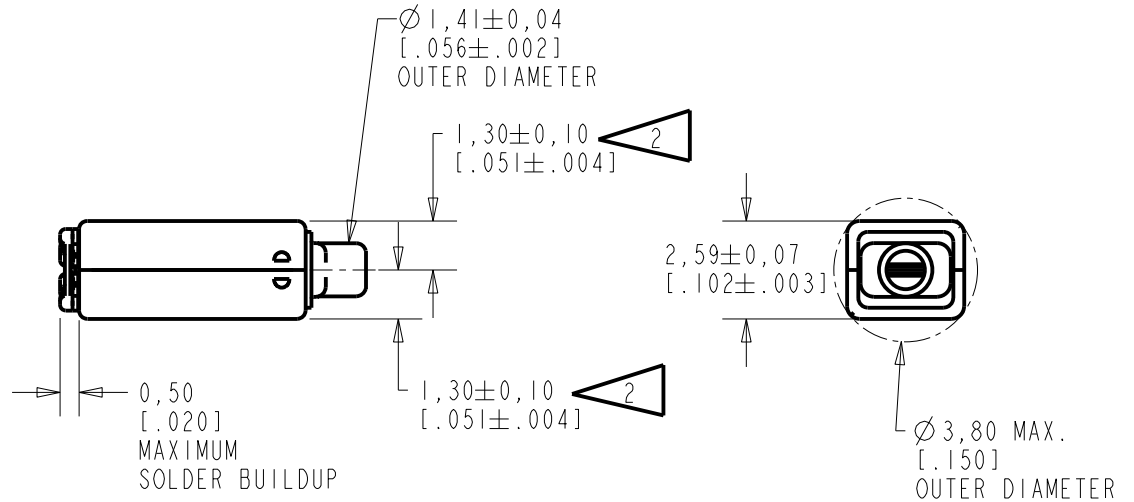
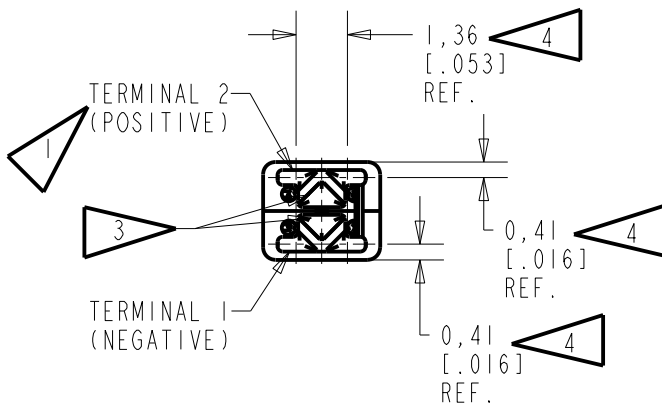
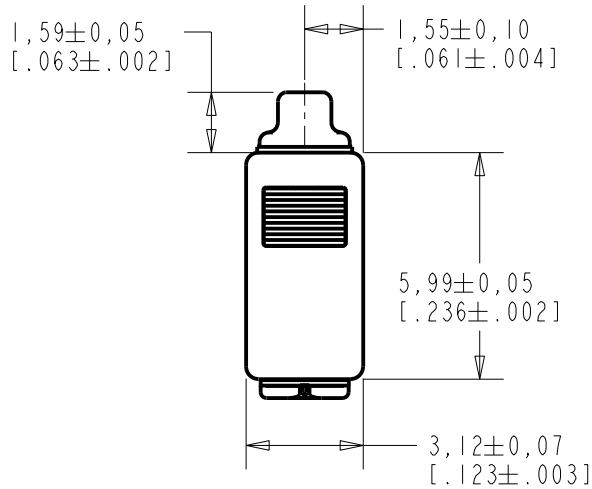


**GD-31223-000**

**SHT 1.1**



**NOTES:**

- 1 A POSITIVE GOING VOLTAGE AT TERMINAL 2, RELATIVE TO TERMINAL 1, CAUSES AN INCREASE IN PRESSURE AT THE SOUND OUTLET.
- 2 LOCATED FROM TWO SURFACES FOR CUSTOMER CONVENIENCE. ONLY APPLICABLE FROM ONE SURFACE, NOT TO BE USED TOGETHER.
- 3 TERMINAL ELECTRICALLY CONNECTED TO CASE.
- 4 DIMENSION TO APPROXIMATE CENTER OF TERMINAL PAD.



