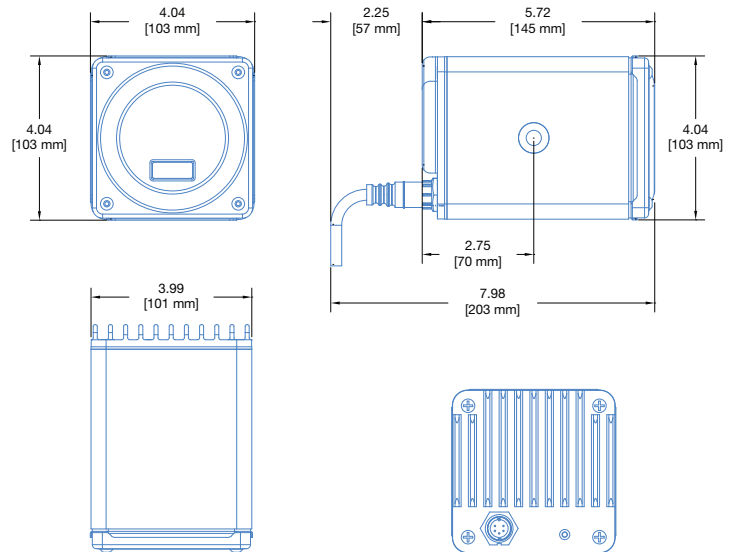


MM-4XP Miniature Loudspeaker



Meyer Sound designed the MM-4XP self-powered miniature loudspeaker (with IntelligentDC technology) for high-quality distributed systems. Housed in a compact aluminum enclosure, the MM-4XP is especially suitable for installations involving space limitations and visibility concerns, such as fill and spot coverage, and hidden locations like chancel steps in houses of worship. Its flexible and easy-to-configure mounting options, as well as its ability to effortlessly reproduce both speech and music, make it an excellent choice for fixed applications, theatrical presentations (stage lip frontfill), and small portable systems for corporate AV.

The MM-4XP's proprietary 4-inch cone transducer with on-board amplification and signal processing, manufactured at Meyer Sound's Berkeley, California factory, delivers an impressive linear peak SPL of 111.5 dB with crest factor >16.5 dB³ and a wide operating frequency range of 120 Hz to 18 kHz with very low distortion. The MM-4XP exhibits the same high intelligibility and flat frequency and phase responses for which all Meyer Sound loudspeakers are known. Peak and rms limiters regulate loudspeaker temperatures and excursion, ensuring the MM-4XP performs exceedingly well even when driven into overload.

With IntelligentDC technology, the MM-4XP receives power and balanced audio from a SwitchCraft® EN3™ 5-pin male input connector on its rear panel. The sealed EN3 connector provides protection against harsh environmental conditions for outdoor installations of the MM-4XP. Meyer Sound designed the MM-4XP's amplifier and signal-processing circuits to store DC power and tolerate voltage drops, thereby accommodating light-gauge cables and long cable runs.

MM-4XP loudspeakers require a Meyer Sound external power supply. The compatible MM-10 ACX miniature self-powered subwoofer includes on-board DC power and audio routing for

driving a pair of MM-4XP miniature loudspeakers. The MPS-488HP IntelligentDC power supply is ideal for larger installations with multiple loudspeakers; the single-space rack-mount unit distributes DC power and balanced audio to up to eight MM-4XP loudspeakers or other compatible Meyer Sound low-voltage loudspeakers. Another option is the 1RU, 1/2 width rack-mount MPS-482HP IntelligentDC power supply that offers two channels of audio and DC power.

Meyer Sound's RMS™ remote monitoring system, which provides comprehensive monitoring of system parameters from a Mac® or Windows®-based computer, is available as an option for the MPS-488HP.

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

The MM-4XP's extruded aluminum enclosure acts as a heat sink to dissipate heat from the driver's voice coil. The enclosure is available in a black-anodized or standard white-painted finish and includes a perforated steel grille frame. The enclosure can also be custom painted to match specific color schemes. The optional MUB-MM4XP U-bracket facilitates mounting of the loudspeaker on walls and ceilings at adjustable angles.

FEATURES AND BENEFITS

- Extremely compact enclosure
- Self-powered
- Wide-range frequency response
- Ultra-low distortion
- Effortless reproduction of both speech and music
- Exceptional SPL to size ratio
- Support for long cable runs with light-gauge cables

APPLICATIONS

- Fill and spot coverage for systems with space limitations and visibility concerns
- High-quality distributed systems in clubs and restaurants for paging and music
- Small, portable systems for corporate audio-visual
- Sound installations for gallery exhibits and museum displays

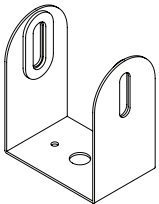
ACCESSORIES AND ASSOCIATED PRODUCTS

MUB-MM4XP Mounting U-Bracket: Allows the MM-4XP to be mounted on any flat surface at adjustable angles (includes mounting hardware).

Galileo GALAXY Network Platform: The Galileo GALAXY Network Platform provides state-of-the-art audio control technology for loudspeaker systems with multiple zones. With immaculate sonic performance, it provides a powerful tool set for corrective room equalization and creative fine-tuning for a full range of applications.

MPS-488HP External Power Supply: Rack-mount unit that delivers balanced audio and high-current DC power to up to eight loudspeakers; versions available with either Phoenix or EN3 channel output connectors.

