

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 FS2SE - Surface-mount 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
Framingham, MA 01701
USA**

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: **2020-12-21**.

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product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly unless suspended or withdrawn by the notified product certification body.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 was first issued 2020-12-21.



Merete Poulsen
Responsible for evaluation



Thomas Anthony Wilson
Responsible for certification decision

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DBI Certification A/S

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 **DANAK**
Prod. Reg. Nr. 7023

Version 2019-10-02
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Annex 1

EXTENT

Product information:

Model Reference: FS2SE
 Type: Type B (Outdoor) IP33C
 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

Accredited Laboratory	Report no.	Date
UL LLC & ULC Inc.	NC31202-D03-EUROPEAN DIRECTIVE-ORIGINAL	2020-06-09

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Annex 3

TECHNICAL BASIS

File Number	Title	Rev.
AM861342	Installation Instructions – Model FS2SE	01
AM857612	Technical Datasheet – Model FS2SE	00
RF317653	Serial Key	18
-	Penguin Gasket Specification Sheet	-
-	Tesa Gasket Specification Sheet	-
3186133_00	Scrim	A.2
DD-T04-2D02B1601	Driver Specification sheet–FS2C, FS2P, and FS2SE	0.2
T100399600100	Rotary Switch Knob	2
T180500024680	Rotary Switch Knob Gasket	1
3947011_00	Rotary Switch Gasket	B.4
2019-0401-04	Transformer Specification Sheet	E
-	Terminal Block (male) Specification sheet	-
-	Terminal Connector (female)	-
3947034_00	Terminal Connector Gasket	A.10
479801	Tile Bridge Rail A	B
479802	Tile Bridge Rail B	A
3440024_00	Baffle – Model FS2SE	D.5
3430213_00	Rear Enclosure – Model FS2SE	C.5
3450021_00	Environmental Cover – Model FS2SE, FS4SE, and FS4CE	E.1
3153051_00	Grille – Model FS2SE	B.2
481711	Alternate Grille – Model FS2SE	A
3153051_00	U-Bracket – Model FS2SE	B.2
3153064_00	Alternate Pendant Tab	A.1
481124	Ceiling Bracket Overall Assembly	A
481123	Arm Assembly	A
472602	Arm	D
481108	Bracket	A
481101	Base	A
472604	Locknut	C
472647	Gasket	C
481103	Base Cover	A
3947009_00	Alternate Switch Gasket	A.8
3186120_00	Foam Fillers	C.1

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