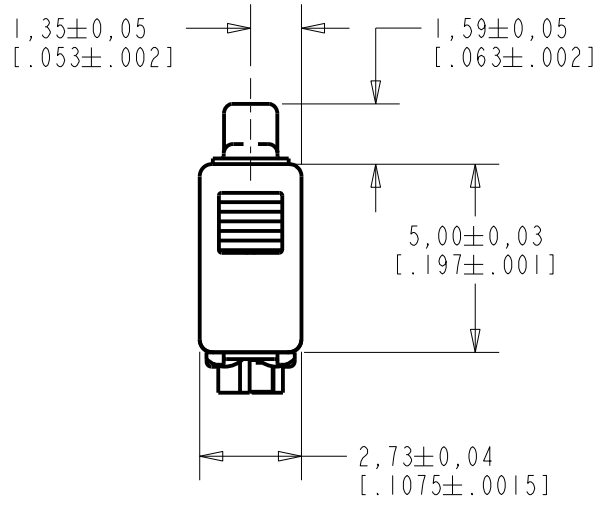
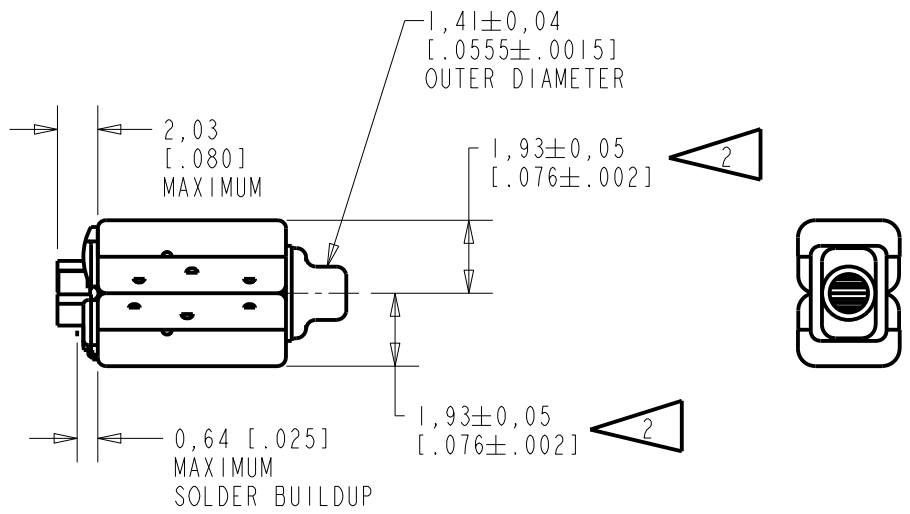
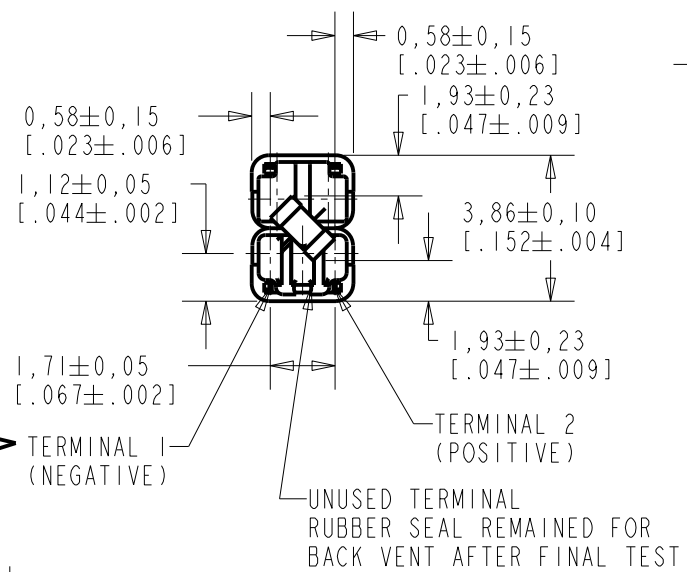


**TWFK-31749-000**  
SHT 1.1



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.



SCALE 2:1  
NOMINAL WEIGHT  
.20 GRAMS

DIMENSIONS IN MILLIMETERS [INCHES]

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
A	C10113623	4-19-12	Active	A

