Sounder beacon (voice) for wall mounting for use in the automatically addressable FDnet/C-NET

- Addressed (FDnet/C-NET)
- Meets the requirements of the EN 54-3 standard
- Supply and communication via FDnet/C-NET
- Max. 16 tones to choose from, 2 programmable events: 'Warning (ALERT)' and 'Evacuation (EVAC)'
- Adjustable sound levels up to max. 99 dBA
- Additional beacon for FDS226-xx, FDS227-xx, and FDS227-xx-C:
  - Meets the requirements of the EN 54-23 standard
  - Red or white LEDs with four adjustable luminous intensities
- Additional voice output for FDS225-x, FDS227-xx, and FDS227-xx-C:
  - 15 languages integrated in the device, additional languages can be ordered
  - Each voice message can be emitted in two languages
  - Max. seven available events
  - Customer-specific voice messages and/or tones can be ordered
Properties

- Devices and bases are available in two colors:
  - Red (~RAL 3000 flame red)
  - White (~RAL 9010, pure white)
- Integrated line separator
- The device automatically monitors its beacon and acoustic function.
- Tool-free connection to the detector line. Possible conductor cross-sections to 2.5 mm².
- Max. protection category achievable: IP65 for use with base deep FDB227-x and M20 x 1.5 metal cable gland with M20 x 1.5 counter nut.
- Synchronization of acoustic and beacon signals as well as voice messages (voice messages only for FDS225-x and FDS227-xx as well as FDS227-xx-C)
- By setting the appropriate tone, it can be used as a break bell in schools or plants.
- For FDS225-x, FDS227-xx, and FDS227-xx-C: Simple configuration of the voice messages with the configuration software for the respective fire detection system:
  - 'SintesoWorks' for the 'Sinteso' product line
  - 'Cerberus-Engineering-Tool' for the 'Cerberus PRO' product line
- Protected electronics and high-quality components
- Eco-friendly
  - Environmentally friendly processing
  - Reusable materials
  - Electronic parts and synthetic materials can be easily separated

Use

- Public buildings
- Office buildings
- Hotels
- Schools and kindergartens

Intended use

The devices FDS224-x, FDS225-x, FDS226-xx, FDS227-xx, and FDS227-xx-C are intended to be used as alarm devices on an FDnet/C-NET detector line in connection with a fire control panel FC20xx ('Sinteso' product line) or FC72x ('Cerberus PRO' product line).
**Functions**

**Functions shared by all devices**
The devices provide an alarm in an addressed fire detection system FS20/FS720. They activate an acoustic signal in the event of a fire alarm. Each device has 16 tones ex-factory. All devices have their own device addresses and can be configured independently of each other.

**Voice sounder**
FDS225-R, FDS225-W
The devices activate an acoustic signal in the event of a fire alarm. In addition, the devices can emit prerecorded standard voice messages.
You will find more information on voice messages in the 'Standard voice messages' section of this data sheet.

**Sounder beacon**
FDS226-RW, FDS226-WW, FDS226-RR, FDS226-WR
In the event of a fire alarm, the devices activate both an acoustic and an optical alarm signal (with the LEDs flashing). The devices are available with red or white flashing LEDs.

**Voice sounder beacon**
FDS227-RW, FDS227-WW, FDS227-RR, FDS227-WR
In the event of a fire alarm, the devices activate both an acoustic and an optical alarm signal (with the LEDs flashing). The devices are available with red or white flashing LEDs.
In addition, the devices can emit prerecorded standard voice messages:
- 15 standard languages are integrated in the devices.
- Standard voice messages have been recorded for five events per language. The following events are available:
  - Evacuation Fire
  - Evacuation Emergency
  - Alert
  - Test
  - All clear
- The voice messages can be emitted in two consecutive languages.
You will find more information on voice messages in the 'Standard voice messages' section of this data sheet.

