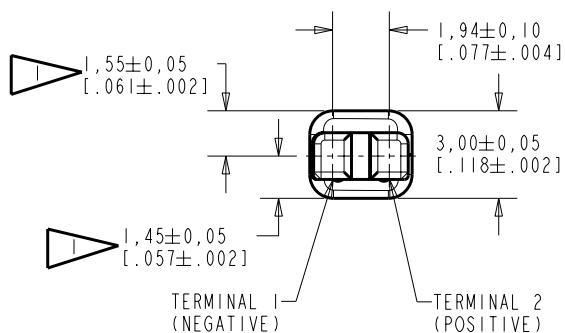
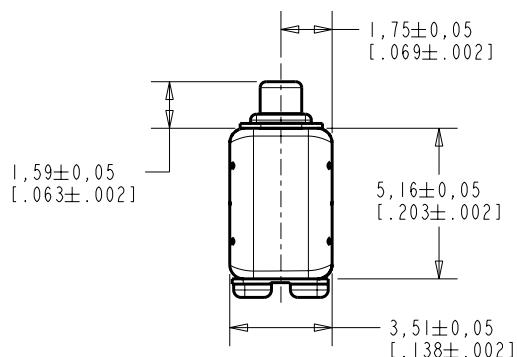


HC-23762-000

SHT 1.1

NOTE:

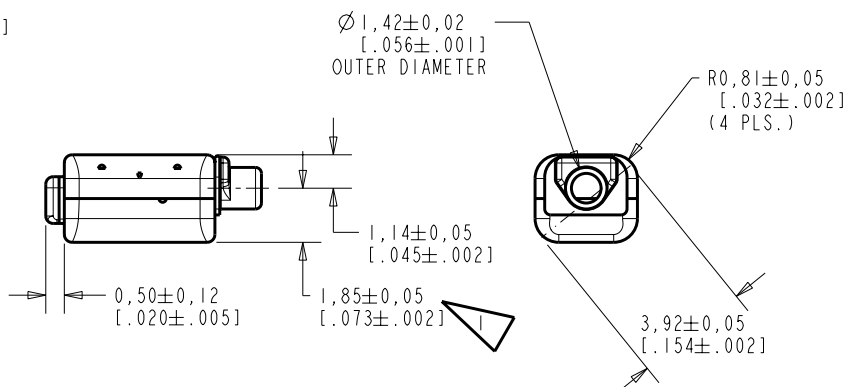
LOCATED FROM TWO SURFACES FOR CUSTOMER CONVENIENCE. ONLY APPLICABLE FROM ONE SURFACE, NOT TO BE USED TOGETHER. HORIZONTAL LOCATION FOR TERMINAL CENTERED TO $\pm 0,17$ [.007]



SCALE 2:1

NOMINAL WEIGHT
.23 GRAMS

DIMENSIONS IN MILLIMETERS [INCHES]



KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	C10103946	2-20-06	Released	B
A	C10103365	11-29-05		
SCALE: 5:1			DR. BY	DATE
DO NOT SCALE DRAWING			AB	11-29-05
			CK. BY	DATE
TITLE: RECEIVER			GJP	12-5-05
			APP. BY	DATE
OUTLINE DRAWING			GJP	12-5-05
HC-23762-000				
SHT 1.1				

