



# Datasheet

## RS PRO Piezo Audio Transducer

EN

RS Stock: 181-2705



### A. SCOPE

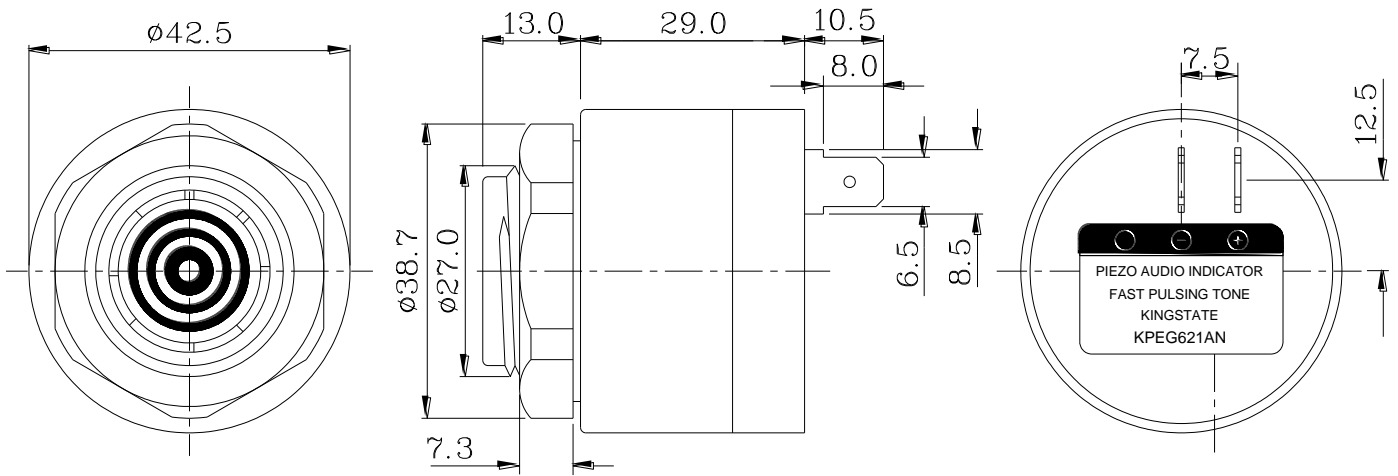
This specification applies piezo audio indicator, 1812680

### B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Resonant frequency	KHz	2.8 ± 0.5	
2	Operating Volt. range	AC/DC	60 ~ 250	
3	Current consumption	mA	MAX 16	at 220VDC/AC
4	Sound pressure level	dB	MIN 81	at 30cm/220VDC/AC
5	Rated Voltage	VDC/AC	220	
6	Tone		Fast Pulse ( 3.0Hz±20% )	at 220VDC/AC
7	Operating temp.	°C	-30 ~ +85	
8	Storage temp.	°C	-40 ~ +95	
9	Dimension	mm	φ 42.5.x H42.0	See appearance drawing
10	Weight (MAX)	gram	50.90	
11	Material		ABS UL-94 1/16" HB HIGH HEAT ( BLACK )	
12	Terminal		Pin type (/Plating Sn)	See appearance drawing
13	Environmental Protection Regulation		RoHS	
14	Storage life	month	6	6 months preservation at room temp. (25±3°C), Humidity40%



