



ES931ML/MIC & ES931WML/MIC

MicroLine® Condenser Gooseneck Microphones



Features

- **MicroLine® polar pattern provides narrow 90° acceptance angle.**
- **Low-profile design with low-reflectance finish for minimum visibility.**
- **Superior off-axis rejection for maximum gain before feedback.**
- **UniGuard® RFI-shielding technology offers outstanding rejection of radio frequency interference (RFI).**
- **Easy-to-adjust, rugged, small-diameter gooseneck with virtually no “memory” permits quick positioning into desired shape.**
- **Available interchangeable elements permit angle of acceptance from 90° to 360°.**
- **Ideal for boardrooms, school and government settings, teleconferencing, houses of worship and other installed applications.**
- **Available in two colors: black (ES931ML/MIC) and white (ES931WML/MIC).**

Description

The ES931ML/MIC is a wide-range miniature condenser microphone with a MicroLine® (line cardioid) polar pattern. It is designed for quality sound reinforcement. The small diameter gooseneck design permits highly flexible positioning while maintaining a smooth, well-contoured appearance. The combination of small size and excellent response makes the microphone ideal for boardrooms, school and government settings, teleconferencing, houses of worship and other installed applications.

The microphone requires a compatible Audio-Technica power module (not included) for operation.

The microphone is equipped with UniGuard® RFI-shielding technology, which offers outstanding rejection of radio frequency interference (RFI).

The microphone's MicroLine® (line cardioid) polar pattern provides a 90° angle of acceptance. Additional interchangeable elements with omnidirectional (360°), cardioid (120°) and hypercardioid (100°) pickup patterns are available.

The microphone's free end connects to a compatible Audio-Technica power module (not included) via a special TA3F-type connector designed to optimize RFI immunity.

The microphone is enclosed in a rugged housing with a low-reflectance black finish and comes equipped with a two-stage foam windscreen. It is also available with white housing and windscreen as the ES931WML/MIC.

Installation and Operation

The ES931ML/MIC requires a compatible Audio-Technica power module (not included) for operation.

A uniform 90° angle of acceptance provides well-balanced audio pickup. The microphone should be located forward of the front-most source, above the rear-most source, and “aimed” between them. Increasing the height of the mic above the sources will tend to equalize sound levels between them, but may also increase background/reverberant sound pickup. When possible, the distance from the mic to the rear-most source should be no more than twice the distance to the front source, to maintain front-to-rear balance.

Width of pickup is approximately 1.5 times the distance to the closest source. If additional mics are needed for wide sources, they should be positioned apart laterally at least 1.5 times the distance to the front source, to avoid phase cancellation (Fig. 1).

The provided two-stage foam windscreen simply snaps over the head of the microphone, effectively reducing noise from wind or ventilation air currents.

Avoid leaving the microphone in the open sun or in areas where temperatures exceed 110°F (43°C) for extended periods. Extremely high humidity should also be avoided.

Note: Audio-Technica has developed a special RFI-shielding mechanism, which is an integral part of the connectors in the Engineered Sound® line. If you remove or replace the connector, you may adversely affect the unit's RFI immunity.

Architect's and Engineer's Specifications

The microphone shall be a fixed-charge condenser designed for permanent installation or portable applications. It shall have a MicroLine® (line cardioid) polar pattern with a uniform 90° angle of acceptance and a frequency response of 30 Hz to 20,000 Hz. It shall be capable of accepting optional interchangeable elements for additional polar patterns. The microphone shall operate from an Audio-Technica power module (not included). It shall be capable of handling sound input levels up to 133 dB with a dynamic range of 109 dB. Nominal open-circuit output voltage shall be 17.7 mV at 1V, 1 Pascal. It shall offer outstanding rejection of radio frequency interference (RFI).

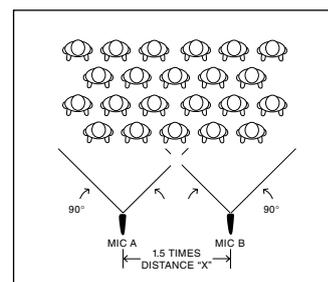


Figure 1



ES931ML/MIC & ES931WML/MIC

MicroLine® Condenser Gooseneck Microphones

The microphone shall incorporate a special TA3F-type output connector designed to optimize RFI immunity.

A two-stage foam windscreen shall be included.