KE111ASTZE.FRM

Rev: B

DESCRIPTION

NO DAMPING

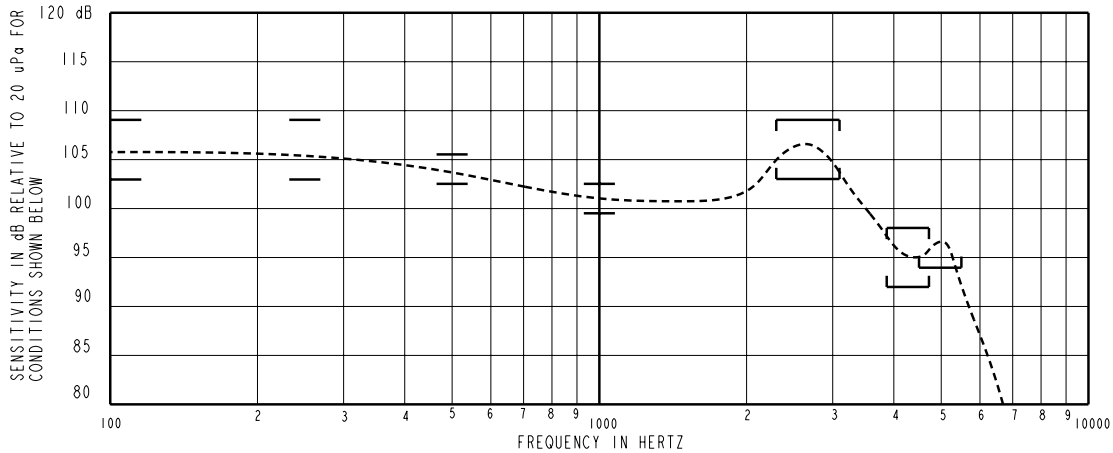
HC-23762-000

SHEET 2.1

THE HC-23762-000 IS A MAGNETIC BALANCED ARMATURE RECEIVER INTENDED FOR USE IN ITC AND CIC HEARING INSTRUMENTS. THE HC FAMILY OFFERS 6 dB HIGHER OUTPUT LEVELS IN THE SAME SIZE PACKAGE AS THE FC FAMILY. ALL HC UNITS HAVE SHOCK PROTECTION. THIS MODEL HAS LOW IMPEDANCE AND IS UNDAMPED.

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

CONSTANT VOLTAGE DRIVE RESPONSE



ACOUSTICAL

SENSITIVITY*

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

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
100	+2	+5	+8
250	+2	+5	+8
500	+1.5	+3	+4.5
1000	-1.5	101.0	+1.5
2300-3100 PEAK	+2	+5	+8
3680-4720 VALLEY	-9	-6	-3
4500-5500 PEAK	-7	---	---

TABLE 1.

TOTAL HARMONIC DISTORTION*

DEVICE WILL NOT EXCEED TOTAL HARMONIC DISTORTION LEVELS LISTED BELOW.

FREQUENCY (Hz)	DRIVE (V RMS)	DC BIAS (mA)	LIMIT (%)
900	0.071 V	0	5
1350	0.071 V	0	5
500	0.2 V	0	10

TABLE 2.

TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	0.071 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	7.4 Ω $\pm$ 10%	*
IMPEDANCE @ 500 Hz	12 Ω $\pm$ 15%	*
IMPEDANCE @ 1 kHz	20.8 Ω $\pm$ 20%	*
INDUCTANCE @ 500Hz	3mH $\pm$ 15%	
CAPACITANCE @ 10 MHz	6pF $\pm$ 20%	

TABLE 4.

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

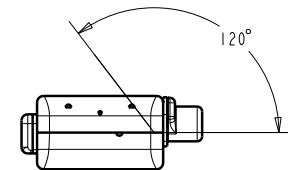
MAGNETIC RADIATION

WORST CASE: FIELD WILL BE LESS THAN LEVEL STATED BELOW AT AMPLIFIER CLIPPING (.920 V).

134 dB re 1 μ A/m

DISTANCE OF 6.3 mm FROM CENTER OF RECEIVER

ANGLE OF 120 DEGREES FROM TUBE



MECHANICAL

PORT LOCATION: 12C

SOLDER TYPE: 96.5% Sn, 3% Ag, 0.5% Cu (LEAD FREE)

TEMPERATURE

OPERATING: SENSITIVITY WILL NOT VARY MORE THAN $\pm 1/-3$ dB FROM -17°C TO 63°C

STORAGE: -40°C TO 63°C

RELIABILITY

UNITS WILL SURVIVE ANY OF THE FOLLOWING ACCELERATED LIFE TESTS, REPORT AVAILABLE FROM QA DEPARTMENT

HALT TEST (8 WEEKS, 63°C , 95% RH, 0.83V, 500 Hz SIGNAL)

HIGH TEMPERATURE STORAGE (63°C , 72 HOURS)

LOW TEMPERATURE STORAGE (-40°C , 72 HOURS)

DAMP HEAT CYCLING (ALTERNATE 25°C TO 63°C , 93% RH, 20 CYCLES)

THERMAL SHOCK (-40°C TO 63°C , 5 CYCLES)

SOLDER/DESOLDER CYCLING (5 CYCLES)

SOLDER PAD STRENGTH (STRENGTH > 1.8 LBS.)

STRESS TEST (1.32 Vrms AT 2700 Hz SIGNAL, 1 HOUR)

MECHANICAL SHOCK

LEAK TEST AFTER AGING (NO LEAK AFTER ANY OF THE ABOVE TESTS)

KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	C10103946	2-20-06	Released	B
A	C10103365	11-29-05		
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			DR. BY	DATE
TITLE: RECEIVER			AB	11-29-05
			CK. BY	DATE
PERFORMANCE SPECIFICATION			GJP	12-5-05
			APP. BY	DATE
HC-23762-000			GJP	12-5-05
SHT 2.1				