DBS 720
Sounder base
Technical Manual
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1 About this document

Goal and purpose
This document contains information on the sounder base DBS 720. Following the instructions consistently will ensure that the product can be used safely and without any problems.

Scope
The document is valid for the following sounder base:
- DBS 720

Target groups
The information in this document is intended for the following target groups:

<table>
<thead>
<tr>
<th>Target group</th>
<th>Activity</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Manager</td>
<td>• Is responsible for information passing between the manufacturer and regional company.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Coordinates the flow of information between the individual groups of people involved in a project.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Has obtained suitable specialist training for the function and for the products.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Has attended the training courses for Product Managers.</td>
<td></td>
</tr>
<tr>
<td>Project Manager</td>
<td>• Coordinates the deployment of all persons and resources involved in the project according to schedule.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Provides the information required to run the project.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Has obtained suitable specialist training for the function and for the products.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Has attended the training courses for Project Managers.</td>
<td></td>
</tr>
<tr>
<td>Installation personnel</td>
<td>• Assembles and installs the product components at the place of installation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Carries out a function check following installation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Has received specialist training in the area of building installation technology or electrical installations.</td>
<td></td>
</tr>
<tr>
<td>Maintenance personnel</td>
<td>• Carries out all maintenance work.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Checks that the products are in perfect working order.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Searches for and corrects malfunctions.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Has obtained suitable specialist training for the function and for the products.</td>
<td></td>
</tr>
</tbody>
</table>
Source language and reference document

- The source/original language of this document is German (de).
- The reference version of this document is the international version in English. The international version is not localized.

Document identification

The document ID is structured as follows:

<table>
<thead>
<tr>
<th>ID code</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID_ModificationIndex_Language_COUNTRY</td>
<td>A6V10215123_a_de_DE</td>
</tr>
<tr>
<td>-- = multilingual or international</td>
<td>A6V10215123_a_en --</td>
</tr>
<tr>
<td></td>
<td>A6V10315123_a_--_--</td>
</tr>
</tbody>
</table>

Date format

The date format in the document corresponds to the recommendation of international standard ISO 8601 (format YYYY-MM-DD).

Conventions for text marking

Markups

Special markups are shown in this document as follows:

<table>
<thead>
<tr>
<th>Markup</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶</td>
<td>Requirement for a behavior instruction</td>
</tr>
<tr>
<td>1. 2.</td>
<td>Behavior instruction with at least two operation sequences</td>
</tr>
<tr>
<td>-</td>
<td>Version, option, or detailed information for a behavior instruction</td>
</tr>
<tr>
<td>⊳</td>
<td>Intermediate result of a behavior instruction</td>
</tr>
<tr>
<td>⊣</td>
<td>End result of a behavior instruction</td>
</tr>
<tr>
<td>●</td>
<td>Numbered lists and behavior instructions with an operation sequence</td>
</tr>
<tr>
<td>[➔ X]</td>
<td>Reference to a page number</td>
</tr>
<tr>
<td>'Text'</td>
<td>Quotation, reproduced identically</td>
</tr>
<tr>
<td>&lt;Key&gt;</td>
<td>Identification of keys</td>
</tr>
<tr>
<td>&gt;</td>
<td>Relation sign and for identification between steps in a sequence, e.g., 'Menu bar' &gt; 'Help' &gt; 'Help topics'</td>
</tr>
<tr>
<td>↑ Text</td>
<td>Identification of a glossary entry</td>
</tr>
</tbody>
</table>

Supplementary information and tips

The 'i' symbol identifies supplementary information and tips for an easier way of working.
1.1 Applicable documents

<table>
<thead>
<tr>
<th>Document ID</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6V10200373</td>
<td>Installation Detector base with loop contact DB721, DB722, detector base DB720, sounder base DBS720, detector base seal RS720, detector locking device LP 720, base attachment BA720</td>
</tr>
<tr>
<td>A6V10201731</td>
<td>Installation Detector exchanger DX791, adapter for detector exchanger FDUD491</td>
</tr>
<tr>
<td>A6V10203095</td>
<td>Data sheet Sounder base, Alarm sounders DBS720, FDS221-R, FDS221-W</td>
</tr>
<tr>
<td>A6V10229261</td>
<td>List of compatibility (for 'Cerberus™ PRO' product line)</td>
</tr>
<tr>
<td>A6V10882301</td>
<td>List of compatibility (for 'FC360' product line)</td>
</tr>
</tbody>
</table>

1.2 Download center

You can download various types of documents, such as data sheets, installation instructions, and license texts via the following Internet address: [https://siemens.com/bt/download](https://siemens.com/bt/download)

- Enter the document ID in the search field.

