

SSU-HFM200S12-C1

Ultrasonic sensor



PRODUCTS FEATURES

- Small size and light-weight
- High sensitivity and high sound pressure
- Low power consumption
- High reliability

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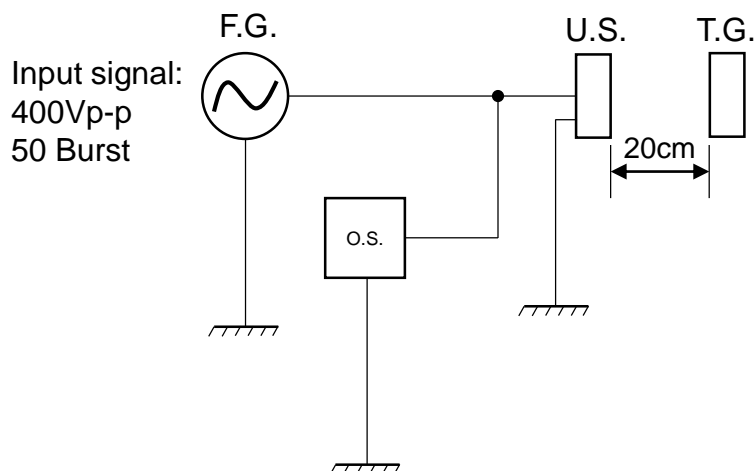
1. Technical Specifications

Parameters	Value	Units
Construction	High frequency	-
Using Method	Receiver and Transmitter	-
Nominal Frequency	200±8	KHz
Bandwidth	20	KHz
Sensitivity	-80 min.	dB
Min. Parallel Resistance	600±30%	Ω
Capacitance	400±20%	Pf
Max. Input Voltage	500	Vp-p
Directivity	30±2 (-6dB)	°
Distance of Detection	0.1~1	m
Protection Level	IP68	-
Operating Temperature	-20~+80	°C
Storage Temperature	-40~+85	°C
Material of Cover	Stainless steel	-

