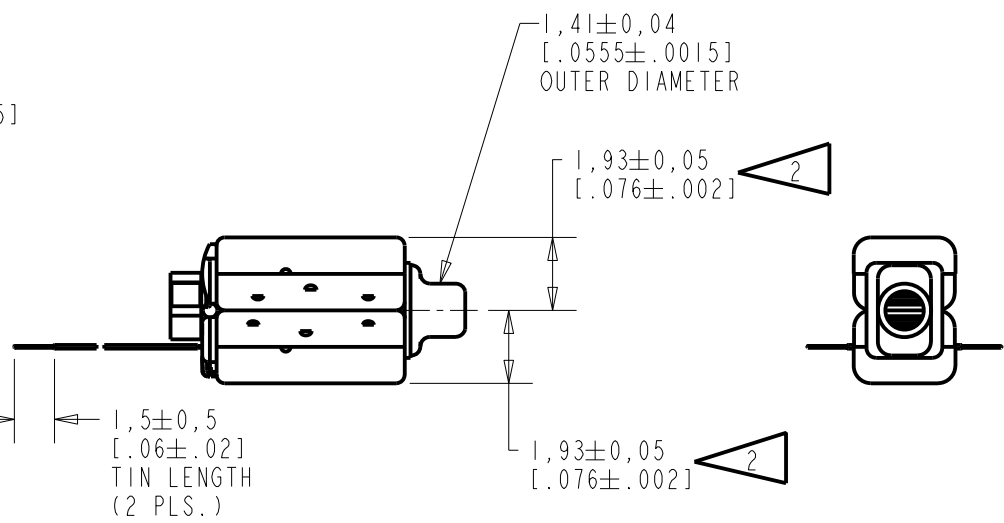
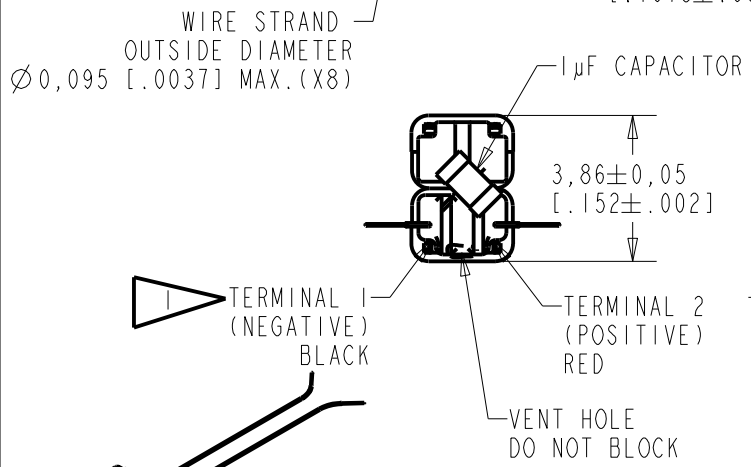


NOTES:

- 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 DIMENSIONS IN MILLIMETERS [INCHES]

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| Revision | C.O. # | Implementation Date | RELEASE LEVEL | REVISION |
|----------|-----------|---------------------|---------------|----------|
| | | | Active | A |
| A | C40101551 | 10-28-14 | | |

| | | | |
|----------------------|--|-----------------|----------------|
| SCALE: 5:1 | | DR. BY: SSUN | DATE: 10-28-14 |
| DO NOT SCALE DRAWING | | CK. BY: GJP | DATE: 10-28-14 |
| TITLE: RECEIVER | | TWFK-32651-P176 | |
| OUTLINE DRAWING | | SHT 1.1 | |
| | | APP. BY: GJP | DATE: 10-28-14 |

UNDAMPED MAGNETIC BALANCED ARMATURE RECEIVERS INTENDED FOR USE AS THE HIGH AND LOW FREQUENCY DRIVERS IN A Hi Fi SYSTEM. THE TWFK IS A WIDEBAND FK AND FK RECEIVER PAIR WITH AN EXTENDED HIGH FREQUENCY RESPONSE AND SHOCK PROTECTION. FK RECEIVER VENTED THROUGH UNUSED TERMINAL.