You will also find information about search variants and links to mobile applications (apps) for various systems on the home page.

1.3 Technical terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS</td>
<td>Acrylonitrile-butadiene-styrene (plastic)</td>
</tr>
<tr>
<td>AI</td>
<td>Alarm indicator</td>
</tr>
<tr>
<td>ES</td>
<td>Product version</td>
</tr>
<tr>
<td>C-NET</td>
<td>Addressed detector line</td>
</tr>
<tr>
<td>EAI link</td>
<td>External Alarm Indicator Link (communication with sounder bases or external alarm indicators)</td>
</tr>
</tbody>
</table>
1.4 History of changes

The reference document's version applies to all languages into which the reference
document is translated.

The first edition of a language version or a country variant may, for example, be
version 'd' instead of 'a' if the reference document is already this version.

The table below shows this document's revision history:

<table>
<thead>
<tr>
<th>Version</th>
<th>Edition date</th>
<th>Brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>2019-03-25</td>
<td>Editorial changes</td>
</tr>
<tr>
<td>m</td>
<td>2017-10-31</td>
<td>DBZ1190-AB: Conductor cross-section adapted (0.5…2.5 mm²)</td>
</tr>
</tbody>
</table>
| l       | 2017-05-24   | 'Intended use' chapter added
|         |              | 'FC361-xx' entry added to 'Compatibility' chapter
|         |              | 'Applicable documents' chapter adapted
|         |              | Power value updated in 'Technical data' chapter
|         |              | Tables modified in 'Tones DBS720' chapter |
| k       | 2014-06-02   | Data sheet updated in 'Applicable documents' chapter; 'Download center' chapter updated |
| j       | 2013-04-06   | Voltage value in 'Tone/sound level of alarm sounder' chapter corrected to 32 V; several values adjusted |
| i       | 2013-03-05   | LPCB approval updated in 'Technical data' chapter |
| h       | 2012-10-15   | LPCB approval in 'Technical data' chapter removed; date format changed in line with ISO 8601 specifications (yyyy-mm-dd format); minor editorial changes |
| g       | 10.2011      | Marine approval added, 'Product version' chapter added |
| f       | 04.2011      | Connection diagram revised, FM approval added |
| e       | 04.2010      | New external alarm indicators added, minor editorial changes |
| d       | 09.2009      | LPCB approvals added |
| c       | 06.2009      | Conductor cross section for sounder base specified and minor editorial changes made |
| b       | 10.2008      | Protection categories adapted |
| a       | 09.2008      | First edition |
2 Safety

2.1 Intended use
The sounder base DBS720 is intended for use as an alarm device on an C-NET detector line in conjunction with a fire control panel FC72x (‘Cerberus PRO’ product line) or FC361-xx (‘Cerberus FIT’).

2.2 Safety instructions
The safety notices must be observed in order to protect people and property. The safety notices in this document contain the following elements:
- Symbol for danger
- Signal word
- Nature and origin of the danger
- Consequences if the danger occurs
- Measures or prohibitions for danger avoidance

Symbol for danger
This is the symbol for danger. It warns of risks of injury. Follow all measures identified by this symbol to avoid injury or death.

Additional danger symbols
These symbols indicate general dangers, the type of danger or possible consequences, measures and prohibitions, examples of which are shown in the following table:

- General danger
- Explosive atmosphere
- Voltage/electric shock
- Laser light
- Battery
- Heat
### Signal word

The signal word classifies the danger as defined in the following table:

<table>
<thead>
<tr>
<th>Signal word</th>
<th>Danger level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DANGER</strong></td>
<td>'DANGER' identifies a dangerous situation, which will result directly in death or serious injury if you do not avoid this situation.</td>
</tr>
<tr>
<td><strong>WARNING</strong></td>
<td>'WARNING' identifies a dangerous situation, which may result in death or serious injury if you do not avoid this situation.</td>
</tr>
<tr>
<td><strong>CAUTION</strong></td>
<td>'CAUTION' identifies a dangerous situation, which could result in slight to moderately serious injury if you do not avoid this situation.</td>
</tr>
<tr>
<td><strong>NOTICE</strong></td>
<td>'NOTICE' identifies a possibly harmful situation or possible damage to property that may result from non-observance. 'NOTICE' does not relate to possible bodily injury.</td>
</tr>
</tbody>
</table>

