



# Datasheet

## RS PRO Piezo Audio Indicator

EN



### A. SCOPE

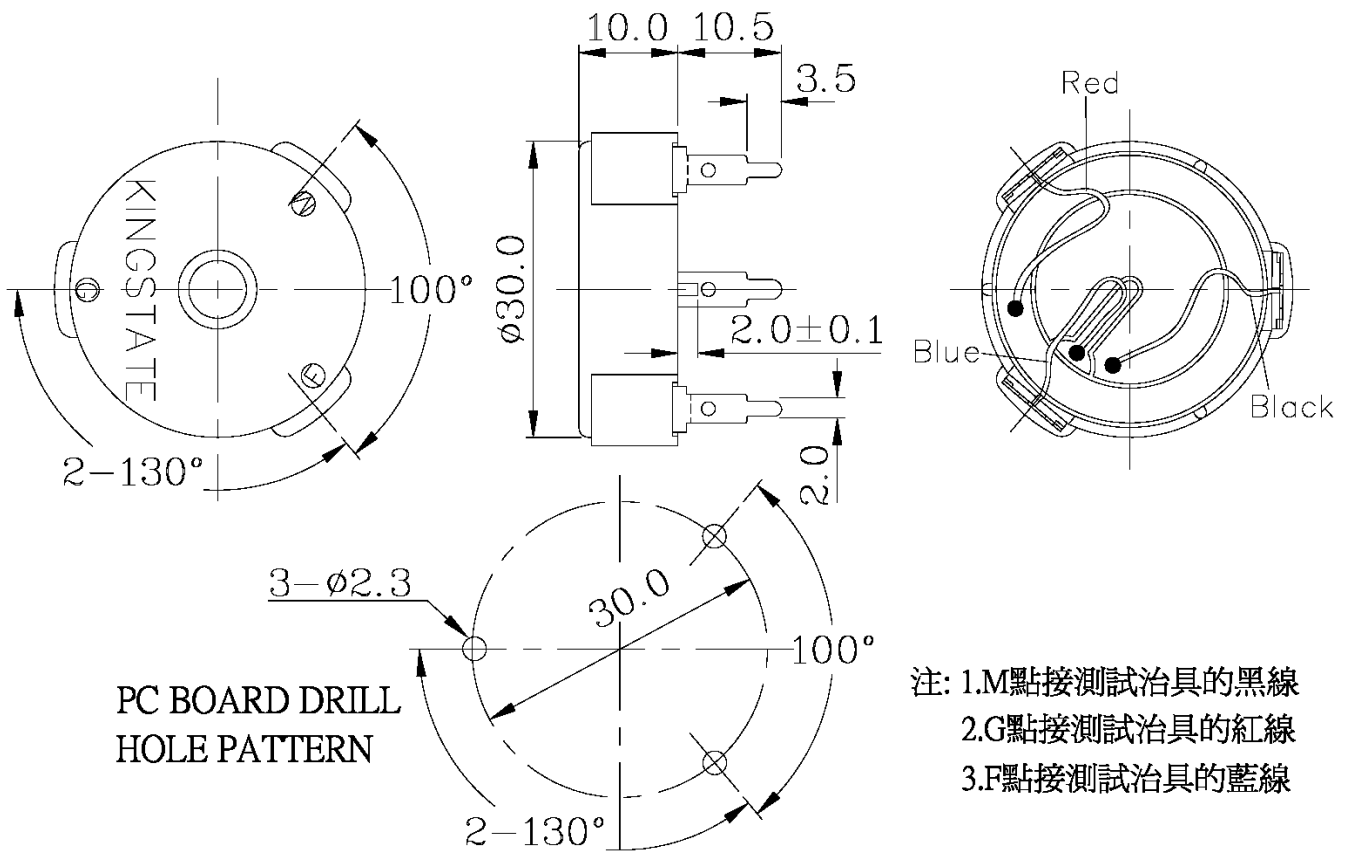
This specification applies piezo audio indicator, 1812647

