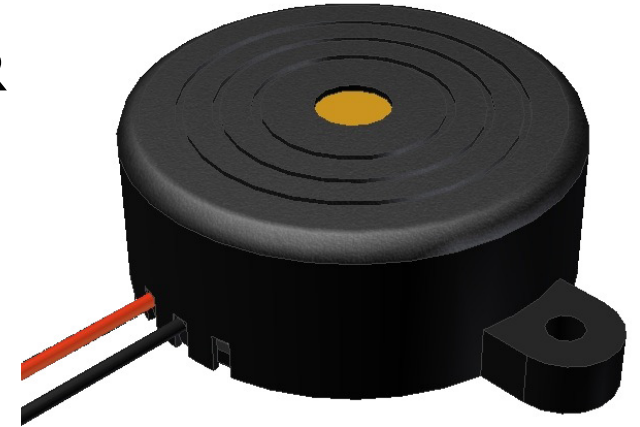


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## AI-4228-TF-LW140-4-R 42mm Indicator

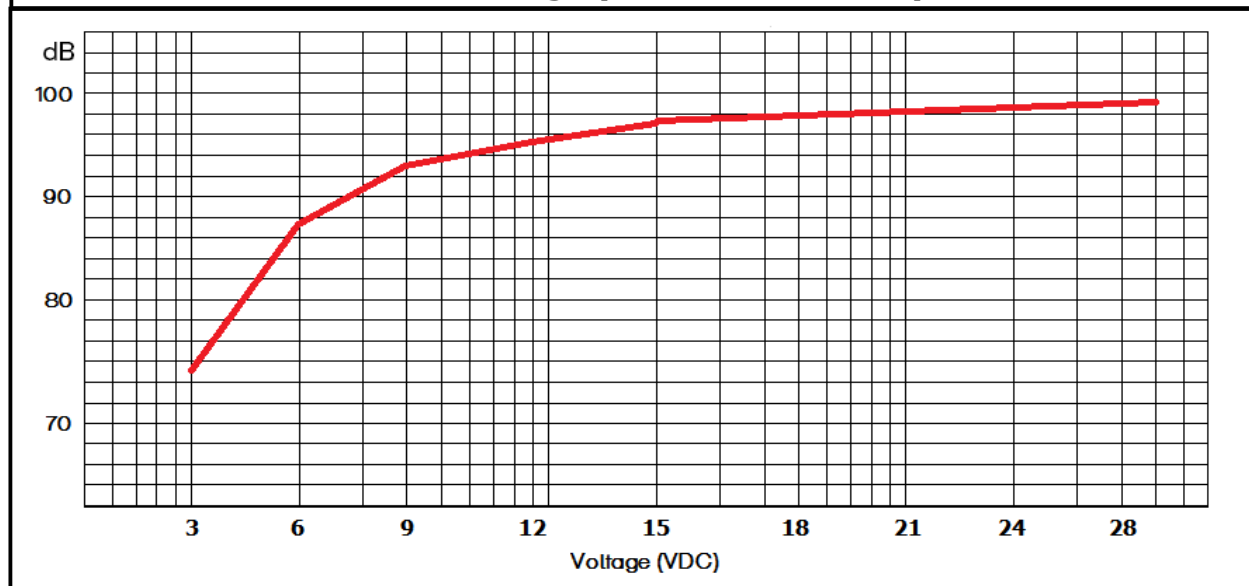


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### Product Overview

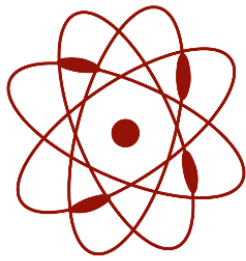
- 42mm diameter, 3-28 VDC self-drive indicator
- High 95 dBA minimum output (12 VDC @ 10 cm) and 2.8 kHz continuous tone
- ABS housing with mounting tabs and 140mm lead wires for quick connection
- Piezo-based solution consumes only 7 mA of current

