

AI-2331-TWT-R 23mm Indicator

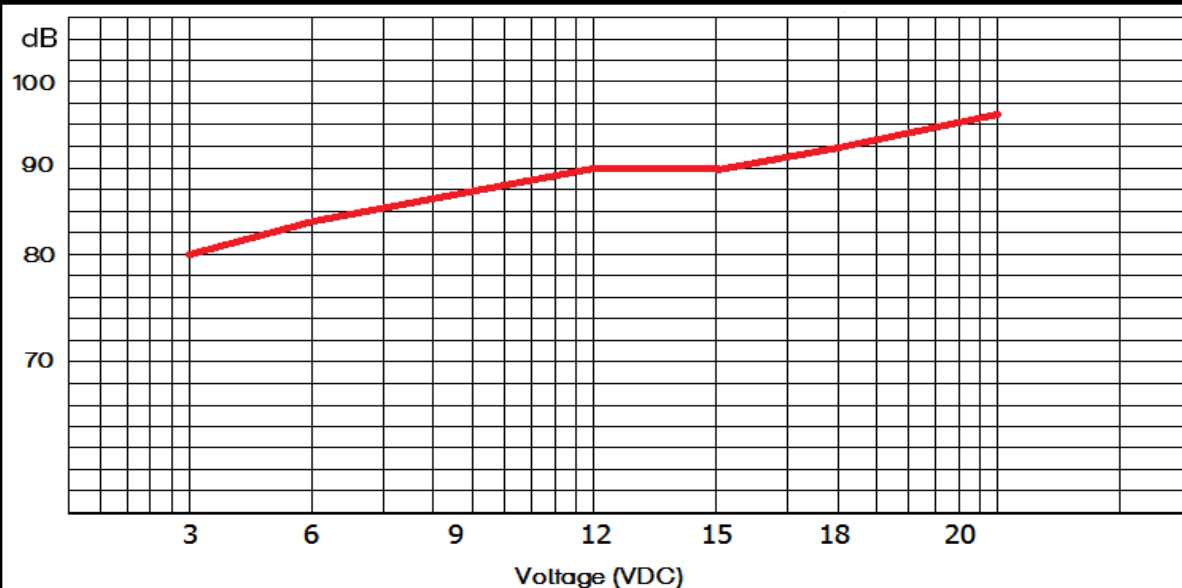
3541 Stop Eight Road • Dayton, Ohio 45414

Product Overview

- 23mm diameter, 3-20 VDC self-drive indicator
- 85 dBA minimum output (12 VDC @ 10 cm)
- 3,100 Hz continuous tone for ultimate audibility
- Noryl® housing withstands Wave soldering temperatures
- Removable wash tag preserves performance

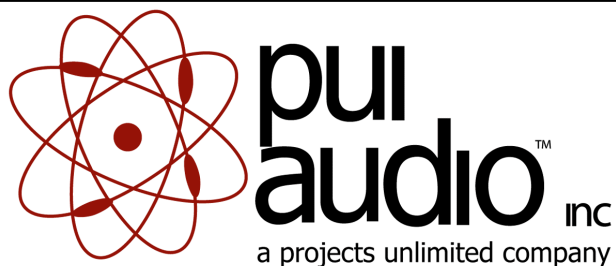


SPL vs Voltage (measured @ 10 cm)



Audio Products of PUI Audio Inc.





