

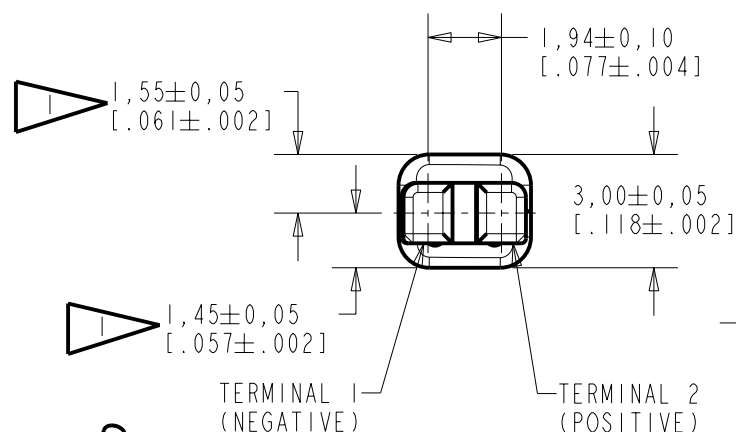
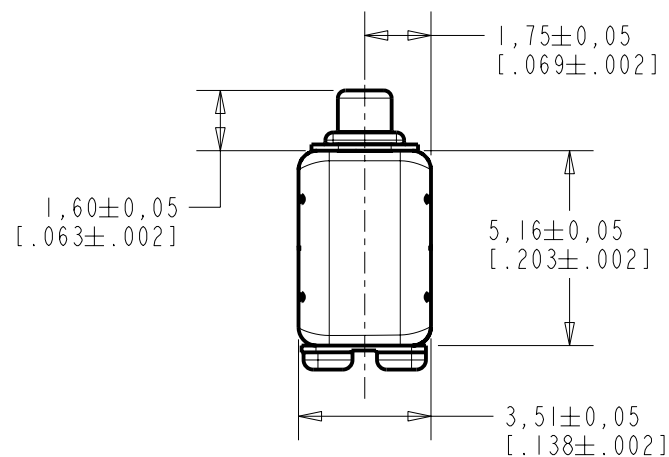
WBHC-23911-000

SHT 1.1

NOTES:



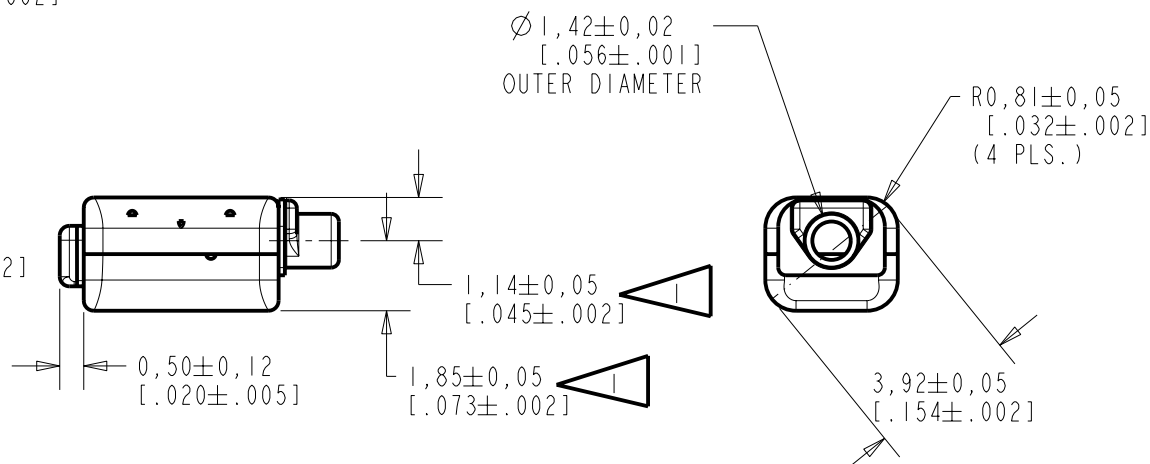
LOCATED FROM TWO SURFACES FOR CUSTOMER CONVENIENCE. ONLY APPLICABLE FROM ONE SURFACE, NOT TO BE USED TOGETHER. HORIZONTAL LOCATION FOR TERMINAL CENTERED TO $\pm 0,17$ [.007].



