the battery connector is connected, the internal alarm indicator (9) lights up red for five seconds.
   ⇨ After a further 10 seconds, the radio manual call point signals that it is not mounted in the housing, and the internal alarm indicator flashes every two seconds:
     – If it flashes red, this indicates the factory settings.
     – If it flashes green, this indicates that the radio manual call point 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 battery pack into the switching unit FDME273 so that it snaps into place in the holders (7).
7. Insert the switching unit with the battery pack into the housing, paying attention to the position of the battery cable.
8. Connect the switching unit securely to the housing using two screws (1).
   ⇨ The internal alarm indicator flashes green and the radio manual call point 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.
9. If the logon process has not been successful after a long period of time, briefly remove the switching unit from the housing and then re-insert it.
   ⇨ The search for the radio network starts again.
10. Close the door.
    ⇨ The radio manual call point is now mounted and is ready for commissioning.

⚠️ WARNING

Deactivated manual call points prevent alarms from being transmitted. The alarm is not triggered.
• Mark deactivated manual call points or those which are not fully functional with the notice 'NOT IN USE'!
2.4 Installing the protective cover

If a protective cover (accessories) is used, proceed as follows:

▷ A compatible protective cover is available. See the chapter 'Accessories'.
1. Open the door of the manual call point.
2. Remove the glass insert. See the chapter 'Replacing the glass insert'.
3. Guide the protective cover (1) through the opening in the door from the front, as shown in the diagram.
4. Insert the pivot pins (2) for the protective cover (1) in the two recesses on the rear side of the door, as shown in the diagram.
5. Install the glass insert. See the chapter 'Replacing the glass insert'.
6. Close the door of the manual call point.
▷ The protective cover is inserted.

Figure 4: Example of installing protective cover DMZ1197-AC on a manual call point

1 Protective cover DMZ1197-AC
2 Pivot pin
2.5 Inserting the door sign

Only use the door sign if local regulations require the manual call point to be labeled in this way.

- The appropriate door sign (printed on both sides) is available.

1. Open the door and lift the transparent cover to the side.

2. Insert the door sign so the desired side is displayed.

3. Attach the transparent cover so that it snaps into place at the side.

Figure 5: Mounting the door sign
3 Details for ordering

3.1 Switching unit FDME273

- For the SWING radio fire detection system
- Secured in housing FDMH273-R
- Power supplied by battery pack BAT3.6-10
- Order number: S54323-B108-A1

3.2 Housing FDMH273-R

- For the SWING radio fire detection system
- Holds a switching unit FDME273
- Order number: S54323-B109-A1

3.3 Battery pack BAT3.6-10

- For supplying radio devices and the radio gateway with power
- Lithium batteries
  - BAT3.6-10 LI-SOCl2 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 Key DMZ1195

- For opening doors on manual call points
- Compatible with:
  - Manual call point FDM223
  - Manual call point FDM224
  - Radio manual call point FDM273
- Order number: BPZ:4851910001

3.5 Glass insert DMZ1196-AC

- For alarm activation and protection against soiling
- Compatible with:
  - Manual call point FDM223
  - Manual call point FDM224
  - Manual call point FDM223H
  - Manual call point FDM224H
  - Radio manual call point FDM273
- Order number: BPZ:4942050001

3.6 Protective cover DMZ1197-AC

- For protection against unintended alarm activation
- Compatible with:
  - Manual call point FDM223
  - Manual call point FDM224
  - Manual call point FDM223H
  - Manual call point FDM224H
  - Radio manual call point FDM273
- Order number: BPZ:5223550001

3.7 Door sign

- For inserting in manual call point
- Printed on both sides:
  - Front: 'Fire brigade'
  - Back: 'Fire detector'
- Only for Germany
- Compatible with:
  - Manual call point DM1103
  - Manual call point FDM273
- Order number: BPZ:5304150001
# 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

<table>
<thead>
<tr>
<th>Device characteristics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detector diagnosis</td>
<td>With FXS2061 SWING Tool or connected fire control panel</td>
</tr>
<tr>
<td>Type of alarm activation</td>
<td>Type B (indirect activation)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Radio</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sending/receiving aerials</td>
<td>Dual band aerial</td>
</tr>
<tr>
<td>Frequency range</td>
<td>433.05...434.79 MHz in band 44b and 45b¹ 868...870 MHz in band 48, 49, 50, 54b, and 56b¹</td>
</tr>
<tr>
<td>Channel grid</td>
<td>50 kHz</td>
</tr>
<tr>
<td>Number of channels</td>
<td>27 in 868-MHz band 20 in 433-MHz band</td>
</tr>
<tr>
<td>Transmitting power</td>
<td>≤10 mW ERP in band 44b, 45b, and 49¹ Type 10 (max. ≤25) mW ERP in band 48, 50, 54b, and 56b¹</td>
</tr>
<tr>
<td>Range</td>
<td>See document A6V10227631</td>
</tr>
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<table>
<thead>
<tr>
<th>Battery</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium battery pack</td>
<td>BAT3.6-10 LI-SOCl2 battery pack 3.6 V, 10 Ah</td>
</tr>
<tr>
<td>Battery service life</td>
<td>Dependent upon ambient conditions At least 3 years</td>
</tr>
<tr>
<td>Service life 'Battery low'</td>
<td>&gt;3 months</td>
</tr>
<tr>
<td>Battery voltage monitored</td>
<td>Yes</td>
</tr>
<tr>
<td>Weight</td>
<td>0.093 kg</td>
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</table>

<table>
<thead>
<tr>
<th>Detector line</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio connection to detector line via radio gateway</td>
<td>FDCW241</td>
</tr>
<tr>
<td>Radio connection to PC via MCL-USB adapter</td>
<td>FDUZ227</td>
</tr>
<tr>
<td>System compatibility</td>
<td>See 'List of compatibility'</td>
</tr>
</tbody>
</table>
## Ambient conditions

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<th>Details</th>
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<tbody>
<tr>
<td>Place of installation</td>
<td>Indoors</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-10…+55 °C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-30…+75 °C</td>
</tr>
<tr>
<td>Air humidity</td>
<td>≤95 % rel.</td>
</tr>
</tbody>
</table>

Protection categories in accordance with IEC 60529:

- FDM273 Housing FDMH273-R: IP44

Electromagnetic compatibility:

- 10 kHz…100 kHz: 160 V/m
- 100 kHz…2.5 GHz: 30 V/m

## Mechanical data

### Weight:

- FDMH273-R: 0.279 kg
- FDME273: 0.098 kg

### Housing material:

- FDMH273-R: Polycarbonate (PC)

### Colors:

- FDMH273-R: ~RAL 3000 flame red

## Standards

European standards:

- EN 54-11
- EN 54-25
- EN 300220-2
- EN 301489-3
- EN 60950
4.2 Dimensions

Radio manual call point FDM273

4.3 Master gauge for recesses

Radio manual call point FDM273
4.4 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.