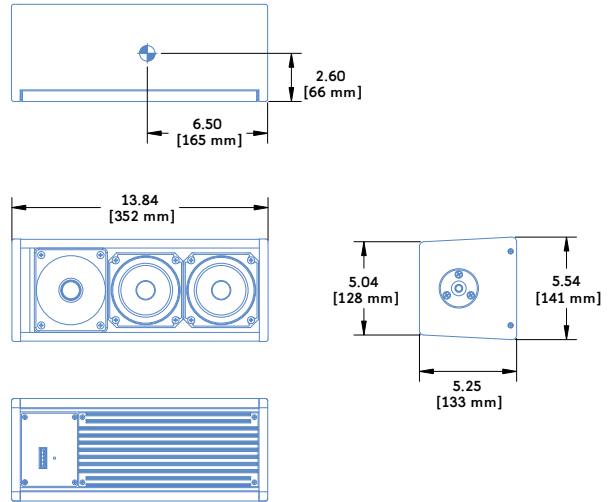


UP-4XP : UltraCompact Loudspeaker



- Dimensions** 13.84" w x 5.54" h x 5.25" d
(352 mm x 141 mm x 133 mm)
- Weight** 12.2 lbs (5.5 kg)
- Enclosure** Premium birch plywood
- Finish** Black textured
- Protective Grille** Powder-coated, hex-stamped steel with black mesh screen
- Rigging** Top and bottom plates available with 3/8"-16 or M10 threads nuts



The UP-4XP ultracompact loudspeaker, with IntelligentDC technology, is ideally suited for applications requiring a small, inconspicuous cabinet that also delivers high sound pressure levels, low distortion, and uniform directional control. The self-powered UP-4XP offers exceptional audio performance in a compact package with the advantages of a remote power supply. As a standalone loudspeaker, the UP-4XP can be used for vocal reinforcement, frontfill coverage, and delay coverage for under-balcony applications. The UP-4XP can also be paired with an optional subwoofer to create a full-range system.

The UP-4XP boasts a wide operating frequency range of 66 Hz to 18 kHz and linear peak SPL of 117.5 dB using M-noise³. The unit's high-frequency section includes a 1-inch metal dome tweeter on a constant-directivity, high-frequency horn with a 100-degree beamwidth. The low/mid-frequency section includes two 4-inch cone transducers that work in parallel at low frequencies — delivering a combined

acoustic output — with one of the drivers rolling off at higher frequencies to prevent interference (due to comb filtering effects) in the crossover region. The proprietary UP-4XP drivers, which are manufactured at Meyer Sound's factory in Berkeley, California, are powered by three channels of onboard power amplification that include an active crossover, driver protection, and frequency and phase correction circuitry.

With IntelligentDC technology, the UP-4XP receives DC power and balanced audio from a single loudspeaker connector, available as Phoenix™ 5-pin male or sealed SwitchCraft® EN3™ 5-pin male. Powering the unit from an external source eliminates the need for wiring conduits while still preserving the advantages of self-powered systems. The UP-4XP's amplifier and signal-processing circuits store DC power and tolerate voltage drops, thereby accommodating light-gauge cables and lengthy cable runs.

The UP-4XP requires an external MPS-488HP IntelligentDC power supply. The single-

space 19-inch rack unit distributes DC power and balanced audio to up to eight UP-4XP loudspeakers, or other Meyer Sound IntelligentDC loudspeakers. Composite multiconductor cables, such as Belden® 1502 or equivalent, can deliver both DC power and balanced to loudspeakers at cable lengths up to 150 feet with just 1 dB of loss in peak SPL using 18 AWG wire. Longer cable lengths are possible with heavier wire gauges. Meyer Sound's RMS remote monitoring system is optionally available for the MPS-488HP.

The UP-4XP's durable cabinet is coated with a black textured finish and includes top and bottom mounting plates with 3/8"-16 or metric M10 threaded nuts. QuickFly mounting options include the MUB-UP4 U-bracket, MYA-UP4 cradle-style yoke, and 1-3/8" (35 mm) diameter pole-mount adaptor.

Other options include weather protection (with the sealed EN3 connector) and custom color finishes for installations and applications with specific cosmetic requirements.

FEATURES & BENEFITS

- Extraordinary fidelity and power capability in an ultracompact package
- Metal dome tweeter delivers a smooth high-frequency response
- Wide, symmetrical pattern covers a broad listening area

- Unique crossover design eliminates combing and yields a consistent midrange response
- Exceptional SPL to size ratio
- Supports long cable runs with light-gauge cables

APPLICATIONS

- Frontfill and under-balcony fill coverage
- Theatrical sound reinforcement and special effects
- Portable and installed AV systems
- Compact voice reinforcement systems

