



Level Sensor Transducer

Model: LPY1
Product Number: H2KLPY11000600

Level Sensor Transducer

Table of Contents

1	Introduction	3
2	Electrical Characteristics	4
3	Standard Testing	5
4	Operating and Storage conditions	6
5	Dimensions.....	7
6	Packing	8

1 Introduction

Unictron's LPY1 ultrasonic transducer is designed to cover 1MHz frequency. The transducer works as a signal transmitting and receiving unit. The transducer works with gel pad (or dry coupling) is particularly for non-invasive bottom-up type liquid level sensors for measuring the level of liquid in a plastic container or vessel.

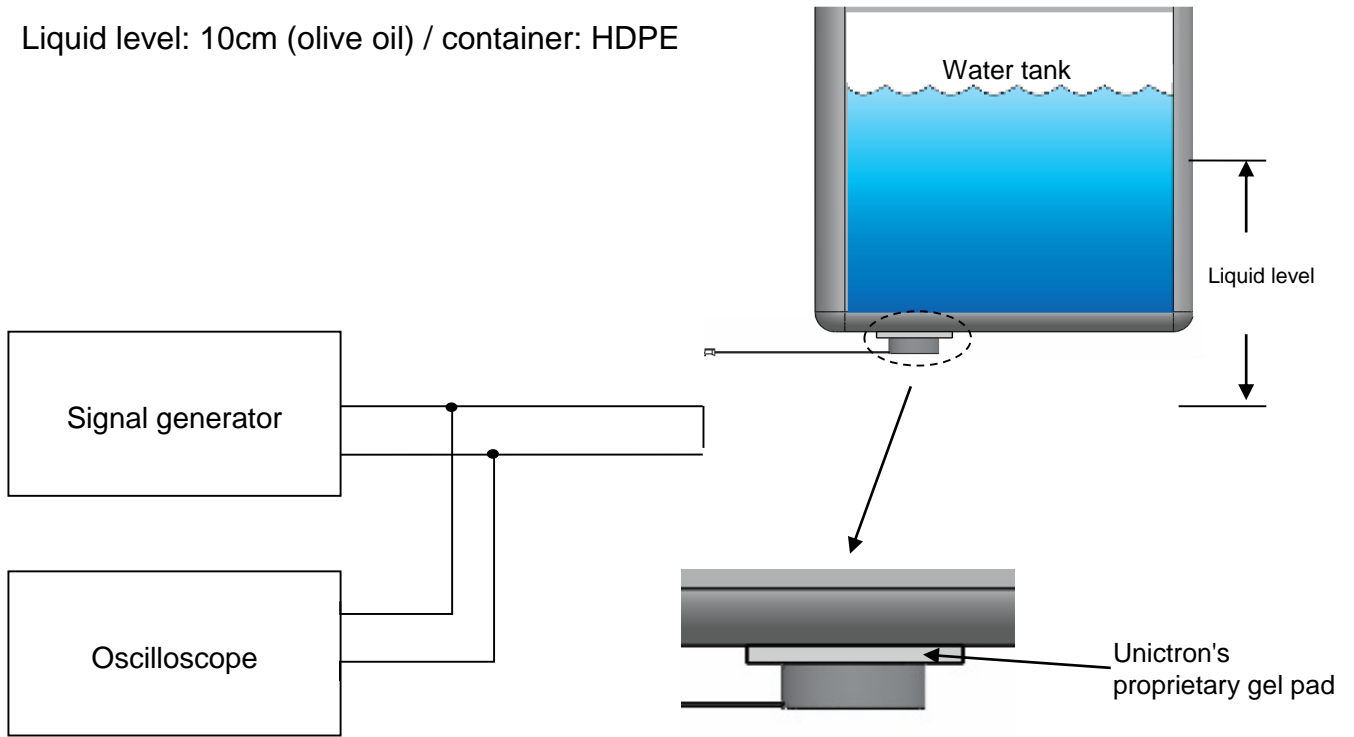
2 Electrical Characteristics

3.1	Operation Frequency	1	MHz
3.2	Echo Voltage(refer to Item 4)	>50	mV
3.3	Capacitance at 1 kHz	1250 ± 20%	pF
3.4	Maximum Driving Voltage	50	V _{pp}

