

ES931PMML & ES931PMWML

MicroLine® Condenser Gooseneck Microphones

 audio-technica

engineered sound® microphones



Features

- Wall/ceiling plate power module permits permanent installation in standard, single-gang electrical box
- 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)
- UniSteep® filter provides a steep low-frequency attenuation to minimize pickup of undesired ambient noise
- 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 (ES931PMML) and white (ES931PMWML)

Description

The ES931PMML 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 11V to 52V phantom power 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 the provided AT8534 wall/ceiling plate power module via a special TA3F-type connector designed to optimize RFI immunity. The power module features a white-finished standard electrical cover plate for easy, secure installation. Output connections on the power module are screw terminals.

Switches in the power module permit a +10 dB gain setting for extra sensitive pickup as well as a choice of flat response or low-frequency roll-off (via integral 80 Hz high-pass UniSteep® filter) to help control undesired ambient noise.

The microphone is enclosed in a rugged housing with a low-reflectance black finish and comes equipped with a wall/ceiling plate power module and a two-stage foam windscreen. The microphone is also available with white housing and windscreen as the ES931PMWML.

Installation and Operation

The ES931PMML requires 11V to 52V phantom power 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.

An integral 80 Hz high-pass UniSteep® filter provides easy switching from a flat frequency response to a low-end roll-off. The roll-off position reduces the pickup of low-frequency ambient noise (such as traffic, air-handling systems, etc.), room reverberation and mechanically coupled vibrations. To engage the UniSteep® filter, slide the switch toward the “bent” line. A 10 dB gain switch is provided for situations that demand extra sensitive pickup. The +10 position increases the microphone’s overall output by 10 dB. To engage the 10 dB gain, slide the switch toward the +10 position.

The AT8534 wall/ceiling plate power module is designed to be mounted in a standard metal U.S. single-gang electrical box. For safety and best performance, use the electrical box only for the AT8534; do not include any AC power conductors. (Also route the mic cable as far away from AC power cables as possible.)

Screw-terminal output connections of the AT8534 are the same as those of an XLR-type plug: shield to Terminal 1, balanced signal and phantom power to Terminals 2 and 3 (Fig. 2). Output is phased so that positive acoustic pressure produces positive voltage at Terminal 2, in accordance with industry convention. Do not connect the output cable shield to the box. Double-check to make certain that all input and output leads have no bare wires or loose strands that could touch each other, the circuit board or the electrical box. Then attach the power module plate to the electrical box.

Connect the TA3F-type connector on the microphone to the TB3M-type connector in the power module plate.

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.

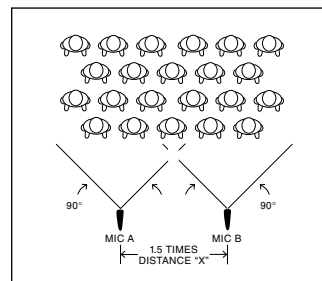


Figure 1

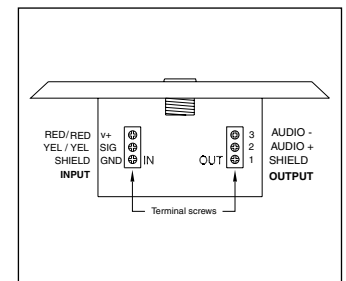


Figure 2

ES931PMML & ES931PMWML

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 langues.

Para reducir el impacto al medioambiente, y reducir la producción de documentos en varios leguajes, 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 linguas, a Audio-Technica providência as informações dos seus produtos em diversas linguas 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.

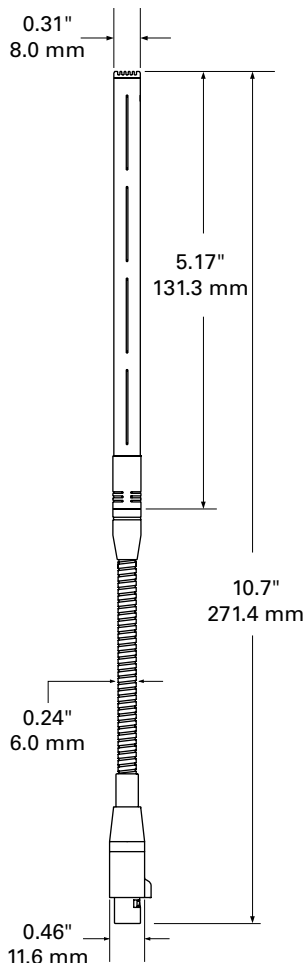
Der Umwelt zuliebe finden Sie die Produktinformationen in deutscher Sprache und weiteren Sprachen auf unserer Homepage: www.audio-technica.com.

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.

本公司基於減少對環境的影響，將不作多語言文件的印刷，有關產品訊息可在 www.audio-technica.com 的官方網頁上選擇所屬語言及瀏覽。

本公司基于减少对环境的影响，将不作多语言文档的印刷，有关产品信息可在 www.audio-technica.com 的官方网页上选择所属语言和浏览。

자원절약, 환경보호를 위해 국문 사용 설명서는 인쇄하지 않았습니다.
제품정보는 www.audio-technica.com 에서 원하는 언어 선택 후에 다운로드 받으실 수 있습니다.



Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	MicroLine® (line cardioid)
Frequency response	30-20,000 Hz
Low frequency roll-off	80 Hz, 18 dB/octave
Open circuit sensitivity	-35 dB (17.7 mV) re 1V at 1 Pa
Impedance	200 ohms
Maximum input sound level	123 dB SPL, 1 kHz at 1% T.H.D.
Dynamic range (typical)	102 dB, 1 kHz at Max SPL
Signal-to-noise ratio¹	73 dB, 1 kHz at 1 Pa
Phantom power requirements	11-52V DC, 4 mA typical
Switches	Flat, roll-off; 0 dB, +10 dB gain setting
Weight	Microphone: 43 g (1.5 oz) Power module: 97 g (3.4 oz)
Dimensions	Microphone: 271.4 mm (10.7") long, 8.0 mm (0.31") head diameter, 11.6 mm (0.46") base diameter Power module: 71.0 mm (2.80") W x 115.5 mm (4.55") H x 36.0 mm (1.42") D
Output connector	Power module: Screw-terminals
Optional interchangeable elements	ESE-O omnidirectional (360°) ESE-C cardioid (120°) ESE-H hypercardioid (100°)
Audio-Technica case style	M42
Accessories furnished	ES931PMML AT8534 wall/ceiling plate power module; AT8138 two-stage foam windscreen ES931PMWML AT8534 wall/ceiling plate power module; AT8138(WH) two-stage foam

In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

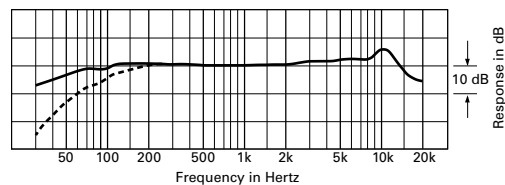
1 Pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL

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

Specifications are subject to change without notice.

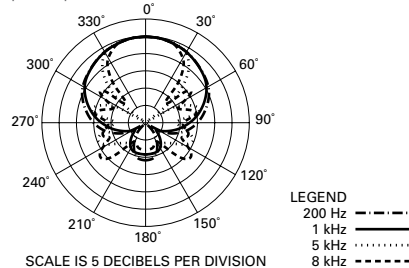


frequency response: 30–20,000 Hz



LEGEND — 12" or more on axis
----- Roll-off

polar pattern



 **audio-technica**

Audio-Technica Corporation
audio-technica.com ©2016 Audio-Technica

P52597-01