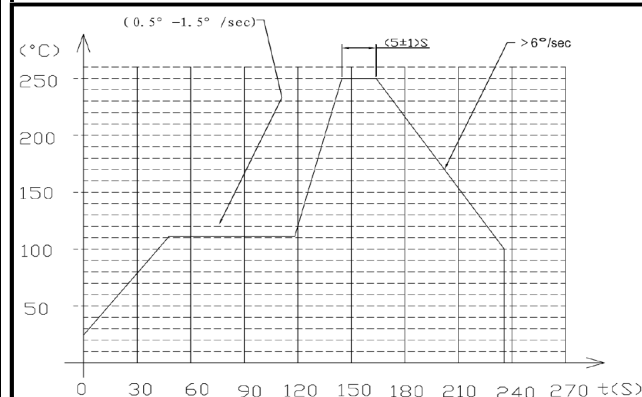
AI-2331-TWT-R 23mm Indicator

Mechanical and Environment Testing

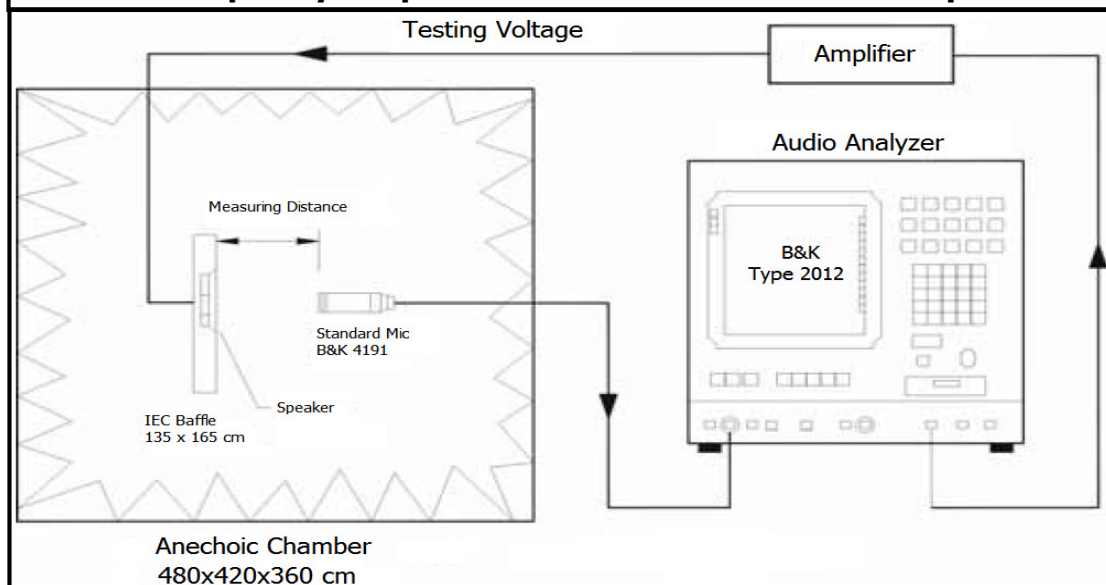
Test Description	Test Condition
High Temperature	70°C ($\pm 2^\circ\text{C}$) with random humidity for 96 hours
Low Temperature	-20°C ($\pm 2^\circ\text{C}$) with random humidity for 96 hours
Humidity	40°C ($\pm 2^\circ\text{C}$) with 90% to 95% relative humidity for 96 hours
Vibration	0.75 mm movement modulated at 10-55 Hz for 3 hours
Drop Test	100 cm free fall onto wood board, 10 cycles
Temperature Cycle Test	-20°C to 70°C, 100 cycles

