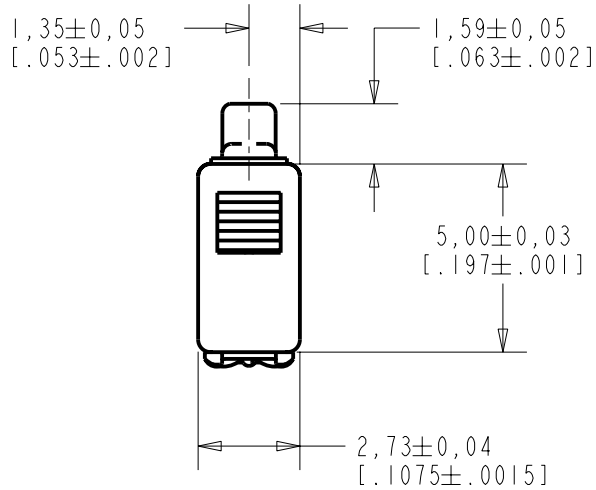
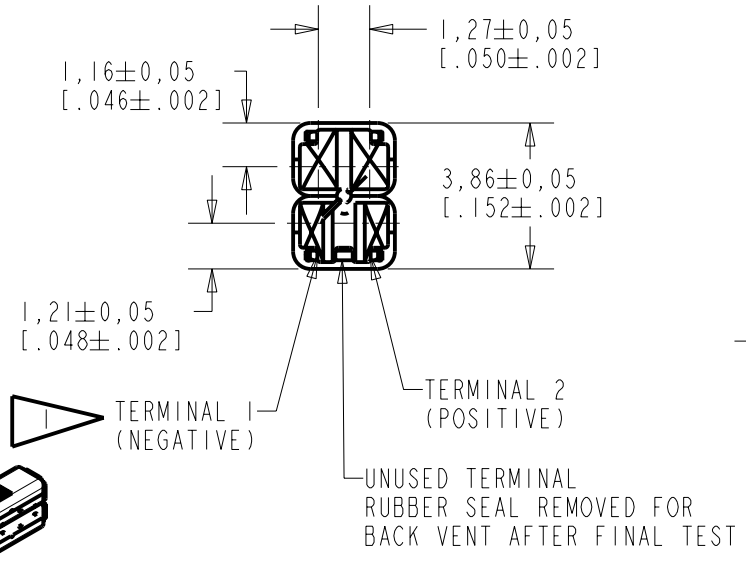
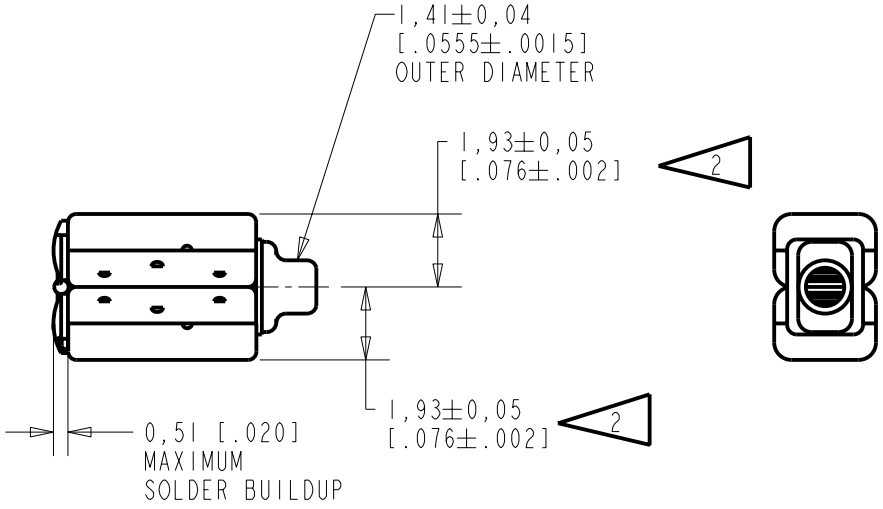
TWFK-23991-000
SHT 1.1



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.







DIMENSIONS IN MILLIMETERS [INCHES]

SCALE 2:1

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
			Released	A
A	C10104114P	4-7-06		

KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

SCALE: 5:1

DO NOT SCALE DRAWING

TITLE: RECEIVER
OUTLINE DRAWING

TWFK-23991-000
SHT 1.1

DR. BY	DATE
CRG	4-7-06
CK. BY	DATE
GJP	4-18-06
APP. BY	DATE
GJP	4-18-06

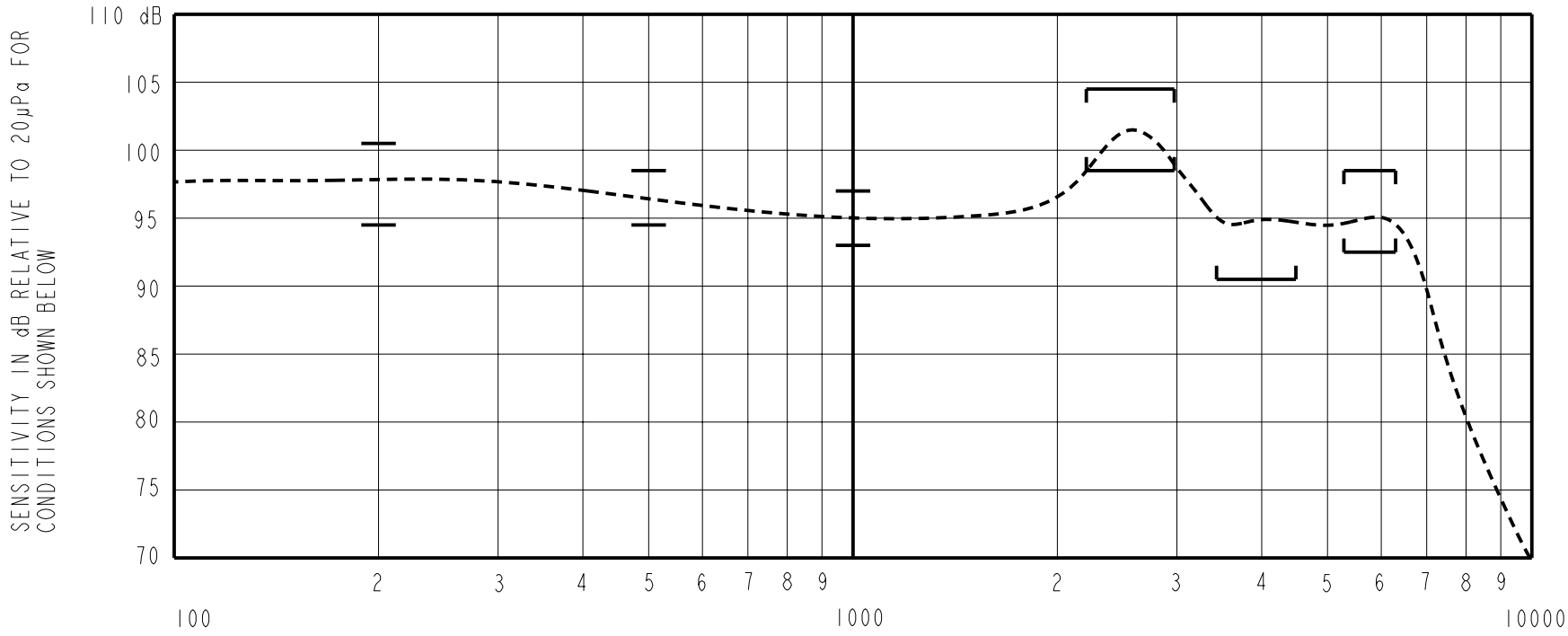
UNDAMPED MAGNETIC BALANCED ARMATURE RECEIVERS INTENDED FOR USE AS THE HIGH AND LOW FREQUENCY DRIVERS IN A Hi Fi SYSTEM. THE TWFK IS A WIDEBAND FK AND FK RECEIVER PAIR WITH AN EXTENDED HIGH FREQUENCY RESPONSE AND SHOCK PROTECTION. FK RECEIVER VENTED THROUGH UNUSED TERMINAL.

UNDAMPED

TWFK-23991-000
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 µPa. ALL OTHER VALUES IN dB RELATIVE TO THE SENSITIVITY AT 1kHz.

FREQUENCY (Hz)	*MINIMUM*	*NOMINAL*	*MAXIMUM*
200	-0.5	+2.5	+5.5
500	-0.5	+1.5	+3.5
1000	-2.0	95.0	+2.0
2300-2900	+3.5	+6.5	+9.5
3500-4500	-4.5	---	---
5350-6350	-2.5	+0.5	+3.5

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 (V rms)*	*DC BIAS (mA)*	*LIMIT (%)*
870	0.141	0	5
1300	0.141	0	5
500	0.399	0	10

TABLE 2

TEST CONDITIONS

0.22µF CAPACITOR CONNECTED TO THE INPUT OF THE WBFK RECEIVER

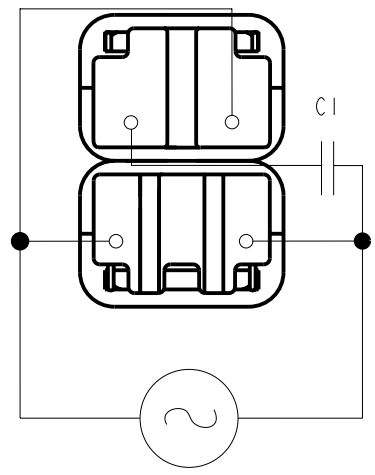
NOMINAL SOURCE VOLTAGE	0.141 V rms, 0 V DC BIAS
SOURCE IMPEDANCE	<1 Ohm
TUBING	10mm [.394"] LONG, 1mm [.039"] I.D.
COUPLER CAVITY	2 CM^3, SIMULATED ANSI S3.7 TYPE HA-3 (IEC 126)

TABLE 3

ELECTRICAL

DC RESISTANCE	100 Ohms ± 10%* 100 Ohms FK / 50 Ohms WBFK
IMPEDANCE @ 500 Hz	122 Ohms ± 15%*
IMPEDANCE @ 1kHz	184 Ohms ±15%*

TABLE 4



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

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
			Released	A
A	C10104114P	4-7-06		

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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-23991-000
SHT 2.1

DR. BY	DATE
CRG	4-7-06
CK. BY	DATE
GJP	4-18-06
APP. BY	DATE
GJP	4-18-06