**SPL vs Voltage (measured @ 30 cm)**



RoHS Compliant





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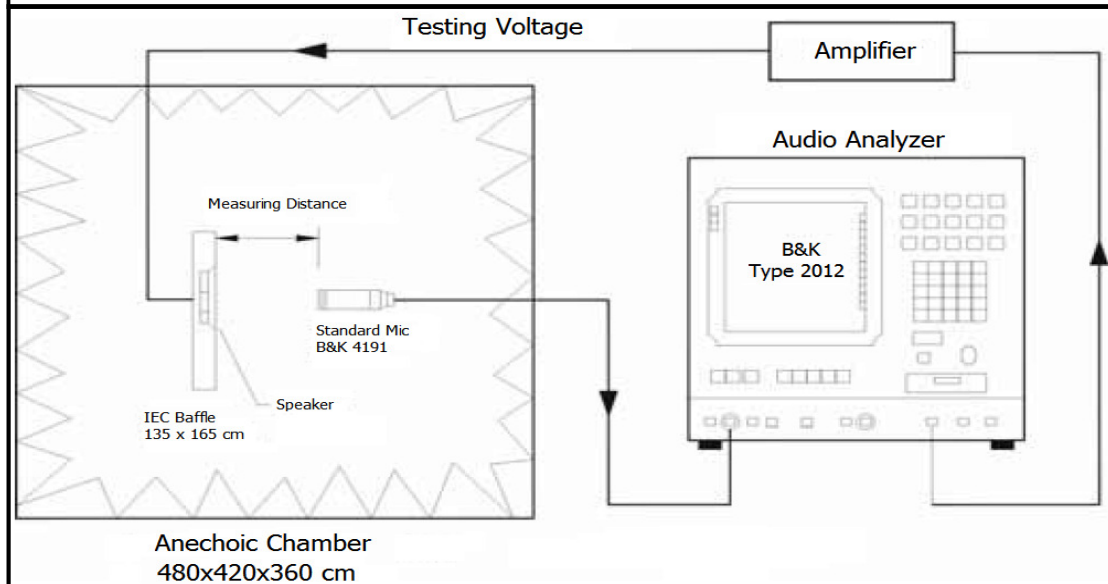
## AI-4228-TF-LW140-4-R 42mm Indicator

### Mechanical and Environment Testing

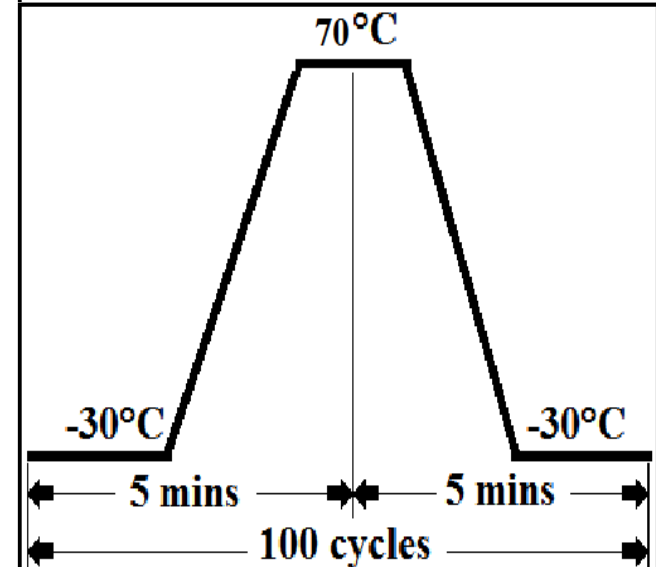
Test Description	Test Condition
High Temperature	70°C (±2°C) with random humidity for 96 hours
Low Temperature	-30°C (±2°C) with random humidity for 96 hours
Humidity	40°C (±2°C) with 90% to 95% relative humidity for 96 hours
Vibration	0.75 mm movement modulated at 10-55 Hz for 3 hours
Drop Test	100 cm free fall onto wood board, 10 cycles
Temperature Cycle Test	-30°C to 70°C, 100 cycles

After tests, part shall rest for 2 hours. Parts are then tested for clean, pure tones.