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

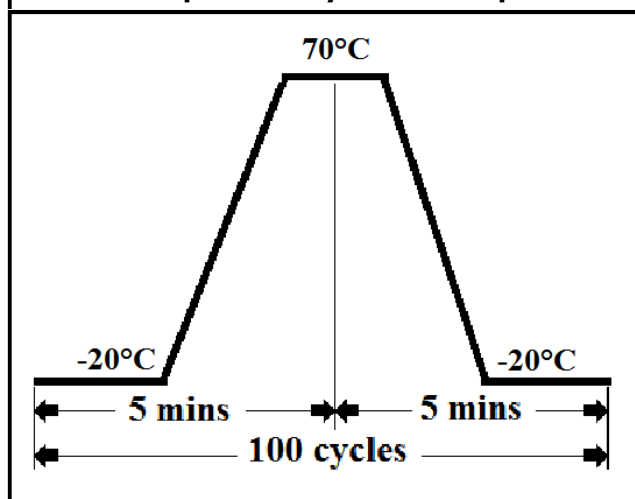
Wave Solder Profile



Frequency Response and SPL Measurement Setup



Temperature Cycle Test Graph



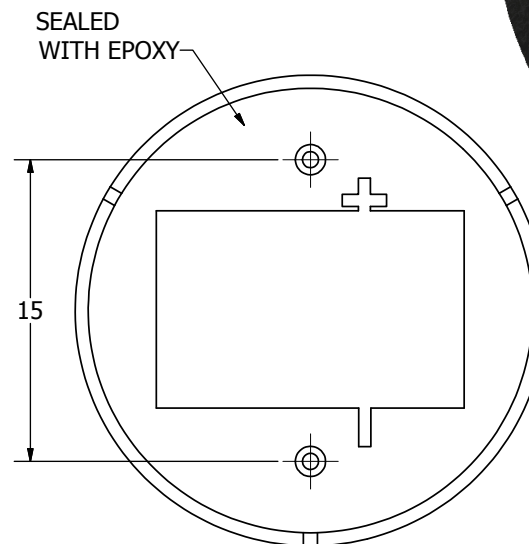
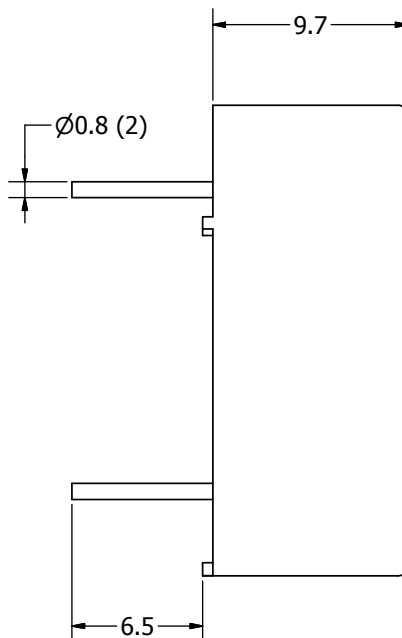
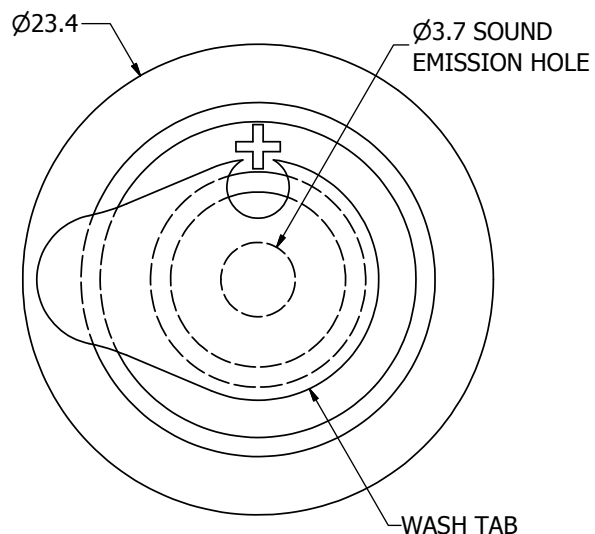
SPECIFICATIONS

PARAMETERS	VALUES	UNITS
RATED VOLTAGE	12	Vdc
OPERATING VOLTAGE RANGE	3 ~ 20	Vdc
RATED CURRENT (MAX)	15	mA
MINIMUM SPL @ 10 CM	85	dBA
RESONANT FREQUENCY	3,100 ± 500	Hz
TONE OR PULSE RATE	CONTINUOUS	0 pulse /sec
OPERATING TEMPERATURE	-20 ~ +60	°C
STORAGE TEMPERATURE	-20 ~ +70	°C
HOUSING MATERIAL	NORYL	-
TERMINAL MATERIAL	Sn PLATED COPPER	-
WEIGHT	3	grams

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REVISION HISTORY

LTR	DESCRIPTION	DATE	APPROVED
-	RELEASED FROM ENGINEERING	8/23/2004	
A	ADDED DIMENSION	8/27/2004	R.W.
B	REMOVED LEAD FREE NOTE ADDED RoHS	8/10/2005	
C	REVISED TERMINAL MATERIAL	11/28/2006	R.W.
D	ADDED EPOXY SEAL NOTE	3/7/2007	B.R.
E	REVISED BODY HEIGHT DIMENSION	4/7/2008	B.R.
F	REVISED TO INVENTOR 3-D DRAWING TEMPLATE	12/21/2008	B.R.
G	ADDED NOTE 4	2/17/2012	M.L.



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. SPECIFICATIONS SUBJECT TO CHANGE OR WITHDRAWL WITHOUT NOTICE.
3. THIS PART IS RoHS 2002/95/EC COMPLIANT.
4. PART IS NOT WASHABLE.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS, TOLERANCES ARE ±0.5 AND ANGLES ARE ±3°.	SIZE A3	Designed by	Date	Checked by	Date	Approved by	Date	Drawn Date
		R.A.C.	8/23/2004			R.W.	8/23/2004	12/21/2008
					AI-2331-TWT-R			
AI-2331-TWT-R.idw					Indicator			Edition
					-		1 / 1	

Mouser Electronics

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