**Voice sounder beacon**
FDS227-RW-C, FDS227-WW-C, FDS227-RR-C, FDS227-WR-C
In terms of their functionality, these devices correspond to FDS227-xx. Customer-specific configurations can be integrated ex-factory:
- Two more languages in addition to the 15 standard languages
- Two more tones in addition to the 16 tones
- Two more events in two languages in addition to the five events
You will find more information on the additional functions of the customer-specific devices in the 'Customer-specific languages, tones, and voice messages' section of this data sheet.
Standard voice messages

The devices include prerecorded standard voice messages for five events in 15 languages. The standard voice messages are available in the following languages:

- English (en)
- German (de)
- French (fr)
- Spanish (es)
- Italian (it)
- English (UK)
- Dutch (nl)
- Swedish (sv)
- Norwegian (no)
- Finnish (fi)
- Danish (da)
- Polish (pl)
- Portuguese (pt)
- Turkish (tr)
- Russian (ru)

1 The abbreviations used comply with the ISO 639-1 standard. Exception: 'English (UK)'

The following table lists examples of standard voice messages in some languages:

<table>
<thead>
<tr>
<th>Language</th>
<th>Message M1</th>
<th>Message M2</th>
<th>Message M3</th>
<th>Message M4</th>
<th>Message M5</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>Attention please, this is a fire alarm! Please leave the building immediately by the marked available exits.</td>
<td>Attention please, this is an emergency. Please leave the building by the marked available exits.</td>
<td>Attention, an incident has been reported in the building, please await further instructions.</td>
<td>This is a test message, no action is required.</td>
<td>Attention please! All clear! The building alert has been resolved. All clear!</td>
</tr>
<tr>
<td>French</td>
<td>Attention, attention! Ceci est une alarme incendie! Evacuez le bâtiment par les sorties de secours les plus proche!</td>
<td>Attention, attention! Pour des raisons de sécurité evacuez le bâtiment par les sorties de secours les plus proche!</td>
<td>Attention, attention! Un incident a été signalé dans le bâtiment. Veuillez attendre de nouvelles instructions!</td>
<td>Ceci est un message de tests. Veuillez s’il vous plaît ne pas en tenir compte.</td>
<td>Attention, attention! L’urgence dans le bâtiment est levée. Retour à la situation normale.</td>
</tr>
<tr>
<td>Spanish</td>
<td>¡Este es un aviso de alarma de incendio! Por favor abandone el edificio por la salida más cercana.</td>
<td>Atención por favor, esto es una emergencia. Por favor abandone el edificio por la salida más cercana.</td>
<td>Se ha reportado un incidente en el edificio, por favor espere instrucciones mas detalladas.</td>
<td>Este es un mensaje de prueba, no se requiere ninguna acción.</td>
<td>Atención por favor! Fin de la alerta. La alerta del edificio ha sido resuelta. Fin de la alerta!</td>
</tr>
</tbody>
</table>

You will find more information on the voice messages in the technical manual for the devices. See the 'Product documentation' section in this data sheet.

Customer-specific languages, tones, and voice messages

Additional languages and voice messages as well as more tones are available on request. You will find more information on the voice messages and the ordering process for customer-specific devices in the technical manuals for the devices. See section 'Product documentation [→ 6]' in the present data sheet.
## Type Overview