### How risk of injury is presented

Information about the risk of injury is shown as follows:

<table>
<thead>
<tr>
<th>![WARNING]</th>
<th><strong>WARNING</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nature and origin of the danger</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Consequences if the danger occurs</strong></td>
<td></td>
</tr>
<tr>
<td>• Measures / prohibitions for danger avoidance</td>
<td></td>
</tr>
</tbody>
</table>

### How possible damage to property is presented

Information about possible damage to property is shown as follows:

<table>
<thead>
<tr>
<th>![NOTICE]</th>
<th><strong>NOTICE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nature and origin of the danger</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Consequences if the danger occurs</strong></td>
<td></td>
</tr>
<tr>
<td>• Measures / prohibitions for danger avoidance</td>
<td></td>
</tr>
</tbody>
</table>
2.3 Safety regulations for the method of operation

National standards, regulations and legislation
Siemens products are developed and produced in compliance with the relevant European and international safety standards. Should additional national or local safety standards or legislation concerning the planning, mounting, installation, operation or disposal of the product apply at the place of operation, then these must also be taken into account together with the safety regulations in the product documentation.

Electrical installations

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electrical voltage</strong></td>
</tr>
<tr>
<td><strong>Electric shock</strong></td>
</tr>
<tr>
<td>• Work on electrical installations may only be carried out by qualified electricians or by instructed persons working under the guidance and supervision of a qualified electrician, in accordance with the electrotechnical regulations.</td>
</tr>
<tr>
<td>• Wherever possible disconnect products from the power supply when carrying out commissioning, maintenance or repair work on them.</td>
</tr>
<tr>
<td>• Lock volt-free areas to prevent them being switched back on again by mistake.</td>
</tr>
<tr>
<td>• Label the connection terminals with external voltage using a 'DANGER External voltage' sign.</td>
</tr>
<tr>
<td>• Route mains connections to products separately and fuse them with their own, clearly marked fuse.</td>
</tr>
<tr>
<td>• Fit an easily accessible disconnecting device in accordance with IEC 60950-1 outside the installation.</td>
</tr>
<tr>
<td>• Produce earthing as stated in local safety regulations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Noncompliance with the following safety regulations</strong></td>
</tr>
<tr>
<td><strong>Risk of injury to persons and damage to property</strong></td>
</tr>
<tr>
<td>• Compliance with the following regulations is required.</td>
</tr>
<tr>
<td>• Specialist electrical engineering knowledge is required for installation.</td>
</tr>
<tr>
<td>• Only an expert is permitted to carry out installation work.</td>
</tr>
<tr>
<td>Incorrect installation can take safety devices out of operation unbeknown to a layperson.</td>
</tr>
</tbody>
</table>
Mounting, installation, commissioning and maintenance
- If you require tools such as a ladder, these must be safe and must be intended for the work in hand.
- When starting the fire control panel ensure that unstable conditions cannot arise.
- Ensure that all points listed in the ‘Testing the product operability’ section below are observed.
- You may only set controls to normal function when the product operability has been completely tested and the system has been handed over to the customer.

Testing the product operability
- Prevent the remote transmission from triggering erroneously.
- If testing building installations or activating devices from third-party companies, you must collaborate with the people appointed.
- The activation of fire control installations for test purposes must not cause injury to anyone or damage to the building installations. The following instructions must be observed:
  - Use the correct potential for activation; this is generally the potential of the building installation.
  - Only check controls up to the interface (relay with blocking option).
  - Make sure that only the controls to be tested are activated.
- Inform people before testing the alarm devices and allow for possible panic responses.
- Inform people about any noise or mist which may be produced.
- Before testing the remote transmission, inform the corresponding alarm and fault signal receiving stations.

Modifications to the system design and the products
Modifications to the system and to individual products may lead to faults, malfunctioning and safety risks. Written confirmation must be obtained from Siemens and the corresponding safety bodies for modifications or additions.

