

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

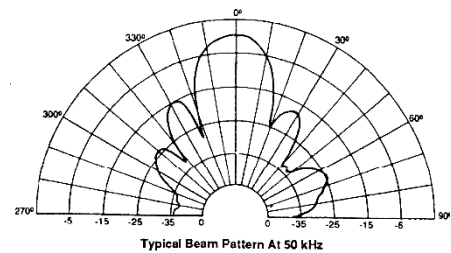
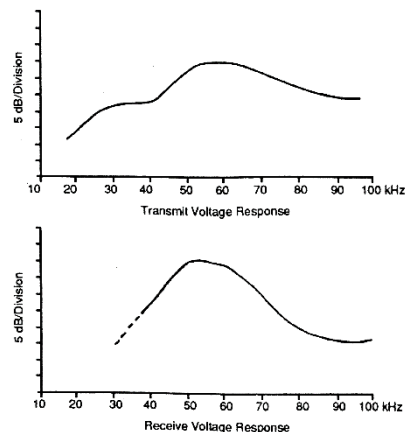
Specifications



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

Transmitting See Graph

Receiving See Graph

Beam Pattern..... See Graph

Typical: 17° at -3dB

Transmitting Sensitivity 106.9 dB min
at 50.0 kHz; 0dB re 20 μ Pa at 1 meter
(300 VAC_{PP}; 150 VDC bias)

Receiving Sensitivity 43.4 dB min
at 50.0 kHz; 0dB = 1 volt/Pa
(150 VDC bias)

Distance Range 0.15 to 10.7 M
(0.5 to 35 feet)

Resolution (\pm 1% over entire range) \pm 3mm to 3m
(\pm 0.12 to 10 ft)

Weight 4.7 gm (0.15 oz)

Suggested DC Bias Voltage V

Suggested AC Driving Voltage 200V peak

Combined Voltage V max

Capacitance at 1 kHz (typical) 600-700 pf
(at 150 VDC bias)

Operating Temperature -40 to +85° C
(-40 to 185° F)

Relative Humidity (non condensing) 5% - 95%

Dimension

Thickness 0.41 inch

Square Size 1.13 inch

Standard Finish

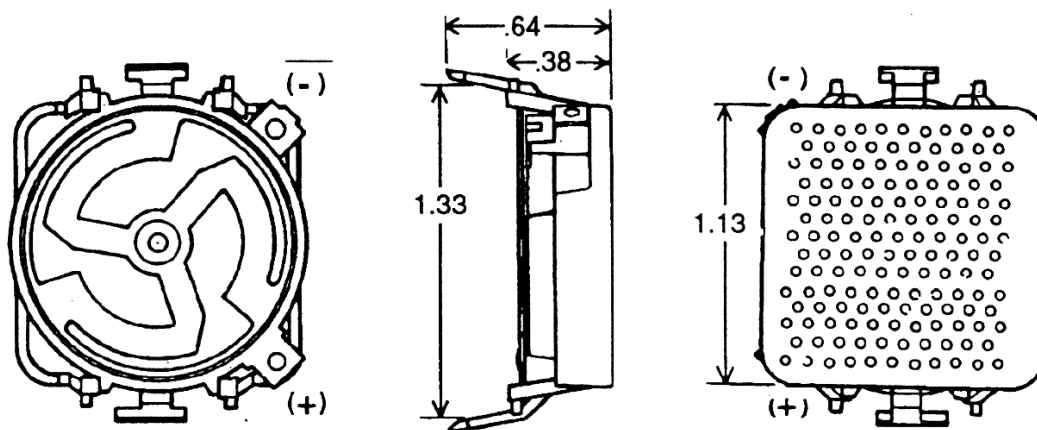
Foil Gold

Housing Flat Black
Plastic

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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