<table>
<thead>
<tr>
<th>Type $^1$</th>
<th>Designation</th>
<th>Order number</th>
<th>Weight [kg]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDS224-R</td>
<td>Sounder</td>
<td>S54364-F1-A1</td>
<td>0.154</td>
</tr>
<tr>
<td>FDS224-W</td>
<td>Sounder</td>
<td>S54364-F2-A1</td>
<td>0.154</td>
</tr>
<tr>
<td>FDS225-R</td>
<td>Voice sounder</td>
<td>S54364-F3-A1</td>
<td>0.154</td>
</tr>
<tr>
<td>FDS225-W</td>
<td>Voice sounder</td>
<td>S54364-F4-A1</td>
<td>0.154</td>
</tr>
<tr>
<td>FDS226-RR</td>
<td>Sounder beacon</td>
<td>S54364-F5-A1</td>
<td>0.172</td>
</tr>
<tr>
<td>FDS226-RW</td>
<td>Sounder beacon</td>
<td>S54364-F6-A1</td>
<td>0.172</td>
</tr>
<tr>
<td>FDS226-WR</td>
<td>Sounder beacon</td>
<td>S54364-F7-A1</td>
<td>0.172</td>
</tr>
<tr>
<td>FDS226-WW</td>
<td>Sounder beacon</td>
<td>S54364-F8-A1</td>
<td>0.172</td>
</tr>
<tr>
<td>FDS227-RR</td>
<td>Voice sounder beacon</td>
<td>S54364-F9-A1</td>
<td>0.172</td>
</tr>
<tr>
<td>FDS227-RW</td>
<td>Voice sounder beacon</td>
<td>S54364-F10-A1</td>
<td>0.172</td>
</tr>
<tr>
<td>FDS227-WR</td>
<td>Voice sounder beacon</td>
<td>S54364-F11-A1</td>
<td>0.172</td>
</tr>
<tr>
<td>FDS227-WW</td>
<td>Voice sounder beacon</td>
<td>S54364-F12-A1</td>
<td>0.172</td>
</tr>
<tr>
<td>FDS227-RR-C</td>
<td>Voice sounder beacon</td>
<td>S54364-F9-A2</td>
<td>0.172</td>
</tr>
<tr>
<td>FDS227-RW-C</td>
<td>Voice sounder beacon</td>
<td>S54364-F10-A2</td>
<td>0.172</td>
</tr>
<tr>
<td>FDS227-WR-C</td>
<td>Voice sounder beacon</td>
<td>S54364-F11-A2</td>
<td>0.172</td>
</tr>
<tr>
<td>FDS227-WW-C</td>
<td>Voice sounder beacon</td>
<td>S54364-F12-A2</td>
<td>0.172</td>
</tr>
</tbody>
</table>

$^1$ FDS22x- $^2$ C = customer-specific device

- **R** = Red
- **W** = White

- **Color of the LED (R = red, W = white)**
- **Color of the housing (R = red, W = white)**
Accessories

<table>
<thead>
<tr>
<th>Type</th>
<th>Designation</th>
<th>Order number</th>
<th>Weight [kg]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDB226-R</td>
<td>Base (wall mounting)</td>
<td>S54364-B1-A1</td>
<td>0.045</td>
</tr>
<tr>
<td>FDB226-W</td>
<td>Base (wall mounting)</td>
<td>S54364-B2-A1</td>
<td>0.045</td>
</tr>
<tr>
<td>FDB227-R</td>
<td>Base deep (wall mounting)</td>
<td>S54364-B3-A1</td>
<td>0.073</td>
</tr>
<tr>
<td>FDB227-W</td>
<td>Base deep (wall mounting)</td>
<td>S54364-B4-A1</td>
<td>0.073</td>
</tr>
<tr>
<td>–</td>
<td>Metal cable gland M20 x 1.5</td>
<td>A5Q00004478</td>
<td>0.036</td>
</tr>
<tr>
<td>–</td>
<td>M20 x 1.5 metal counter nut</td>
<td>A5Q00004479</td>
<td>0.006</td>
</tr>
<tr>
<td>FDBZ291</td>
<td>Designation plate</td>
<td>A5Q00002621</td>
<td>0.002</td>
</tr>
<tr>
<td>FDBZ293</td>
<td>Detector locking device</td>
<td>A5Q00005035</td>
<td>0.001</td>
</tr>
<tr>
<td>LP720</td>
<td>Detector locking device</td>
<td>S54319-F9-A1</td>
<td>0.001</td>
</tr>
<tr>
<td>DBZ1190-AA</td>
<td>Micro terminal 0.28…0.5 mm²</td>
<td>BPZ:4677080001</td>
<td>0.001</td>
</tr>
<tr>
<td>DBZ1190-AB</td>
<td>Connection terminal 0.5…2.5 mm²</td>
<td>BPZ:4942340001</td>
<td>0.001</td>
</tr>
</tbody>
</table>