Modules and spare parts
- Components and spare parts must comply with the technical specifications defined by Siemens. Only use products specified or recommended by Siemens.
- Only use fuses with the specified fuse characteristics.
- Wrong battery types and improper battery changing lead to a risk of explosion. Only use the same battery type or an equivalent battery type recommended by Siemens.
- Batteries must be disposed of in an environmentally friendly manner. Observe national guidelines and regulations.
Disregard of the safety regulations

Before they are delivered, Siemens products are tested to ensure they function correctly when used properly. Siemens disclaims all liability for damage or injuries caused by the incorrect application of the instructions or the disregard of danger warnings contained in the documentation. This applies in particular to the following damage:

- Personal injuries or damage to property caused by improper use and incorrect application
- Personal injuries or damage to property caused by disregarding safety instructions in the documentation or on the product
- Personal injury or damage to property caused by poor maintenance or lack of maintenance

2.4 Standards and directives complied with

A list of the standards and directives complied with is available from your Siemens contact.

2.5 Release Notes

Limitations to the configuration or use of devices in a fire detection installation with a particular firmware version are possible.

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Limited or non-existent fire detection</strong></td>
</tr>
<tr>
<td>Personal injury and damage to property in the event of a fire.</td>
</tr>
<tr>
<td>- Read the 'Release Notes' before you plan and/or configure a fire detection installation.</td>
</tr>
<tr>
<td>- Read the 'Release Notes' before you carry out a firmware update to a fire detection installation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Incorrect planning and/or configuration</strong></td>
</tr>
<tr>
<td>Important standards and specifications are not satisfied. Fire detection installation is not accepted for commissioning. Additional expense resulting from necessary new planning and/or configuration.</td>
</tr>
<tr>
<td>- Read the 'Release Notes' before you plan and/or configure a fire detection installation.</td>
</tr>
<tr>
<td>- Read the 'Release Notes' before you carry out a firmware update to a fire detection installation.</td>
</tr>
</tbody>
</table>
3 Structure and function

3.1 Setup

The sounder base DBS720 serves to provide an acoustic alarm in an addressed fire detection system. 11 tones are programmed in the sounder base. Two tones can be activated for pending events.

Features

- Supply via detector loop
- The sounder base is activated via the connection for the external alarm indicator
- Communication with the control panel via the detector line if the point detector is used
- Compatible with automatic fire detectors from the 'Cerberus PRO' product line
- Synchronization of sounds with all sounder bases DBS720 on the same detector line

3.1.1 Details for ordering

<table>
<thead>
<tr>
<th>Type</th>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBS 720</td>
<td>S54319-F5-A1</td>
<td>Sounder base</td>
</tr>
</tbody>
</table>
3.1.2 **Product version ES**

The product version ES provides the technical status of a device in terms of software and hardware. The product version is provided as a two-digit number.

You will find the details of your device's product version:
- On the packaging label
- On the product label or the type plate

**Product version on the packaging label**

Details of the product version can be found directly on the packaging label in the barcode:

![Figure 1: Example of a packaging label with details of the product version](image)

**Product version on the product label and the type plate**

Details of the product version can be found after the device order number:

![Figure 2: Example of a product label with details of the product version](image)

Depending on the product and various approvals, the product labels may differ in terms of the information type and layout.

Look for your device's order number on the product label.

You will find the product version after the order number.
3.2 Function

3.2.1 Activation levels and sound level
The sounder base can be activated for two selectable event categories (e.g. pre-alarm or alarm). The tone and sound intensity can be configured individually for the two selectable event categories. 11 tones are available, each with two sound levels.

The sounder base is connected to the connection for the external AI. It does not therefore take up an address on the detector line. The control panel communicates with the detector via the detector line. The detector communicates with the sounder base.

During the function test, a test sound with a low sound level can be activated. The sounder base and other alarm sounders on the same detector line are synchronized with one another.

The presence of the sounder base is automatically detected by certain control panels. Note the documentation for the relevant control panel.

3.2.2 Diagnosis levels
The sounder base DBS720 monitors its function by itself. The following diagnosis levels are taken from the different control measuring processes:
- Normal
- Observe information
- Fault

When a fatal error occurs, which makes the proper function of the sounder base impossible, a fault message is signaled. To remedy the cause, additional information is available in the sounder base. This can be displayed on the control panel for example.

You will find more detailed information in the fire detection system documentation.

3.2.3 Behavior in degraded mode

Applicable for the C-NET:
When the main processor of the fire control panel fails, the control panel works in degraded mode operation. Depending on the control panel type, the fire control panel can continue to perform the most important alarming and signaling functions in degraded mode operation.

