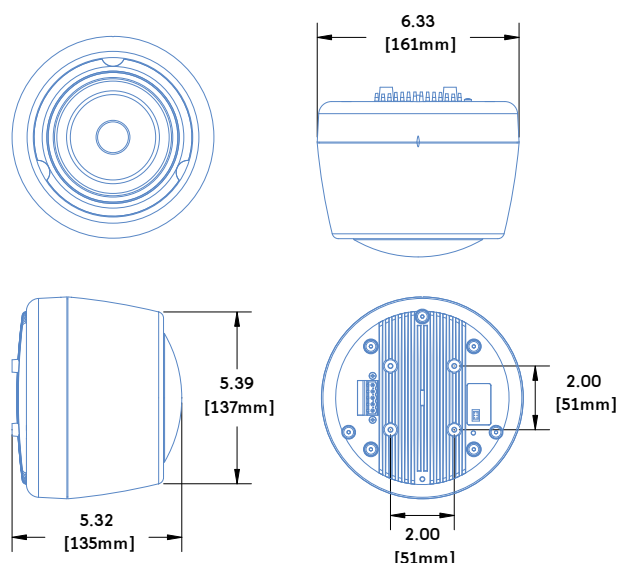


Stella-4 : Installation Loudspeaker



Also available in white and custom colors



The Stella-4 installation loudspeaker is a self-powered loudspeaker engineered primarily for use in Meyer Sound's Constellation acoustic systems. The Stella-4 is housed in an aluminum die cast enclosure with a rear heat sink and can be easily mounted on ceilings or walls with mounting accessories from Meyer Sound and third-party manufacturers.

Offering exceptional performance for a self-powered loudspeaker of its size, the Stella-4's single 4-inch cone transducer produces a maximum peak SPL of 108 dB at 1 meter over a wide frequency range of 100 Hz to 22 kHz. The Stella-4 contains onboard amplification and signal processing and exhibits the same low distortion, high intelligibility, and flat frequency and phase responses for which Meyer Sound loudspeakers are known. As a self-powered loudspeaker, the Stella-4 offers simplified installation for the multichannel output of Constellation systems or other installation applications.

Balanced audio and DC power are fed to the Stella-4 from a Phoenix™ 5-pin male connector on its rear panel. Meyer Sound's patented Iso-Input transformer-isolated differential input circuit yields a high common mode signal rejection ratio (CMRR). Powering the unit from a unipolar 12 to 18 V DC external power source reduces induced noise significantly, and eliminates the need for wiring conduits.

The optional MMB-Stella4 bracket mounts the Stella-4 on walls, ceilings, and single-gang electrical backboxes. The bracket can also be used with third-party mounting options, such as those from OmniMount. The optional MMB-Stella4 bracket also mounts the Stella-4 on walls, ceilings, and single-gang electrical backboxes but allows the Stella-4 to be tilted by up to 45 degrees in any direction.

The required method for delivering balanced audio and DC power to the Stella-4 is with the Stella-188 external power supply. The single-space 19-inch rack unit receives eight channels

of balanced audio from its 25-pin D-sub connector and routes the audio, along with 18 V of DC power, to its 5-pin Phoenix output connectors for greater wiring convenience. Each of the eight channel outputs can deliver DC power to a single Stella-4 loudspeaker at cable lengths of up to 300 feet with just 1 dB of loss in peak SPL, using 18 AWG wire, or to up two Stella-4 loudspeakers with limited cable runs of 150 feet (also with 18 AWG).

The use of composite multiconductor cables (such as Belden® 1502 equivalent) allows a single cable to carry both balanced audio and DC power from the Stella-188 to the Stella-4. The Stella-4's amplifier and signal processing circuits were designed to tolerate voltage drops of up to 30 percent, thereby accommodating light-gauge cables and lengthy cable runs. Internal energy storage circuits minimize the system's peak-to-average current demands, ensuring efficient use of the Stella-188's 18 V DC output.

