

Series 7000 Ultrasonic Sensor

SensComp's Series 7000 Electrostatic Ultrasonic sensor is specifically intended for operation in air at ultrasonic frequencies. The assembly comes complete with a perforated protective cover.

Features

- 50 KHz Electrostatic Ultrasonic sensor
- Beam Angle of 17° at -3 dB
- Ranges from 6" to 35'
- Excellent Receive Sensitivity
- Perforated Plastic Protective Cover.
- Specifically Intended for Operation in Air at Ultrasonic Frequencies

Part No.

- *PID# 612366 – Series 7000 Ultrasonic sensor (with electrical connecting clips)
- *PID# 614565 – Series 7000 Ultrasonic sensor (without electrical connecting clips)
- *RoHS Compliant

Benefits

- Able to Range from 6" to 35'
- Excellent Receive Sensitivity

Applications

- Level Measurement, Proximity Detection, Presence Detection, Robotics, Educational Products

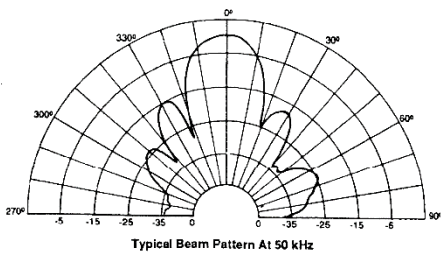
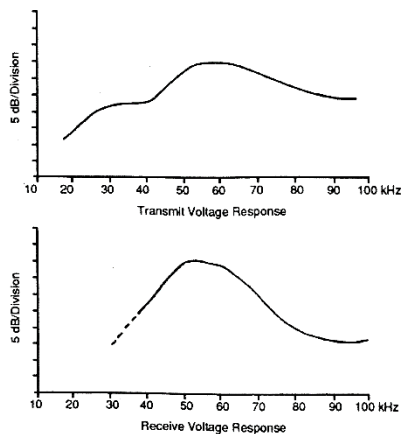
Specifications



Description

The Series 7000 ultra-sensitive ultrasonic sensors feature ranging capability from 2.5 cm to 15.2 m when used with SensComp drive electronics. They are ideally suited for demanding applications where the most sensitivity possible is the highest priority. These ultrasonic sensors are among the best available when detecting soft or small targets.

Transmit/Receive Response & Beam Pattern



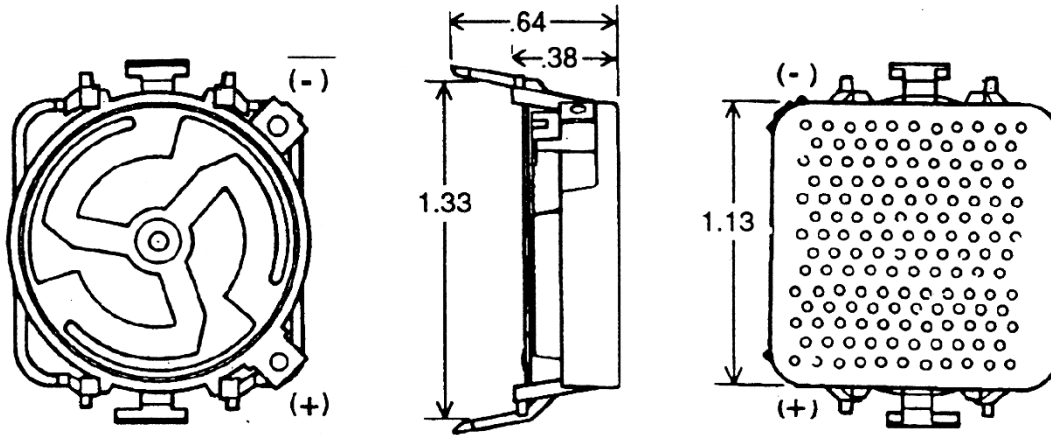
Note: dB normalized to on-axis response.
Note: Curves are representative only. Individual responses may differ.

Series 7000 Specifications

Usable Frequency Range		Suggested DC Bias Voltage	200V
Transmitting	See Graph	Suggested AC Driving Voltage	200V peak
Receiving	See Graph	Combined Voltage	400V max
Beam Pattern	See Graph	Capacitance at 1 kHz (typical)	600-700 pf
Typical: 17° at -3dB		(at 150 VDC bias)	
Transmitting Sensitivity	106.9 dB min	Operating Temperature	-40 to +85° C
at 50.0 kHz; 0dB re 20 µPa at 1 meter		(-40 to 185° F)	
(300 VAC _{PP} ; 150 VDC bias)		Relative Humidity (non condensing)	5% - 95%
Receiving Sensitivity	-43.4 dB min	Dimension	
at 50.0 kHz; 0dB = 1 volt/Pa		Thickness	0.41 inch
(150 VDC bias)		Square Size	1.13 inch
Distance Range	0.15 to 10.7 M	Standard Finish	
	(0.5 to 35 feet)	Foil	Gold
Resolution (± 1% over entire range)	± 3mm to 3m	Housing	Flat Black
	(± 0.12 to 10 ft)		Plastic
Weight	4.7 gm (0.15 oz)		

Notes:

- [1] Lines which may occasionally appear in foil have no effect on product functionality or performance.
- [2] Variations in die depth may result in minor variations of tolerances.



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