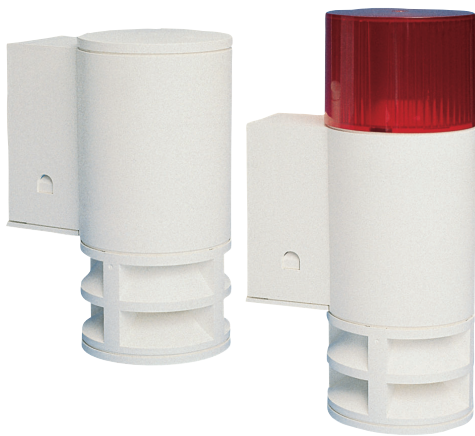


# BES External Signaling Device, Audio/Visual

www.boschsecurity.com



**BOSCH**  
Invented for life



- ▶ Activation and control of the sound generator and the strobe light are monitored
- ▶ Tone variants (can be coded via bridges) for:
  - Twenty-four hour/intrusion alarm
  - Emergency signal (fire alarm)
- ▶ Alarm time can be set
- ▶ Tamper contact
- ▶ Wall Mounting

Bosch external signaling devices (BES) are signaling devices with an integrated sound generator for acoustic alarm and/or a red strobe light for visual alarm.

## Functions

BES external signaling devices are primarily intended for monitoring the connection to security systems. Due to the different tone variants of the acoustics, BES can also be used in fire alarm systems. The lift-off protection triggers the acoustic signaling device if the signaling device is disassembled or broken off from the wall.

## Certifications and approvals

Region	Certification	
Germany	VdS	G 197024, C BES A-O G 197024
	VdS	G 197023, C BES-A G 197023
Europe	CE	BES

## Installation/configuration notes

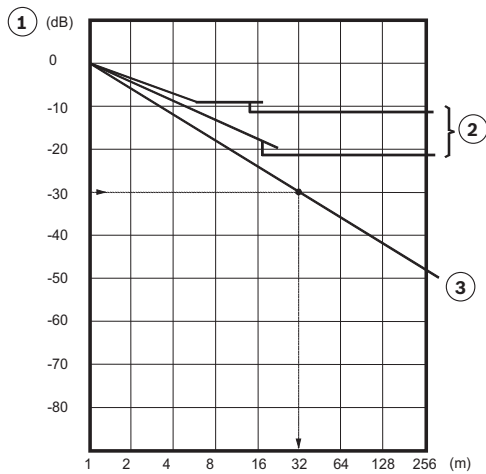
The danger signals group is split into warning and emergency signals. DIN 0833-2 must be observed when planning for the fire alarm.

The special configuration of the emergency signal allows the level to be only 10 dB above the background level to be clearly audible. In contrast, the level of warning signals must be 15 dB higher. The number of acoustic alarms can be determined from this requirement.

### Planning example:

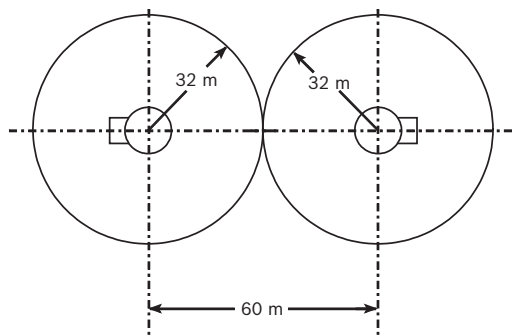
Sound Level	-110 dB
Audibility	-10 dB
Background level	-70 dB
Attenuation =	-30 dB

**Sound pressure reduction diagram**



- 1 Sound pressure reduction
- 2 Reduction in sound pressure with reflection dependent upon room size and echo time
- 3 Sound pressure reduction without reflection

The diagram (see above) indicates a distance of 32 m for this attenuation (-30 dB). It is therefore recommended that an acoustic alarm be installed approximately every 60 m.



**Parts included**

Type	Qty.	Components
BES audio/visual	1	External signaling device with optical display
BES audio	1	External signaling devices

**Technical specifications**

**Electrical**

Sound Level	Min. 100 dB(A) at 1 m distance
Tone variants	
<ul style="list-style-type: none"> <li>• Twenty-four hour/ intrusion alarm</li> </ul>	Complies with VdS regulation 2300
<ul style="list-style-type: none"> <li>• Emergency signal (fire alarm)</li> </ul>	Complies with EN 54 part 3 and DIN 33404 part 3

<ul style="list-style-type: none"> <li>• Continuous tone</li> </ul>	Basic tone 1: 500 Hz ±5% Basic tone 2: 1200 Hz ±5%
Alarm time can be set	
<ul style="list-style-type: none"> <li>• Unlimited time via control panel</li> </ul>	180 s
<ul style="list-style-type: none"> <li>• Max. time via signaling device</li> </ul>	270 s
Supply voltage	
<ul style="list-style-type: none"> <li>• Strobe lamp</li> </ul>	10.5 V - 29 V/300 mA
<ul style="list-style-type: none"> <li>• Control of acoustics</li> </ul>	12 V_ (10.5 V - 14.5 V) or 24 V_ (21 V - 29 V)
Voltage range	
<ul style="list-style-type: none"> <li>• 12 V_ (pole reversal)</li> </ul>	10.5 V_/240 mA 14.5 V/330 mA
<ul style="list-style-type: none"> <li>• 24 V_ (current gain)</li> </ul>	21 V/380 mA (29 V/500 mA)

**Mechanical**

Housing material	UV-resistant PVC
Color	Pure white, RAL 9010
Color of strobe lamp cover	Red, RAL 3001
Weight in g	IUI-BES-AO: 1200 IUI-BES-A: 1000
Dimension in cm (H x W x D)	30.05 x 11.0 x 16.5

**Environmental**

Minimum operating temperature in °C	-25
Maximum operating temperature in °C	65
Protection class	DIN 40050: IP 33 DIN 40040: HUF

**Ordering information**

**BES External Signaling Device, Audio/Visual**

For acoustic alarm signaling or with a red strobe light for visual alarm signaling  
Order number **F.01U.166.054**

**BES Audio external signaling device**

For acoustic alarm signaling  
Order number **3.002.102.452**

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