The microphone shall be a small-diameter gooseneck design, with an overall length of 271.4 mm and a head diameter of 8.0 mm. Weight shall be 43 grams. The microphone shall be black (white). The Audio-Technica ES931ML/MIC (ES931WML/MIC) is specified.

Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	MicroLine® (line cardioid)
Frequency response	30-20,000 Hz
Open circuit sensitivity	-35 dB (17.7 mV) re 1V at 1 Pa
Maximum input sound level	133 dB SPL, 1 kHz at 1% T.H.D.
Dynamic range (typical)	109 dB, 1 kHz at Max SPL
Signal-to-noise ratio ¹	70 dB, 1 kHz at 1 Pa
Weight	43 g
Dimensions	271.4 mm long, 8.0 mm head diameter, 11.6 mm base diameter
Output connector	TA3F-type
Optional interchangeable elements	ESE-O omnidirectional (360°) ESE-C cardioid (120°) ESE-H hypercardioid (100°)
Audio-Technica case style	M42
Accessories furnished	ES931ML/MIC AT8138 two-stage foam windscreen ES931WML/MIC AT8138(WH) two-stage foam windscreen
Compatible power modules	AT8534 wall/ceiling plate power module; AT8538 power module; ATND8734 network audio microphone power module

Specifications are subject to change without notice.

¹ Typical, A-weighted, using Audio Precision System One.

To reduce the environmental impact of a multi-language printed document, product information is available online at www.audio-technica.com in a selection of languages.

Afin de réduire l'impact sur l'environnement de l'impression de plusieurs langues, les informations concernant les produits sont disponibles sur le site www.audio-technica.com dans une large sélection de langue.

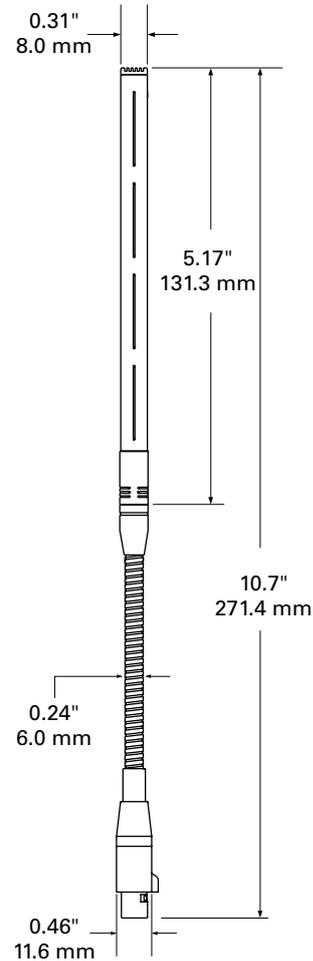
Para reducir el impacto al medioambiente, y reducir la producción de documentos en varios lenguajes, información de nuestros productos están disponibles en nuestra página del Internet: www.audio-technica.com.

Para reduzir o impacto ecológico de um documento impresso de várias línguas, a Audio-Technica providencia as informações dos seus produtos em diversas línguas na www.audio-technica.com.

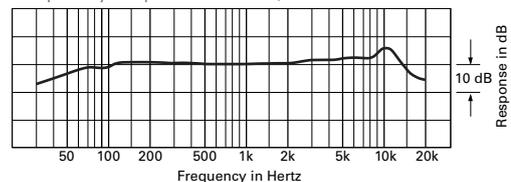
Per evitare l'impatto ambientale che la stampa di questo documento determinerebbe, le informazioni sui prodotti sono disponibili online in diverse lingue sul sito www.audio-technica.com.

Der Umwelt zuliebe finden Sie die Produktinformationen in deutscher Sprache und weiteren Sprachen auf unserer Homepage: www.audio-technica.com.

Om de gevolgen van een gedrukte meertalige handleiding op het milieu te verkleinen, is productinformatie in verschillende talen "on-line" beschikbaar op: www.audio-technica.com.

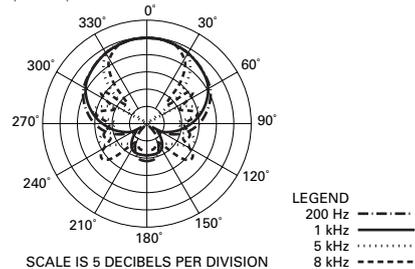


frequency response: 30-20,000 Hz



LEGEND — 12" or more on axis

polar pattern



LEGEND
200 Hz - - - - -
1 kHz - - - - -
5 kHz - - - - -
8 kHz - - - - -

SCALE IS 5 DECIBELS PER DIVISION