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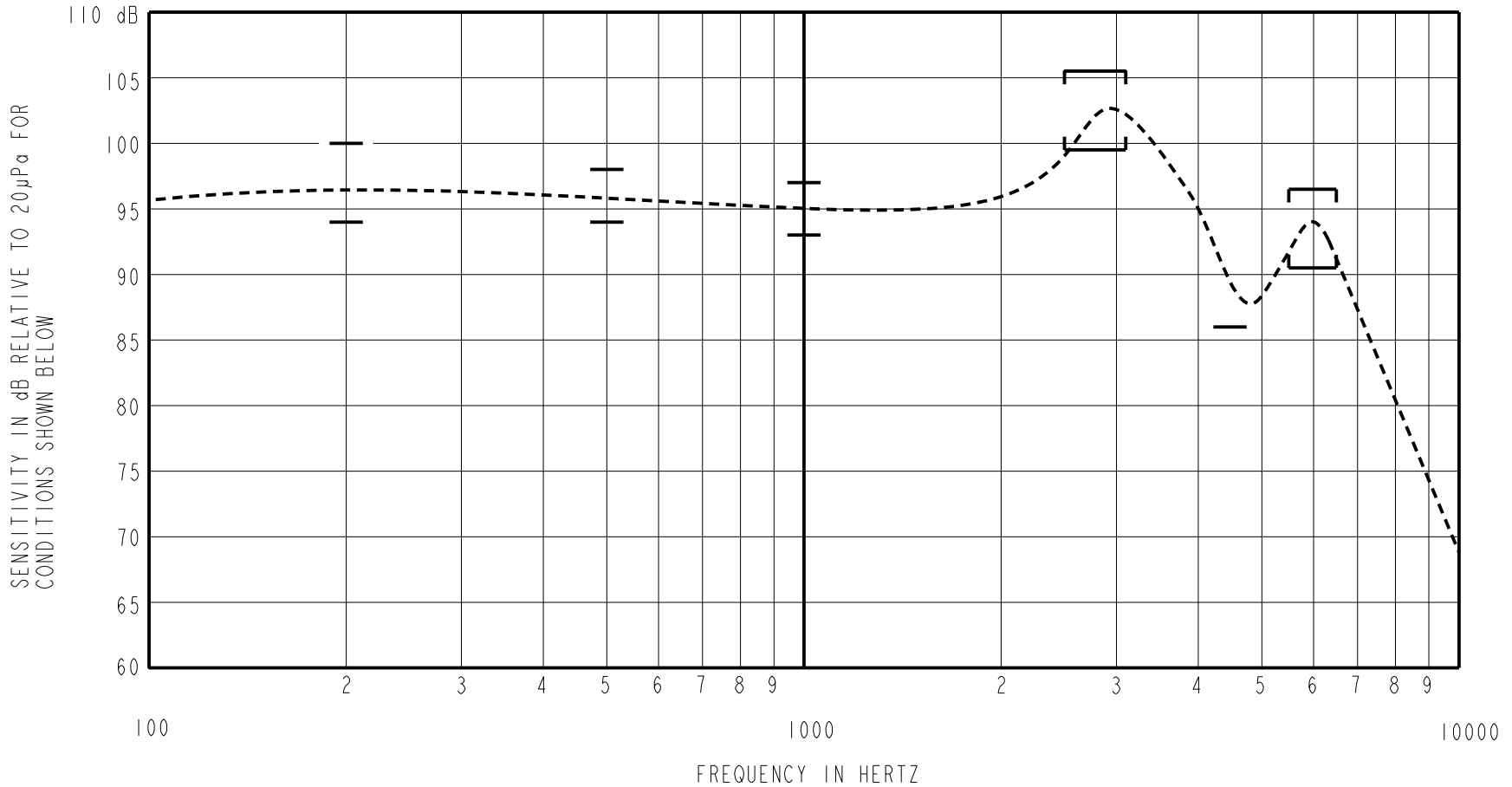
SCALE: 5:1	DR. BY: OO	DATE: 4-19-12
DO NOT SCALE DRAWING	CK. BY: GJP	DATE: 5-18-12
TITLE: RECEIVER	APP. BY: GJP	DATE: 5-18-12
OUTLINE DRAWING	TWFK-31749-000 SHT 1.1	

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, SHOCK PROTECTION AND WITH 0.68  $\mu$ F TANTAL CAPACITOR. FK RECEIVER VENTED THROUGH UNUSED TERMINAL.

UMDAMPED

TWFK-31749-000  
SHEET 2.1

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



### ACOUSTICAL

SENSITIVITY\*  
DEVICE WILL PRODUCE THE SPL LISTED BELOW UNDER TEST CONDITION IN TABLE 3.  
NOMINAL SENSITIVITY AT 1kHz IS dB RELATIVE TO 20  $\mu$ Pa. ALL OTHER VALUES IN dB RELATIVE TO THE SENSITIVITY AT 1kHz.

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
200	-1.0	+2.0	+5.0
500	-1.0	+1.0	+3.0
1000	-2.0	95.0	+2.0
2500-3100	+4.5	+7.5	+10.5
4500	-9.0	---	---
5600-6600	-4.5	-1.5	+1.5

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 (%)
930	.085	0	5
1400	.085	0	5
500	.240	0	10

TABLE 2

### TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	.085 V rms, 0 V 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-60318-5)

TABLE 3

### ELECTRICAL

DC RESISTANCE	25 Ohms $\pm$ 10%* 25 Ohms FK / 12.5 Ohms WBFK
IMPEDANCE @ 500 Hz	30.0 Ohms $\pm$ 15%*
IMPEDANCE @ 1kHz	42.0 Ohms $\pm$ 15%*

TABLE 4

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

### MECHANICAL

PORT LOCATION: 12S  
SOLDER TYPE: SAC305

### TEMPERATURE:

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

LISTENING TEST CONDUCTED BETWEEN 50HZ AND 5KHZ TO DETECT BUZZ  
INPUT VOLTAGE DRIVE SIGNAL, 101Vrms.

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
			Active	A
A	CI0113623	4-19-12		
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: RECEIVER PERFORMANCE SPECIFICATION			OQ	4-19-12
			GJP	5-18-12
TWFK-31749-000 SHT 2.1			APP. BY	DATE
			GJP	5-18-12

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