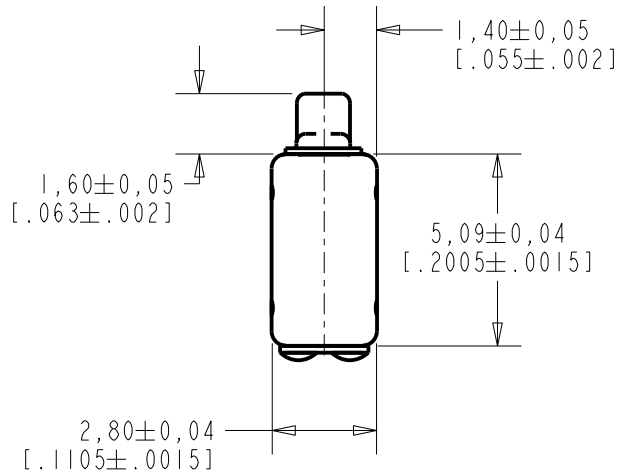


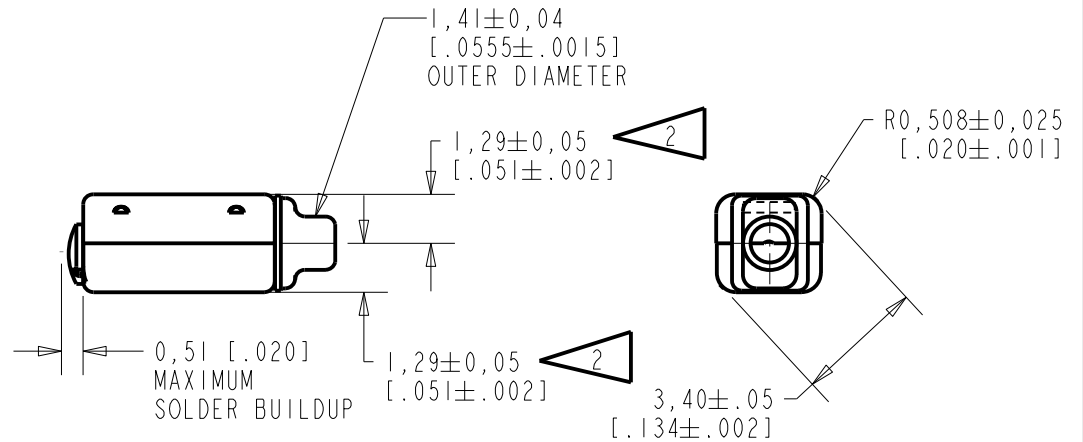
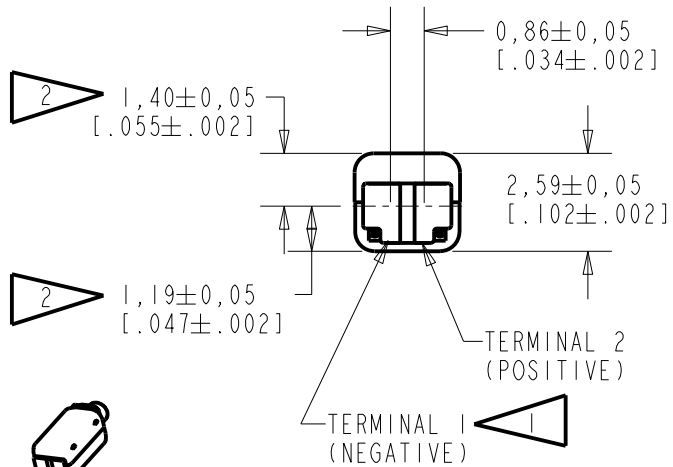
FFH-23375-102

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.



SCALE 2:1

NOMINAL WEIGHT  
.18 GRAMS

DIMENSIONS IN MILLIMETERS [INCHES]

