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## Series 7000 Transducer

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

### Features

50 KHz Electrostatic Transducer  
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 Electrostatic Transducer  
(with electrical connecting clips)  
PID# 614565 – Series 7000 Electrostatic Transducer  
(without electrical connecting clips)

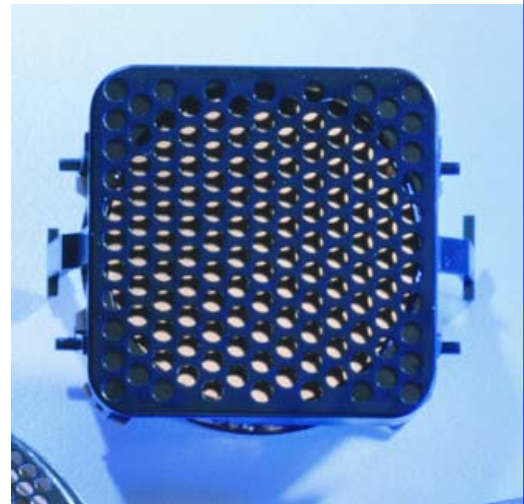
### Benefits

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

### Applications

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

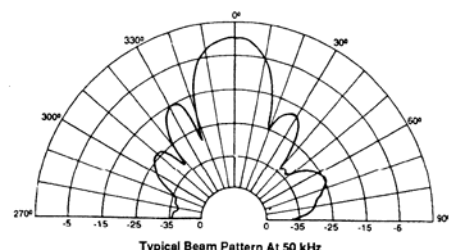
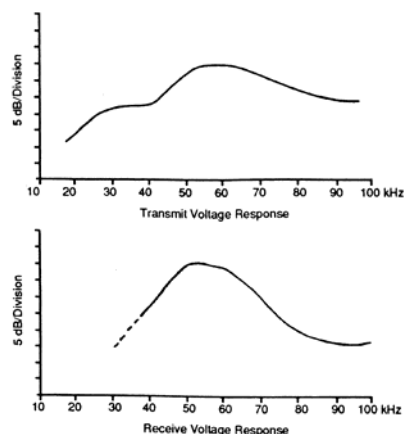
### Specifications



### Description

The Series 7000 ultra sensitive transducers 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 transducers 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  $\mu$ Pa at 1 meter  
(300 VAC<sub>PP</sub>; 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** ..... 200V

**Suggested AC Driving Voltage** ..... 200V peak

**Combined Voltage** ..... 400V max

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

**Operating Temperature** ..... 0 to +60° C  
(32 to 140° 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

Specifications subject to change without notice