1. Color of base: red
2. Color of base: white
3. For device with FDB226-x and device with FDB227-x

Product documentation

<table>
<thead>
<tr>
<th>Document ID</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>008164</td>
<td>Equipment overview Sinteso™ Detector system FD20</td>
</tr>
<tr>
<td>008331</td>
<td>List of compatibility (for 'Sinteso™' product line)</td>
</tr>
<tr>
<td>009078</td>
<td>FS20 Fire detection system - Configuration</td>
</tr>
<tr>
<td>A6V10210424</td>
<td>FS720 Fire detection system - Configuration</td>
</tr>
<tr>
<td>A6V10229261</td>
<td>List of compatibility (for 'Cerberus™ PRO' product line)</td>
</tr>
<tr>
<td>A6V10725350</td>
<td>Technical Manual FDS224-x, FDS225-x, FDS226-xx, FDS227-xx, FDS227-xx-C</td>
</tr>
</tbody>
</table>

Related documents such as the environmental declarations, CE declarations, etc., can be downloaded from the following Internet address:

https://siemens.com/bt/download
Mounting

The devices are mounted into a base (wall mounting) FDB226 or a base deep (wall mounting) FDB227.

Devices and accessories
Installation

Simple connection of the devices to the FDnet/C-NET detector line:

Disposal

The device is considered an electronic device for disposal in accordance with the European Guidelines and may not be disposed of as domestic garbage.

- Dispose of the device through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.
## Technical data

### Supply

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
</table>
| **Operating voltage**                            | DC 12...33 V for FDS224-x, FDS225-x  
DC 16...33 V for FDS226-xx, FDS227-xx, FDS227-xx-C |
| **Operating current (quiescent)**                | 250 µA for FDS224-x, FDS225-x  
400 µA for FDS226-xx, FDS227-xx, FDS227-xx-C |
| **Tone/voice activated**                         | Max. 4 mA (128 mW) |
| **Beacon activated**                             | **LED white**  
High (W-3.2-10): 22 mA (352 mW)  
Medium (W-2.4-7.5): 13 mA (208 mW)  
Low (O-2-6.2): 10 mA (160 mW)  
Indicator: 3 mA (48 mW)  
**LED red**  
High (W-2.8-8.8): 24 mA (384 mW)  
Medium (W-2.4-7.5): 17 mA (272 mW)  
Low (O-2-6.2): 13 mA (208 mW)  
Indicator: 3 mA (48 mW) |
| **Beacon and tone/voice activated**              | **LED white**  
High (W-3.2-10): 25 mA (440 mW)  
Medium (W-2.4-7.5): 16 mA (296 mW)  
Low (O-2-6.2): 13 mA (248 mW)  
Indicator: 5 mA (160 mW)  
**LED red**  
High (W-2.8-8.8): 27 mA (472 mW)  
Medium (W-2.4-7.5): 20 mA (360 mW)  
Low (O-2-6.2): 16 mA (296 mW)  
Indicator: 5 mA (160 mW) |

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1 Max. sound level for tone and voice output is taken into account
2 Only for FDS226-xx, FDS227-xx, FDS227-xx-C
### Functional data

| Tones | • 16 tones (including school bell)  
|Voice messages | • 5 standard voice messages in 15 languages  
| • 2 alarm levels ('Warning' and 'Evacuation')  
| • 3 sound levels (maximum / medium / minimum)  
| Sound level (alarm sound level) | FDS224-x, FDS226-x: 75...99 dBA  
| | FDS225-xx, FDS227-xx, FDS227-xx-C: 71...94 dBA  
| Luminous intensity  
(according to EN 54-23) | LED white  
| | High (W-3.2-10)  
| | Medium (W-2.4-7.5)  
| | Low (O-2-6.2)  
| | (wall mounting, cubic cover cap as for category W)  
| | Indicator: 0.4...5 cd  
| LED red | High (W-2.8-8.8)  
| | Medium (W-2.4-7.5)  
| | Low (O-2-6.2)  
| | (wall mounting, cubic cover cap as for category W)  
| | Indicator: 0.3...3 cd  
| Luminous intensity levels  
(1) | 4 levels (high/medium/low/indicator)  
| Communication protocol | FDnet/C-NET  
| System compatibility | FDnet/C-NET FS20/FS720  
| Color | ~RAL9010 pure white or  
| | ~RAL3000 flame red  

