

**pui**  
**audio**™ inc  
a projects unlimited company

## AS04004PO-R 40 x 28.4mm Speaker

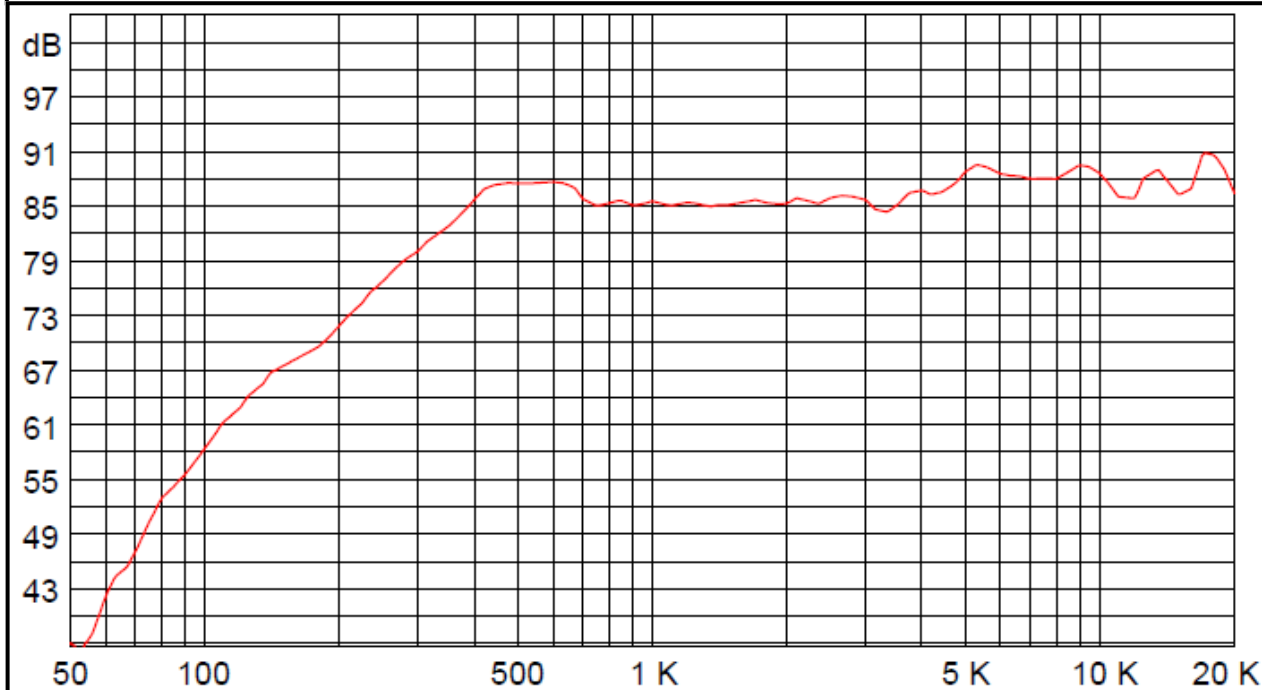


3541 Stop Eight Road • Dayton, Ohio 45414

### Product Overview

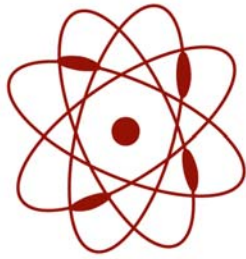
- 40 x 28.4mm oval speaker with Neodymium magnet for 86 dB sensitivity
- 2W continuous, 4W maximum power handling and 4Ω impedance
- Paper cone with cloth surround for smooth, natural sound

Frequency Response (1W @ 0.5 meters)