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2. Test circuit



F.G. : Function Generator

U.S. : Ultrasonic Sensor

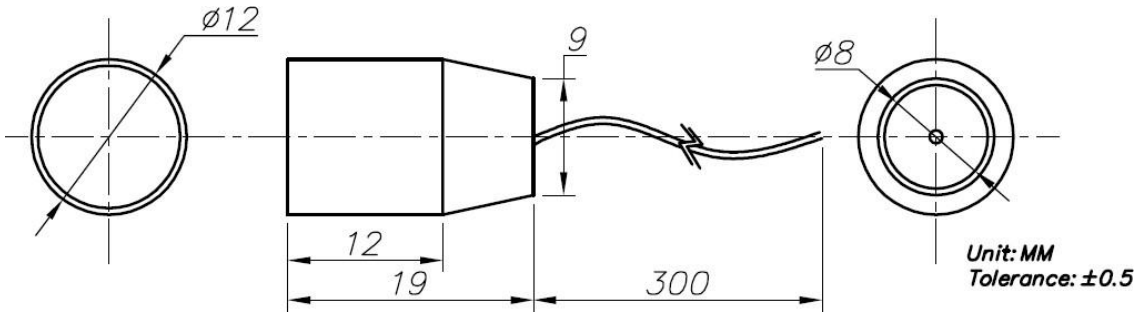
T.G. : Target

O.S. : Oscilloscope

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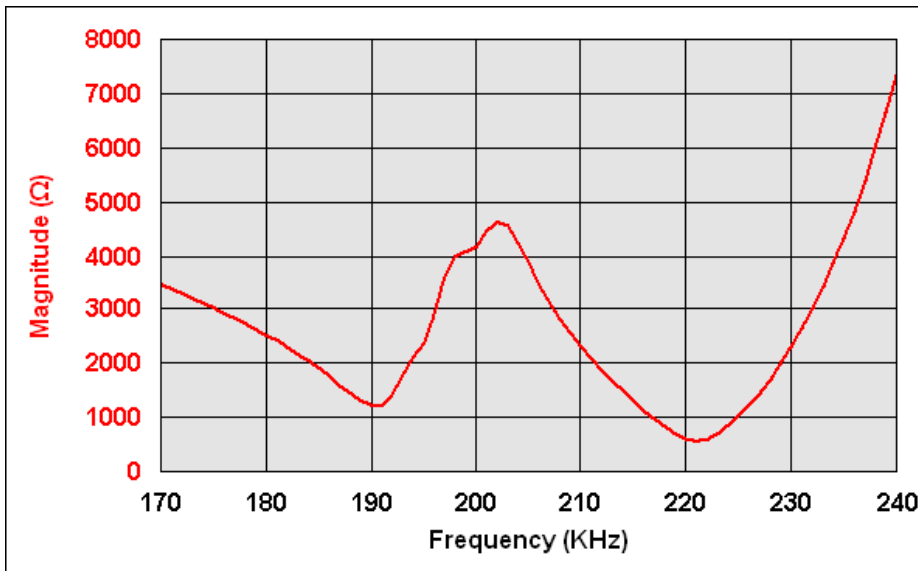
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3. Mechanical dimensions



4. Frequency dependencies

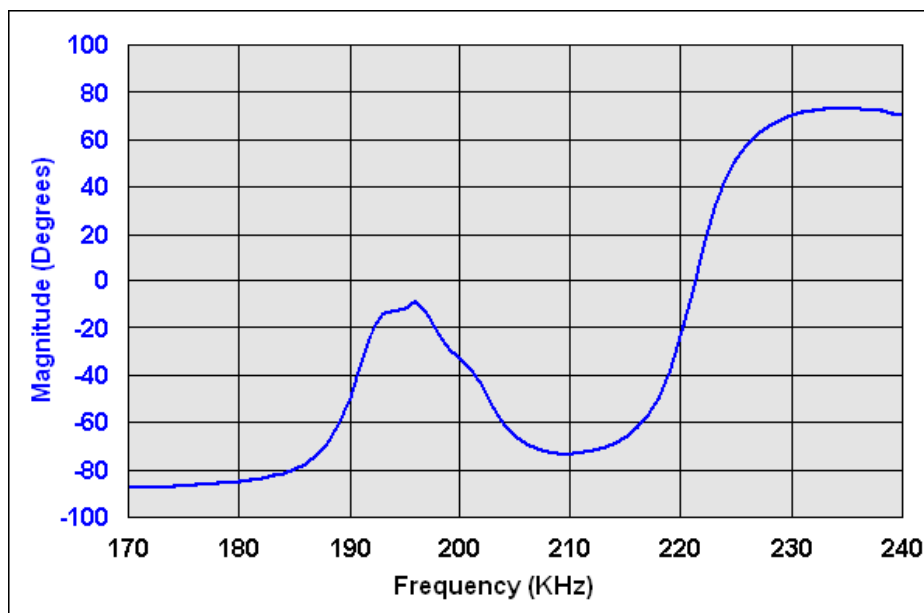
Frequency – total resistance



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Frequency – phase angle curve



5. Precautions for use

1. Please avoid applying DC bias voltage by connecting isolation capacitors or some other methods, otherwise it will lead to component damage.
2. Since these sensors are potential directional, be sure to pay attention to their mounting position.
- 3 To ensure reliability and long service life, do not use the sensor in places with higher than rated temperature.
4. Do not use the sensor in the vacuum or explosion-proof area.
5. Do not use the sensor in the area with steam, the atmosphere in this area is not uniform to produce temperature gradients, which will lead to measurement errors.
6. The product must not be used or stored in corrosive gases, especially where hydrogen chloride gas, hydrogen sulfide gas, acid, alkali, salt or similar presence. The products stored in the warehouse should pay attention to the normal temperature and humidity, and avoid direct sunlight. This may cause product performance failure or malfunction under sudden changes in temperature and humidity.

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7. When mounting the product directly to the circuit board, please pay attention to the vibration from the terminal. If the reverberation time of the vibration is long, add cushioning material between the sensor and the circuit board as a countermeasure for improvement.

8. If the application is under special conditions such as non-standard frequencies, please inform us of the specific operating conditions and circuitry you require so that we can design and manufacture sensor products to meet your specific usage requirements.