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Series 600 Instrument Grade Ultrasonic Sensor

SensComp's Series 600 Instrument Grade 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 15° at -6 dB
 Ranges from 6" to 35'
 Excellent Receive Sensitivity
 Integral Perforated Protective Cover.
 Specifically Intended for Operation in Air at Ultrasonic Frequencies

Part No.

*PID# 604142 – Series 600 Instrument Grade Ultrasonic Sensor
 *RoHS Compliant

Benefits

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

Applications

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

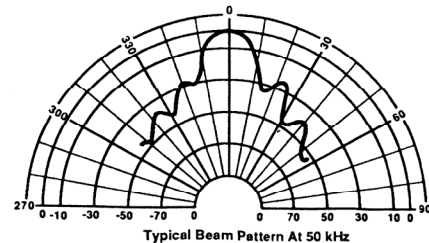
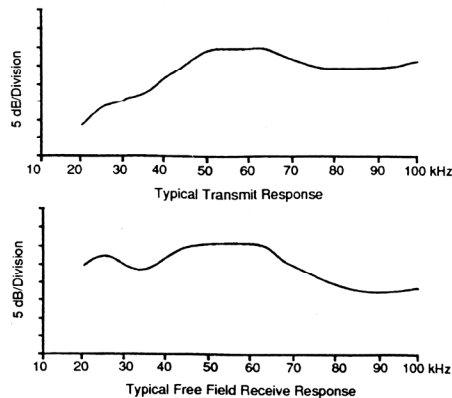
Specifications



Description

The Series 600 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 targets. They have a broad band frequency response.

Transmit/Receive Response & Beam Pattern



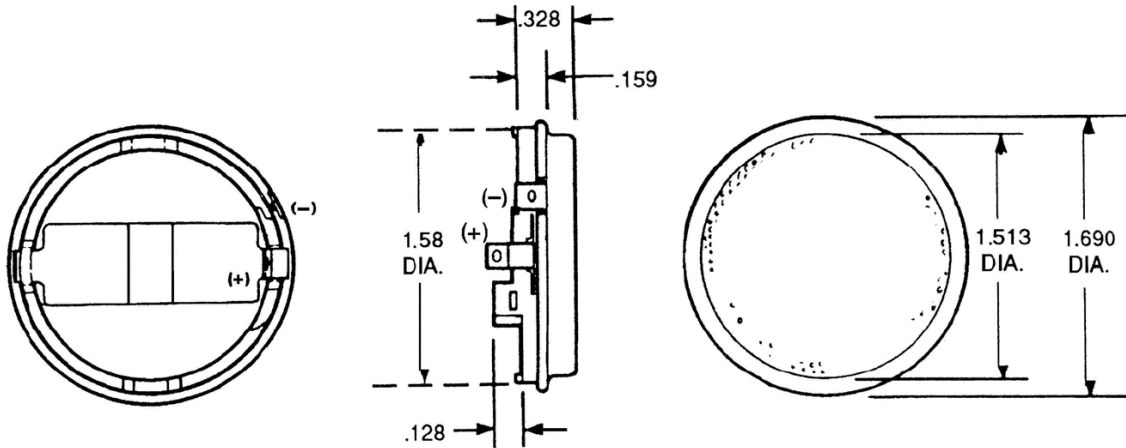
Note: dB normalized to on-axis response.
 Note: Curves are representative only. Individual responses may differ.

Series 600 Instrument Grade 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)	400–500 pf
Typical: 15° at -6dB		(at 150 VDC bias)	
Transmitting Sensitivity	110 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	-42 dB min	Dimension	
at 50.0 kHz; 0dB = 1 volt/ Pa		Thickness	0.46 inch
(150 VDC bias)		Diameter	1.69 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	Satin Black
	(± 0.12 to 10 ft)		Painted 304
Weight	8.2 gm (0.29 oz)		Stainless Steel

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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