6 INCH (156 MM) 16 OHM, 5 WATT, SUBMARINE SPEAKER

PART #: LS-450/B

The MISCO LS-450/B loudspeaker is a permanent magnet dynamic audio transducer designed for clear speech communication between a submarine's interior and the bridge or escape hatch. This versatile device can also serve as a microphone in two-way conversations. Its robust construction allows it to operate seamlessly in various pressure conditions, from atmospheric to high pressure, at submarine operating depths. Furthermore, the unit features a resilient silicone rubber encapsulation for the moving voice coil assembly, providing comprehensive protection against normal sea exposure and freezing spray conditions.

- 10 Watts, program power with 96 SPL
- Over two pounds of High Energy Plus (HE+) Alnico Magnets
- Built per MIL-L-24296A
- Highly corrosion-resistant brass & Monel steel body
- Phenolic-impregnated cloth cone, surround, & cap
- Copper-wound Lamitex voice coil
- Robust #8 screw terminals
- Output as a microphone - 0.1 volts with 16 ohms load and 100 dB sound pressure level 775-125 cps
- Pressure-proof, freeze-proof, and submersible

The LS-450/B pressure-proof submarine speaker, specifically designed for the U.S. Navy, is engineered to meet or surpass the Military Specifications standard: MIL-L-24296A. This robust device offers an audio output signal with an even response between 800 Hz - 2000 Hz (+/- 3 dB). Its exceptional environmental tolerance allows it to perform seamlessly in a broad range of climates, from tropical to frozen, and in both freshwater and saltwater environments. Its construction comprises of brass and highly corrosion-resistant Monel* plated steel, which ensures an extended lifespan and reliable performance even in the harshest marine conditions.

**To deliver long-term, reliable performance, the steel body structure of the product is coated with a Monel plating and paint finish, providing excellent resistance to corrosion. Monel, renowned for its superior strength and exceptional corrosion resistance in both acidic and alkaline environments, is particularly well-suited for deployment in marine environments. With a wide range of applications in marine engineering, chemical and hydrocarbon processing, heat exchangers, valves and pumps, and even musical instruments, Monel has proven to be a durable and versatile material. In fact, some of the highest quality musical instruments, including trumpets, tubas, and French horns, incorporate Monel as the material for valve pistons or rotors, exemplifying its superior quality and performance.*



Primary Specifications

Size, Nominal (inch & mm)	6" (152 mm)
Rated Impedance (Ω)	16
Sensitivity (dB SPL) [1]	96
Frequency Range (Hz)	600 - 2, 800
Resonant Frequency (Fs) (Hz) +/- 15%	800

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ID	Desc.	Measurements	Tolerance
OD	Outside Diam.	6.125	+/-0.20
CD	Cutout Diam.		+/-0.20
MG	Magnet Diam.		+/-0.20
HD	Hole Diam.	0.56	+/-0.20
MD	Mounting Diam.	2.37	+/-0.20
ID	Internal Depth		+/-0.20
FT	Flange Thickness	0.5	+/-0.20
NW	Net Weight	5910.0	+/-0.50

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More Specifications

Application	Military, Outdoor , Voice Communications
RoHS Compliant	No
DC Resistance (Re) (Ω)	7.2
Program Power (W)	10

Small Signal Parameters

Nominal Impedance (Z) (Ω)	16
DC Resistance (Re) (Ω)	7.2
Voice Coil Inductance (Le) (mH)	0
Resonant Frequency (Fs) (Hz) +/- 15%	800
Total Q Factor (Qts)	0.83

