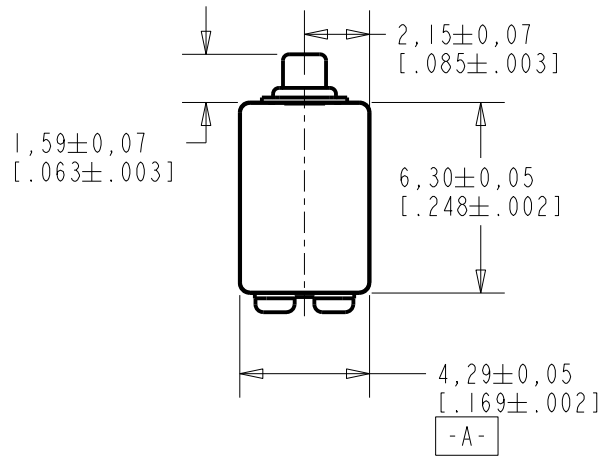


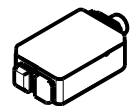
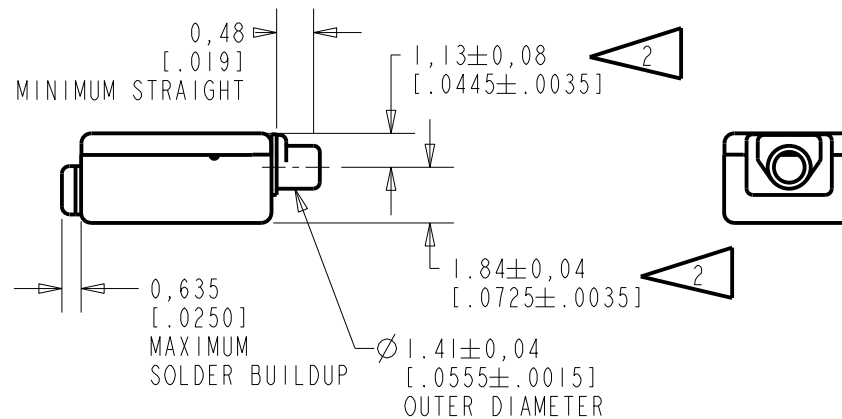
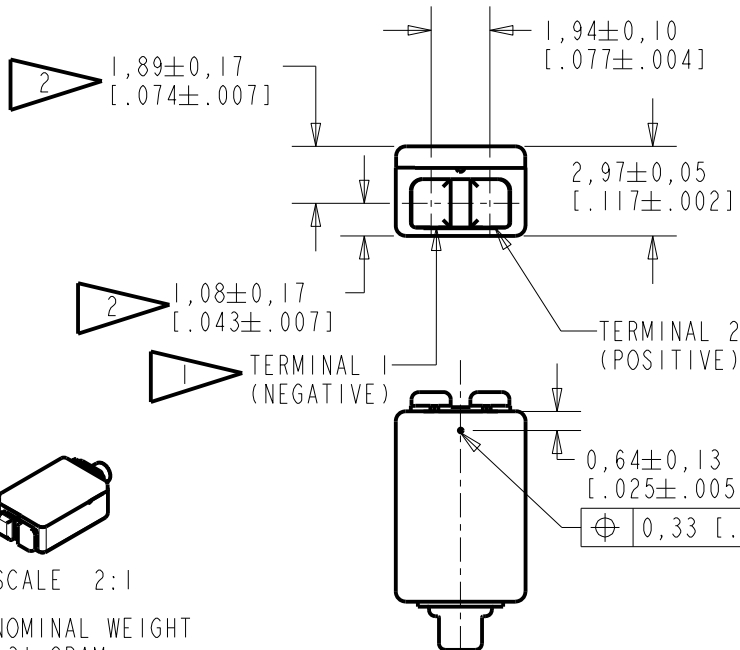
ED-31305-163

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 IT IS IMPORTANT TO KEEP HOLE CLEAN AND CLEAR AT ALL TIMES. CLOGGING THE HOLE WILL CAUSE PERFORMANCE CHANGES.



SCALE 2:1

NOMINAL WEIGHT
.31 GRAM

DIMENSIONS IN MILLIMETERS [INCHES]

| Revision | C.O. # | Implementation Date | RELEASE LEVEL | REVISION |
|----------|------------|---------------------|---------------|----------|
| | | | Active | A |
| A | CI0112227P | 3-22-11 | | |

| | | |
|------------------------------------|-------------------------|-------------------------------|
| SCALE: 4:1 | DR. BY: KL | DATE: 3-22-11 |
| DO NOT SCALE DRAWING | CK. BY: GJP | DATE: 3-24-11 |
| TITLE: RECEIVER OUTLINE DRAWING | ED-31305-163 SHT 1.1 | APP. BY: GJP DATE: 3-24-11 |

