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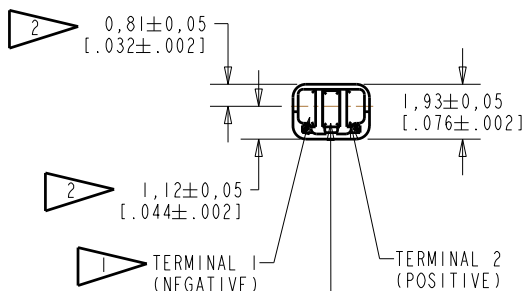
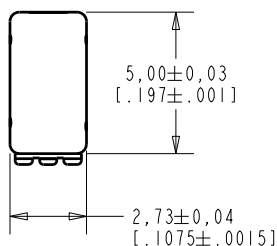
[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

**FK-23989-000**

**SHT 1.1**

NOTES:

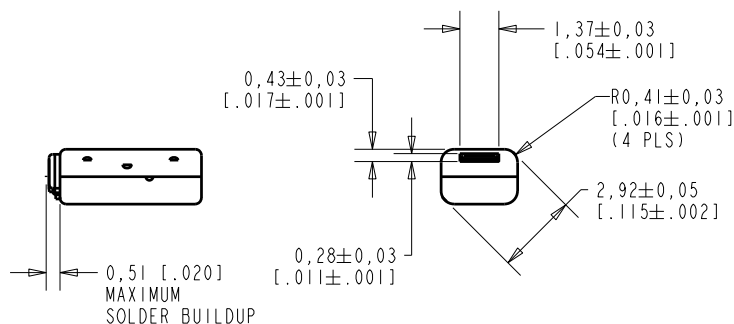
- 1 A POSITIVE GOING VOLTAGE AT TERMINAL 2, RELATIVE TO TERMINAL 1, CAUSES A DECREASE IN PRESSURE AT THE SOUND OUTLET.
- 2 LOCATED FROM TWO SURFACES FOR CUSTOMER CONVENIENCE. ONLY APPLICABLE FROM ONE SURFACE, NOT TO BE USED TOGETHER.



TERMINAL 1 (NEGATIVE)

TERMINAL 2 (POSITIVE)

UNUSED TERMINAL, RUBBER SEAL REMOVED FOR BACK VENT AFTER FINAL TEST



SCALE 2:1

DIMENSIONS IN MILLIMETERS [INCHES]

| Revision        | C.O. #     | Implementation Date | RELEASE LEVEL        | REVISION     |
|-----------------|------------|---------------------|----------------------|--------------|
| E               | C10108259P | 12-29-08            | Active               | E            |
| D               | C10105758  | 4-26-07             |                      |              |
| SCALE: 5:1      |            |                     | DO NOT SCALE DRAWING | DR. BY DATE  |
|                 |            |                     |                      | CRG 2-6-06   |
| TITLE: RECEIVER |            | FK-23989-000        | SHT 1.1              | CK. BY DATE  |
| OUTLINE DRAWING |            |                     |                      | GJP 2-8-06   |
|                 |            |                     |                      | APP. BY DATE |
|                 |            |                     |                      | GJP 2-8-06   |

