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## AI-1223-TWT-12V-R 12mm Indicator

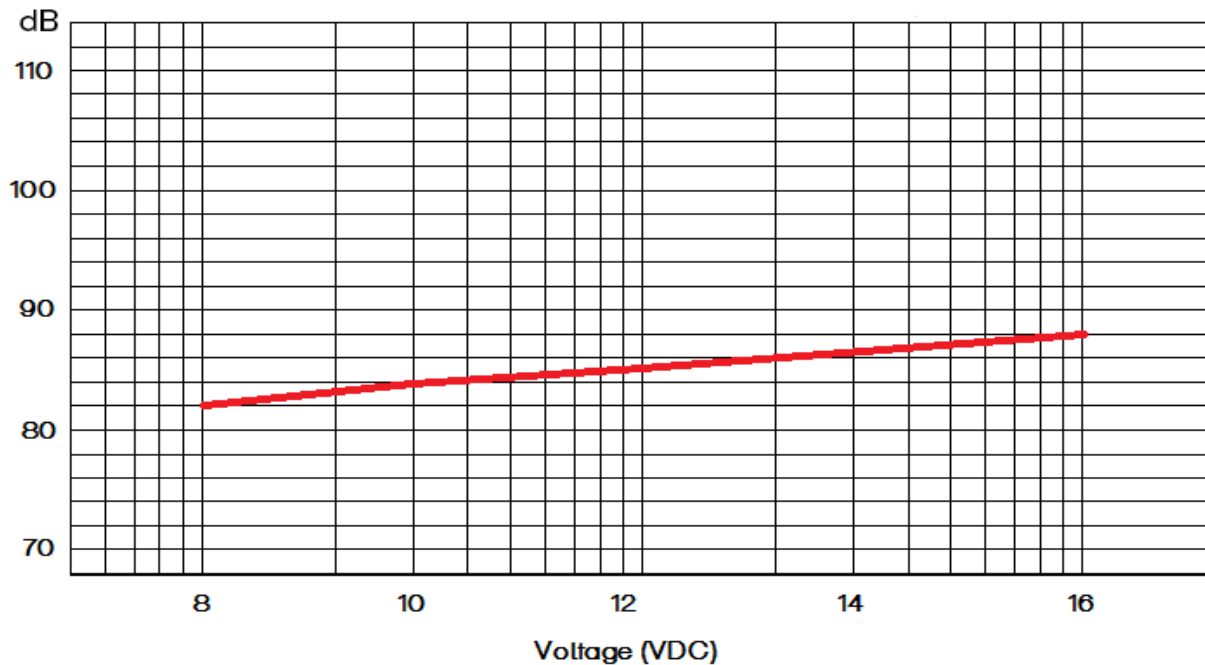
3541 Stop Eight Road • Dayton, Ohio 45414

### Product Overview

- 12mm diameter, 8-16 VDC self-drive indicator
- 85 dBA minimum output (12 VDC @ 10 cm) and 2,300 Hz continuous tone
- PBT housing withstands Wave soldering temperatures
- Removable wash tag preserves performance

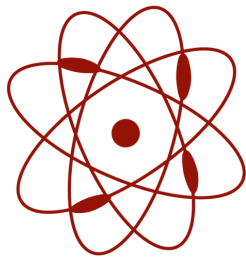


**SPL vs Voltage (measured @10 cm)**



RoHS Compliant





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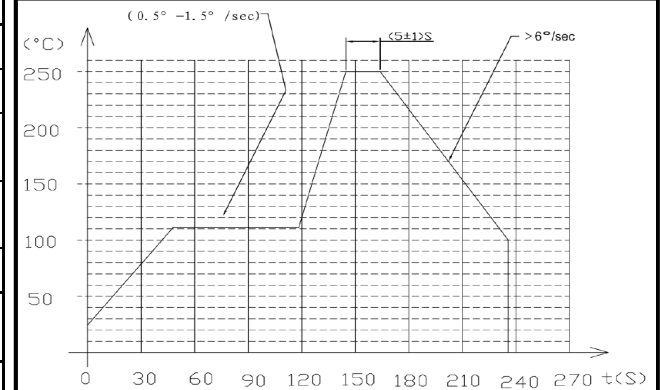
# AI-1223-TWT-12V-R 12mm Indicator

