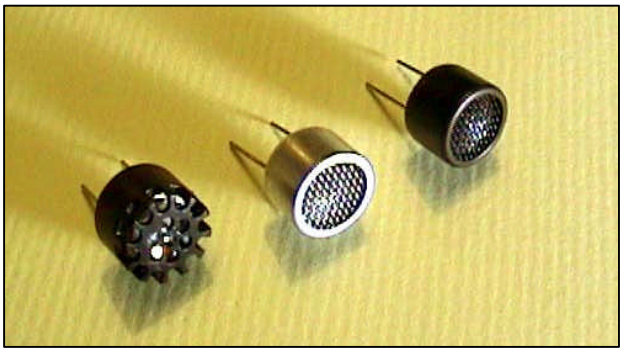
MIDAS Sensors
design • manufacture • supply

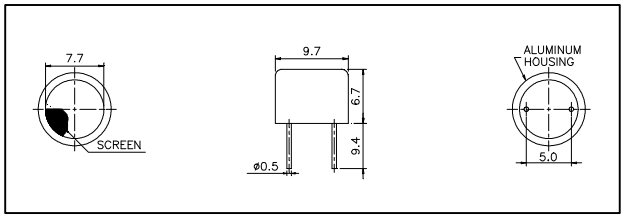
Electra House, 32 Southtown Road
Great Yarmouth, Norfolk
NR31 0DU, England

Telephone +44 (0)1493 602602
Fax +44 (0)1493 665111
Email:sales@midassensors.com
www.midassensors.com

PROWAVE Air Ultrasonic Ceramic Transducers 400ST/R100



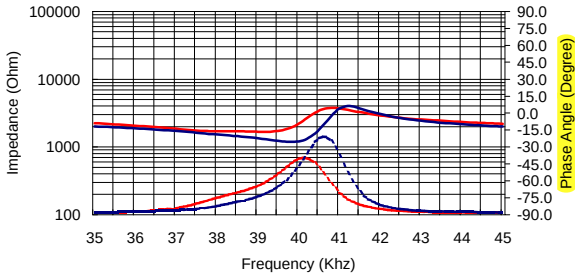
Dimensions: Dimensions are in mm



Impedance/Phase Angle vs. Frequency

Tested under 1Vrms Oscillation Level

400SR100 Impedance
400SR100 Phase
400ST100 Impedance
400ST100 Phase

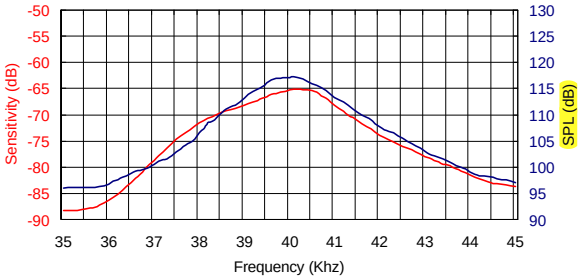


Specification

400ST100		Transmitter
400SR100		Receiver
Center Frequency		40.0±1.0Khz
Bandwidth (-6dB)	400ST100	2.5Khz
	400SR100	3.0Khz
Transmitting Sound Pressure Level at 40.0Khz; 0dB re 0.0002µbar per 10Vrms at 30cm		112dB min.
Receiving Sensitivity at 40.0Khz 0dB = 1 volt/µbar		-70dB min.
Capacitance at 1Khz	±20%	1900 pF
Max. Driving Voltage (cont.)		10Vrms
Total Beam Angle	-6dB	72° typical
Operation Temperature		-30 to 80°C
Storage Temperature		-40 to 85°C

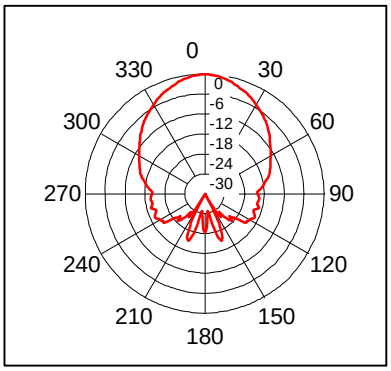
Sensitivity/Sound Pressure Level

Tested under 10Vrms @30cm



All specification taken typical at 25°C
Closer frequency tolerance can be supplied upon request.