2011-01-01 to 2015-01-01





**pui audio**™ inc  
a projects unlimited company

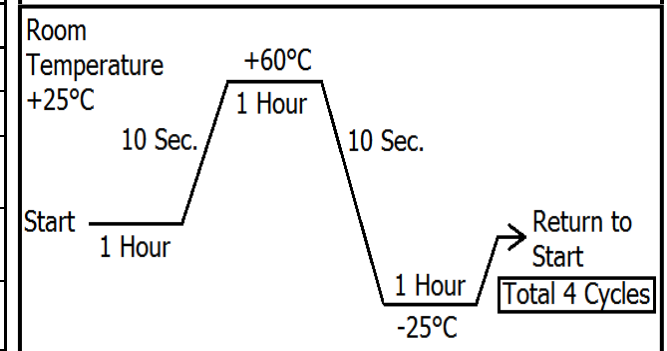
## AS04004PO-R 40 x 28.4mm Speaker

### Mechanical and Environment Testing

Test Description	Test Condition
High Temperature	60°C ±2°C with random humidity for 96 hours
Low Temperature	-25°C ±2°C with random humidity for 96 hours
Humidity	40°C with 90% to 95% relative humidity for 96 hours
Vibration	1.5 mm movement modulated at 10 to 55 Hz for 2 hours
Drop Test	75 cm free fall onto concrete floor, 10 cycles
Temperature Cycle Test	-20°C to 60°C, 4 cycles (refer to Temperature Cycle Test Graph)

After tests, speaker shall rest for 1 hours. SPL shall not deviate ±4 dB from pre-test measurement.

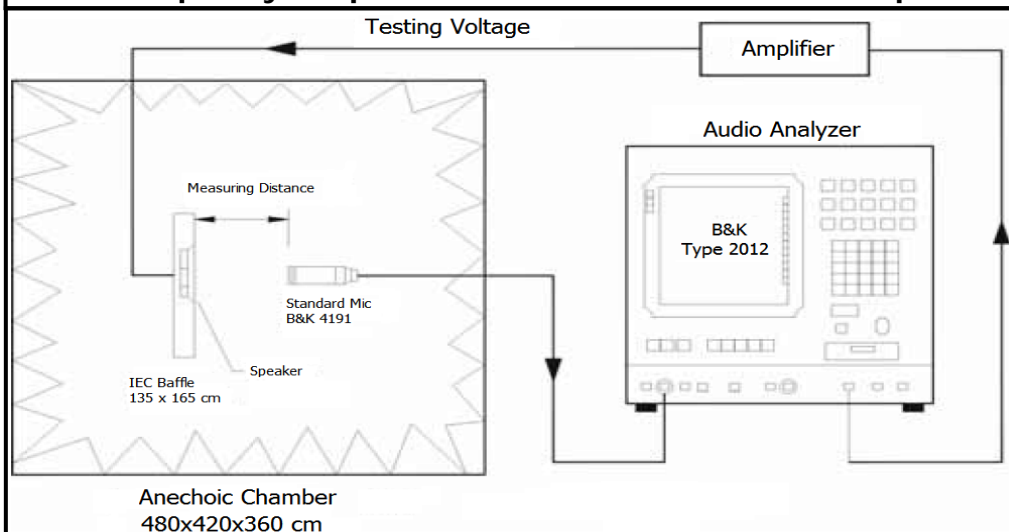
### Temperature Cycle Test Graph



### Thiele-Small Parameters

Specification	AS04004PO-2-R
Fo (Hz)	400
Qes	3.448
Qms	9.998
Qts	2.564
Vas (mm <sup>3</sup> )	12.9k
Sd (mm <sup>2</sup> )	577
Mms (g)	0.324
Xmax (mm)	1.0
Re (ohm)	4.2
SPL (dB) @ 1W/1m	79.6
BL (T)	1.179