## Mechanical and Environment Testing

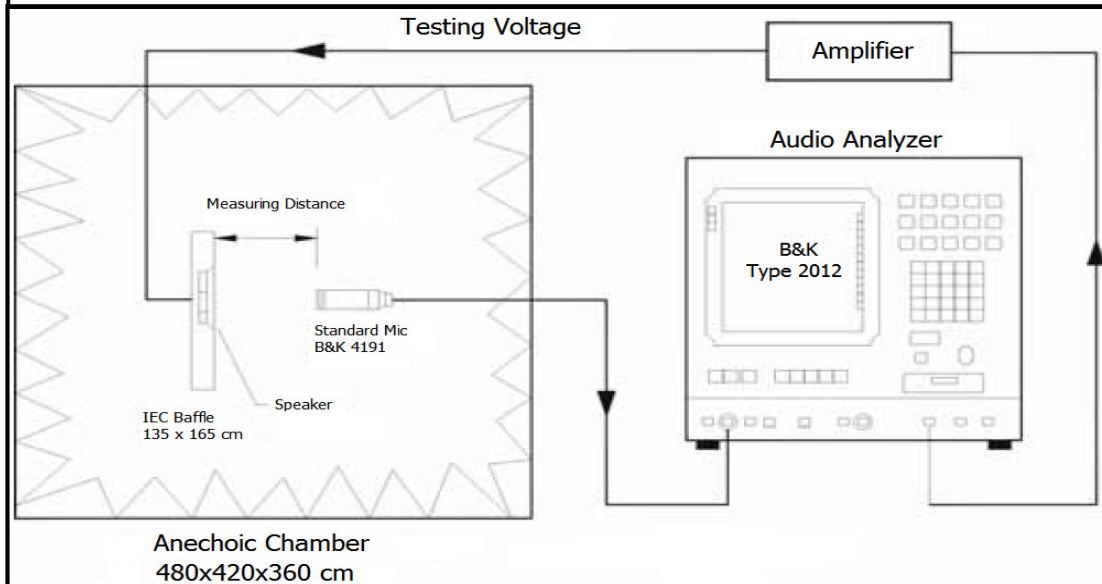
Test Description	Test Condition
High Temperature	85°C (±2°C) with random humidity for 96 hours
Low Temperature	-25°C (±2°C) with random humidity for 96 hours
Humidity	40°C (±2°C) with 90% to 95% relative humidity for 96 hours
Vibration	0.75 mm movement modulated at 10-55 Hz for 3 hours
Drop Test	100 cm free fall onto wood board, 10 cycles
Temperature Cycle Test	-30°C to 85°C, 100 cycles