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1 Only for FDS226-xx, FDS227-xx, FDS227-xx-C  
2 Does not comply with EN 54-23

### Line connections

| Conductor cross section | 0.2...2.5 mm²

### Ambient conditions and protection category

| Protection category (IEC 60529):  
| With base FDB226-x: | • IP33C  
| With base deep FDB227-x: | • IP65 (no LPCB approval)  
| Operating temperature | -25...+70 °C  
| Storage temperature | -30...+75 °C  
| Air humidity | ≤95 % rel.
## Standards, directives, and approvals

**Standards**
- EN 54-3 type B, EN 54-17
- EN 54-23, type B

**Approvals:**
- **VdS**
  - FDS224-x
  - FDS225-x
  - FDS226-xW
  - FDS227-xW
  - FDS226-xR
  - FDS227-xR
  - G219001
  - G219002
  - G219003
  - G219004

- **LPCB**
  - 531p-(cl-1), 531v-(cl-1)

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3 VdS approval according to EN 54-23 only for type A indoor application

## Dimensional drawings

### Device with base (wall mounting) FDB226-x

![Device with base (wall mounting) FDB226-x](image-url)

### Device with base deep (wall mounting) FDB227-x

![Device with base deep (wall mounting) FDB227-x](image-url)
### FDS224 - Sounder incl. Short-circuit isolator

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Technical data</th>
<th>DoP No.</th>
<th>DoC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDS224</td>
<td>Siemens Schweiz AG: Theilerstrasse 1a CH-6300 Zug</td>
<td>see doc. A6V10725350</td>
<td>DOP190211</td>
<td>CED-FDS224</td>
</tr>
</tbody>
</table>

The declared performance and conformity can be seen in the Declaration of Performance (DoP) and the EU Declaration of Conformity (DoC), which is obtainable via the Customer Support Center: Tel. +49 89 9221-8000 or [https://siemens.com/bt/download](https://siemens.com/bt/download).

### FDS225 - Sounder incl. Short-circuit isolator

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Technical data</th>
<th>DoP No.</th>
<th>DoC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDS225</td>
<td>Siemens Schweiz AG: Theilerstrasse 1a CH-6300 Zug</td>
<td>see doc. A6V10725350</td>
<td>DOP190212</td>
<td>CED-FDS225</td>
</tr>
</tbody>
</table>

The declared performance and conformity can be seen in the Declaration of Performance (DoP) and the EU Declaration of Conformity (DoC), which is obtainable via the Customer Support Center: Tel. +49 89 9221-8000 or [https://siemens.com/bt/download](https://siemens.com/bt/download).

### FDS226 - Visual alarm device/sounder incl. Short-circuit isolator

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Technical data</th>
<th>DoP No.</th>
<th>DoC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDS226</td>
<td>Siemens Schweiz AG: Theilerstrasse 1a CH-6300 Zug</td>
<td>see doc. A6V10725350</td>
<td>DOP190213</td>
<td>CED-FDS226</td>
</tr>
</tbody>
</table>

The declared performance and conformity can be seen in the Declaration of Performance (DoP) and the EU Declaration of Conformity (DoC), which is obtainable via the Customer Support Center: Tel. +49 89 9221-8000 or [https://siemens.com/bt/download](https://siemens.com/bt/download).

### FDS227 - Visual alarm device/sounder incl. Short-circuit isolator

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Technical data</th>
<th>DoP No.</th>
<th>DoC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDS227</td>
<td>Siemens Schweiz AG: Theilerstrasse 1a CH-6300 Zug</td>
<td>see doc. A6V10725350</td>
<td>DOP190214</td>
<td>CED-FDS227</td>
</tr>
</tbody>
</table>

The declared performance and conformity can be seen in the Declaration of Performance (DoP) and the EU Declaration of Conformity (DoC), which is obtainable via the Customer Support Center: Tel. +49 89 9221-8000 or [https://siemens.com/bt/download](https://siemens.com/bt/download).