Interbases are also activated and deactivated in case of a fire alarm in degraded mode operation.

Degraded mode operation on the C-NET is not supported in the same way by all control panels. The information in the ‘List of compatibility’ and in the corresponding control panel documentation must be taken into account during project planning.
3.3 Accessories

3.3.1 Detector base seal RS720
- For mounting in wet rooms
- Protection category IP 42
- Compatible with:
  - Detector base DB72x
  - Detector base DB110, DB110x and DB110xx
  - Sounder base DBS720
- Order number: S54319-F8-A1

See also
- Detector base seal RS720 [➔ 22]

3.3.2 Designation plate FDBZ291
- To identify the location
- Compatible with:
  - Detector base DB72x
  - Sounder base DBS720
- Order number: A5Q00002621

See also
- Designation plate FDBZ291 [➔ 23]

3.3.3 Detector locking device LP720
- For protection against device theft
- Hinders unauthorized access to devices
- Compatible with:
  - Multi-sensor fire detector OH720
  - Smoke detector OP720
  - Heat detector HI720
  - Heat detector HI722
  - Multi-sensor smoke detector, ASA OOH740
  - Neural fire detector OOH740
  - Interbase DB72x
  - Base (wall mounting) FDB226-x
  - Base deep (wall mounting) FDB227-x
  - Blanking plate FDBZ298
- Order number: S54319-F9-A1

See also
- Detector locking device LP720 [➔ 24]
3.3.4 Micro terminal DBZ1190-AA

- Auxiliary terminal for connecting cables
- For T-branches of additional cabling e.g. for detector heating units, sounder base, external alarm indicators etc.
- For conductor cross-sections of 0.28...0.5 mm²
- 4-pin
- Order number: BPZ:4677080001

See also
- Auxiliary terminals DBZ1190-AA/-AB [➔ 26]

3.3.5 Connection terminal DBZ1190-AB

- Auxiliary terminal for connecting cables
- For T-branches of additional cabling, e.g., for cable shielding, detector heating units, sounder base, external alarm indicators, etc.
- For conductor cross-sections of 0.5...2.5 mm²
- 3 poles
- Order number: BPZ:4942340001

See also
- Auxiliary terminals DBZ1190-AA/-AB [➔ 26]
4 Planning

Always observe the following points during planning:

- The country-specific regulations
- The corresponding alarm organization
- The connection factors from the specification

See also

Specifications [→ 31]

4.1 Compatibility

The table below shows the compatibility of the device with various control panels:

<table>
<thead>
<tr>
<th>Detector line</th>
<th>Control panel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FC20xx</td>
</tr>
<tr>
<td>FDnet</td>
<td>-</td>
</tr>
<tr>
<td>C-NET</td>
<td>-</td>
</tr>
</tbody>
</table>

X = compatible
- = not compatible

You will find detailed information in the 'List of compatibility'.

See also

Applicable documents [→ 7]

4.2 Fields of application

Typical applications of the sounder base DBS720:

- Living rooms and lounges
- Rooms in hotels and hospitals
### 4.3 Configuration

The tones are selected using the 'Cerberus-Engineering-Tool' software.

The following table contains the specifications of the different tones:

<table>
<thead>
<tr>
<th>No.</th>
<th>Tone</th>
<th>Frequency pattern</th>
<th>Pulse pattern</th>
<th>Adjustable sound levels (typ. values in [dBA/1m])&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Norm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sweep from → to</td>
<td></td>
<td>at 12 V</td>
<td>at 32 V</td>
</tr>
<tr>
<td>1</td>
<td>Continuous</td>
<td>970 Hz</td>
<td></td>
<td>85</td>
<td>79</td>
</tr>
<tr>
<td>2</td>
<td>Intermittent</td>
<td>950 Hz</td>
<td></td>
<td>85</td>
<td>79</td>
</tr>
<tr>
<td>3</td>
<td>Sweep-down</td>
<td>1,200 Hz → 500 Hz</td>
<td></td>
<td>84</td>
<td>78</td>
</tr>
<tr>
<td>4</td>
<td>Slow-whoop Sweep-up, linear</td>
<td>500 Hz → 1,200 Hz</td>
<td></td>
<td>85</td>
<td>78</td>
</tr>
<tr>
<td>5</td>
<td>Pulse tone</td>
<td>500 Hz</td>
<td></td>
<td>80</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Intermittent</td>
<td>500 Hz</td>
<td></td>
<td>79</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Continuous</td>
<td>500 Hz</td>
<td></td>
<td>81</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Alternating</td>
<td>560 Hz → 440 Hz</td>
<td></td>
<td>82</td>
<td>74</td>
</tr>
<tr>
<td>9</td>
<td>Intermittent</td>
<td>420 Hz</td>
<td></td>
<td>80</td>
<td>73</td>
</tr>
<tr>
<td>10</td>
<td>Slow-whoop Sweep-up, linear</td>
<td>500 Hz → 1,200 Hz</td>
<td></td>
<td>85</td>
<td>78</td>
</tr>
<tr>
<td>11</td>
<td>Intermittent</td>
<td>970 Hz</td>
<td></td>
<td>85</td>
<td>79</td>
</tr>
</tbody>
</table>