### Frequency Response and SPL Measurement Setup



### Temperature Cycle Test Graph



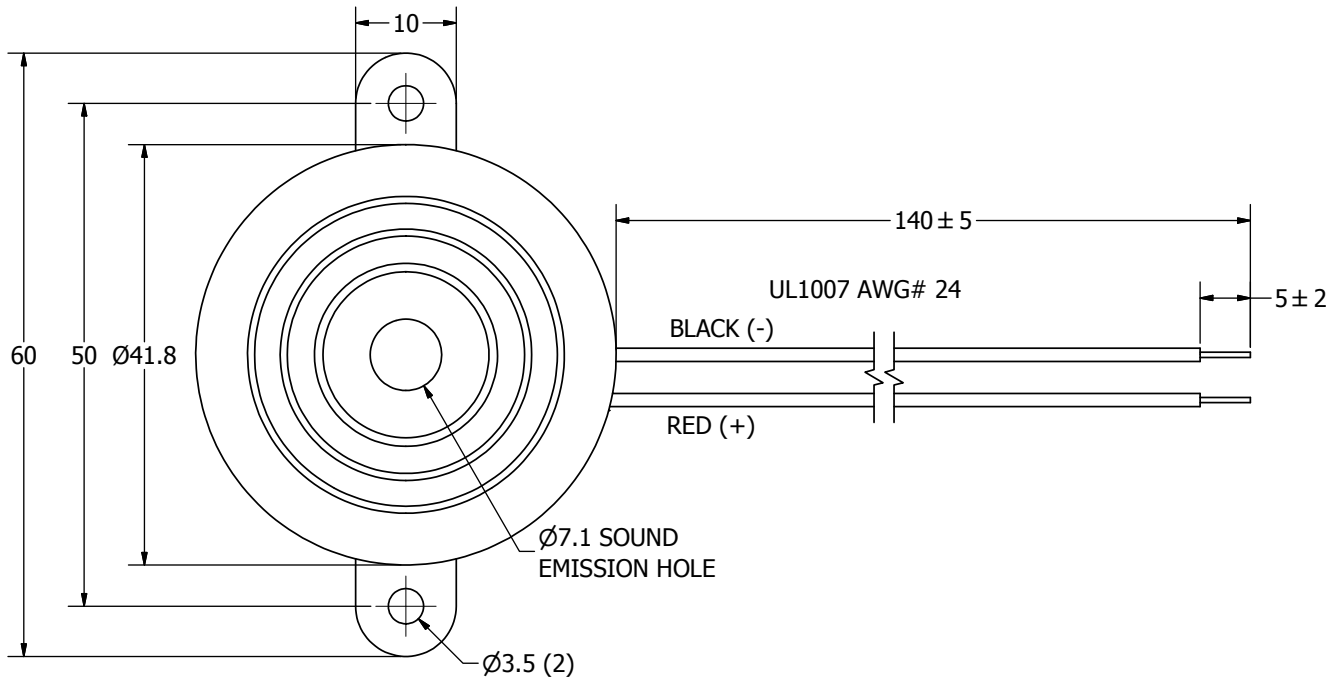
## SPECIFICATIONS

PARAMETERS	VALUES	UNITS
RATED VOLTAGE	12	Vdc
OPERATING VOLTAGE RANGE	3 ~ 28	Vdc
RATED CURRENT (MAX)	7	mA
MINIMUM SPL @ 10 CM	95	dBA
RESONANT FREQUENCY	2,800 ± 500	Hz
TONE OR PULSE RATE	CONTINUOUS	0 pulse /sec
OPERATING TEMPERATURE	-20 ~ +60	°C
STORAGE TEMPERATURE	-30 ~ +70	°C
HOUSING MATERIAL	ABS	-
TERMINAL MATERIAL	LEAD WIRE	-
WEIGHT	12	grams

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## REVISION HISTORY

LTR	DESCRIPTION	DATE	APPROVED
-	RELEASED FROM ENGINEERING	5/05/2006	
A	REVISED COLOR OF LEAD WIRE	10/11/2007	R.W.
B	REVISED TO INVENTOR 3-D DRAWING TEMPLATE	3/03/2008	B.R.



### NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. SPECIFICATIONS SUBJECT TO CHANGE OR WITHDRAWAL WITHOUT NOTICE.
3. THIS PART IS RoHS 2002/95/EC COMPLIANT.

UNLESS OTHERWISE SPECIFIED:	SIZE	Designed by	Date	Checked by	Date	Approved by	Date	Drawn Date					
DIMENSIONS ARE IN MILLIMETERS, TOLERANCES ARE $\pm 0.5$ AND ANGLES ARE $\pm 3^\circ$ .	A3	J.D.	5/5/2006	B.R.	5/5/2006	E.P.	5/5/2006	3/3/2008					
AI-4228-TF-LW140-4-R.idw	 <b>pui audio</b> a projects unlimited company	<b>AI-4228-TF-LW140-4-R</b>					<b>Indicator</b>		<table border="1"> <tr> <td>Edition</td> <td>Sheet</td> </tr> <tr> <td>-</td> <td>1 / 1</td> </tr> </table>	Edition	Sheet	-	1 / 1
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