

**HODTEC-31230-000**

**SHT 1.1**

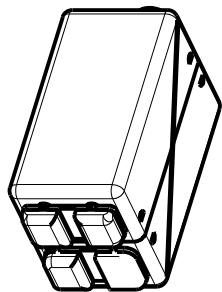
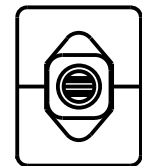
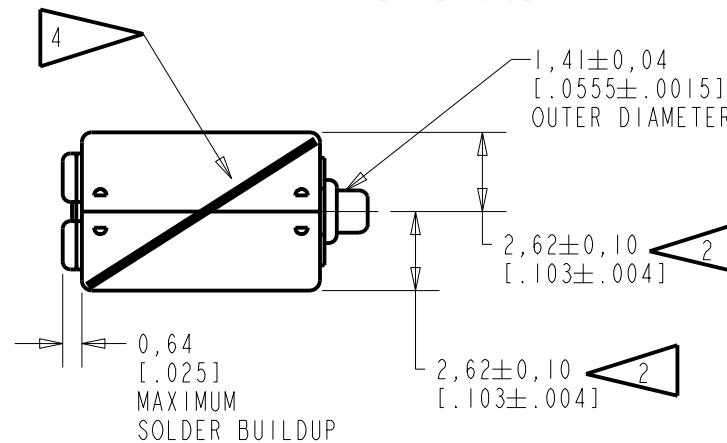
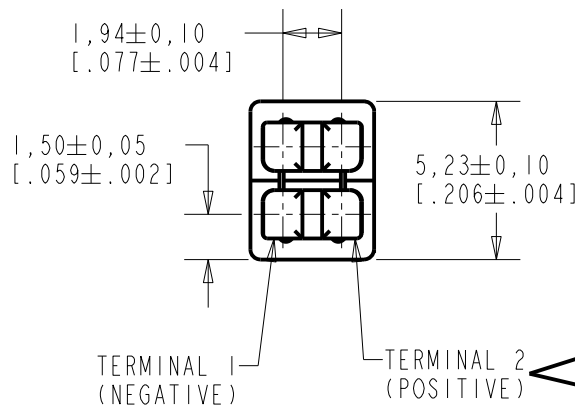
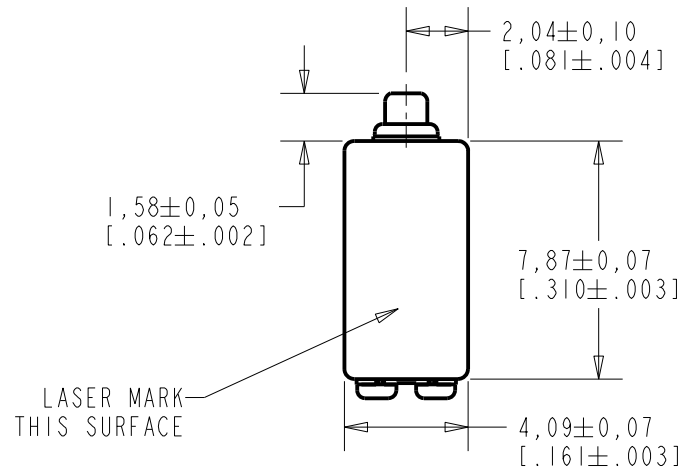
NOTES:

1. A POSITIVE GOING VOLTAGE AT TERMINAL 2, RELATIVE TO TERMINAL 1, CAUSES A DECREASE IN PRESSURE AT THE SOUND OUTLET.

2. LOCATED FROM TWO SURFACES FOR CUSTOMER CONVENIENCE. ONLY APPLICABLE FROM ONE SURFACE, NOT TO BE USED TOGETHER. HORIZONTAL LOCATION FOR TERMINAL CENTERED TO  $\pm 0,17$  [.007].