<sup>1</sup> Details of sound level ±2 dBA(A)
5 Mounting / Installation

5.1 Sounder base DBS720

1. Install the sounder base DBS720 directly on the ceiling.
2. Insert the cables into the sounder base DBS720. You have the option of using the following types of line:
   - Recess-mounted cable entry
   - Surface-mounted cable entry (cable diameter max. 8 mm)

---

**NOTICE**

Incorrect laying of cables
Damage to cables and difficulties when installing the point detector
- The cable loops must be placed flat in the base bottom.
- The bare length of the cables is approximately 8...10 mm.

---

1 Minimum Ø 40 mm  
2 Maximum Ø 90 mm
5.2 Detector base seal RS 720

- Use the detector base seal RS 720 to install point detectors in wet rooms. Protection category: IP 42.
- Compatible with detector base DB72x and sounder base DBS720.
- Only use for recess-mounted cable entry.

Installing the detector base seal

- NOTICE! Excessively large holes in the detector base seal will impair the potential IP protection category! Do not cut or drill holes in the detector base seal. Without using a tool, push the lines through the detector base seal.
- Fit the detector base seal RS720 between the ceiling and the detector base DB72x or the sounder base DBS720.
5.3 Designation plate FDBZ291

1. Label designation plate FDBZ291 with location address of point detector.
2. Attach designation plate FDBZ291 to detector base DB72x or sounder base DBS720.

If the detector base seal RS 720 is being used, it is not possible to install the designation plate FDBZ291.
5.4 **Detector locking device LP 720**

The point detector can be protected against theft with the detector locking device LP 720.

The detector locking device LP 720 is compatible with:
- Detector base with loop contact DB721, DB721D, DB722
- Detector base DB720
- Detector base DB110, DB110x, DB110xx
- Sounder base DBS720

1. Insert the detector in the detector base or sounder base.
2. Insert the hexagonal wrench provided in the bore hole on the detector housing and tighten the grub screw.
5.5 Cable entry

The sounder base DBS720 contains four screw terminals. A maximum of 2 cables may be connected to each screw terminal.

The conductor cross section of the screw terminals is 0.2...1.6 mm².

<table>
<thead>
<tr>
<th>Terminal name</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>+Connection for external alarm indicator</td>
</tr>
<tr>
<td>1b</td>
<td>+C-NET</td>
</tr>
<tr>
<td>5</td>
<td>-C-NET / -external alarm indicator</td>
</tr>
<tr>
<td>6</td>
<td>-C-NET / -external alarm indicator</td>
</tr>
</tbody>
</table>

Figure 3:

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorrect laying of cables</td>
</tr>
<tr>
<td>Damage to cables and difficulties when installing the detector</td>
</tr>
<tr>
<td>• The cable loops must be placed flat in the base bottom.</td>
</tr>
<tr>
<td>• The bare length of the cables is approx. 8...10 mm.</td>
</tr>
</tbody>
</table>
5.5.1 Auxiliary terminals DBZ1190-AA/-AB

Use the following auxiliary terminals for multiple connections:
- DBZ1190-AB connection terminal 0.5…2.5 mm²
- DBZ1190-AA micro terminal 0.28…0.5 mm²

A defective contact may occur when replacing a plugged-in conductor cross-section of 2.5 mm² with conductor cross-sections of 0.5…0.8 mm².