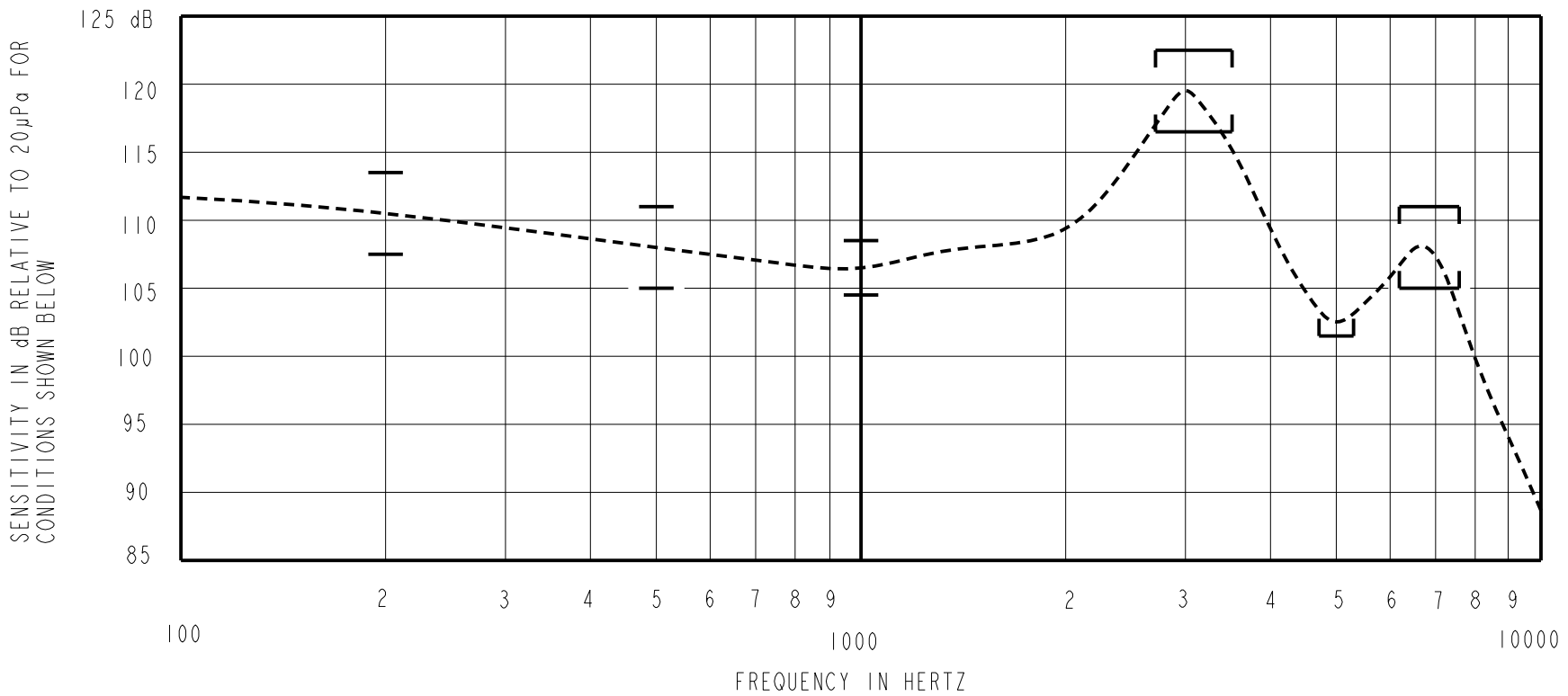
KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

DESCRIPTION

THE ED-31305-163 IS A RESISTIVE VENTED RECEIVER WITH CUSTOMIZED TESTING.

NO DAMPING

ED-31305-163
SHEET 2.1



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. TEST DATA MEASURED WITH VENT OPEN.

| FREQUENCY (Hz) | MINIMUM | NOMINAL | MAXIMUM |
|----------------|---------|---------|---------|
| 200 | +1.0 | +4.0 | +7.0 |
| 500 | -1.5 | +1.5 | +4.5 |
| 1000 | -2.0 | 106.5 | +2.0 |
| 2750-3550 | +10.0 | +13.0 | +16.0 |
| 5000 | -5.0 | --- | --- |
| 6200-7600 | -1.5 | +1.5 | +4.5 |

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 (%) |
|----------------|------------------|--------------|-----------|
| 500 | 0.413 | 0 | 10 |
| 1000 | 0.146 | 0 | 5 |
| 1500 | 0.146 | 0 | 5 |

TABLE 2

TEST CONDITIONS

| | |
|------------------------|-------------------------------------|
| NOMINAL SOURCE VOLTAGE | 0.146 V rms, 0mA DC BIAS |
| SOURCE IMPEDANCE | <1 Ohm |
| TUBING | TUBELESS, KNOWLES TOOL NUMBER T8688 |
| COUPLER CAVITY | IEC 60318-4(IEC 711) |

TABLE 3

ELECTRICAL

| | |
|------------------------|--------------------------|
| NOMINAL SOURCE VOLTAGE | 0.146 V rms, 0mA DC BIAS |
| DC RESISTANCE | 39.2 OHMS ± 10% |
| IMPEDANCE @ 500 Hz | 58.8 OHMS ± 20% |
| IMPEDANCE @ 1 kHz | 91.8 OHMS ± 20% |

TABLE 4

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

PORT LOCATION: 12N

BUZZ TEST

LISTENING TEST CONDUCTED BETWEEN 50Hz TO 5kHz TO DETECT BUZZ.

| | |
|----------------------------|-------|
| INPUT VOLTAGE DRIVE SIGNAL | .146V |
|----------------------------|-------|

TABLE 5

| Revision | C.O. # | Implementation Date | RELEASE LEVEL | REVISION |
|--|------------|---------------------|---------------|-----------------------------|
| | | | Active | A |
| A | CI0112227P | 3-22-11 | | |
| 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 | | | | |
| TITLE: RECEIVER | | ED-31305-163 | | DR. BY DATE KL 3-22-11 |
| PERFORMANCE SPECIFICATION | | SHT 2.1 | | CK. BY DATE GJP 3-24-11 |
| | | | | APP. BY DATE GJP 3-24-11 |

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