



MM310

Ultrasound Microphone High SPL Microphone



MK301 E & MV310

The MK301E-MV310 1/4" measurement microphone opens the possibility of using a high-quality, pre-polarized MK 301 E measurement microphone capsule on measurement systems with IEPE supply. Typical applications include array arrays and envelope measurement methods, e.g. in automotive acoustics.

The measuring microphone is connected to the measuring channels via a fixed microdot connector with microdot cables or usual BNC cables via a microdot-BNC adapter.

The MI-MKAL microphone holder is recommended for holding the microphone. The use of the 1/4" measuring microphone capsule accessories, such as windscreens, etc., is possible without any problems.

The measurement microphone can be calibrated with the sound calibrator type CA 111 or with other suitable sound pressure calibrators using a 1/4" adapter.

Technical data

IEPE Supply	24 to 30 V DC
Operating current	2 – 20 mA
Bias	12.5 V
Frequency range (± 2 dB)	20 Hz - 100 kHz
Microphone capsule thread	60 UNS
Polar pattern	Sphere
Electrical noise floor	12 dB (A)
Acoustic background noise	36 dB (A)
Limit sound pressure level	168 dB
Sensitivity	3.5 mV/Pa
Measuring range	36 – 168 dB (A)
Connector	Microdot UNF 10-32
Dimensions	$\Phi 6.35 \times 57.8$ mm
1/4" outsidediameter	6.35 ± 0.02 mm
Weight	10 g

MK 301 E Specs

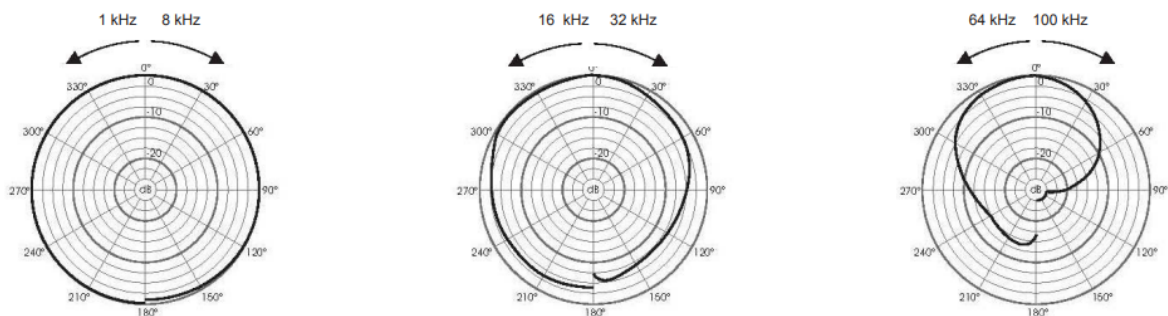
Transducer type	Capacitive pressure receiver
Frequency range of free-field transmission measurement	5 Hz ... 100 kHz (± 2 dB)
Sensitivity	3.5 mV/Pa
Limit sound pressure level for 3 % distortion at 1 kHz	168 dB
Noise	35 dB
Polarization voltage	backelectret
Capacitance with polarization voltage at 1 kHz	4.5 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	7 ± 0.02 mm
Height	9.7 mm
Weight	2 g
Thread for preamplifier	5.7 mm 60 UNS
Thread for protective cap	6.35 mm 60 UNS



Maintenance and servicing

In order to ensure proper functionality, the measuring microphone capsule must be protected from mechanical damage and, depending on the conditions of use, checked on all sides for contamination at intervals to be specified in the operating voltage-free state. After removing the protective cap, the impurities in its interior, as well as 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 formation must be ruled out.

Polar diagrams



1 free-field frequency response | 3 pressure frequency response