See also
- Connection terminal DBZ1190-AB [➔ 18]
- Micro terminal DBZ1190-AA [➔ 18]

5.6 Connection diagram, addressed

Cables and topology
- The connection is established from base to base using twisted or non-twisted wire pairs.
- Wherever possible use twisted, unshielded cables.
- Shielded cables are only required in special cases, such as strong high-frequency fields.
- You have the option of using the following types of line:
  - Loops
  - Stub lines
  - Stub line as a branch of a loop

Connecting external alarm indicators FDAI91 / FDAI92 / FDAI93
Observe the following points when connecting external alarm indicators:
- Wherever possible use twisted, unshielded cables.
- Connect a maximum of two external alarm indicators to one detector.
- If a cable with shielding is used to connect the external alarm indicator, this shielding must be linked to the shielding of the detector bus. The shielding must not be linked to the external alarm indicator itself.
**C-NET connection diagram**

1. Control panel
2. Detector base DB72x, sounder base DBS720
3. Auxiliary terminal DBZ1190-xx
4. External alarm indicator
5. Cable –EA16
6. Cable –EA15 (optional)
7. Short circuit (error)
8. Short circuit (error)

*Figure 4: Connection diagram for addressed detector lines*
The alarm indicator connected will continue to function correctly in the event of a short-circuit occurring at position '7' on the connection diagram. The alarm indicator is triggered by cable -EAI6. If the short-circuit occurs at position '8' on the connection diagram, the alarm indicator will no longer be triggered.

As an option, the alarm indicator may also be connected using cable -EAI5. In this case, the alarm indicator will correctly indicate an alarm even if a short-circuit occurs at position '8'. This ensures that the alarm indicator is always functioning correctly.

The option described is possible in loops and stub lines.

You will find more detailed information in the fire detection system documentation.
6 Commissioning

6.1 Commissioning on the C-NET

The devices are commissioned via the control panel. The exact procedure is described in the control panel documentation.
7 Maintenance / Repair

7.1 Performance check
The selftest automatically subjects the sounder base to an extensive electrical performance check.

Recommendation:
- Check the devices every year.
- Replace heavily soiled or damaged devices.
- All detectors and sounder bases should be replaced after 6 to 8 years of service, depending on the ambient conditions.
8 Specifications

8.1 Technical data

The following section lists the technical data for the sounder base DBS 720:
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 A6V10203095

**Detector line**
- Operating voltage (modulated): DC 12...33 V
- Operating current (quiescent): 150 μA
- Operating current (sound activated): 1.2 mA (40 mW)
- Maximum current connection factor: 5
- Quiescent current connection factor: 0.5
- Address connection factor: 0
- Separator connector factor: 0
- Protocol: C-NET
- Compatibility: See 'List of compatibility'

**External alarm indicators**
- Number of external alarm indicators that can be connected: 2
- Specification: See documentation for the detector used

**Device characteristics**
- Flashing interval times AI:
  - Bright: 15 ms
  - Dark: 1 s
- Base sounder:
  - Number of sounds: 11
  - Activation levels: 2
  - Sound level: Depending on the tone and sound level set (2 levels).
    See "Configuration" chapter
  - Protocol: EAI link, sounder base with automatic recognition

**Connections**
- Detector line and external alarm indicators:
  - Design: Screw terminal
  - Conductor cross section: 2 x 0.2...1.6 mm²
### Ambient conditions

- Operating temperature/permmissible ambient temperature: -25...+70 °C
- Storage temperature: -30...+70 °C
- Air humidity: ≤95 % rel.

Protection categories according to EN 60529 / IEC 60529:
- For all types of installation: IP 41
- With detector base seal RS 720: IP 42

Electromagnetic compatibility:
- 1 MHz...1 GHz: 50 V/m
- 1 GHz...2 GHz: 30 V/m

### Mechanical data

- Dimensions (L x W x H): 175 x 117 x 29 mm
- Housing material: ABS
- Color: ~RAL 9010 pure white

### Standards

- European standards: EN 54-3, type A
- International standards:
  - IEC 60092-504
  - IEC 60533
8.2 Dimensions

All data provided in mm.