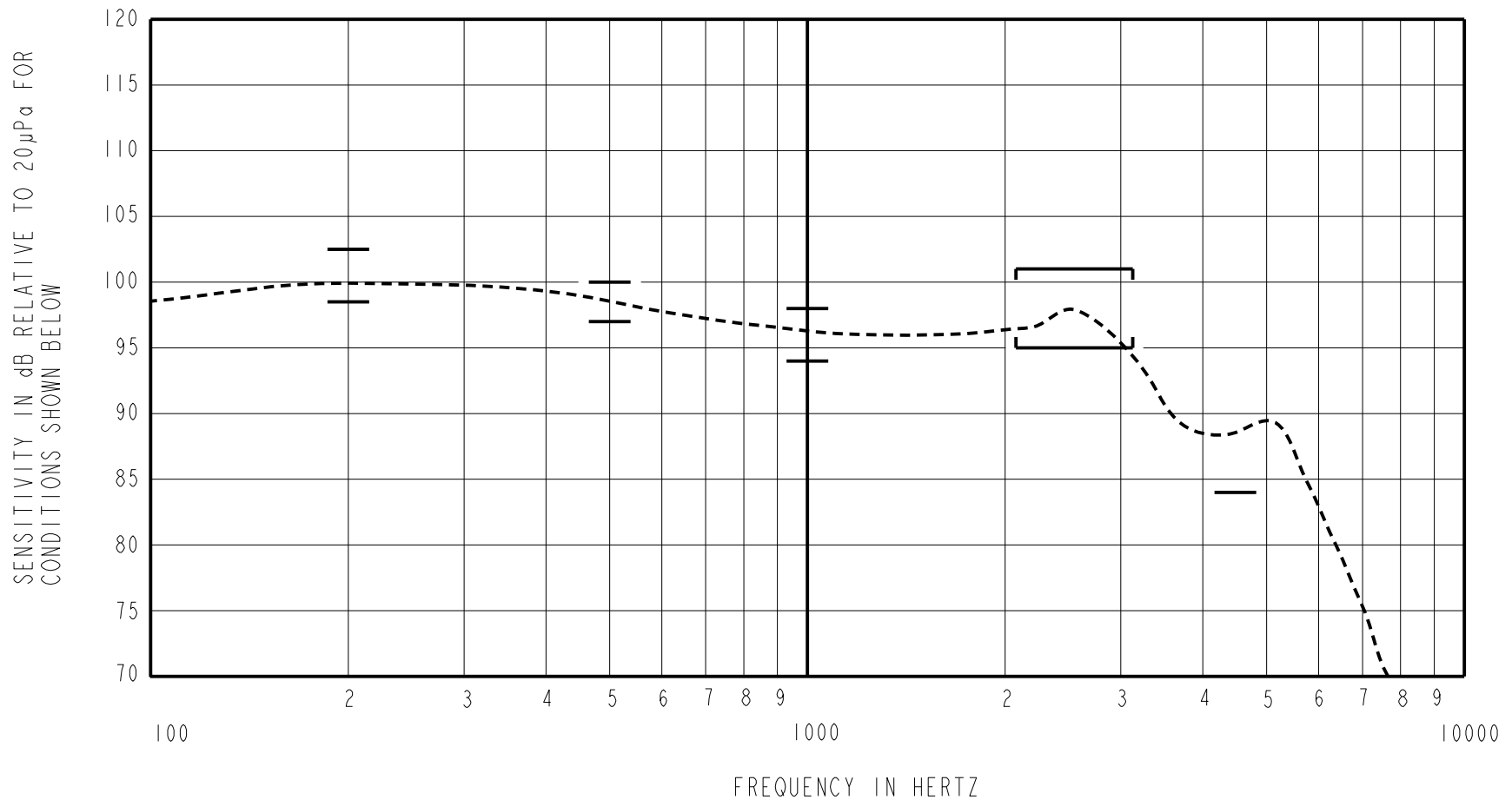
| Revision | C.O. #     | Implementation Date | RELEASE LEVEL | REVISION |
|----------|------------|---------------------|---------------|----------|
| B        | C10109708P | 10-28-10            | Active        | B        |
| A        | C10103482  | 12-7-05             |               |          |
|          |            |                     |               |          |

|                      |  |         |         |
|----------------------|--|---------|---------|
| SCALE: 5:1           |  | DR. BY  | DATE    |
| DO NOT SCALE DRAWING |  | CRG     | 12-7-05 |
| TITLE: RECEIVER      |  | CK. BY  | DATE    |
| OUTLINE DRAWING      |  | GJP     | 12-8-05 |
| FFH-23375-102        |  | APP. BY | DATE    |
| SHT 1.1              |  | GJP     | 12-8-05 |

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

THE FFH-23375-102 IS A FERROFLUID DAMPED FH-23375 RECEIVER WITH A PEAK OF 2dB RELATIVE TO THE SENSITIVITY AT 1kHz UNDER CONSTANT VOLTAGE DRIVE CONDITIONS.

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            | 2.5     | 4.5     | 6.5     |
| 500            | 1.0     | 3.0     | 5.0     |
| 1000           | -2.0    | 96.0    | 2.0     |
| 2100 - 3100    | -1.0    | 2.0     | 5.0     |
| 4500           | -12.0   | ---     | ---     |

PORT LOCATION: 12S

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 (%) |
|----------------|------------------|-------------|-----------|
| 500            | 0.70             | 0           | 10        |
| 870            | 0.25             | 0           | 6         |
| 1300           | 0.25             | 0           | 6         |

TABLE 2

TEST CONDITIONS

|                        |   |
|------------------------|---|
| NOMINAL SOURCE VOLTAGE | 0.25 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      | 240 Ohms ± 10% |
| IMPEDANCE @ 500 Hz | 353 Ohms ± 15% |
| IMPEDANCE @ 1kHz   | 553 Ohms ± 15% |

TABLE 4

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

TEMPERATURE: OPERATING RANGE FROM 0°C TO 63°C (SENSITIVITY WILL NOT VARY BY MORE THAN ±3 dB WITHIN RANGE)  
SENSITIVITY AT 0°C IS 2dB LOWER THAN THE SENSITIVITY AT ROOM TEMPERATURE.  
DELTA PEAK IS 1.5dB HIGHER AT BODY TEMPERATURE (37°C)  
STORAGE RANGE FROM -40°C TO 63°C

| Revision   | C.O. #     | Implementation Date | RELEASE LEVEL | REVISION     |
|--|------------|---------------------|---------------|--------------|
| B  | C10109708P | 10-28-10            | Active        | B            |
| A  | C10103482  | 12-7-05             |               |              |
| 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  |            | FFH-23375-102       |               | DR. BY DATE  |
| PERFORMANCE SPECIFICATION  |            | SHT 2.1             |               | CRG 12-7-05  |
|  |            |                     |               | CK. BY DATE  |
|  |            |                     |               | GJP 12-8-05  |
|  |            |                     |               | APP. BY DATE |
|  |            |                     |               | GJP 12-8-05  |

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