3. RECEIVERS WIRED IN ELECTRICAL PARALLEL WHEN CONNECTED TO TERMINAL 1 AND TERMINAL 2.

4. RED STRIP FROM CORNER TO CORNER, EITHER SIDE.



NOMINAL WEIGHT  
.71 GRAMS

DIMENSIONS IN MILLIMETERS [INCHES]

**KNOWLES ELECTRONICS**  
ITASCA, ILLINOIS U.S.A.

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
C	CI0114023	8-30-12	<b>Active</b>	<b>C</b>
B	CI0112707	8-26-11		
A	CI0112225	4-13-11		

SCALE: <b>4:1</b>		DR. BY: KL	DATE: 4-13-11
DO NOT SCALE DRAWING			
TITLE: <b>RECEIVER</b>		HODTEC-31230-000	
OUTLINE DRAWING		SHT 1.1	
		APP. BY: GJP	DATE: 4-13-11

THE HODTEC-31230-000 IS A PAIR OF BALANCED ARMATURE RECEIVERS INTENDED FOR USE IN HIGH POWER HEARING AIDS. IT HAS A MEDIUM DCR TO IMPEDANCE RATIO AND IS A SIMILAR SIZE TO AN EF RECEIVER. A RED STRIPE DIFFERENTIATES THIS MODEL FROM OTHER HODTEC'S.