SCALE 2:1  
0.16 GRAMS

DIMENSIONS IN MILLIMETERS [INCHES]

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
C	C10113289	3-30-12	<b>Active</b>	<b>C</b>
B	C10112587	6-28-11		
A	C10112068P	3-24-11		

SCALE: <b>5:1</b>		DR. BY: KL	DATE: 3-24-11
DO NOT SCALE DRAWING			
TITLE: <b>RECEIVER</b>		APP. BY: GJP	
OUTLINE DRAWING		DATE: 3-29-11	
<b>GD-31223-000</b>		APP. BY: GJP	
<b>SHT 1.1</b>		DATE: 4-1-11	

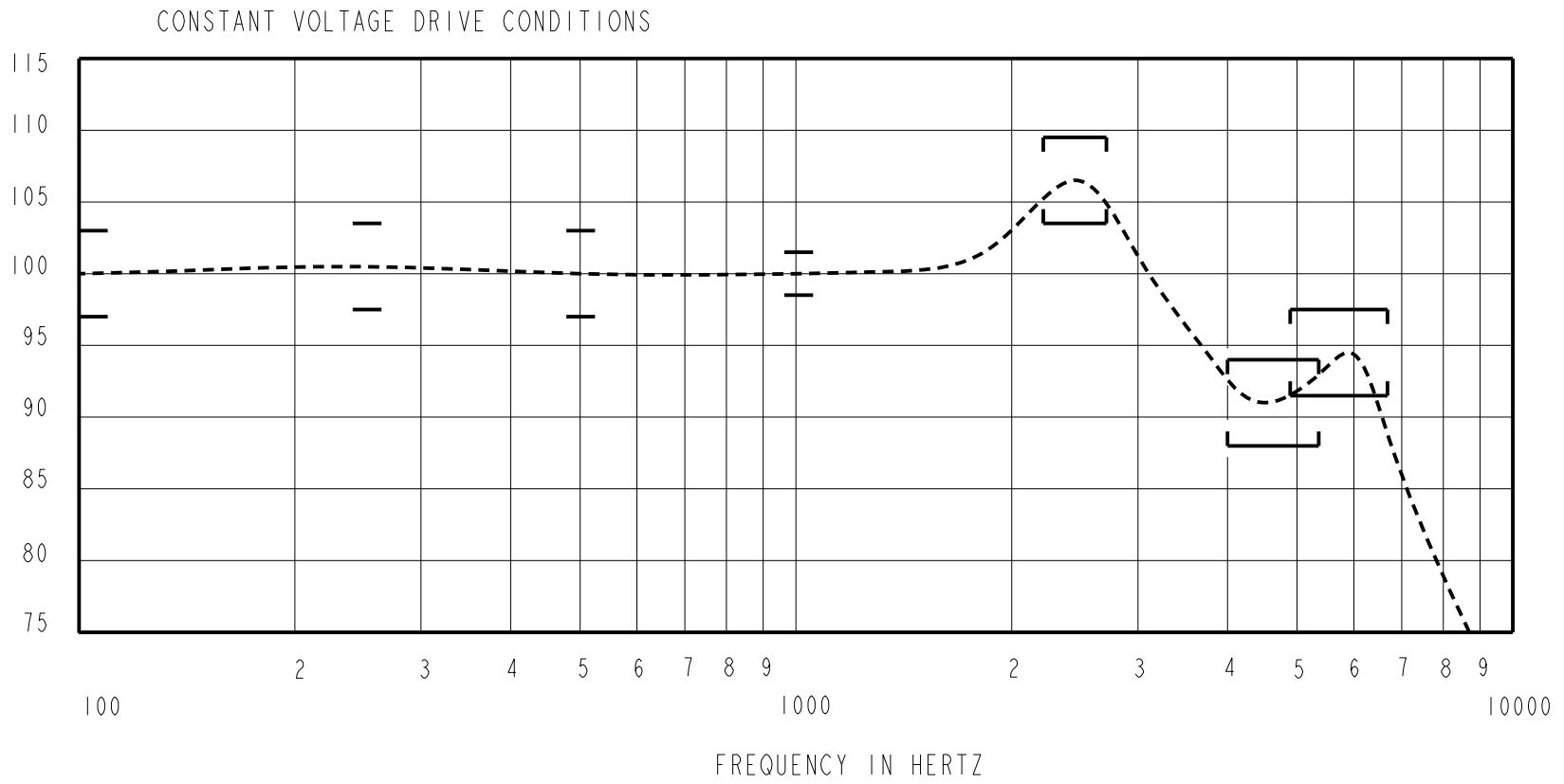
**KNOWLES ELECTRONICS**  
ITASCA, ILLINOIS U.S.A.