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Rev: B

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

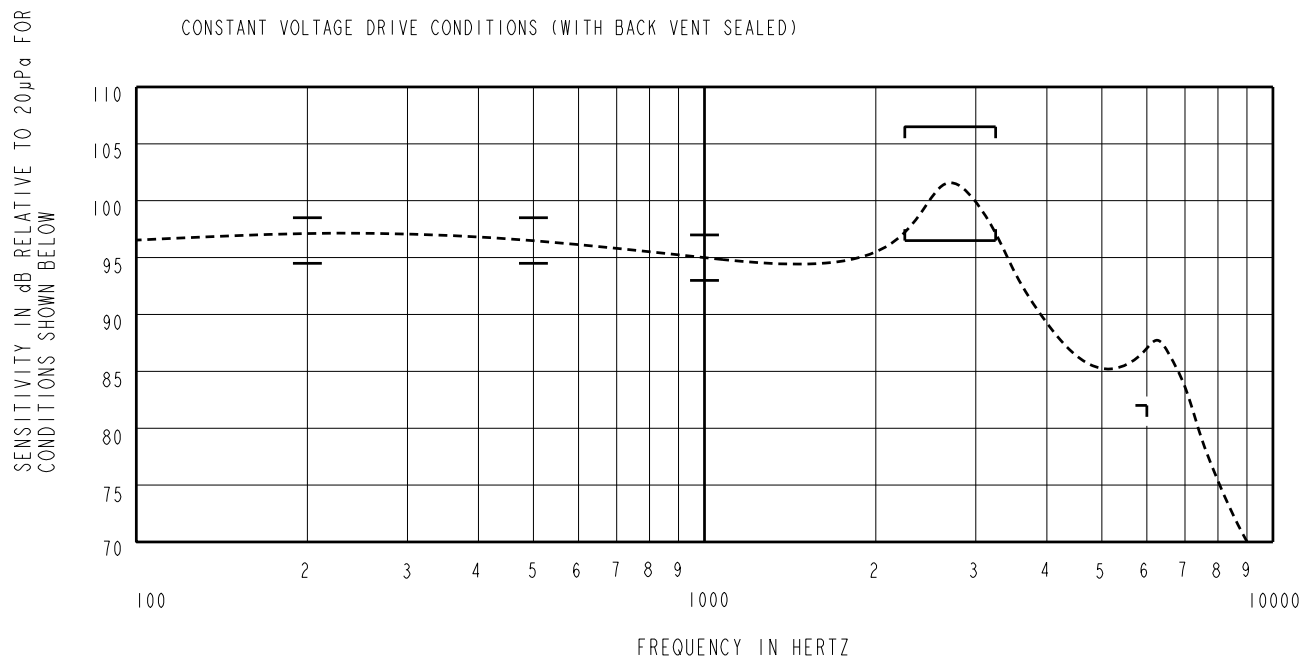
FK-23989-000

SHEET 2.1

AN UNDAMPED AND TUBELESS MAGNETIC BALANCED ARMATURE RECEIVER INTENDED FOR USE IN CIC HEARING INSTRUMENTS OR AS THE LOW FREQUENCY DRIVER IN A HIFI SYSTEM. EXTERNAL BACK VENT IS PROVIDED ON THE CENTER PAD OF TERMINAL.

NO DAMPING

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



## 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            | -0.5    | +1.5    | +3.5    |
| 500            | -0.5    | +1.5    | +3.5    |
| 1000           | -2.0    | 95.0    | +2.0    |
| 2250 - 3250    | +3.5    | +6.5    | +9.5    |
| 6000           | -13.0   | ---     | ---     |

TABLE 1

## TOTAL HARMONIC DISTORTION\*

DEVICE WILL NOT EXCEED TOTAL HARMONIC DISTORTION LEVELS LISTED BELOW.

| FREQUENCY (Hz) | AC DRIVE (V rms) | DC BIAS (V) | LIMIT (%) |
|----------------|------------------|-------------|-----------|
| 920            | 0.174            | 0           | 5         |
| 1380           | 0.174            | 0           | 5         |
| 920            | 0.491            | 0           | 10        |

TABLE 2

## TEST CONDITIONS

|                        |                                                             |
|------------------------|-------------------------------------------------------------|
| NOMINAL SOURCE VOLTAGE | 0.174 V rms, 0 mA 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      | 100 Ohms ± 10%* |
| IMPEDANCE @ 500 Hz | 112 Ohms ± 15%* |
| IMPEDANCE @ 1kHz   | 145 Ohms ± 15%* |

TABLE 4

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

## MECHANICAL

PORT LOCATION: I2N

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