Beam Angle: Tested at 40.0Khz frequency

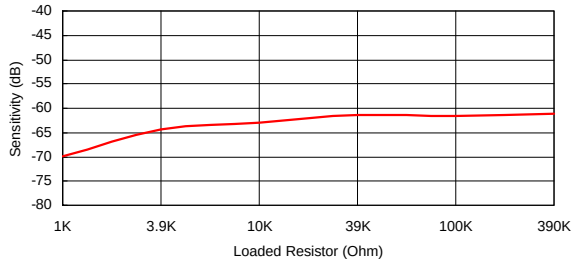


Model available:

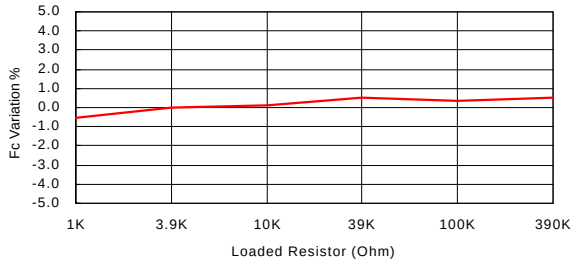
1	400ST/R100	Aluminum Housing
2	400ST/R10B	Black Al. Housing
3	400ST/R10P	Plastic Housing

400SR100 Receiver

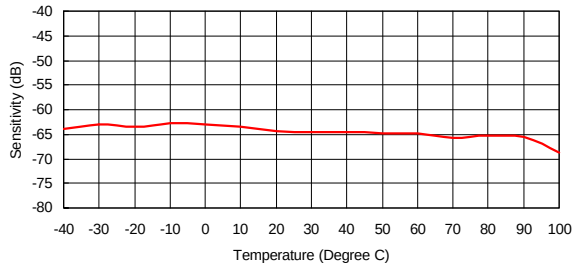
Sensitivity Variation vs. Loaded Resistor



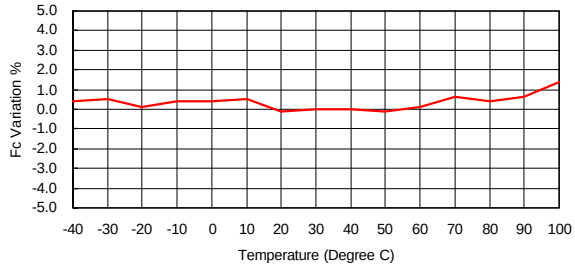
Center Frequency Shift vs. Loaded Resistor



Sensitivity Variation vs. Temperature

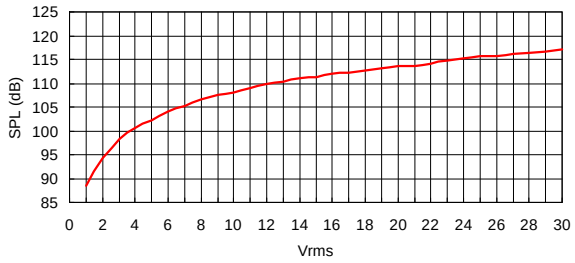


Center Frequency Shift vs. Temperature

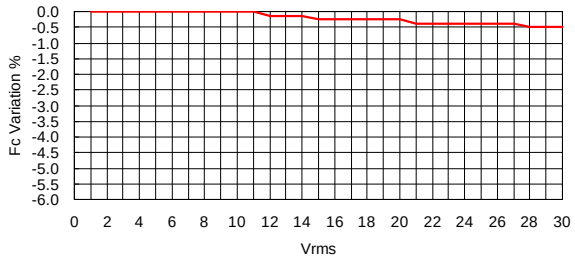


400ST100 Transmitter

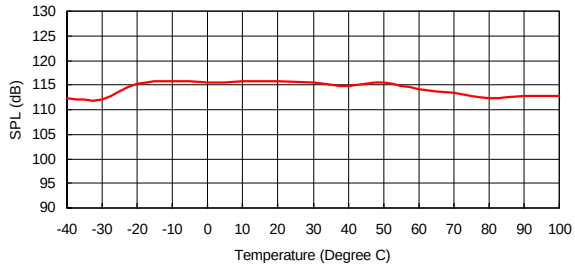
SPL Variation vs. Driving Voltage



Center Frequency Shift vs. Driving Voltage



SPL Variation vs. Temperature



Center Frequency Shift vs. Temperature