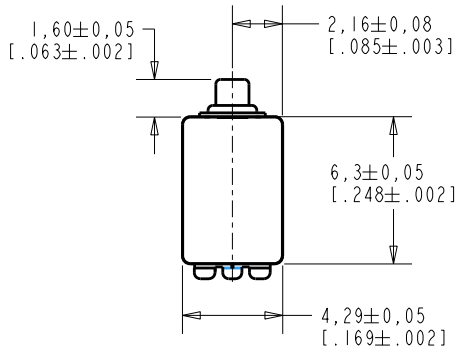
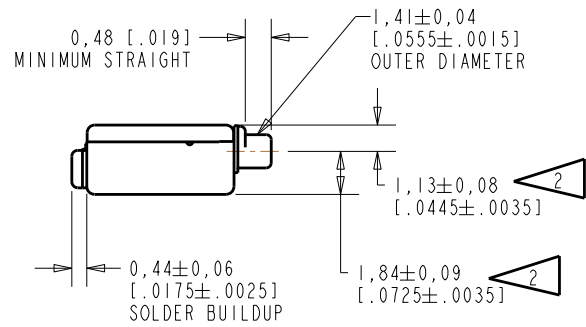
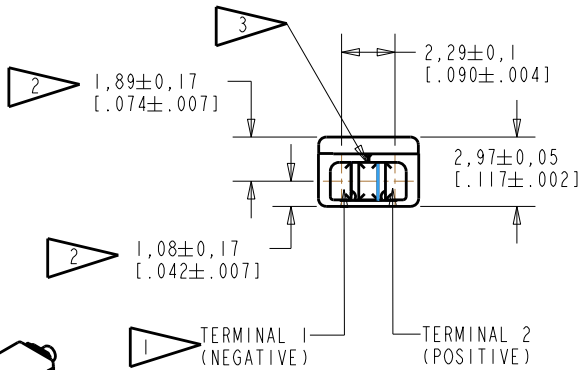


**ED-30003-000**  
**SHT 1.1**



NOTE:

- 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 ▲ TERMINAL ELECTRICALLY CONNECTED TO CASE.



SCALE 2:1

NOMINAL WEIGHT  
 .31 GRAM

DIMENSIONS IN MILLIMETERS [INCHES]

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

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	C10107990	10-13-08	Active	B
A	C10104161	4-25-06		
SCALE: 4:1			DR. BY	DATE
TITLE: RECEIVER OUTLINE DRAWING			DO NOT SCALE DRAWING	
			ED-30003-000 SHT 1.1	
			AB	4-25-06
			GJP	4-28-06
			GJP	4-28-06

HE111ASIZE.FRM Rev: B

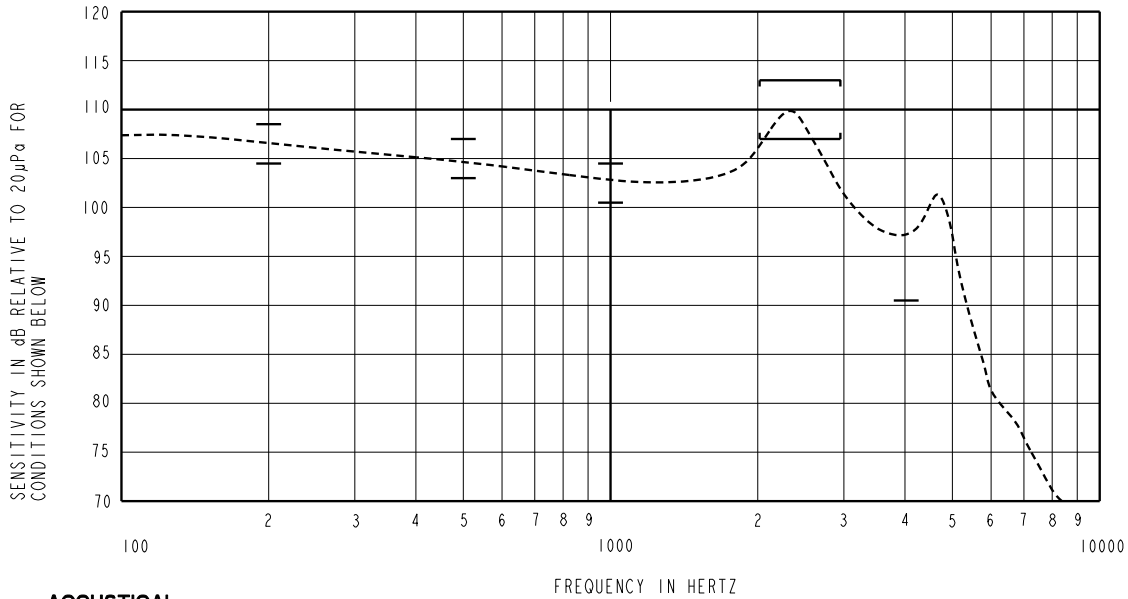
THE ED-30003-000 IS AN UNDAMPED MAGNETIC BALANCED ARMATURE RECEIVER. THIS MODEL HAS THE CENTER TERMINAL CONNECTED TO CASE.

NO DAMPING

ED-30003-000

SHEET 2.1

CONSTANT VOLTAGE DRIVE CONDITIONS



**ACOUSTICAL**

SENSITIVITY DEVICE WILL PRODUCE THE SPL LISTED BELOW UNDER TEST CONDITIONS DESCRIBED IN TABLE 3. NOMINAL SENSITIVITY AT 1kHz IS dB RELATIVE TO 20µPa. ALL OTHER VALUES IN dB RELATIVE TO THE SENSITIVITY AT 1kHz.

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
200	+2.0	+4.0	+6.0
500	+0.5	+2.5	+4.5
1000	-2.0	102.5	+2.0
2000 - 3000	+4.5	+7.5	+10.5
4000	-12.0	---	---

PORT LOCATION: 12C

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 (%)
500	0.45	0	10
780	0.159	0	5
1175	0.159	0	5

TABLE 2

**TEST CONDITIONS**

NOMINAL SOURCE VOLTAGE	0.159 V rms, 0mA DC BIAS
SOURCE IMPEDANCE	<1 Ohm
TUBING	10mm [.394"] LONG, 1mm [.039"] I.D.
COUPLER CAVITY	2 CM <sup>3</sup> , SIMULATED ANSI S3.7 TYPE HA-3 (IEC 126)

TABLE 3

**ELECTRICAL**

DC RESISTANCE	35 OHMS ± 10%
IMPEDANCE @ 500 Hz	50 OHMS ± 15%
IMPEDANCE @ 1 kHz	85 OHMS ± 15%

TABLE 4

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

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	C10107990	10-13-08	Active	B
A	C10104161	4-25-06		

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

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: RECEIVER		AB	4-25-06
		APP. BY	DATE
PERFORMANCE SPECIFICATION		GJP	4-28-06
ED-30003-000		GJP	4-28-06
SHT 2.1			