### B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Operating Frequency	KHz	3.6 ± 0.5	
2	Operating Volt. range	VDC	3 ~ 28	
3	Operating Current	mA	MAX 7	at 12VDC
4	Sound pressure level	dB	MIN 82	at 30 cm/12VDC
5	Rated Voltage	VDC	12	
6	Tone		Continuous	
7	Operating temp.	°C	-20 ~ +60	
8	Storage temp.	°C	-30 ~ +70	
9	Dimension	mm	φ 30.0 x H10.0	See appearance drawing
10	Weight (MAX)	gram	5.6	
11	Material		ABS UL-94 1/16" HB	
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



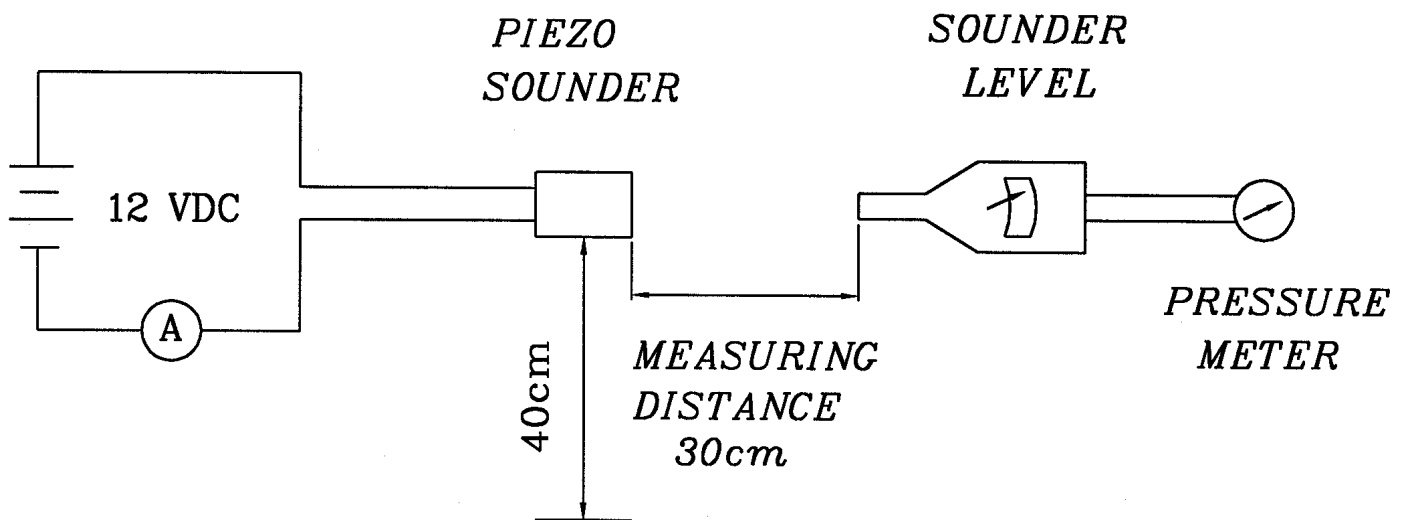
注: 1.M點接測試治具的黑線  
 2.G點接測試治具的紅線  
 3.F點接測試治具的藍線