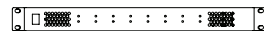
MPS-482HP External Power Supply: 1RU 1/2 width rack unit that delivers balanced audio and high-current DC power to up to two audio channels; optional accessories for rack, wall, ceiling, pole, or truss mounting.



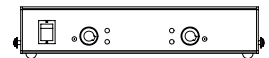
**MUB-MM4XP Mounting
U-Bracket**



GALAXY Network Platform



**MPS-488HP External Power
Supply**



**MPS-482HP External Power
Supply**

SPECIFICATIONS

ACOUSTICAL ¹	
Operating Frequency Range ²	120 Hz – 18 kHz
Frequency Response ³	135 Hz – 17 kHz \pm 4 dB
Phase Response	400 Hz – 20 kHz \pm 45°
Linear Peak SPL ⁴	111.5 dB with crest factor >16.5 dB (M-noise) , 109 dB (Pink noise), 111 dB (B-noise)
COVERAGE	
Horizontal Coverage	80° (3 kHz – 14 kHz \pm 10°); 120° (below 2 kHz)
Vertical Coverage	80° (3 kHz – 14 kHz \pm 10°); 120° (below 2 kHz)
TRANSDUCERS	
	One 4-inch cone driver; 4 Ω nominal impedance
AUDIO INPUT	
Type	Differential, electronically balanced
Maximum Common Mode Range	\pm 5 V DC
Connector	SwitchCraft EN3 5-pin male (two pins for 48 V DC power, three pins for balanced audio)
Input Impedance	10 k Ω electronically balanced
Wiring	Pin 1: DC power (-) Pin 2: DC power (+) Pin 3: Audio shield, chassis/earth Pin 4: Audio (-) Pin 5: Audio (+)
Nominal Input Sensitivity	-2.5 dBV (0.75 V rms) 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) into 50 Ω to produce the maximum peak SPL over the operating bandwidth of the loudspeaker
AMPLIFIER	
Type	Class-D
Total Output Power ⁵	440 W peak
THD, IM, TIM	< 0.02%
Cooling	Convection
DC POWER ⁶	
Connector	SwitchCraft EN3 5-pin male (two pins for 48 V DC power, three pins for balanced audio)
Safety Agency Rated Voltage ⁷	48 V DC
PHYSICAL	
Dimensions	W: 4.04 in (103 mm) x H: 4.04 in (103 mm) x D: 5.72 in (145 mm)
Weight	4.2 lb (1.9 kg)
Enclosure	Sealed extruded aluminum with standard white-painted or a black-anodized finish
Protective Grille	Perforated steel
Mounting	Two 0.375 in-16 side inserts; optional MUB-MM4XP U-bracket

NOTES

1. Loudspeaker system predictions for coverage and SPL are available in Meyer Sound's MAPP System Design Tool.
2. Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
3. Free field, measured with 1/3 octave frequency resolution at 4 m.
4. **Linear Peak SPL** is measured in free field at 4 m referred to 1 m. Loudspeaker SPL compression measured with M-noise at the onset of limiting, 2-hour duration, and 50-degree C ambient temperature is < 2 dB.
M-noise is a full bandwidth (10 Hz–22.5 kHz) test signal developed by Meyer Sound to better measure the loudspeaker's music performance. It has a constant instantaneous peak level in octave bands, a crest factor that increases with frequency, and a full bandwidth Peak to RMS ratio of 18 dB. The presence of a greater-than (>) symbol with regard to crest factor indicates it may be higher depending on EQ and boundary loading.
Pinknoise is a full bandwidth test signal with Peak to RMS ratio of 12.5 dB.
B-noise is a Meyer Sound test signal used to ensure measurements reflect system behavior when reproducing the most common input spectrum, and to verify there is still headroom over pink noise.
5. 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).
6. Meyer Sound power supply required; for information about and specifications for Meyer Sound IntelligentDC external power supplies, refer to their datasheets.
7. Tolerates voltage drops (due to long cable runs) of up to 30 percent.

ARCHITECTURAL SPECIFICATIONS

The loudspeaker shall be self-powered and include a single 4-inch (103 mm) diameter cone transducer with a 4 Ω , 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 Ω . Distortion (THD, IM, TIM) shall not exceed 0.02 percent.

Performance specifications for a typical production unit shall be as follows: operating frequency range shall be 120 Hz–18 kHz; phase response shall be 400 Hz– 20 kHz $\pm 45^\circ$; linear peak SPL shall be 111.5 dB with crest factor >16.5 dB, measured with M-noise, free field at 4 m referred to 1 m; coverage shall be 80° horizontal and 80° vertical at 3–14 kHz $\pm 10^\circ$.

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 Ω impedance and accept a nominal –2.5 dBV (0.75 V rms) input signal.

Power requirements for the loudspeaker shall be an external Meyer Sound power supply, such as the MPS-482HP or MPS-488HP IntelligentDC.

Loudspeaker components shall be housed in a sealed, extruded aluminum enclosure with a black anodized finish. Standard white and custom colors shall also be available. Dimensions with grille frame shall be W: 4.04 in (103 mm) x H: 4.04 in (103 mm) x D: 5.72 in (145 mm). Weight shall be 4.2 lb (1.9 kg). On each side of the enclosure, 0.375 in-16 inserts shall accommodate Meyer Sound mounting and rigging options.

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