3 Standard Testing

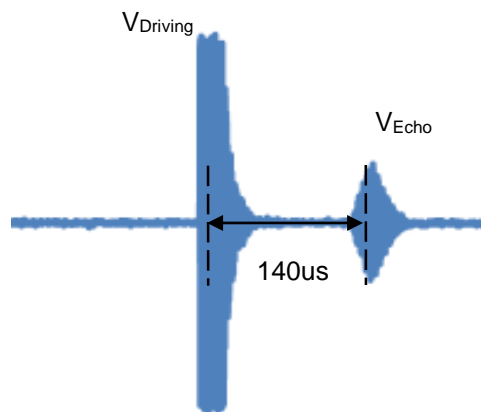
Sensitivity measurement

Liquid level: 10cm (olive oil) / container: HDPE



Drive Signal ($V_{Driving}$): 1MHz 3.3v 20 pules, Drive interval: 10ms

Echo Signal (V_{Echo}) : For 10cm olive oil level, echo signal appear around at 140us



4 Operating and Storage conditions

Operating:

Operating Temperature: -20°C to $+70^{\circ}\text{C}$

Maximum driving voltage: 50 Vp-p

Storage:

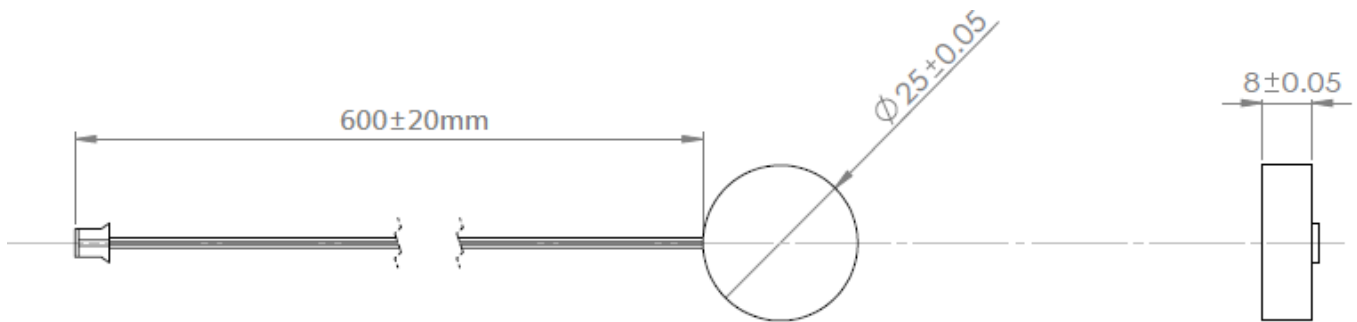
Storage Temperature: -30°C to $+80^{\circ}\text{C}$

Relative Humidity: 40 - 80%

Storage area shall avoid sulfur materials. Sulfur will cause corrosion of electrodes connecting the piezo element

5 Dimensions

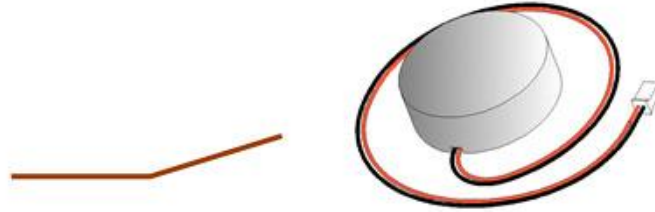
Unit: mm



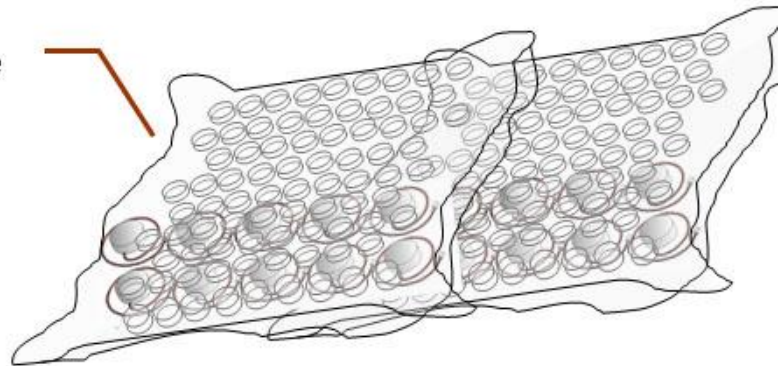
4.1	Housing	Aluminum alloy
4.2	Housing size	OD:25mm/H:8mm
4.3	Cable length (UL10368 AWG30)	600 ± 20 mm
4.4	Connector	2 Pin/Pitch 2.54

6 Packing

① Level sensor



② Ten transducers in one bubble bag for well protection.



③ Two bags in one cell :
25 cells per layer for fully
protection. Two layers in
the box, so there are 1000
pcs transducer of every
box.

