



Delta Microphone Microphones

The Delta boundary microphone is three wide-range condenser microphones mounted in a heavy-duty die cast steel enclosure. Its professional design accentuates teleconferencing applications which demand high performance audio quality. Its compact size makes the microphone ideal for conference tables which require minimum visibility microphones. The microphone can be easily mounted to the tabletop to provide listeners with superior audio while being unobtrusive to teleconferencing participants.

Each microphone element is protected by two layers of sturdy perforated steel with a minimum reflectance black finish. The microphone has three cardioid polar patterns which allow it to receive audio in a 360° pattern. Because each element is wired independently, the Delta microphone divides the room into thirds to eliminate reverberations and minimize ambient noise pick-up. This provides the rich sound of three individual unidirectional microphones while maintaining full 360° coverage.

Outputs are low impedance, balanced, and mated with XLR-type cable connectors. Balanced signals appear across pins 2 and 3, while the ground (shield) connections appear across pin 1. Outputs are phased so that positive acoustic pressure produces positive voltage at pin 2 in accordance with industry standards. The Delta microphone is powered from an external 5V to 52VDC phantom power supply.



Delta mics can be easily mounted to the tabletop to provide listeners with superior audio.

Features and Benefits

- 360° pick-up range with a dead zone above increases intelligibility and reduces unwanted noise
- Sleek, low profile design
- Provides greater frequency response and dynamic range

Operation and Maintenance

Both symmetry and mounting surface area directly affect the sensitivity of the Delta microphone at low frequencies. Ideally, the mounting surface should be circular; however, square or rectangular surfaces are most often used. If the mounting surface is rectangular, the smaller dimension tends to dictate low-frequency cutoff. Ideally, the microphone should be centered on the surface being used. The sound source should not be below or higher than 60 degrees above plane of the mounting surface.

Applications

- Conference Rooms
- Boardrooms
- Distance Learning
- Training Rooms
- Courtrooms
- Hotels

Specifications

Placement of Microphone

While the Delta microphone is not unduly sensitive to humidity, temperature extremes can be harmful.

Exposure to high temperature can result in gradual and permanent reduction of the output level. Avoid leaving the microphone in the open sun or areas where temperatures exceed 110° F (43° C) for long periods of time. Extremely high humidity should also be avoided.

Positioning this type of microphone centrally on a large, flat, unobstructed surface yields several distinct advantages. Directionality is increased by 3dB, promoting enhanced gain before feedback and further suppression of ambient noise. Sensitivity is increased for improved signal to noise ratio. Phase distortion due to reflected sound energy from the boundary itself is eliminated.

Dimensions:

Microphone:
Height 1.06"/27 mm
Diameter 8.76"/222.5 mm

Bracket:
Height 1.4"/35.6 mm
Width 8.6"/218.4 mm
Depth 6.5"/165.1 mm

Weight:

Microphone:
3.25 lb/1.37 kg shipping
Bracket:
1.5 lb/669g shipping

Element:

Fixed-charge back plate permanently polarized condenser

Polar Pattern:

Half-cardioid (cardioid in hemisphere above mounting surface)

Phantom Power Requirements:

5-52VDC, 2mA typical

Frequency Response:

30Hz–20kHz

Sensitivity:

-38dB (0dB = 1mW/1 Pa*)

Open Circuit Sensitivity:

5.6mV (-45dB re 1V/1 Pa*)

Impedance:

200Ω

Maximum Input Sound Level:

130dB, 1kHz at 1% THD

Signal/Noise Ratio:

>65dB at 1kHz/1 Pa*

Cable and Connector Types:

25'/7.6 m long, .209"/5.31 mm shielded cable with 3-pin XLRM-type (phased) connectors

*1 Pascal = 10 dynes/cm² = 10 microbars