UP-4XP SPECIFICATIONS

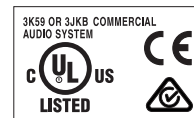
ACOUSTICAL		
Operating Frequency Range ¹	66 Hz – 18 kHz	
Frequency Response ²	72 Hz – 17.5 kHz ±4 dB	
Phase Response	360 Hz – 12 kHz ±45°	
Linear Peak SPL ³	117.5 dB (M-Noise), 111 dB (Pink Noise), 114.5 (B-Noise)	
Dynamic Range ⁴	> 105 dB	
COVERAGE		
Horizontal	100°	
Vertical	100°	
CROSSOVER⁵		
	1.5 kHz	
TRANSDUCERS		
Low Frequency ⁶	Two 4" low-frequency cone drivers	
High Frequency	One 1" metal dome tweeter	
CONNECTOR OPTIONS		
	Phoenix	SwitchCraft
Wiring:	5-pin male	EN3 5-pin male
DC Power (-)	Pin 1	Pin 1
DC Power (+)	Pin 2	Pin 2
Audio Shield, Chassis/Earth ⁷	Pin 3	Pin 3
Audio (-)	Pin 4	Pin 4
Audio (+)	Pin 5	Pin 5
AUDIO INPUT		
Type	Differential, electronically balanced	
Maximum Common Mode Range	±5 V DC	
Input Impedance	10 kΩ differential between positive (+) and negative (-) audio pins	
DC Blocking	Differential DC blocking up to the maximum common mode voltage	
CMRR	>50 dB, typically 80 dB (50 Hz – 500 Hz)	
RF Filter	Common mode: 425 kHz; Differential mode: 142 kHz	
TIM Filter	Integral to signal processing (>80 kHz)	
Nominal Input Sensitivity	-2.0 dBV (0.8 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, 9.0 V peak) into 600 Ω to produce the maximum peak SPL over the operating bandwidth of the loudspeaker	
AMPLIFIER		
Type	3-channel (class D)	
Output Power ⁸	500 W	
THD, IM, TIM	<0.02%	
Load	4 Ω each low channel; 8 Ω high channel	
Cooling	Convection	
DC POWER		
Voltage Requirement	48 V DC	
Current Draw ⁹ : Idle Current	0.23 A average	
Maximum Long-Term Continuous Current (>10 sec)	1.00 A average	
Maximum Instantaneous Peak Current	4.50 A peak	

NOTES:

1. Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
2. Measured free-field with pink noise at 4 meters, 1/3-octave frequency resolution.
3. Linear Peak SPL is measured in free-field at 4 meters referred to 1 meter. 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, (10Hz to 22.5kHz) 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. **Pink noise** 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 verify there is still headroom over pink noise.
4. Taken from peak SPL, referred to A-wtd noise floor.
5. At this frequency, the metal dome tweeter and top low-frequency driver (closest to the tweeter) produce equal sound pressure levels.
6. Below 400 Hz, both low frequency drivers are active. At 400 Hz, the bottom low-frequency driver is attenuated by -3 dB and rolled off at higher frequencies. This reduces interaction in the higher frequencies (shorter wavelengths) of the tweeter and maintains optimum polar and off-axis frequency responses.
7. Audio shield, chassis/earth through 220 kOhm, 1000 pF, 15 V clamped network to provide virtual ground lift at audio frequencies.
8. Amplifier wattage based on the maximum unclipped burst sine-wave rms voltage the amplifier will produce into the nominal load impedance.
9. Current draw measured at 48 V DC.

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ARCHITECT SPECIFICATIONS

The loudspeaker shall be a self-powered, full-range system; the transducers shall consist of two 4-inch low-frequency cone drivers and one 1-inch high-frequency metal dome tweeter. The loudspeaker system shall incorporate internal processing electronics and a three-channel amplifier, one channel for each driver. Processing functions shall include equalization, phase correction, signal division, and driver protection. The crossover point shall be 1.5 kHz. Amplifier channels shall be class D. Amplifier output power shall be 500 watts total for all three channels. Distortion (THD, IM, TIM) shall not exceed 0.02%.

Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: operating frequency range shall be 66 Hz to 18 kHz; phase response shall be ±45 degrees from 360 Hz to 12 kHz; linear peak

SPL shall be 117.5 dB measured with M-noise, free field at 4 meters and referred to 1 meter. Coverage shall be 100-degree horizontal by 100-degree vertical.

The loudspeaker shall be equipped with either a Phoenix 5-pin male or EN3 5-pin male connector (three pins for balanced audio and two pins for DC power). The audio input shall be electronically balanced with a 10-kOhm impedance and accept a nominal -2.0 dBV (0.80 V rms) input signal. DC blocking and RF filtering shall be provided, and CMRR shall be greater than 50 dB and typically 80 dB (50 Hz to 500 Hz).

Power requirements for the loudspeaker shall be a Meyer Sound MPS-488HP IntelligentDC power supply capable of delivering 48 V DC. Current draw maximum long-term continuous current draw for

the loudspeaker (< 10 s) shall be 1.0 A average at 48 V.

All components shall be mounted in an acoustically vented trapezoidal enclosure constructed of premium birch plywood with a black textured finish. Top and bottom rigging plates shall be available in 3/8"-16 or M10 threads. The front protective grille shall be powder-coated, hex-stamped steel with black mesh screen.

Dimensions for the loudspeaker shall be 13.84 inches wide x 5.54 inches high x 5.25 inches deep (352 mm x 141 mm x 133 mm) without mounting bracket. Weight shall be 12.2 lbs (5.5 kg).

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