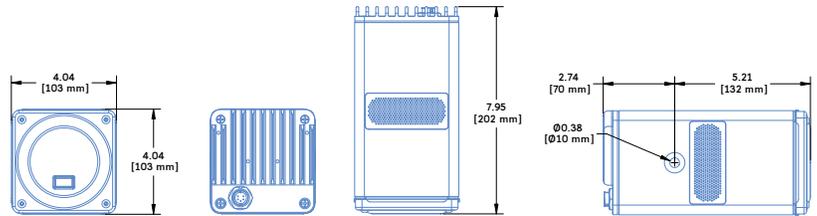


MM-4XPD : Directional Miniature Self-Powered Loudspeaker



Dimensions 4.04" w x 4.04" h x 7.95" d (10.20" d with connector)
(103 mm x 103 mm x 202 mm / 259 mm with connector)

Weight 5.2 lbs (2.4 kg)

Enclosure Extruded aluminum

Finish Black anodized

Protective Grille Perforated steel

Mounting Two 3/8"-16 side inserts; optional MUB-MM4XPD U-bracket

The MM-4XPD directional miniature self-powered loudspeaker, with IntelligentDC technology, was specifically designed for high-quality distributed systems in reverberant spaces. The directional polar pattern of the MM-4XPD, especially at low frequencies, significantly reduces room excitation and increases intelligibility. Its flexible and easy-to-configure mounting options, as well as its ability to effortlessly reproduce both speech and music, make the MM-4XPD an excellent choice for large distributed systems, theatrical presentations, museums, and small portable systems for corporate AV, where intelligibility is critical.

The MM-4XPD meets the same exceptional performance standards as the MM-4XP with the added advantage of a hypercardioid coverage pattern. Patent-pending technology yields a high degree of attenuation between the front and rear of the loudspeaker, achieving a directional polar response using passive acoustical techniques. Even at low frequencies, the breakthrough technology yields 10 dB of attenuation at the rear of the loudspeaker while retaining directional dispersion at high frequencies.

The MM-4XPD employs a single-driver design, avoiding the complexity and cost incurred by directional techniques implemented with two drivers requiring additional amplification

and signal processing. Housed in a compact aluminum enclosure, the single 4-inch cone transducer, designed and manufactured at Meyer Sound's Berkeley, California factory, delivers an impressive maximum peak SPL of 113 dB and a wide operating frequency range of 120 Hz to 18 kHz with very low distortion. The MM-4XPD exhibits the same high intelligibility and flat frequency and phase responses for which Meyer Sound loudspeakers are known. Peak and rms limiters regulate loudspeaker temperatures and excursion.

With IntelligentDC technology, the MM-4XPD receives power and balanced audio from a SwitchCraft® EN3 5-pin male input connector on its rear panel. The MM-4XPD's amplifier and signal-processing circuits were designed to store DC power and tolerate voltage drops, thereby accommodating light-gauge cables and long cable runs.

MM-4XPD loudspeakers require a Meyer Sound external power supply. The compact MPS-481 powers a single loudspeaker and includes a 10-foot composite cable that routes DC power and balanced audio, received from its XLR input connector, to the MM-4XPD. The MPS-488HP IntelligentDC power supply is ideal for larger installations with multiple loudspeakers; the single-space 19-inch rack unit distributes DC power and balanced

audio to up to eight MM-4XP loudspeakers or other Meyer Sound loudspeakers with IntelligentDC technology. Meyer Sound's RMS remote monitoring system is available as an option for the MPS-488HP.

Both Meyer Sound power supplies can deliver DC power to MM-4XPD loudspeakers at cable lengths up to 300 feet with just 1 dB of loss in peak SPL when using 18 AWG wire. The use of composite multiconductor cables (such as Belden® 1502 or equivalent) allows a single cable to carry both DC power and audio to the MM-4XPD. Longer cable lengths are possible for moderate applications that don't drive the loudspeakers to maximum output, or for installations with heavier wire gauges. Powering the MM-4XPD from a unipolar external power source reduces induced noise significantly and eliminates the need for wiring conduits. For information and specifications for the Meyer Sound power supplies, refer to their respective datasheets.

