

**CERTIFICATE OF CONSTANCY OF PERFORMANCE**

Issued by DBI Certification, notified body No. 2531.

In compliance with *Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011* (the Construction Products Regulation or CPR), this certificate applies to the construction product

**FreeSpace FS2C - In-ceiling Loudspeaker**

The product fulfils the essential characteristic:

**See Annex 1**

Intended use: Applications related to automatic fire alarm systems

Placed on the market under the name or trade mark of:

**Bose Corporation  
The Mountain  
MA 01701 Framingham**

and produced in the manufacturing plant:

**CPA10046**

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standards

**EN 54-24:2008** : **Fire detection and fire alarm systems - Part 24: Components of voice alarm systems - Loudspeakers**

under system 1 for the performance set out in this certificate are applied and that the performance of the construction product is assessed to remain constant.

The attached annexes form part of this certificate.

Date of issue: **2021-03-17**.

This certificate will remain valid as long as neither the harmonized standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly unless suspended or withdrawn by the notified product certification body.

(This certificate supersedes the previous version of this certificate issued 2020-12-21)

This certificate was first issued 2020-12-21.



Merete Poulsen  
Responsible for evaluation



Allan Laursen  
Responsible for certification decision

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Annex 1

**EXTENT**

**Product information:**

Model Reference: FS2C  
 Type: Type A (Indoor) IP21C  
 Description: Loudspeaker for voice alarm systems for fire detection and fire alarm systems  
 Impedance: 16Ω / 16W  
 Operating Voltage: 100V / 70V Audio Line  
 Wattage: 70 Vrms: 1W, 2W, 4W, 8W, 16W;  
 100 Vrms: 2W, 4W, 8W, 16W  
 Equaliser: PEQ 1 / Freq: 10900 Hz / Gain: -12.0 dB / Q/BW: 10/0.144

**Installation instructions:**

To be used in accordance with the suppliers installation instructions, and technical datasheet.

**Performance**

Essential characteristics	Clauses in EN 54-24:2008	Performance
Performance under fire conditions	4.2, 5.2, 5.3, 5.4, 5.5 a)	Pass
Operational reliability	4.3, 4.4, 4.5, 5.6, 5.18 b)	Pass
Durability of operational reliability; temperature resistance	5.7, 5.8, 5.9 b)	Pass
Durability of operational reliability; humidity resistance	5.10, 5.11, 5.12 c)	Pass
Durability of operational reliability; corrosion resistance	5.13	Pass
Durability of operational reliability; impact and vibration resistance	5.14, 5.15, 5.16, 5.17	Pass
a) The products covered by this standard are assumed to enter the alarm condition, in an event of fire before the fire becomes so large as to affect their functioning. There is therefore no requirement to function when exposed to direct attack from fire. b) 5.7, 5.8, 5.9, and 5.18 applies different conditioning for Type A loudspeakers and Type B loudspeakers. c) 5.12 apply only to type B loudspeakers.		

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Annex 2

**TEST DOCUMENTATION AND TECHNICAL BASIS**

File Number	Project
NC31202	4789172392 First issued 2020-06-09



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