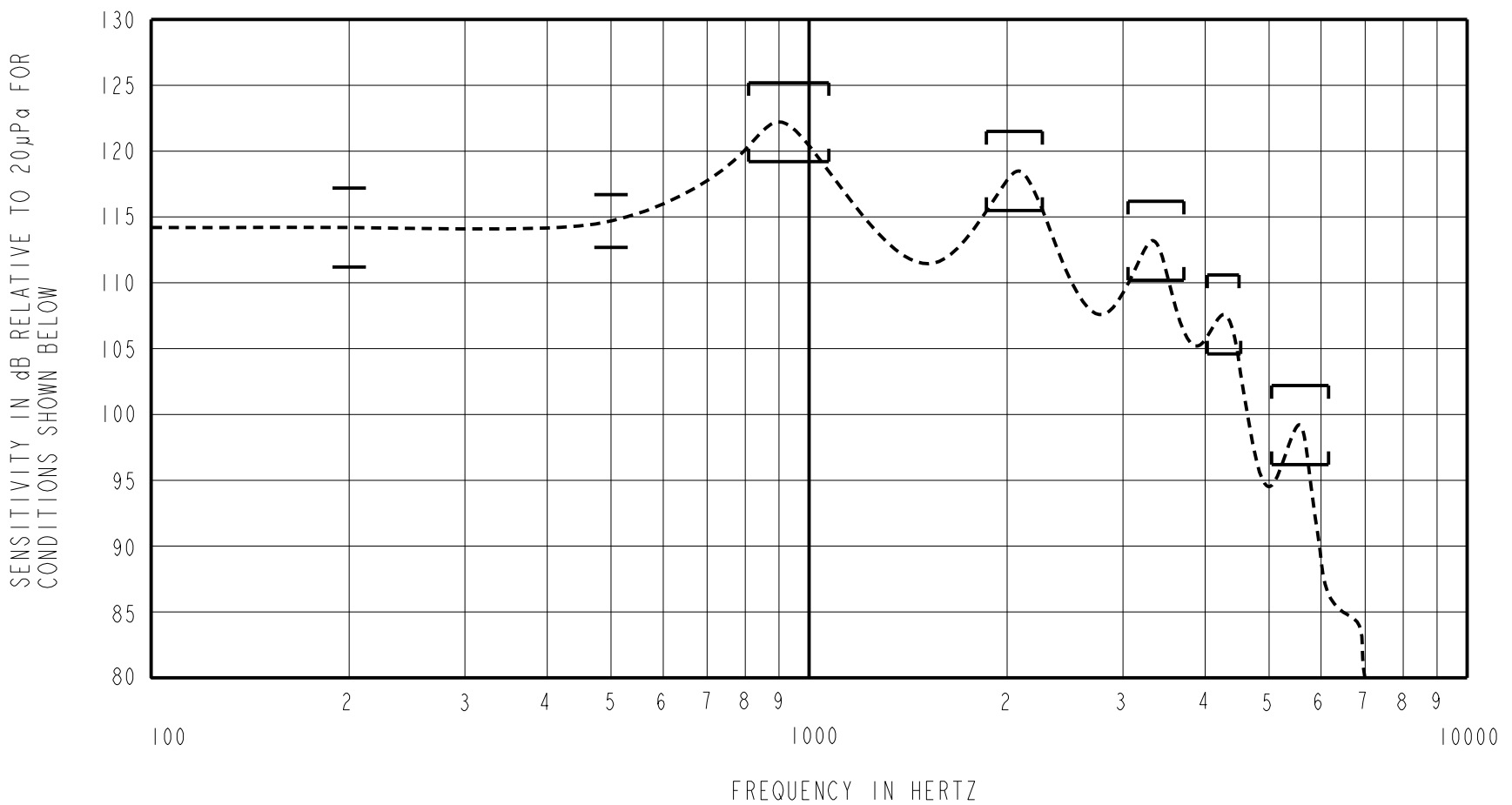
NO DAMPING

HODTEC-31230-000

SHEET 2.1

NOTE: SPECIFICATIONS FOLLOWED BY AN ASTERISK (\*) ARE 100% TESTED.

CONSTANT VOLTAGE DRIVE CONDITIONS



ACOUSTICAL

SENSITIVITY\*  
DEVICE WILL PRODUCE THE SPL LISTED BELOW UNDER TEST CONDITIONS DESCRIBED IN TABLE 3. NOMINAL SENSITIVITY AT 500 Hz IS dB RELATIVE TO 20µPa. ALL OTHER VALUES IN dB RELATIVE TO THE SENSITIVITY AT 500 Hz.

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
200	-3.5	-0.5	+2.5
500	-2.0	114.7	+2.0
810-1010	+4.5	+7.5	+10.5
1895-2305	+0.8	+3.8	+6.8
3060-3740	-4.5	-1.5	+1.5
4030-4530	-10.1	-7.1	-4.1
5050-6170	-18.5	-15.5	-12.5

TABLE 1

TOTAL HARMONIC DISTORTION\*  
DEVICE WILL NOT EXCEED TOTAL HARMONIC DISTORTION LEVELS LISTED BELOW.

FREQUENCY (Hz)	AC DRIVE (V rms)	DC BIAS (mA)	LIMIT (%)
1/3 PEAK	0.148	0	5
1/2 PEAK	0.148	0	5
1/3 PEAK	0.295	0	8
1/2 PEAK	0.295	0	8

TABLE 2

TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	0.148 V rms, 0 mA DC BIAS
SOURCE IMPEDANCE	<1 Ohm
TUBING	8mm X 1mm ID + 28mm X 1.5mm ID EAR HOOK SIMULATOR + 25mm X 2mm ID TUBE + 18mm X 3mm ID TUBE
COUPLER CAVITY	2 cm <sup>3</sup> , SIMULATED ANSI S3.7 TYPE HA-3 (IEC 60318-5)

TABLE 3

ELECTRICAL

DC RESISTANCE	26.5 OHMS ± 10% *
IMPEDANCE @ 500 Hz	40.7 OHMS ± 15% *
IMPEDANCE @ 1K Hz	45.6 OHMS ± 15% *
INDUCTANCE @ 500 Hz	10.4 mH TYP.
CAPACITANCE @ 10 MHz	13.8 pF TYP.

TABLE 4

ISOLATION: CASE WILL BE ELECTRICALLY ISOLATED FROM THE COIL CIRCUIT.\*

MECHANICAL

PORT LOCATION: 12S

SOLDER TYPE: SAC305

TEMPERATURE

OPERATING: SENSITIVITY WILL NOT VARY MORE THAN +1/-3 dB FROM -17°C TO 63°C

STORAGE: -40°C TO 63°C

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C	C10114023	8-30-12	Active	C
B	C10112707	8-26-11		
A	C10112225	4-13-11		
WHEN TEST LIMITS ARE USED TO ESTABLISH INCOMING INSPECTION ACCEPTANCE/REJECTION CRITERIA, CORRELATION OF TEST EQUIPMENT WITH KNOWLES IS ALSO REQUIRED FOR ELIMINATION OF EQUIPMENT AND TEST METHOD VARIATION			DR. BY	DATE
TITLE: <b>RECEIVER</b> PERFORMANCE SPECIFICATION			KL	4-13-11
			<b>HODTEC-31230-000</b> SHT 2.1	
			CK. BY	DATE
			GJP	4-13-11
			APP. BY	DATE
			GJP	4-13-11