The MM-4XPD's extruded aluminum enclosure acts as a heat sink to dissipate heat from the driver's voice coil. The enclosure is available in a standard black anodized finish with a perforated steel grille. The enclosure can also be custom painted to match specific color schemes. The optional MUB-MM4XPD U-bracket mounts the loudspeaker on walls and ceilings at adjustable angles.

FEATURES & BENEFITS

- Directional hypercardioid pattern provides 10 dB of attenuation between the front and rear of the loudspeaker, even at low frequencies
- Directional pattern reduces room excitation, desirable in highly reverberant spaces
- Extremely compact size fits in small spaces
- Patent-pending, passive, single-driver directional technology minimizes energy consumption, weight, and cabinet volume
- Convenient U-bracket enables quick and easy mounting

APPLICATIONS

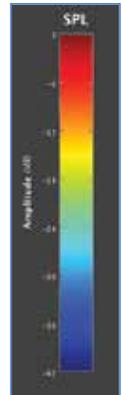
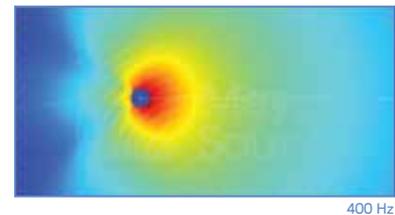
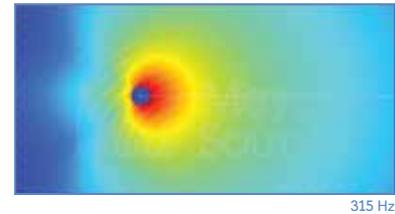
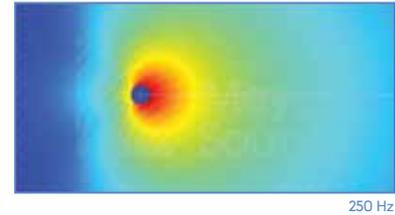
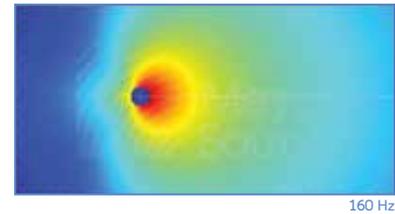
- Restaurants, bars, and highly reverberant public spaces
- Large distributed systems
- Trade show presentations

MM-4XPD SPECIFICATIONS

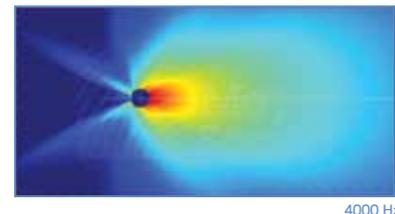
ACOUSTICAL		Operating Frequency Range ¹ 120 Hz – 18 kHz Frequency Response ² 135 Hz – 17 kHz ±4 dB Phase Response 330 Hz – 20 kHz ±45° Maximum Peak SPL ³ 113 dB Dynamic Range 100 dB
COVERAGE		Horizontal and Vertical Hypercardioid response with <10 dB front-to-back ratio up to 500 Hz 120° (500 Hz – 4 kHz); 80° (4 kHz – 10 kHz ±10°)
TRANSDUCER		Type One 4" cone driver Nominal Impedance 4 Ω
REAR PANEL		Audio/Power Connector SwitchCraft EN3 5-pin male (two pins for 48 V DC power, three pins for balanced audio) Power Wiring Pin 1: DC power (-) Pin 2: DC power (+) Audio Wiring Pin 3: Audio shield, chassis/earth Pin 4: Audio (-) Pin 5: Audio (+) LED Displays loudspeaker status
AUDIO INPUT		Type Differential, electronically balanced Maximum Common Mode Range ±5 V DC Input Impedance 10 kΩ electronically balanced DC Blocking 4.8 Hz high pass CMRR <-60 dB, typically <-72 dB (200 Hz – 3 kHz) Common mode: 616 kHz Differential mode: 616 kHz Nominal Input Sensitivity -2.5 dBV (0.75 V rms, 1.00 V peak) continuous average is typically the onset of limiting for noise and music Input Level Audio source must be capable of producing +16 dBV (6.3 V rms, 9.0 V peak) into 600 Ω to produce maximum peak SPL over the operating bandwidth of the loudspeaker
AMPLIFIER		Type Class-D Output Power ⁴ 220 W (440 W peak) THD, IM, TIM <.02% Load 4 Ω Cooling Convection
DC POWER		Safety Agency Rated Operating Range ⁵ 48 V DC Current Draw: 0.7 A average; 2.2 A peak Idle Current 0.16 A rms Maximum Long-Term Continuous Current (>10 sec) 0.7 A rms Burst Current (<1 sec) 2.2 A rms Maximum Instantaneous Peak Current 2.35 A peak Inrush Current <7.0 A peak
		Meyer Sound Power Supply Required For information and specifications for the MPS-481 and MPS-488HP IntelligentDC external power supplies, refer to their datasheets.