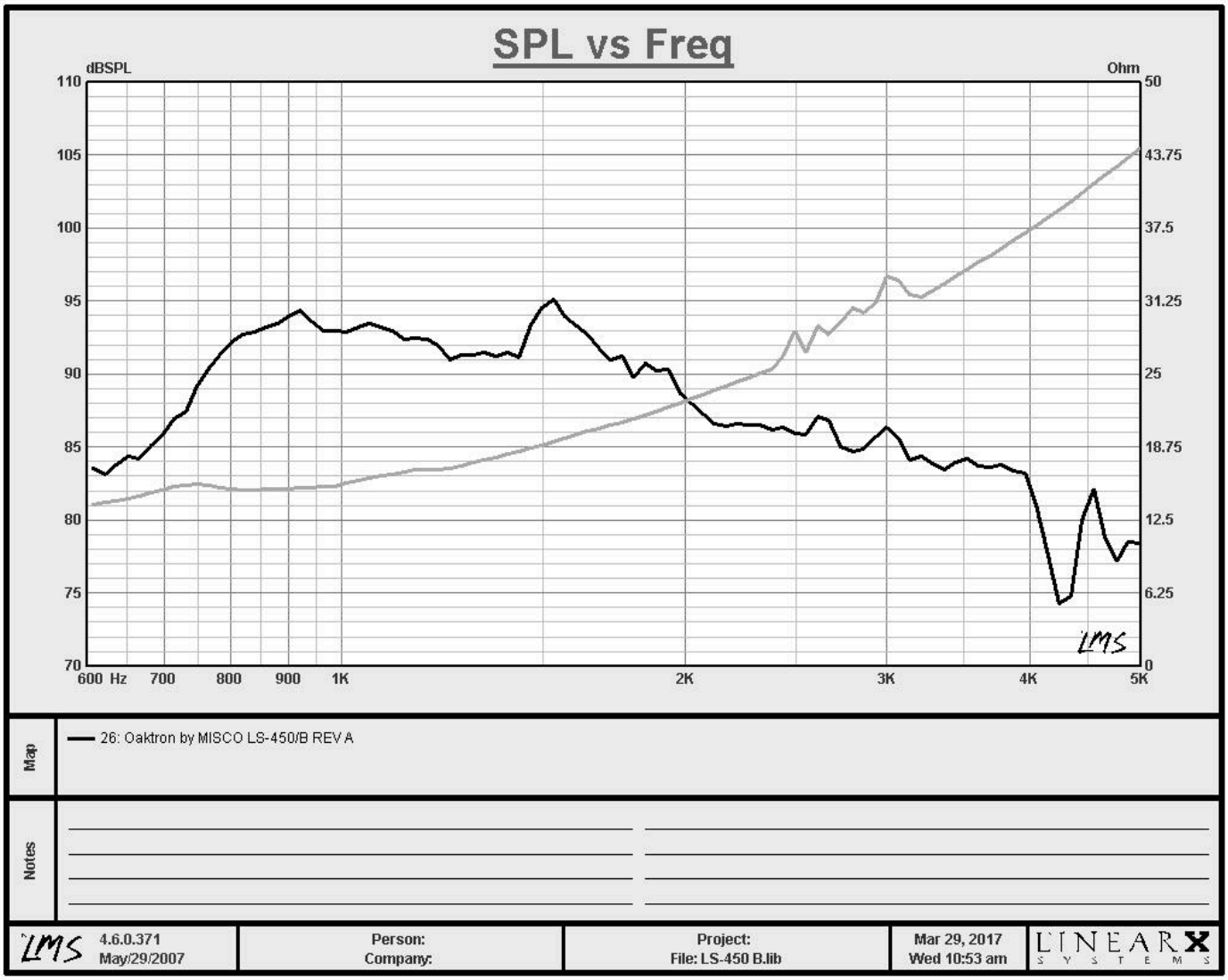
Material Descriptions

Basket Type	Corrosion Resistant, Brass & Monel Plated & Painted Steel
Terminal Size (mm)	#8 Screw terminals
Voice Coil Diameter (mm)	1.25" (32mm)
Voice Coil Wire Material	Copper
Voice Coil Former Material	Lamitex
Magnet Material	Ferrite
Magnet Weight (g)	35 ounces (992.2) grams
Cone Body Material	Phenolic Impregnated Cloth
Cone Surround Material	Phenolic Impregnated Cloth
Dust Cap Material	Phenolic Impregnated Cloth
Net Weight (kg)	5.9

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