



emaoustics

## TECHNICAL DATA SHEET

# EMS-41

## ULTRA COMPACT PASSIVE LOUDSPEAKER

**The EMS-41 is an ultra-compact loudspeaker intended for a wide variety of near field and background sound applications - particularly where a very compact and discreet solution is required to be distributed over wide areas, yet whilst still retaining high SPL capability and exceptional intelligibility. With its space-saving coaxial design, this loudspeaker will blend unobtrusively and easily into many venue types and styles.**

### FEATURES AND BENEFITS

- Coaxial design for true point-source performance
- Genuine plywood cabinet for sonic benefit over plastic
- 4"/0.85" coaxial drive unit
- True passive design - no corrective DSP required
- Ultra-compact size
- Flexible rigging and mounting options
- Horizontal yoke included
- Black or white textured polyurethane finish as standard
- RAL colour matching & weather protection options

### APPLICATIONS

- Nearfield monitoring
- Background music
- Theatrical spot effects
- Fills and delays
- Corporate and audio-visual
- Studio monitoring

The EMS-41 is a two-way passive coaxial loudspeaker, using a 4" (102mm) low frequency transducer and coaxially mounted 0.85" (21.6mm) high frequency compression driver. The enclosure is an infinite baffle design designed to provide a much smoother LF roll off and extended bass response than would be expected from an enclosure of this size.

The drive unit is housed within a compact, sealed enclosure constructed from premium 12mm (1/2") and 18mm (3/4") multi-laminate Birch plywood with curved, trapezoidal sides designed for a pleasing aesthetic suitable for many venue types. Three M8 threaded fixings are incorporated around the enclosure (one top, one bottom, and one on the rear) for attachment of rigging hardware and safeties. The enclosure includes a pair of Neutrik® speakON™ NL4 connectors for input and enclosure link, as well as a 4-pole Phoenix connector with mating connector supplied.

A hex-punched stainless steel grille backed with acoustically transparent fabric protects the drive units from damage, which can be quickly removed for service purposes. The enclosure is finished in an impact and weather resistant textured polyurethane finish as standard, however RAL colour matching as well as enhanced weather protection options are also available.



The EMS-41 is ideal for theatrical spot effects, fill loudspeakers and delays, background sound, as well as for corporate and AV use. Due to the discreet appearance, the EMS-41 can also find use in domestic AV systems and studio monitoring. For ease of use, the EMS-41 is supplied with an adjustable horizontal mounting yoke, and further optional accessories are available for single-point mounting from the rear

The EMS-41 requires a single amplifier channel, and the use of external DSP for system protection (high pass filters and limiters) is recommended - as such an efficient solution is one of EM Acoustics' range of Advanced System Amplifiers. Alternative DSP-enabled amplifiers can also be used, or conventional amplifiers with external processing - suitable DSP settings are provided on the EM Acoustics website for this purpose. The EMS-41 requires a single amplifier channel that is capable of delivering 150-250W RMS into a 12-ohm load.

## TECHNICAL SPECIFICATIONS

### ENCLOSURE TYPE:

DIMENSIONS: (HxWxD)

NET/SHIPPING WEIGHT:

FREQUENCY RESPONSE<sup>1</sup>:

SENSITIVITY<sup>2</sup>:

DISPERSION<sup>3</sup>:

DRIVE UNITS:

LOUDSPEAKERS PER AMPLIFIER (maximum for full loudspeaker SPL)

LOUDSPEAKERS PER AMPLIFIER (recommended absolute maximum)<sup>4</sup>

POWER HANDLING:

MAXIMUM SPL<sup>5</sup>:

NOMINAL IMPEDANCE:

CROSSOVER:

CONNECTORS:

ENCLOSURE:

RIGGING & HARDWARE:

GRILLE:

OPTIONS:

Infinite baffle, coaxial

150 (5.9) x 120 (4.7) x 130 (5.1) mm/(ins)

1.6/2.4kg (3.5/5.3lbs)

100Hz – 18kHz ± 3dB

86dB

80° conical

Coaxial neodymium 4" (100mm) LF / 0.85" (21.5mm) exit HF

DQ6: 6 per channel, DQ10: 6 per channel, DQ20: 6 per channel

Di06: 3 per channel, Di10: 4 per channel, Di20: 6 per channel

DQ6: 6 per channel, DQ10: 6 per channel, DQ20: 6 per channel

Di06: 6 per channel, Di10: 6 per channel, Di20: 6 per channel

125W RMS, 250W program

110dB continuous, 116dB peak

12 ohms

Asymmetric internal passive

2 x Neutrik® speakON™ NL4, Phoenix connector

12mm/18mm (1/2" / 3/4") multi-laminate Birch plywood

Finished in impact & weather resistant textured polyurethane

3 x M8 threaded mounting points. Horizontal yoke included as standard

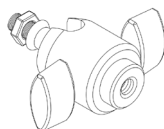
Hex-punched stainless steel, backed with acoustically transparent fabric

Custom Colour, enhanced weather protection (OD model)

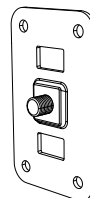
### NOTES ON MEASUREMENT CONDITIONS:

<sup>1</sup>Measured on-axis at 2m in an anechoic environment and referenced to 1m. <sup>2</sup>Measured in half space at 2m with 4W sine wave input and referenced to 1m. <sup>3</sup>Nominal dispersion, measured in an anechoic environment and averaged over stated bandwidth. <sup>4</sup>These loudspeaker quantities are the recommended maximum, and will not drive the loudspeaker to full output. <sup>5</sup>Calculated and verified by subjective listening test of familiar program material.

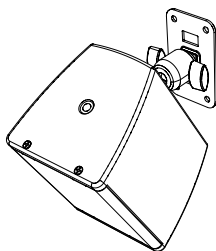
## RIGGING ACCESSORIES



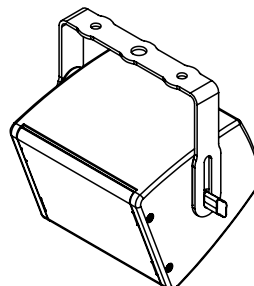
**BM-41**



**WP-41**



**BM-41 and WP-41**



**YK-41h (supplied)**

## ENCLOSURE OPTIONS

EMS-41 enclosures are available as standard in black or white textured polyurethane finish. Custom RAL colours can be supplied on request; extended lead times and set up costs apply. EMS-41 enclosures can also be supplied as an outdoor version (OD), with enhanced weather protection features, many bespoke to the customer's request. Please contact your local EM Acoustics representative for details.

ENGINEERING DRAWING