INTENDED FOR USE IN CIC, RIC, AND MINI-BTE APPLICATIONS. THIS IS A PAIR OF GE RECEIVERS WITH VERY LOW VIBRATION IN ALL DIRECTIONS. ONE GE RECEIVER IS REVERSE MAGNETIZED FOR MAGNETIC LEAKAGE CONSIDERATIONS. BOTH DAUGHTER UNITS HAVE THE CENTER TERMINAL CONNECTED TO CASE.

NO DAMPING

CD-31223-000  
SHEET 2.1

SENSITIVITY IN dB RELATIVE TO 20μPa FOR CONDITIONS SHOWN BELOW



### ACOUSTICAL

SENSITIVITY DEVICE WILL PRODUCE THE SPL LISTED BELOW UNDER TEST CONDITIONS DESCRIBED IN TABLE 4. NOMINAL SENSITIVITY AT 1kHz IS dB RELATIVE TO 20μPa. ALL OTHER VALUES IN dB RELATIVE TO THE SENSITIVITY AT 1kHz.

LIMIT TYPE	FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
REL	100	-3.0	0.0	+3.0
REL	250	-2.5	+0.5	+3.5
REL	500	-3.0	0.0	+3.0
REF	1000	-1.5	100.0	+1.5
PEAK	2250 - 2750	+3.5	+6.5	+9.5
VALLEY	4000 - 5400	-12.0	-9.0	-6.0
PEAK	4900 - 6700	-8.5	-5.5	-2.5

TABLE 1

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

FREQUENCY (Hz)	AC DRIVE (Vrms)	DC BIAS (V)	LIMIT (%)
833	0.204	0	3
1250	0.204	0	3
833	0.576	0	8
1250	0.576	0	8

TABLE 2

MAXIMUM OUTPUT LEVEL (TYPICAL)

POWER (mW)	500 Hz SPL (dB)	REQUIRED VOLTAGE (Vrms)	Peak SPL (dB)	REQUIRED VOLTAGE (Vrms)
10	114.0	1.1	124.0	1.6
50	117.0	2.3	128.0	3.1

TABLE 3

### TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	0.204 Vrms, 0 mA DC BIAS
SOURCE IMPEDANCE	<1 Ohm
TUBING	10 mm [.394"] LONG X 1 mm [.039"] I.D. ("ITE")
COUPLER CAVITY	2 CM <sup>3</sup> , SIMULATED ANSI S3.7 TYPE HA-3 (IEC 60318-5)

TABLE 4

### ELECTRICAL

DC RESISTANCE @ 20°C	105.0 Ohms ± 10%
IMPEDANCE @ 500 Hz	121.0 Ohms ± 15%
IMPEDANCE @ 1 kHz	144.4 Ohms ± 15%
INDUCTANCE @ 500 Hz	10.6 mH TYPICAL
CAPACITANCE @ 10 MHz	4.6 pF TYPICAL

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 AT 500 Hz FROM -17°C TO 63°C

STORAGE: -40°C TO 63°C

SHOCK RESISTANCE: 90% SURVIVAL RATE WITH THD @ 1/3 PEAK FREQUENCY LESS THAN 10%, THD @ 1/2 PEAK FREQUENCY LESS THAN 20% AND LESS THAN 3dB CHANGE IN SENSITIVITY AT 1kHz WHEN SUBJECTED TO 15,000 G.

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

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C	C10113289	3-30-12	<b>Active</b>	<b>C</b>
B	C10112587	6-28-11		
A	C10112068P	3-24-11		
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	3-24-11
			CD-31223-000 SHT 2.1	
			CK. BY	DATE
			GJP	3-29-11
			APP. BY	DATE
			GJP	4-1-11