



Features

- **Wide-range condenser element with low-mass diaphragm for superior performance**
- **Uniform cardioid polar pattern for maximum rejection of unwanted sounds**
- **Self-contained electronics eliminate need for external power module**
- **Rugged design and construction for reliable performance**
- **Very low-profile design for minimum visibility**

Description

The PRO 42 is a wide-range condenser microphone with a cardioid polar pattern. It was designed for surface-mount applications such as high-quality sound reinforcement and other demanding sound pickup situations.

The microphone requires 9V to 52V phantom power for operation.

The microphone's cardioid polar pattern provides a 120° angle of acceptance (cardioid in hemisphere above mounting surface).

The microphone includes a 7.6 m (25') permanently attached cable with an XLRM-type connector, which allows it to be plugged directly into an XLRF-type jack or cable connector.

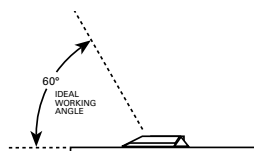
The microphone's rubber non-slip bottom pad minimizes mechanical coupling of surface vibrations to the microphone. The microphone is enclosed in a rugged case and protected by heavy perforated steel. It features a low-reflectance black finish.

Installation and Operation

The PRO 42 requires 9V to 52V phantom power for operation.

Output is low impedance (Lo-Z) balanced. The signal appears across Pins 2 and 3; Pin 1 is ground (shield). Output phase is "Pin 2 hot"—positive acoustic pressure produces positive voltage at Pin 2.

The microphone should be placed on a flat, unobstructed mounting surface, with the front of the microphone facing the sound source. The sound source should not be below, or higher than 60° above, the plane of the mounting surface.



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

Architect's and Engineer's Specifications

The microphone shall be a fixed-charge condenser designed for use in surface-mount applications. It shall have a cardioid polar pattern with a uniform 120° angle of acceptance (cardioid in hemisphere above mounting surface) and a frequency response of 70 Hz to 14,000 Hz. The microphone shall operate from an external 9V to 52V DC phantom power source. It shall be capable of handling sound input levels up to 134 dB with a dynamic range of 105 dB. Nominal open-circuit output voltage shall be 12.5 mV at 1V, 1 Pascal. Output shall be low impedance balanced (100 ohms).

The microphone shall incorporate self-contained electronics, eliminating the need for an external power module. The microphone shall have a 7.6 m (25') permanently attached cable with an XLRM-type connector for direct connection to a mating XLRF-type jack or cable connector.

The microphone shall have a maximum width of 36.6 mm (1.44"), a maximum length of 54.3 mm (2.14") and a maximum height of 15.5 mm (0.61"). Weight shall be 35 grams (1.2 oz). Finish shall be low-reflectance black.

The Audio-Technica PRO 42 is specified.

Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Half-cardioid (cardioid in hemisphere above mounting surface)
Frequency response	70-14,000 Hz
Open circuit sensitivity	-38 dB (12.5 mV) re 1V at 1 Pa
Impedance	100 ohms
Maximum input sound level	134 dB SPL, 1 kHz at 1% T.H.D.
Dynamic range (typical)	105 dB, 1 kHz at Max SPL
Signal-to-noise ratio¹	65 dB, 1 kHz at 1 Pa
Phantom power requirements	9-52V DC, 2 mA typical
Weight	35 g (1.2 oz)
Dimensions	54.3 mm (2.14") maximum length, 36.6 mm (1.44") maximum width, 15.5 mm (0.61") maximum height
Output connector	3-pin XLRM-type
Cable	7.6 m (25') long, (permanently attached to microphone), 2.6 mm (0.10") diameter, 2-conductor, shielded cable with XLRM-type connector

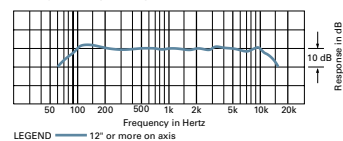
In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

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

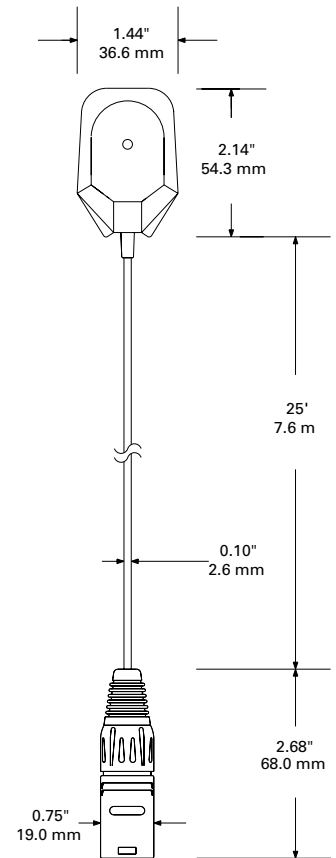
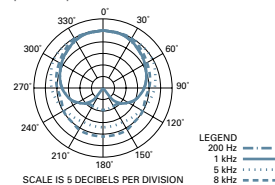
¹ Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.

frequency response: 70–14,000 Hz



polar pattern



 **audio-technica**

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