FEATURES & BENEFITS

- Self-powered
- Wide-range frequency response
- Ultralow distortion
- Compact enclosure
- Exceptional SPL to size ratio
- Supports long cable runs with light-gauge cables

APPLICATIONS

- Constellation acoustic systems
- High-quality distributed systems in clubs and restaurants for paging and music
- Sound installations for gallery exhibits and museum displays

STELLA-4 SPECIFICATIONS

ACOUSTICAL	
Operating Frequency Range ¹	100 Hz – 18 kHz
Frequency Response ²	115 Hz – 16 kHz ±4 dB
Maximum Peak SPL ³	108 dB
Phase Response	250 Hz – 18 kHz ± 30°
Noise Floor	<20 dB A weighted
COVERAGE	
60° (3 kHz – 13 kHz ±10°); 120° (below 2 kHz)	
TRANSDUCER	
One 4" coaxial cone driver	
AUDIO/POWER CONNECTOR	
Connector	Single Phoenix 5-pin male (two pins DC power, three pins for balanced audio)
Power Wiring	Pin 1: 18 V DC – Pin 2: 18 V DC +
Audio Wiring	Pin 3: Chassis/earth Pin 4: Signal – Pin 5: Signal +
Input Impedance	20 kΩ balanced internal isolation (Iso-Input) transformer
Nominal Input Sensitivity	+6 dBV (2.0 V rms, 2.8 V peak) continuous average is typically the onset of limiting for noise and music
Input Level	Audio source must be capable of delivering +15 dBV (5.6 V rms, 8.0 V peak) into 600 Ω to produce the maximum peak SPL over the loudspeaker's operating bandwidth
DC POWER ^{2, 3}	
Voltage Requirement	12–18 V DC
Current Draw	1.5 A average; 3.3 A peak
PHYSICAL	
Enclosure	Aluminum die cast
Mounting	Optional fixed and adjustable brackets available from Meyer Sound for mounting on walls, ceilings, and single-gang electrical backboxes
Dimensions	5.39" (front OD) x 6.33" (max OD) x 5.32" depth 137 mm (front OD) x 161 mm (max OD) x 135 mm depth
Weight	5.0 lbs (2.27 kg)

- NOTES:
1. Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
 2. Measured free-field with pink noise at 1 meter, 1/3rd octave resolution.
 3. Measured free-field with music and referred to 1 meter.



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Stella-4 rear panel with
Phoenix 5-pin male connector

ARCHITECT SPECIFICATIONS

The loudspeaker shall be self-powered and include a single 4-inch (203 mm) diameter, full-range coaxial transducer. The loudspeaker shall incorporate a Class-D power amplifier.

Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: operating frequency range, 100 Hz to 18 kHz; phase response, 250 Hz to 18 kHz ±30 degrees; maximum peak SPL, 108 dB at 1 meter. Coverage shall be 60 degrees horizontal and vertical (3 kHz – 13 kHz ±10 degrees); 120 degrees horizontal and vertical (below 2 kHz).

The loudspeaker shall be equipped with a single Phoenix 5-pin male connector (three pins for balanced audio and two pins for DC power). The audio input shall be electronically balanced with an internal isolation transformer (Iso-Input) with a 20-kΩ impedance and shall accept a nominal +6 dBV (2.0 V rms, 2.8 V peak) signal.

Power requirements for the loudspeaker shall be a Meyer Sound Stella-188 power supply, capable of delivering 18 V DC. Current draw for the loudspeaker

during burst (1 sec) shall be 1.5 A average and 3.3 A peak.

Loudspeaker components shall be housed in a sealed, aluminum die cast enclosure with a rear heat sink. Its finish shall be available in black, white, and custom colors. The loudspeaker shall include rear attachment points for optional mounting brackets. Dimensions shall be 6.23 inches (161 mm) in diameter and 5.32 inches (135 mm) deep. Weight shall be 5.0 lbs (2.27 kg).

The loudspeaker shall be the Meyer Sound Stella-4.