8.3 Environmental compatibility

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.
### 9 Annex Technical data

#### 9.1 Tones DBS720

The tables below illustrate the beam characteristics at the maximum sound level. All of the sound levels specified are minimum values. Minimum sound level measured in dBA/1 m (DC 12...33 V)

**Tone No. 1: Continuous**

<table>
<thead>
<tr>
<th>Sound level</th>
<th>Horizontal</th>
<th>Vertical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15° 45° 75° 105° 135° 165°</td>
<td>15° 45° 75° 105° 135° 165°</td>
</tr>
<tr>
<td>0 (min.)</td>
<td>77 81 83 84 82 82</td>
<td>76 83 86 86 82 77</td>
</tr>
</tbody>
</table>

**Tone no. 2: Intermittent**

<table>
<thead>
<tr>
<th>Sound level</th>
<th>Horizontal</th>
<th>Vertical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15° 45° 75° 105° 135° 165°</td>
<td>15° 45° 75° 105° 135° 165°</td>
</tr>
<tr>
<td>0 (min.)</td>
<td>77 76 82 79 81 80</td>
<td>73 82 84 84 81 75</td>
</tr>
</tbody>
</table>

**Tone no. 3: Sweep-down**

<table>
<thead>
<tr>
<th>Sound level</th>
<th>Horizontal</th>
<th>Vertical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15° 45° 75° 105° 135° 165°</td>
<td>15° 45° 75° 105° 135° 165°</td>
</tr>
<tr>
<td>0 (min.)</td>
<td>79 81 82 81 81 79</td>
<td>75 82 83 84 81 78</td>
</tr>
</tbody>
</table>

**Tone no. 4: Slow-whoop Sweep-up, linear**

<table>
<thead>
<tr>
<th>Sound level</th>
<th>Horizontal</th>
<th>Vertical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15° 45° 75° 105° 135° 165°</td>
<td>15° 45° 75° 105° 135° 165°</td>
</tr>
<tr>
<td>0 (min.)</td>
<td>80 83 83 81 82 80</td>
<td>77 81 84 85 83 80</td>
</tr>
</tbody>
</table>

**Tone no. 5: Pulse tone**

<table>
<thead>
<tr>
<th>Sound level</th>
<th>Horizontal</th>
<th>Vertical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15° 45° 75° 105° 135° 165°</td>
<td>15° 45° 75° 105° 135° 165°</td>
</tr>
<tr>
<td>0 (min.)</td>
<td>76 77 79 77 78 77</td>
<td>67 75 78 79 77 76</td>
</tr>
</tbody>
</table>

**Tone no. 6: Intermittent**

<table>
<thead>
<tr>
<th>Sound level</th>
<th>Horizontal</th>
<th>Vertical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15° 45° 75° 105° 135° 165°</td>
<td>15° 45° 75° 105° 135° 165°</td>
</tr>
<tr>
<td>0 (min.)</td>
<td>76 77 79 77 77 76</td>
<td>66 75 78 79 77 76</td>
</tr>
</tbody>
</table>
### Tone no. 7: Continuous

<table>
<thead>
<tr>
<th>Sound level</th>
<th>Horizontal</th>
<th>Vertical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15°</td>
<td>45°</td>
</tr>
<tr>
<td>0 (min.)</td>
<td>76</td>
<td>79</td>
</tr>
</tbody>
</table>

### Tone no. 8: Alternating

<table>
<thead>
<tr>
<th>Sound level</th>
<th>Horizontal</th>
<th>Vertical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15°</td>
<td>45°</td>
</tr>
<tr>
<td>0 (min.)</td>
<td>76</td>
<td>77</td>
</tr>
</tbody>
</table>

### Tone no. 9: Intermittent

<table>
<thead>
<tr>
<th>Sound level</th>
<th>Horizontal</th>
<th>Vertical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15°</td>
<td>45°</td>
</tr>
<tr>
<td>0 (min.)</td>
<td>77</td>
<td>77</td>
</tr>
</tbody>
</table>

### Tone no. 10: Slow-whoop Sweep-up, linear

<table>
<thead>
<tr>
<th>Sound level</th>
<th>Horizontal</th>
<th>Vertical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15°</td>
<td>45°</td>
</tr>
<tr>
<td>0 (min.)</td>
<td>81</td>
<td>81</td>
</tr>
</tbody>
</table>

### Tone no. 11: Intermittent

<table>
<thead>
<tr>
<th>Sound level</th>
<th>Horizontal</th>
<th>Vertical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15°</td>
<td>45°</td>
</tr>
<tr>
<td>0 (min.)</td>
<td>77</td>
<td>80</td>
</tr>
</tbody>
</table>
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