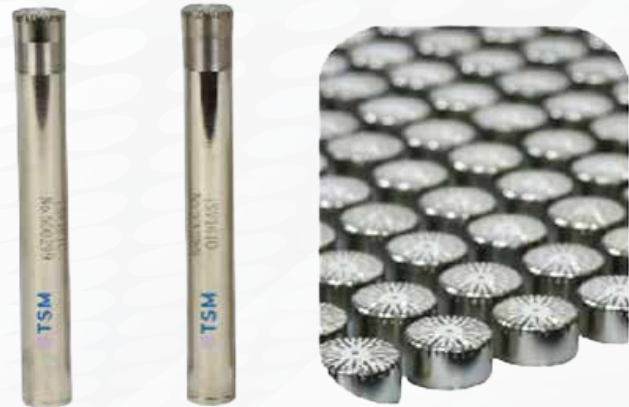


MP30 Measurement Microphone

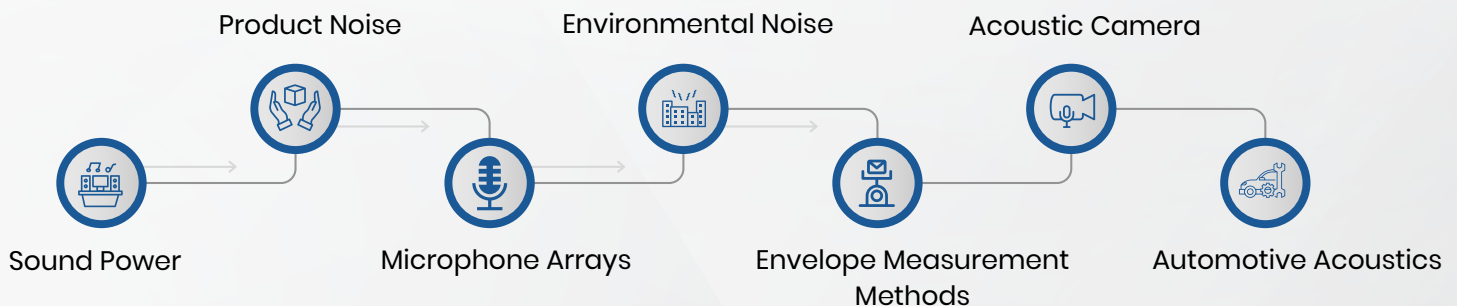
MP30
1/2" IEPE Microphone Set



The 1/2" MP30 measuring microphone opens the possibility of using a high-quality, pre-polarized measuring microphone capsule on measuring systems with IEPE supply. Typical applications are measurements of product noise, environmental noise, acoustic camera, sound power, microphone arrays and envelope measurement methods, e.g., in automotive acoustics. The electrical connection is made via the fixed BNC connector with standard BNC cables. To hold the microphone, the MI-MKAL microphone holder is recommended. The use of the 1/2" measuring microphone capsule accessories, such as windshield etc., is possible.

The measurement microphone can be calibrated with the sound calibrator 4010, CA111 or with other suitable sound pressure calibrators.

Applications



Key features

- Class 1 and WS2F according to IEC 61094-4
- Sensitivity 40mV/Pa
- IEPE constant current supply 2-20 mA | Bias: 12.5
- Measuring range 16 dB(A) to SPL Peak (3% Dist.) 135 dB
- Polar Pattern: Omnidirectional
- Frequency Response: 4 Hz – 20 kHz
- Acoustic noise floor 16 dB A-weighted

Technical Specifications

Free Field	WS2F IEC 61094-4
Sensitivity	40 mV/Pa
Frequency range <i>Class 1 DIN EN 60 651</i>	4 Hz ... 20 kHz
Polarisation Voltage	0 V
Sound Pressure Level Limit <i>at 250 Hz, harmonic distortion <3%</i>	135 dB
Polar Pattern	Sphere
Output voltage	≤ 6.5 Volt rms
Noise	16 dBA
IEPE Current	2 mA to 10 mA, nom. 4 mA
IEPE Voltage	UL 24 V DC to 30 V DC
Temperature range <± 0.5 dB	-25 °C to +100 °C
Connector	BNC
Dimensions	∅13.2 × 81 mm
Preamplifier Thread	11.7mm 60 US
Weight	37 g