SCALE 2:1

NOMINAL WEIGHT
.21 GRAMS

DIMENSIONS IN MILLIMETERS [INCHES]



KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	CI0104863	10-16-06	Released	B
A	CI0103801	2-2-06		
SCALE: 5:1			DR. BY	DATE
DO NOT SCALE DRAWING			MMM	2-2-06
TITLE: RECEIVER			CK. BY	DATE
OUTLINE DRAWING			GJP	2-6-06
WBHC-23911-000			APP. BY	DATE
SHT 1.1			GJP	2-6-06

DESCRIPTION

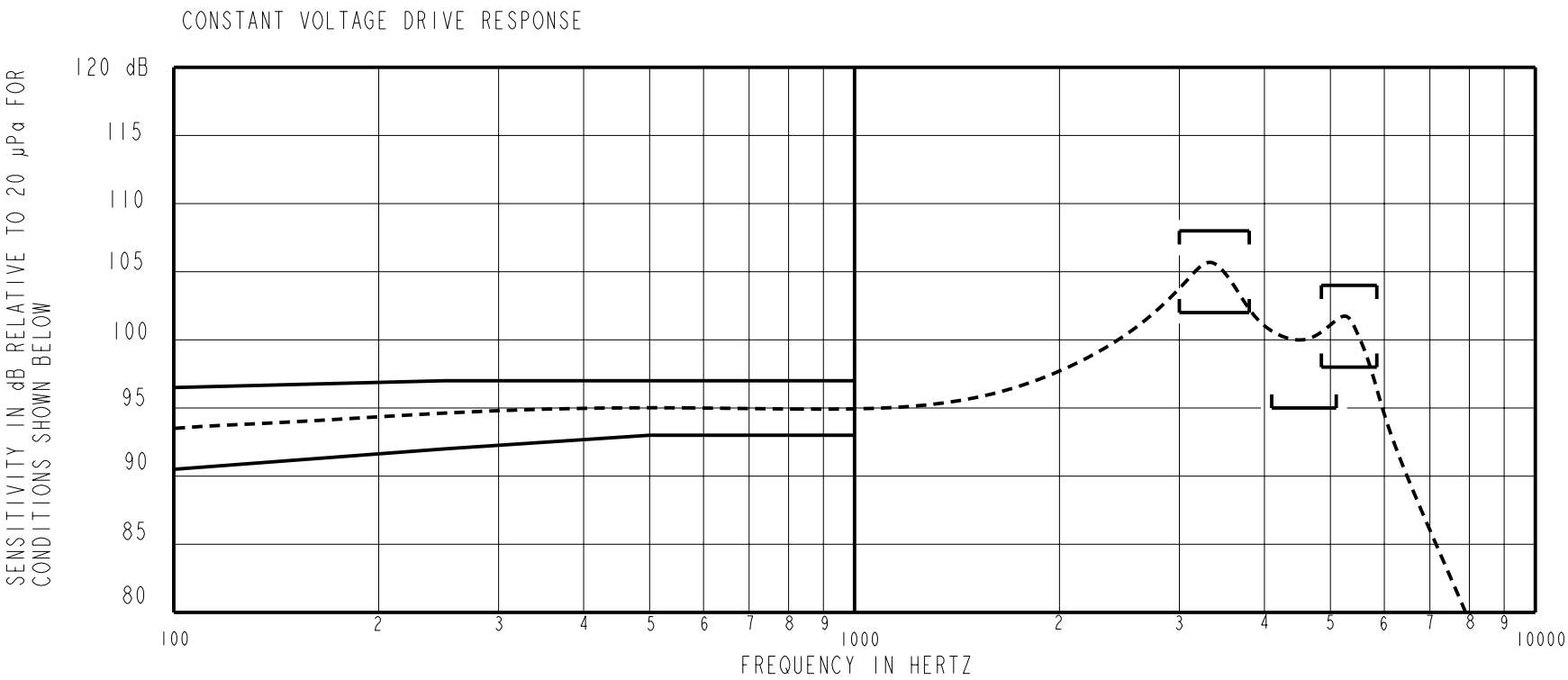
NO DAMPING

WBHC-23911-000

SHEET 2.1

THE WBHC-23911-000 IS A MAGNETIC BALANCED ARMATURE RECEIVER INTENDED FOR USE IN ITC AND CIC HEARING INSTRUMENTS. THE WBHC FAMILY OFFERS AN EXTENDED HIGH FREQUENCY RESPONSE IN THE SAME SIZE PACKAGE AS THE HC FAMILY. ALL WBHC UNITS HAVE SHOCK PROTECTION. THIS MODEL HAS MEDIUM IMPEDANCE AND IS UNDAMPED.

NOTE: SPECIFICATIONS FOLLOWED BY AN ASTERISK (*) ARE 100% TESTED.



ACOUSTICAL

SENSITIVITY*
DEVICE WILL PRODUCE THE SPL LISTED BELOW WITH THE TEST CONDITIONS DESCRIBED IN TABLE 3. NOMINAL SENSITIVITY AT 1 kHz IS dB RELATIVE TO 20 µPa. ALL OTHER VALUES IN dB RELATIVE TO THE SENSITIVITY AT 1 kHz.

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
100	-4.5	-1.5	+1.5
250	-3.0	-0.5	+2.0
500	-2.0	0.0	+2.0
1000	-2.0	95.0	+2.0
3000-3800 PEAK	+7.0	+10.0	+13.0
4100-5100 VALLEY	0.0	---	---
4850-5850 PEAK	+3.0	+6.0	+9.0

TABLE 1.

TOTAL HARMONIC DISTORTION*
DEVICE WILL NOT EXCEED TOTAL HARMONIC DISTORTION LEVELS LISTED BELOW.