MM-4XPD MAPP ONLINE PRO SOUNDFIELDS

LOW FREQUENCY COVERAGE



HIGH FREQUENCY COVERAGE



ARCHITECT SPECIFICATIONS

The loudspeaker shall be self-powered and include a single 4-inch (103 mm) diameter cone transducer with a 4-ohm, long-excursion voice coil. The loudspeaker shall incorporate a class-D power amplifier with a burst capability of 220 W total (440 W peak) into a nominal load of 4 ohms. Distortion (THD, IM, TIM) shall not exceed 0.02 percent.

Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: operating frequency range, 120 Hz to 18 kHz; phase response, 330 Hz to 20 kHz ±45 degrees; maximum peak SPL, 113 dB at 1 meter. Horizontal and vertical coverage shall be hypercardioid with a <10 dB front-to-back ratio up to 500 Hz, 120 degrees at 500 Hz to 4 kHz, 80 degrees at 4 kHz to 10 kHz ±10 degrees.

The loudspeaker shall be equipped with a single SwitchCraft EN3 5-pin connector (two pins for DC power, three pins for balanced audio). The audio input shall be electronically balanced with a 10-kOhm impedance and accept a nominal

-2.5 dBV (0.75 V rms, 1.00 V peak) input signal. DC blocking and RF filtering shall be provided, and CMRR shall be less than -60 dB and typically less than -72 dB (200 Hz to 3 kHz).

Power requirements for the loudspeaker shall be an external Meyer Sound power supply, either the MPS-488HP IntelligentDC or the MPS-481. Current draw for the loudspeaker during burst (<1 sec) shall be 2.2 A rms at 48 V. Current inrush during turn-on shall not exceed 7.0 A peak at 48 V.

Loudspeaker components shall be housed in a sealed, extruded aluminum enclosure with a black anodized finish. Custom painted colors shall be optionally available. Dimensions with grille frame shall be 4.04 inches wide by 4.04 inches high by 7.95 inches deep (103 mm x 103 mm x 202 mm). Weight shall be 5.2 lbs (2.4 kg). 3/8"-16 inserts on each side of the enclosure shall accommodate Meyer Sound mounting and rigging options.

The loudspeaker shall be the Meyer Sound MM-4XPD.

NOTES:

1. Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
2. Free field, measured with 1/3-octave frequency resolution at 4 meters.
3. Measured with music referred to 1 meter.
4. Amplifier wattage rating based on the maximum unclipped burst sine-wave rms voltage the amplifier will produce for at least 0.5 seconds into the nominal load impedance: 30 V rms (42 V peak).
5. Tolerates voltage drops up to 30% due to long cable runs.



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