

CM-01B Contact Microphone



- High sensitivity
- Robust
- Low noise
- Piezo film technology
- Shielded cable



DESCRIPTION

The CM-01B contact microphone uses sensitive but robust PVDF piezo film combined with a low-noise electronic preamplifier to provide a unique sound or vibration pick-up with buffered output. The design minimizes external acoustic noise while offering extremely high sensitivity to vibration applied to the central rubber pad. The CM-01B is ideal for detecting body sounds.

FEATURES

- Broad bandwidth
- High sensitivity
- Excellent impact resistance
- Lightweight
- Low cost

APPLICATIONS

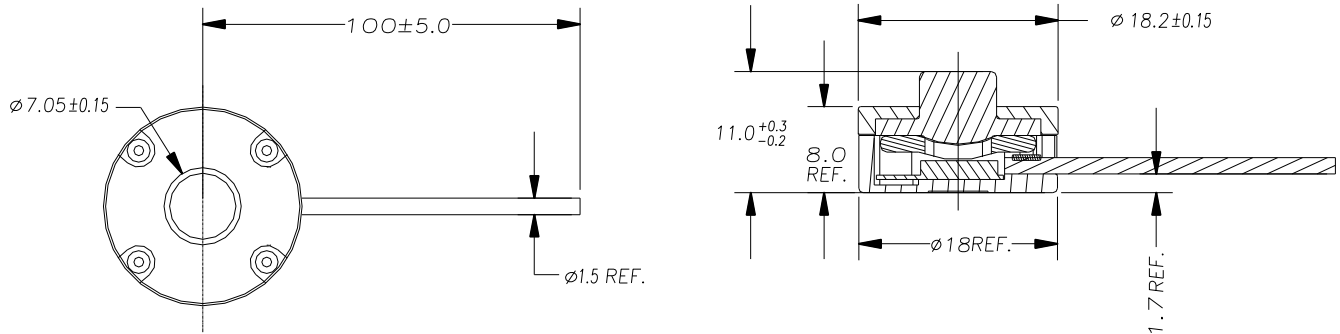
- Electronic stethoscope
- Bone-conducted sound pickup
- General purpose contact microphone
- Vibration/impact sensing

PERFORMANCE SPECIFICATIONS

Parameter	Min	Typ	Max	Units
Sensitivity		40		V/mm
Lower Limiting Frequency (-3 dB)		8		Hz
Upper Limiting Frequency (+3 dB)		2.2		kHz
Resonance Frequency		5		kHz
Spring Constant		20		N/m
Electronic Noise		1		mV _{pk-pk}
Supply Voltage	4	5	30	V-DC
Supply Current		0.1		mA
Operating Temperature	+5		+60	°C
Storage Temperature	-20		+85	°C

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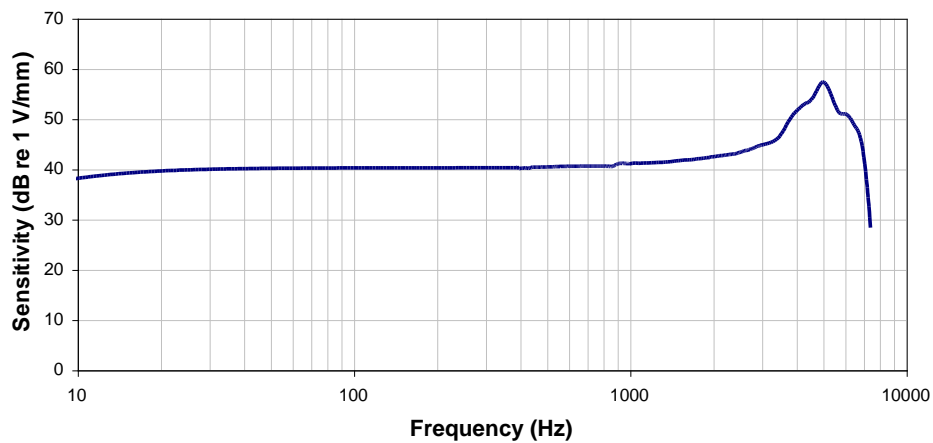
MECHANICAL DIMENSIONS in mm



Description	Part Number
Contact Microphone CM-01B	1007079-1

PERFORMANCE CURVES

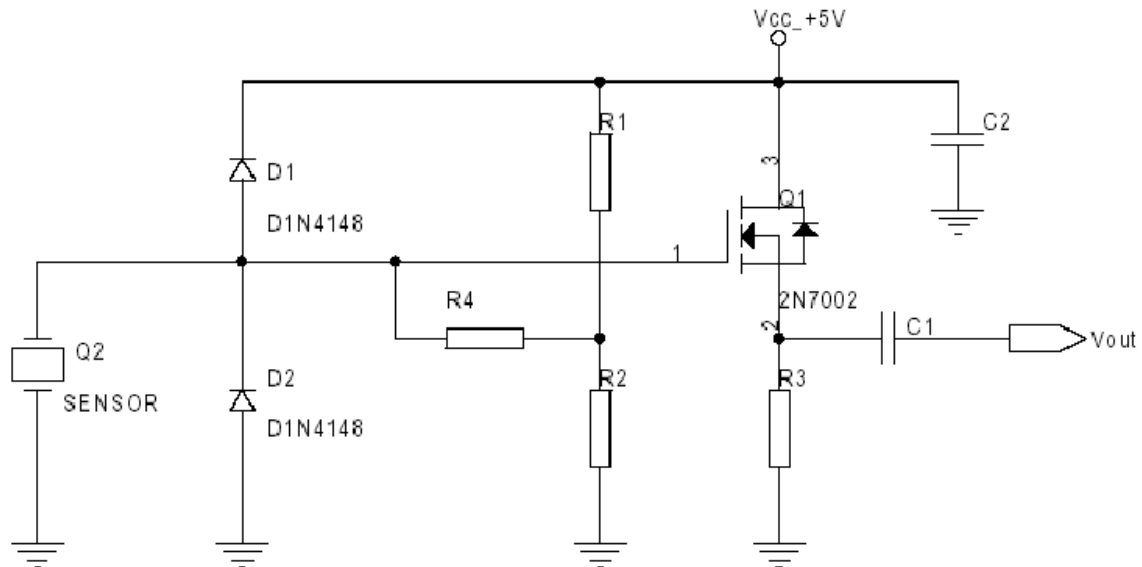
Typical Frequency Response



The above plot shows a typical frequency response curve for a device clamped below and subjected to piston-like displacement to the face of the rubber sensing pad.

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INTERNAL SCHEMATIC



Shield (braid): +GND
Red wire: VCC, +5V
Yellow wire: V_{out}

$C1 = C2 = 0.1 \mu\text{F}$
 $R1 = R2 = 300 \text{ k}$
 $R3 = 10 \text{ k}$
 $R4 = 100 \text{ M}$

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