## C. APPEARANCE DRAWING

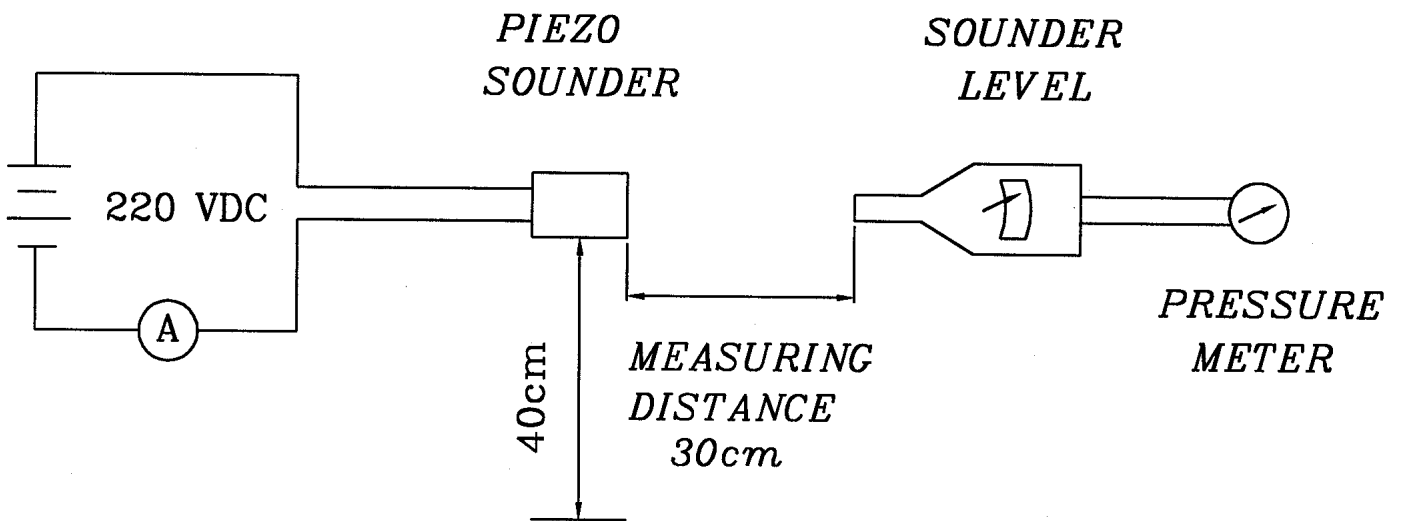


Tol :  $\pm 0.5$

Unit: mm

## D. MEASURING METHOD

S.P.L. Measuring Circuit

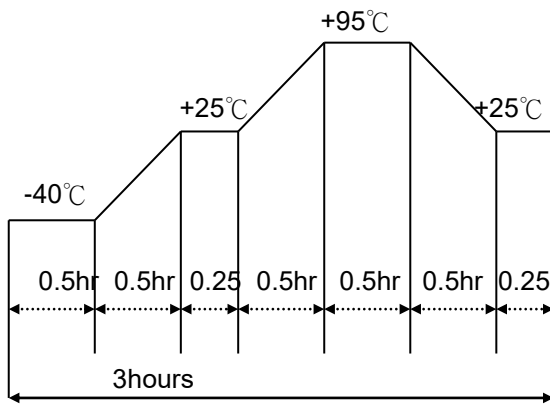


Mic : RION S.P.L meter UC30 or equivalent

## E. MECHANICAL CHARACTERISTICS

No.	Item	Test Condition	Evaluation standard
1	Solderability	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+270\pm 5^{\circ}\text{C}$ for $3\pm 1$ seconds.	90% min. lead terminals shall be wet with solder. (Except the edge of terminal)
2	Soldering Heat Resistance	Lead terminal are immersed up to 1.5mm from sounder's body in solder bath of $+300\pm 5^{\circ}\text{C}$ for $3\pm 0.5$ seconds or $+260\pm 5^{\circ}\text{C}$ for $10\pm 1$ seconds.	No interference in operation
3	Terminal Mechanical Strength	The force 10 seconds of 9.8N (1.0kg) is applied to each terminal in axial direction.	No damage and cutting off
4	Vibration	Buzzer shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55hz band of vibration frequency to each of 3 per-pendicular directions for 2 hours.	The value of oscillation frequency/ current consumption should be in 10% compared with initial ones .The SPL should be in $\pm 10\text{dB}$ compared with initial one.
5	Drop test	<b>The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X.Y.Z). (a total of 9 times).</b>	

## F. ENVIRONMENT TEST

No.	Item	Test Condition	Evaluation standard
1	High temp. test	After being placed in a chamber at $+95^{\circ}\text{C}$ for 240 hours	Being placed for 4 hours at $+25^{\circ}\text{C}$ , buzzer shall be measured. The value of oscillation frequency/ current consumption should be in $\pm 10\%$ compared with initial ones .The SPL should be in $\pm 10\text{dB}$ compared with initial one.
2	Low temp. test	After being placed in a chamber with $-40^{\circ}\text{C}$ for 240 hours	
3	Humidity test	After being placed in a chamber at $+40^{\circ}\text{C}$ and $90\pm 5\%$ relative humidity for 240 hours	
4	Temp. cycle test	The part shall be subjected to 5 cycles. One cycle shall be consist of : 	

## G. RELIABILITY TEST

No.	Item	Test condition	Evaluation
1	Operating life test	1.Continuous life test 48 hours continuous operation at +70°C with rated voltage applied. 2.Intermittent life test A duty cycle of 1 minute on, 1 minutes off, a minimum of 5000 times at room temp.( +25±2°C)and rated voltage applied.	Being placed for 4 hours at +25°C , buzzer shall be measured. The value of oscillation frequency/ current consumption should be in ±10% compared with initial ones .The SPL should be in ±10dB compared with initial one.

### TEST CONDITION.

Standard Test Condition : a) Temperature : +5 ~ +35°C b) Humidity : 45-85%

c) Pressure : 860-1060mbar

Judgement Test Condition : a) Temperature : +25 ± 2°C b) Humidity : 60-70%

c) Pressure : 860-1060mbar