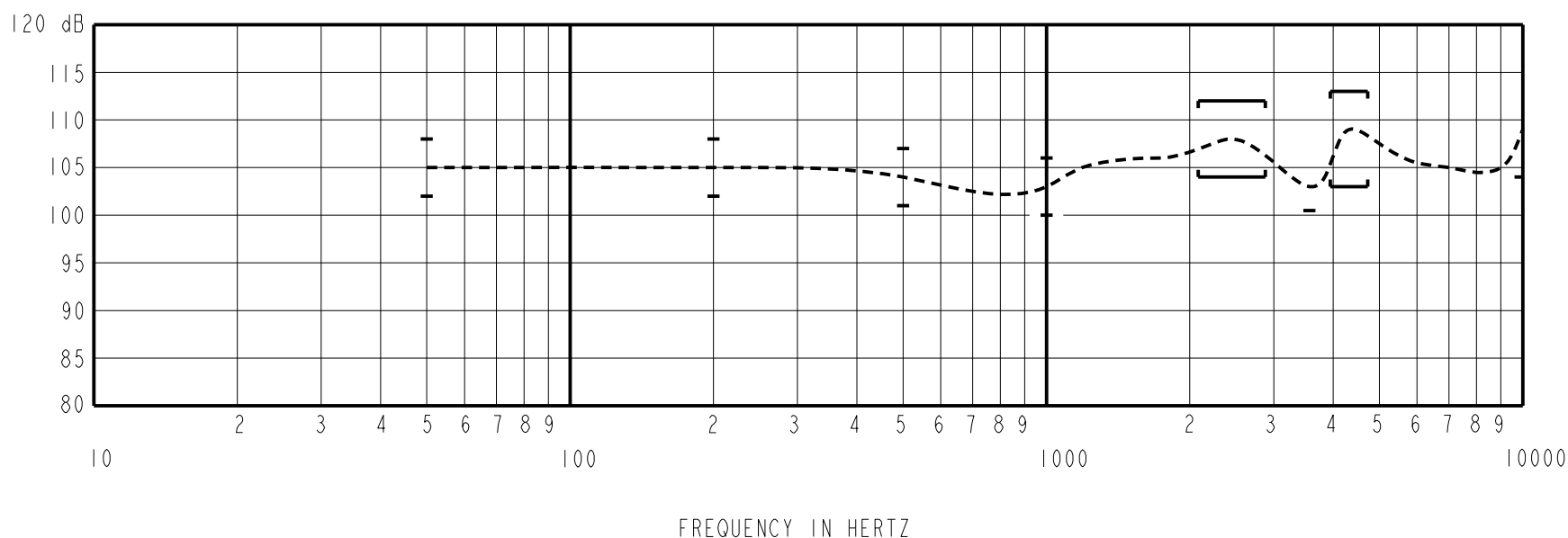
NO DAMPING

TWFK-32651-P176

SHEET 2.1

NOTE: SPECIFICATIONS FOLLOWED BY AN ASTERISK(*) ARE 100% TESTED
CONSTANT VOLTAGE DRIVE CONDITIONS (WITH VENT OPEN)

SENSITIVITY IN dB RELATIVE TO 20μPa FOR
CONDITIONS SHOWN BELOW



ACOUSTICAL

SENSITIVITY*
DEVICE WILL PRODUCE THE SPL LISTED BELOW UNDER TEST CONDITION IN TABLE 3.
NOMINAL SENSITIVITY AT 500Hz IS dB RELATIVE TO 20 μPa. ALL OTHER VALUES
IN dB RELATIVE TO THE SENSITIVITY AT 500Hz.

| FREQUENCY (Hz) | MINIMUM | NOMINAL | MAXIMUM |
|----------------|---------|---------|---------|
| 50 | -2.0 | +1.0 | +4.0 |
| 200 | -2.0 | +1.0 | +4.0 |
| 500 | -3.0 | 104.0 | +3.0 |
| 1000 | -4.0 | -1.0 | +2.0 |
| 2100-2900 | 0.0 | +4.0 | +8.0 |
| 3600 | -3.5 | --- | --- |
| 3950-4750 | +1.0 | +5.0 | +9.0 |
| 9900 | 0.0 | --- | --- |

TABLE 1

MECHANICAL

PORT LOCATION: 12S
SOLDER TYPE: SAC305

TEMPERATURE:

OPERATING: SENSITIVITY AT 500Hz WILL NOT VARY
BY MORE THAN ±3 dB FROM
0°C TO 63°C
STORAGE: -40°C TO 63°C.

TOTAL HARMONIC DISTORTION

DEVICE WILL NOT EXCEED TOTAL HARMONIC DISTORTION LEVELS LISTED BELOW.

| FREQUENCY (Hz) | AC DRIVE (Vrms) | DC BIAS (mA) | LIMIT (%) |
|----------------|-----------------|--------------|-----------|
| 1/2 PEAK | .085 | 0 | 5 |
| 1/3 PEAK | .085 | 0 | 5 |
| 1000 | .085 | 0 | 5 |

TABLE 2

TEST CONDITIONS

| | |
|------------------------|---------------------------|
| NOMINAL SOURCE VOLTAGE | 0.085 Vrms, 0 V DC BIAS |
| SOURCE IMPEDANCE | <1 Ohm |
| TUBING | NO TUBE |
| COUPLER CAVITY | 711 COUPLER (IEC-60318-4) |

TABLE 3

ELECTRICAL

| | |
|--------------------|--|
| DC RESISTANCE | 25.0 Ohms ±10%* 25.0 Ohms FK / 12.5 Ohms WBFK |
| IMPEDANCE @ 500 Hz | 29.4 Ohms ±15%* |
| IMPEDANCE @ 1kHz | 47.5 Ohms ±15%* |

TABLE 4

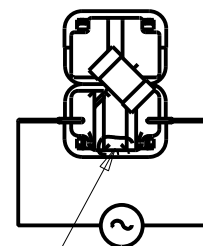
BUZZ TEST

LISTENING TEST CONDUCTED BETWEEN 20Hz TO 2 kHz TO DETECT BUZZ

| | |
|----------------------------|-----------|
| INPUT VOLTAGE DRIVE SINGAL | .085 Vrms |
|----------------------------|-----------|

TABLE 5

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



TEST VENT OPEN

| Revision | C.O. # | Implementation Date | RELEASE LEVEL | REVISION |
|----------|-----------|---------------------|---------------|----------|
| A | C40101551 | 10-28-14 | Active | A |

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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**
PERFORMANCE SPECIFICATION

TWFK-32651-P176
SHT 2.1

| | |
|---------|----------|
| DR. BY | DATE |
| SSUN | 10-28-14 |
| CK. BY | DATE |
| GJP | 10-28-14 |
| APP. BY | DATE |
| GJP | 10-28-14 |