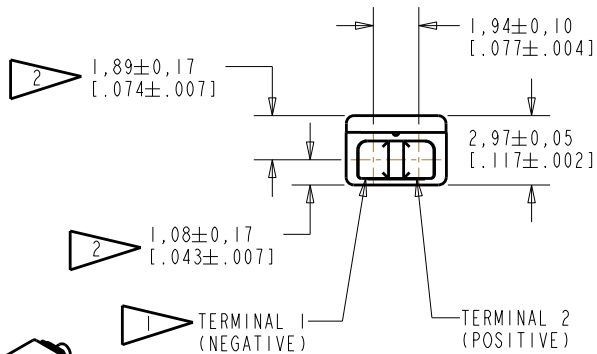
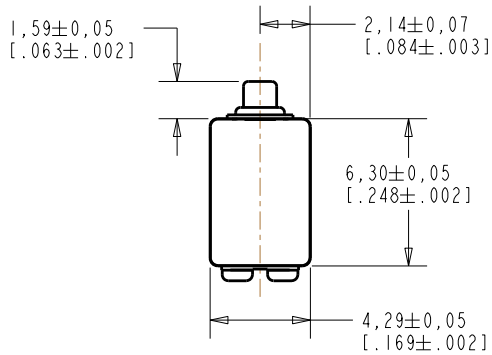
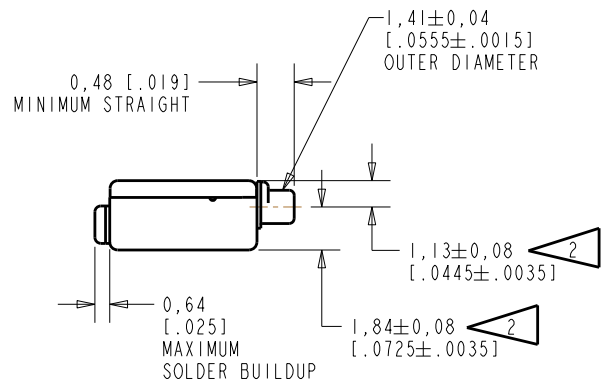


**ED-23993-000**  
**SHT 1.1**



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].



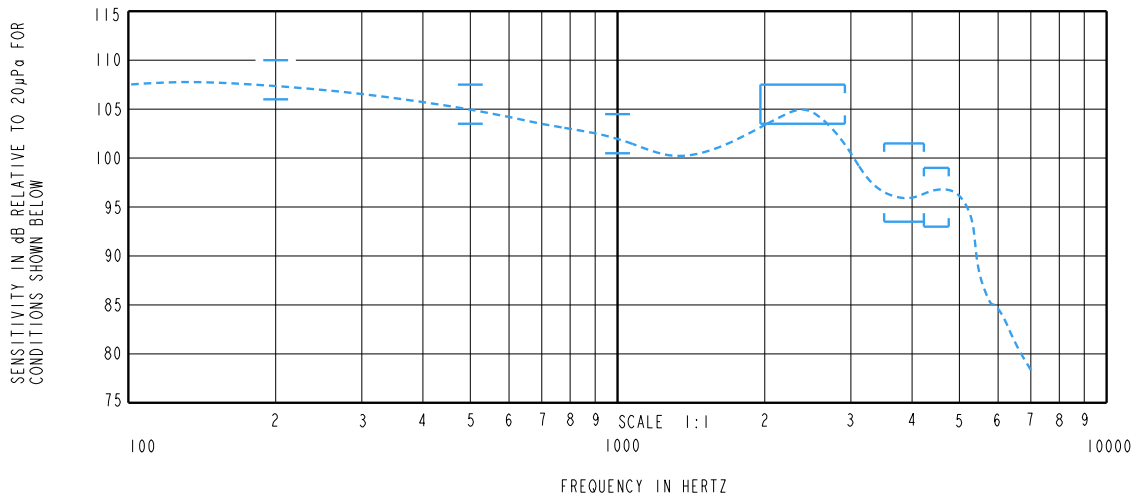
SCALE 2:1  
 NOMINAL WEIGHT .31 GRAM  
 DIMENSIONS IN MILLIMETERS [INCHES]

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

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	C10107990	8-20-08	Active	B
A	C10103839	1-24-06		
SCALE: 2:1			DR. BY	DATE
DO NOT SCALE DRAWING			CRG	1-24-06
TITLE: RECEIVER			CK. BY	DATE
OUTLINE DRAWING			GJP	1-25-06
ED-23993-000			APP. BY	DATE
SHT 1.1			GJP	1-25-06

RE111AS12E.FRM Rev: B

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	+3.5	+5.5	+7.5
500	+1.0	+3.0	+5.0
1000	-2.0	102.5	+2.0
1900-2900	+1.0	+3.0	+5.0
3600-4200	-9.0	---	-1
4250-4750	-9.5	-6.5	-3.5

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	0.943	0	10
780	0.335	0	5
1175	0.335	0	5

TABLE 2

**TEST CONDITIONS**

NOMINAL SOURCE VOLTAGE	0.335 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	119 OHMS ± 10%
IMPEDANCE @ 500 Hz	268 OHMS ± 15%
IMPEDANCE @ 1 kHz	490 OHMS ± 15%

TABLE 4

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

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	C10107990	8-20-08	Active	B
A	C10103839	1-24-06		

**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: <b>RECEIVER</b> PERFORMANCE SPECIFICATION		CRG	1-24-06
		GJP	1-25-06
ED-23993-000		APP. BY	DATE
SHT 2.1		GJP	1-25-06