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

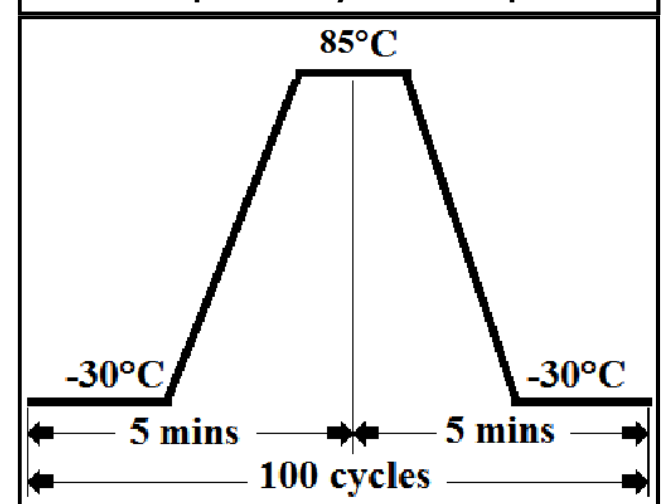
## Wave Solder Profile



## Frequency Response and SPL Measurement Setup



## Temperature Cycle Test Graph



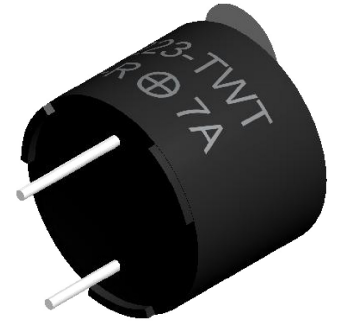
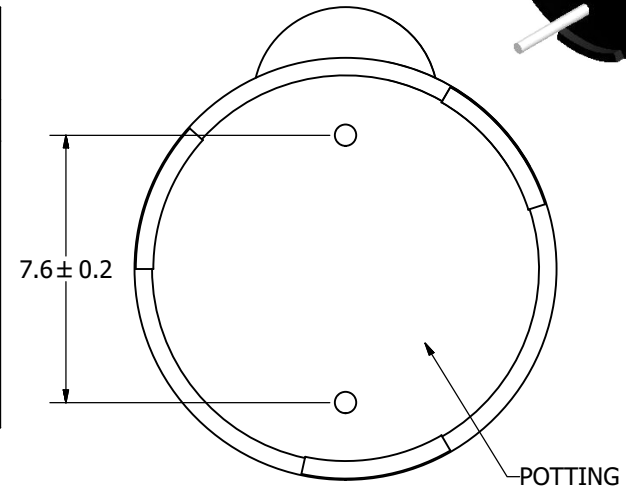
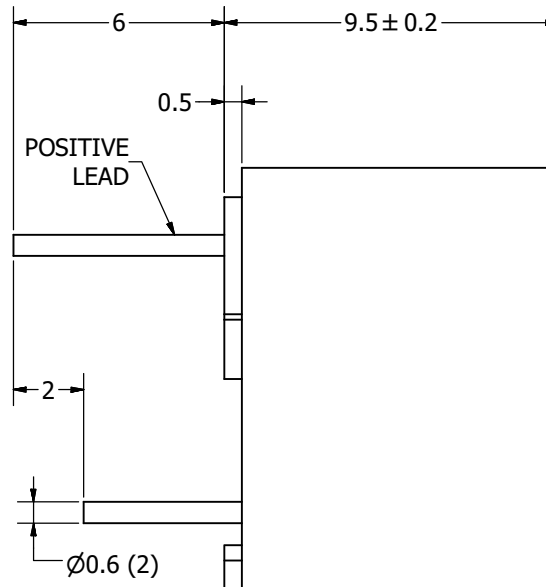
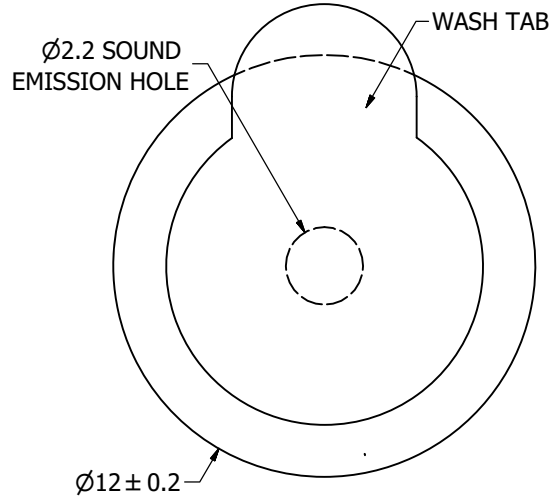
# SPECIFICATIONS

PARAMETERS	VALUES	UNITS
RATED VOLTAGE	12	Vdc
OPERATING VOLTAGE RANGE	8 ~ 16	Vdc
RATED CURRENT (MAX)	30	mA
MINIMUM SPL @ 10 CM	85	dBA
RESONANT FREQUENCY	2,300 ± 400	Hz
TONE OR PULSE RATE	CONTINUOUS	0 pulse /sec
OPERATING TEMPERATURE	-20 ~ +70	°C
STORAGE TEMPERATURE	-30 ~ +80	°C
HOUSING MATERIAL	PBT	-
TERMINAL MATERIAL	Sn PLATED RED COPPER	-
WEIGHT	2	grams

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# REVISION HISTORY

LTR	DESCRIPTION	DATE	APPROVED
-	RELEASED FROM ENGINEERING	8/10/2004	
A	REMOVED LEAD FREE NOTE ADDED RoHS NOTE	8/5/2005	B.R.
B	REVISED DIMENSION SIZE AND STYLE	11/28/2005	B.R.
C	REVISED SOUND HOLE AND TEMPERATURE	5/11/2010	B.R.
D	REVISED TO INVENTOR 3-D DRAWING TEMPLATE	6/30/2010	B.R.
E	REVISED HOUSING MATERIAL	9/25/2012	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: DIMENSIONS ARE IN MILLIMETERS, TOLERANCES ARE ±0.5 AND ANGLES ARE ±3°.	SIZE	Designed by	Date	Checked by	Date	Approved by	Date	Drawn Date
	A3	R.A.C.	8/10/2004			R.W.	8/10/2004	6/30/2010
		AI-1223-TWT-12V-R						Edition
AI-1223-TWT-12V-R.idw	Indicator						-	1 / 1