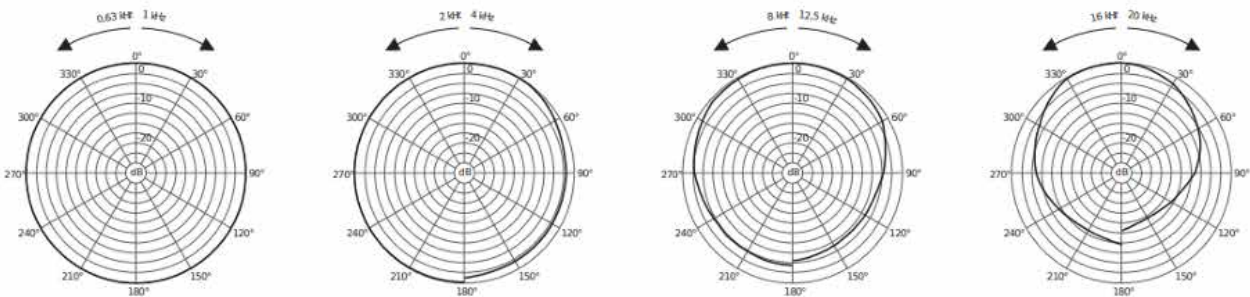
MP30 Microphone Capsule Specifications

Transducer Type	Capacitive Pressure Receiver
Frequency range	4 Hz ... 10 Hz (± 1.5 dB) 10 Hz ... 4 kHz (± 0.5 dB) 4 kHz ... 20 kHz (± 1.5 dB)
Frequency range of the free field response	40 mV/Pa
Maximum SPL: 3% distortion at 250 Hz	135 dB
Inherent noise	16 dBA
Polarization voltage	0V
Capacitance at polarization voltage at 1 kHz	16 pF
Working temperature range	-50 ... +100 °C
Humidity up to	70 °C, 90 %
Temperature coefficient	≤ 0.01 dB/K
Static Pressure Coefficient	0.00001 dB/Pa
Diameter with protective cap	13.2 mm ± 0.05 mm
Height	16 mm
Weight	8 g
Threads for preamplifiers	11.7mm 60 US
Thread for protective cap	12.7mm 60 US

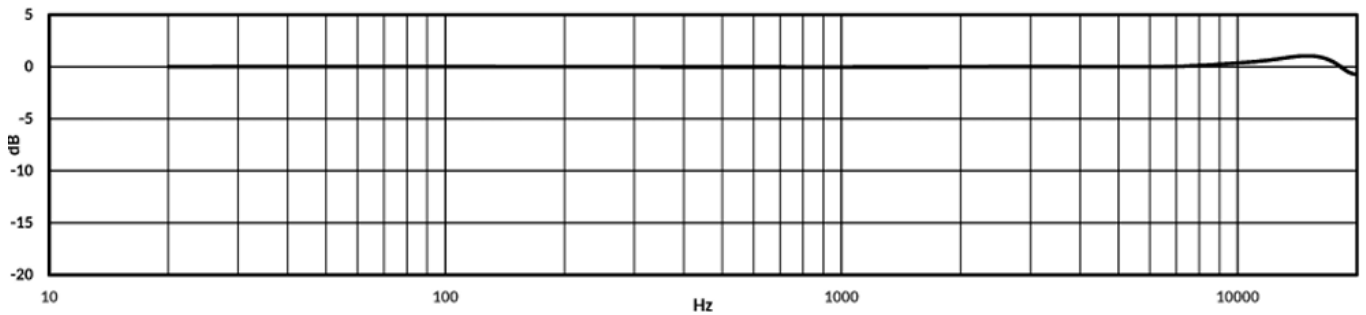
Maintenance and servicing

To ensure proper functioning, the measuring microphone capsule must be protected from mechanical damage and, depending on the operating conditions, must be checked for contamination on all sides in the operating voltage-free state at intervals to be determined. After removing the protective cap, the contaminants inside and on the membrane should be removed extremely carefully with a soft brush or cloth. The measurement microphone capsule is not suitable for use in chemically aggressive media and conductive dust. Condensation must be avoided.

Polar diagrams



1 Free-Field Frequency Response



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