FREQUENCY (Hz)	DRIVE (V RMS)	DC BIAS (mA)	LIMIT (%)
1100	0.336 V	0	5
1650	0.336 V	0	5
500	1.78 V	0	8

TABLE 2.

TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	0.336 Vrms, 0 Vdc BIAS
SOURCE IMPEDANCE	< 1 Ω
TUBING	10 mm (.394) LONG, 1 mm (.039) ID.
COUPLER CAVITY	2 CC SIMULATED ANSI S3.7 TYPE HA-3, (IEC 126)

TABLE 3.

POLARITY*
POSITIVE SIGNAL APPLIED TO TERMINAL 2 WILL PRODUCE A DECREASE IN SOUND PRESSURE AT THE SOUND OUTLET.

ELECTRICAL

DC RESISTANCE	177 Ω ±10%	*
IMPEDANCE @ 500 Hz	189 Ω ±15%	*
IMPEDANCE @ 1 kHz	207 Ω ±20%	*
INDUCTANCE @ 500Hz	9 mH ±15%	
CAPACITANCE @ 10 MHz	4 pF ±20%	

TABLE 4.

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

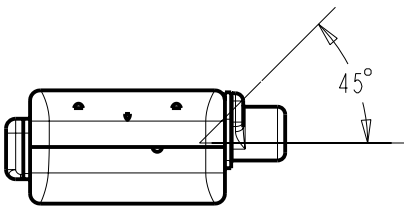
MAGNETIC RADIATION
WORST CASE: FIELD WILL BE LESS THAN LEVEL STATED BELOW AT AMPLIFIER CLIPPING (.920 V).
124 dB re 1µA/m
DISTANCE OF 6.3 mm FROM CENTER OF RECEIVER
ANGLE OF 45 DEGREES FROM TUBE

MECHANICAL

PORT LOCATION: 12C

SOLDER TYPE: SAC305

TEMPERATURE
OPERATING: SENSITIVITY WILL NOT VARY MORE THAN +1/-3 dB FROM -17°C TO 63°C
STORAGE: -40°C TO 63°C



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Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	C10104863	10-16-06	Released	B
A	C10103801	2-2-06		
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 MMM	DATE 2-2-06
TITLE: RECEIVER			CK. BY GJP	DATE 2-6-06
PERFORMANCE SPECIFICATION			WBHC-23911-000 SHT 2.1	APP. BY GJP DATE 2-6-06