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#### PRELIMINARY TECHNICAL DATA

## FreeSpace FS4CE in-ceiling loudspeaker

### **Product Overview**

FreeSpace FS loudspeakers are designed for high-quality performance in background music and voice announcement applications. Redesigned enclosures and aesthetics, removeable logos, metal backcans on ceiling-mount models, and ease-of-installation features mean that this update to the classic FreeSpace DS line is ideal for installations in almost any commercial space.

The ceiling-mount FS4CE features a full-range 4.5-inch cone transducer, low frequency range down to 70 Hz, 8-ohm and 70/100 V operation, with front baffle-mounted tap settings, and front baffle audio connections on detachable Euroblock connector. The FS4CE is also iP55 rated for outdoor installation.

#### **Key Features**

High-quality loudspeaker solutions for voice and background music
Updated enclosures and removeable logos that do not leave grille marks or holes
Low-impedance and high-impedance operation without separate model versions
Consistent tonality throughout the line means mixing and matching models in the same installation
UL1480 ULC-S541 Life Safety Fire Alarm and Signaling listed
Black and White versions of all models
Designed for in-ceiling installation with UL2043 plenum rated backcan and front baffle audio wire access.
Install Outdoors - the FS4CE is iP55 outdoor rated

### **Technical Specifications**

SINGLE LOUDSPEAKER PERFORMANCE		
Frequency Response (-3 dB) <sup>(1)</sup>	80 - 17,000 Hz	
Frequency Range (-10 dB) <sup>(1)</sup>	70 - 19,000 Hz	
Nominal Coverage Angle (2)	125°	
Nominal Coverage (1 - 10 kHz)	100°	
	Bose extended-lifecycle test (5)	AES transducer test <sup>(6)</sup>
Power Handling, long-term continuous	40 W	50 W
Power Handling, peak	160 W	200 W
Sensitivity (SPL/1W @ 1 m) (3)	87 dB	87 dB
Calculated Maximum SPL @ 1 m (4)	103 dB	104 dB
Calculated Maximum SPL @ 1 m, peak	109 dB	110 dB
Loudspeaker EQ	Not Required, Bose EQ Voicing and SmartBass available	
Recommended High-Pass Protection	70 Hz with minimum 24-dB/octave filter	
Overload Protection	Resistor-network power reduction with automatic reset	
Transformer taps	70V: 2.5, 5, 10, 20, 40 W, bypass	
	100V: 5, 10, 20, 40 W, bypass	
TRANSDUCERS		
Full-Range Driver	1 x 4.5-inch woofer (114 mm)	
Nominal Impedance	8 ohms (transformer bypass)	





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PHYSICAL		
Enclosure Material	Engineered-plastics front baffle, highly UV fade resistant, with integrated steel formed back can	
Grille	Perforated steel, powder-coated finish	
Logo	Rotatable, removable	
Color	Black: similar to Ral 9005, White: similar to Ral 9003	
Environmental/Ingress-Protection	Outdoor iP55 (suitable for use outdoors in wet locations), includes weather resistant input cover.	
Safety Agency	Certification: UL 1480, ULC-S541 for Fire Alarm and Signaling Systems Installation: NFPA 70, NFPA 72, CSA C22.1 Section 32, in accordance with IEC60268-5, CE RoHS	
Operating Temperature Range	-25 °C to 70 °C (-13 °F to 158 °F)	
Connectors	Euro block 6-pin connector with loop-through, front-baffle mounted. Accepts 18 AWG (0.8 mm²) to 14 AWG (2.5 mm²) size wire.	
Wire/Conduit Entry	Top and side wire entry point 1/2-inch knockouts allow for 9.5 mm (3/8 in) conduit and fittings	
Suspension/Mounting	Three (3) standard mounting arms plus one (1) safety cable tab	
Maximum Ceiling Thickness	38 mm (1.5 in)	
Product Dimensions (Baffle Diameter × Depth)	272 × 171 mm (10.71 × 6.73 in)	
Backcan Dimensions (Diameter × Depth)	231 × 163 mm (9.09 × 6.42 in)	
Ceiling Cutout	250 mm (9.84 in)	
Net Weight	3.47 kg (7.65 lb)	
Shipping Weight, Pair	9.05 kg (19.95 lb)	
Included Accessories	Each FS4CE includes one (1) weather resistant input cover, one (1) cut-out template per box	
Optional Accessories	Adjustable Tile-Bridge 6-Pack, DesignMax DM5CRI Rough-in kit 6-pack, Retrofit Kit, Ceramic terminal w/ Fuse kit, Aluminum Grille Kit which prevents red corrosion	
PRODUCT CODES		
841156-0110	FREESPACE FS4CE PAIR BLK	
841156-0210	FREESPACE FS4CE PAIR WHT	

Footnotes

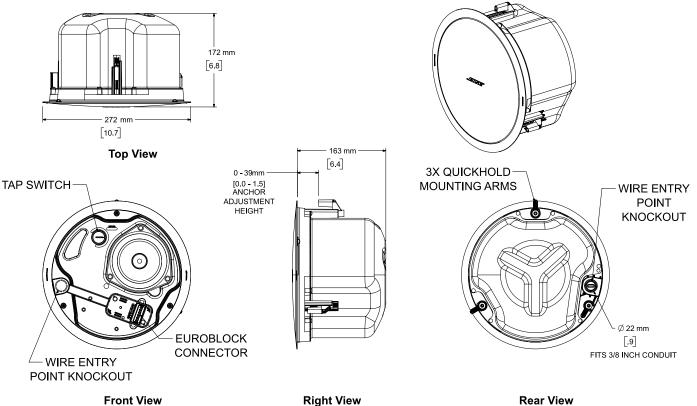
- (1) Frequency response and range measured on-axis in half-space environment with recommended EQ
   (2) 1 kHz to 4 kHz average
   (3) Sensitivity measured on-axis in half-space environment with recommended EQ
- (d) Maximum SPL calculated from sensitivity and power handling specifications, exclusive of power compression
   (5) Bose extended-lifecycle test using pink noise filtered to meet IEC268-5, 6-dB crest factor, 500-hour duration
   (6) AES standard 2-hour duration with IEC system noise

For additional specifications and application information, please visit PRO.BOSE.COM. Specifications subject to change without notice. 01/2020

# FreeSpace FS4CE

in-ceiling loudspeaker

### **Dimensions**



Front View GRILLE AND CAP REMOVED FOR CLARITY

Right View DIMENSIONS APPLY TO BOTH SIDES

NOTES: 1. DIMENSIONS ARE IN MILLIMETERS OVER INCHES 2. WEIGHT APPROX 3.47kg [7.65lbs]

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