### Frequency Response and SPL Measurement Setup



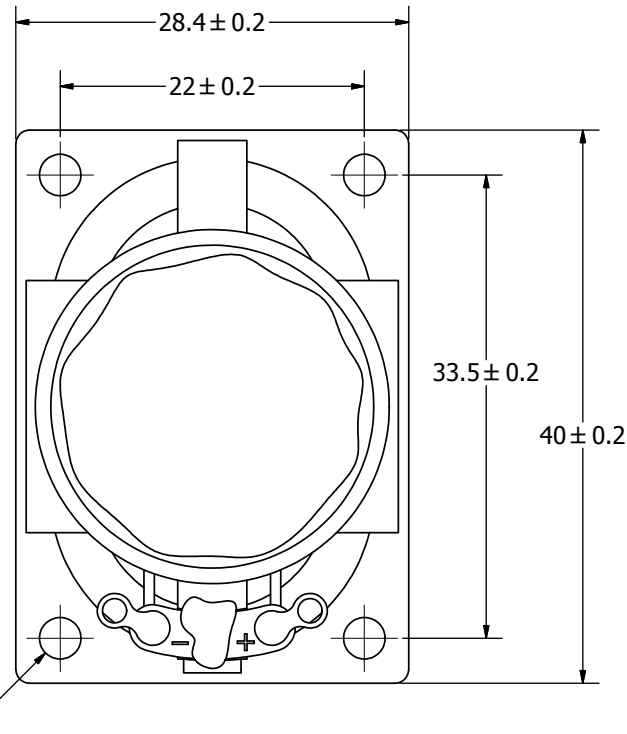
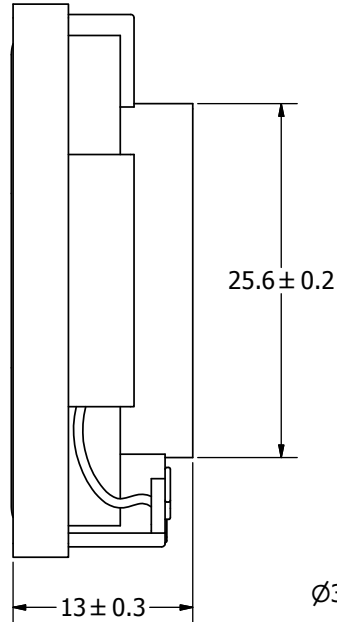
## SPECIFICATIONS

PARAMETERS	VALUES	UNITS
RATED INPUT POWER	2	W
MAX INPUT POWER	4	W
IMPEDANCE	4 ± 15%	OHM
OUTPUT SPL @ 1W/0.5M (AT 0.8, 1.0, 1.2, 1.5, kHz)	86 ± 3	dBA
DISTORTION (MAX.)	5%	-
RESONANT FREQUENCY	370 ± 20%	Hz
FREQUENCY RANGE	200 ~ 20,000	Hz
HOUSING MATERIAL	ABS	-
CONE MATERIAL	PAPER	-
MAGNET MATERIAL	Nd-Fe-B	-
OPERATING TEMPERATURE	-40 ~ +80	°C
WEIGHT	16.5	grams

THIS DOCUMENT CONTAINS DATA PROPRIETARY TO PROJECTS UNLIMITED, INC. ANY USE OR REPRODUCTION, IN ANY FORM, WITHOUT PRIOR WRITTEN PERMISSION OF PROJECTS UNLIMITED, INC. IS PROHIBITED.  
©2003, Projects Unlimited Inc.

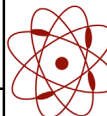
## REVISION HISTORY

LTR	DESCRIPTION	DATE	APPROVED
-	RELEASED FROM ENGINEERING	12/7/2005	
A	ADDED MOUNTING HOLE DIMENSION	12/18/2007	R.W.
B	REVISED MAX. INPUT POWER	7/18/2008	B.R.
C	REVISED OPERATING TEMPERATURE	10/14/2008	C.W.
D	REVISED TO INVENTOR 3-D DRAWING TEMPLATE	11/8/2008	B.R.
E	REVEISED SPL & TEMPERATURE SPECIFICATIONS	8/15/2012	M.L.
F	REVISED TEMPERATURE SPECIFICATION	8/21/2012	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.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS, TOLERANCES ARE ±0.5 AND ANGLES ARE ±3°.	SIZE <b>A3</b>	Designed by	Date	Checked by	Date	Approved by	Date	Drawn Date	
		J.A.F.	12/6/2005	B.R.	12/7/2005	E.P.	12/7/2005	11/8/2008	
AS04004PO-R.idw		 <b>pui audio</b> <small>a projects unlimited company</small>		<b>AS04004PO-R</b>					
				Speaker				Edition	Sheet