

# Lubell LL9642T

High-Power Broadband Piezoelectric Underwater transducer for Military and Scientific Applications



## Description

The Lubell LL9642T Underwater Acoustic Transducer is designed for general purpose military and scientific applications. The LL9642T may also be used as an underwater loudspeaker when high power is required.

The LL9642T has a useful frequency range of 250Hz-20kHz, a minimum impedance of 36 ohms, and an SPL of 183dB/uPa/m @ 1 kHz and 193dB/uPa/m @ 10kHz with 100 Vrms applied. The LL9642T requires 33 ohms (round-trip) of 2-conductor stranded cable: 4.19 km of 3,191mm<sup>2</sup> (12AWG), 1.94 km of 2,013mm<sup>2</sup> (14AWG), 1.20 km of 1,276mm<sup>2</sup> (16AWG), 0.75 km of 0,785mm<sup>2</sup> (18AWG) or a combination of cable resistance plus series resistance (18-136-33AR) equal to 33 ohms.

The LL-9642T withstands extreme conditions by virtue of its rugged stainless steel, PVC, and EPDM construction. Unique cage design allows stud mounting to pier, or multiple speaker array producing sound levels in excess of 200dB.

Speaker, cable, and amp RoHS & CE marked for export to EU.

For EU military and homeland security applications requiring Navy diver recall and interrogation of suspicious divers at 500+ meter range

## Specifications

- **Frequency Range:**  
250Hz - 20kHz
- **Source Pressure Level (SPL):**  
183dB re 1μPa @ 1m at 1kHz / 193dB re 1μPa @ 1m at 10kHz
- **Maximum Voltage:**  
100 Vrms
- **Duty Cycle:**  
100% (2.5A)
- **Impedance:**  
36 ohms with required 33 ohms cable round-trip resistance
- **Depth Rating:**  
1.83m - 15.24m
- **Dimensions (Cage):**  
27.31cm x 27.31cm x 19.68cm
- **Transducer and Cage Weight:**  
7.26 kg in air
- **Finish**  
30-mil Blue PVC
- **Bulkhead Connector:**  
Impulse IERD2F-BC: Pin 2 hot, Pin 1 return
- **Cable:**  
IE2M-7/16 U/W pluggable connector on 22.86m 0,785 mm2 SJOOW rubber (CPE) cable
- **Included:**  
AC1424HP bridging xfmr box

## Applications

- Underwater Acoustics Research
- Military Applications
- High Power Underwater Speaker
- Acoustic Field Calibration



MarSensing Lda is a distributor of Lubell Labs Underwater Transducers for Portugal, Spain, Gibraltar and Angola