Tol : ± 0.5

Unit : mm

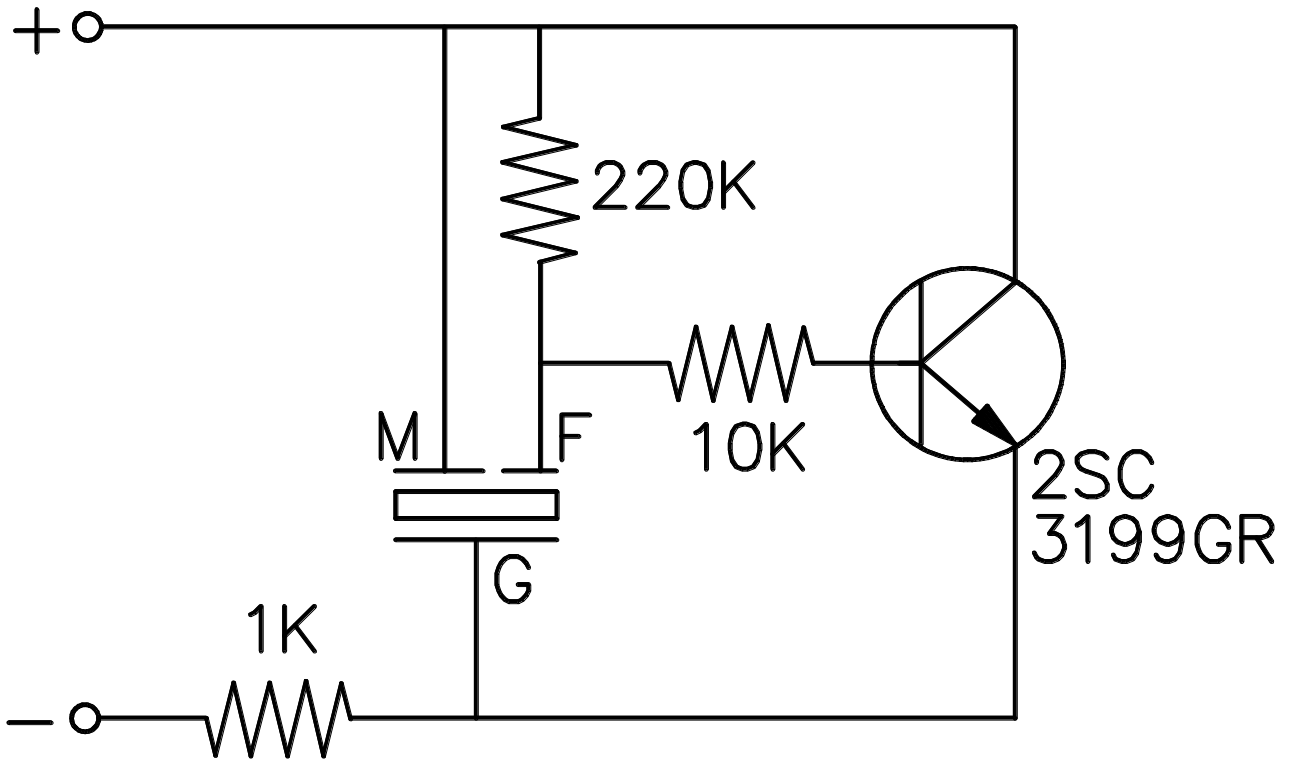
D. MEASURING METHOD

1. S.P.L. Measuring Circuit

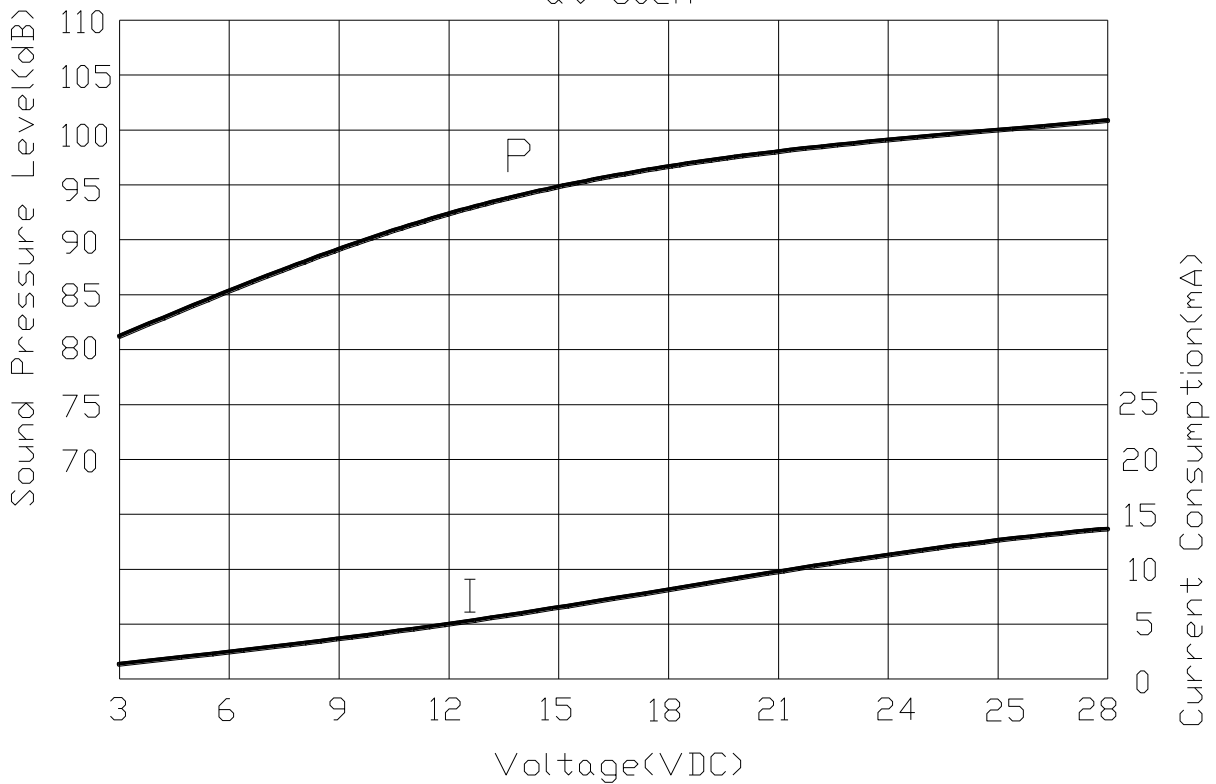


Mic : RION S.P.L. meter UC30 or equivalent

2. The current consumption and the sound pressure level are measured by using the recommend driving circuit shown as below (one example)



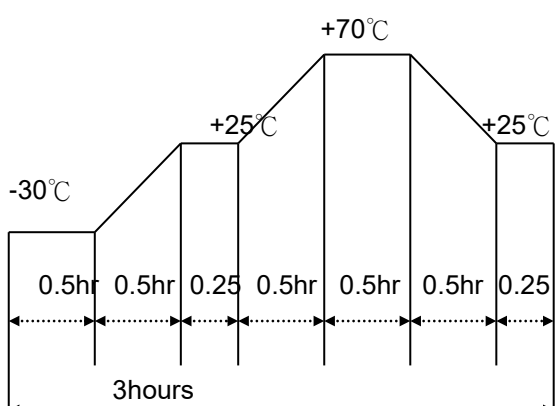
**E. VOLTAGE: SOUND PRESSURE LEVEL / VOLTAGE: CURRENT CONSUMPTION CHARACTERISTICS**  
at 30cm



## F. MECHANICAL CHARACTERISTICS

No.	Item	Test Condition	Evaluation standard
1	Solder ability	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+230\pm 5^{\circ}\text{C}$ for $3\pm 0.5$ 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 Strength Pulling	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	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.
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>	

## G. ENVIRONMENT TEST

No.	Item	Test Condition	Evaluation standard
1	High temp. test	After being placed in a chamber at $+70^{\circ}\text{C}$ 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 at $-30^{\circ}\text{C}$ 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	<p>The part shall be subjected to 5 cycles. One cycle shall be consist of::</p> 	

## H. RELIABILITY TEST

No.	Item	Test condition	Evaluation standard
1	Operating life test	1.Continuous life test 48 hours continuous operation at +45°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  
 Judgment Test Condition:    a) Temperature : +25 ± 2°C    b) Humidity : 60-70%    c) Pressure : 860-1060mbar