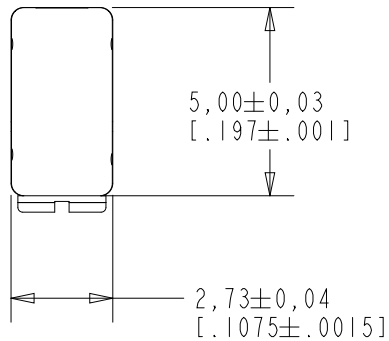
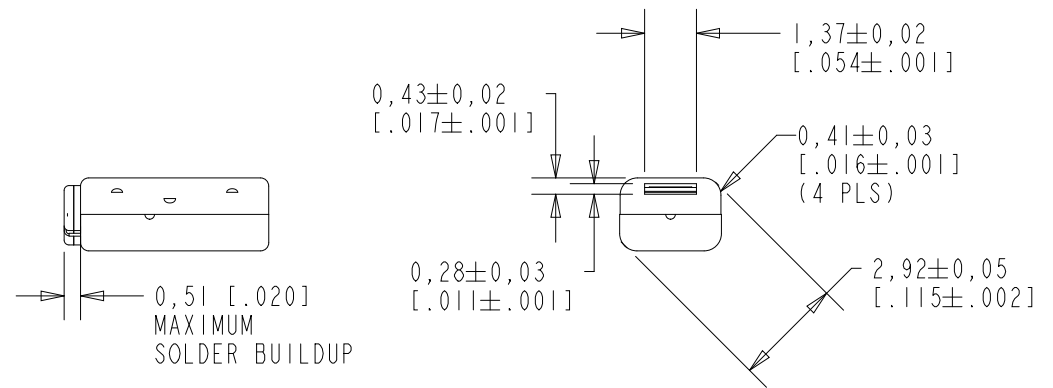
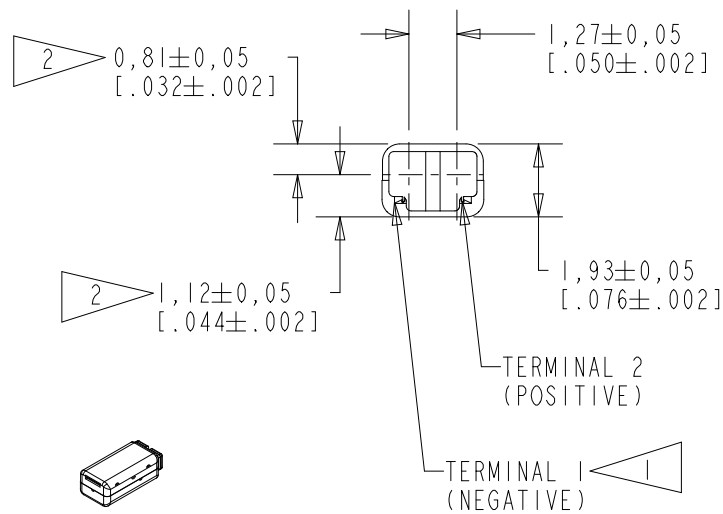


WBFK-23990-000  
SHT 1.1



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 0.465 GRAMS  
DIMENSIONS IN MILLIMETERS [INCHES]

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
F	PI0005527	8-10-21	Active	F
E	CI0108259P	12-31-08		
D	CI0105003	10-18-06		

SCALE: 5:1		DR. BY	DATE
DO NOT SCALE DRAWING		CRG	2-9-06
TITLE: RECEIVER ASSEMBLY OUTLINE DRAWING		CK. BY	DATE
WBFK-23990-000 SHT 1.1		GJP	2-9-06
		APP. BY	DATE
		GJP	2-9-06

**KNOWLES CORPORATION**

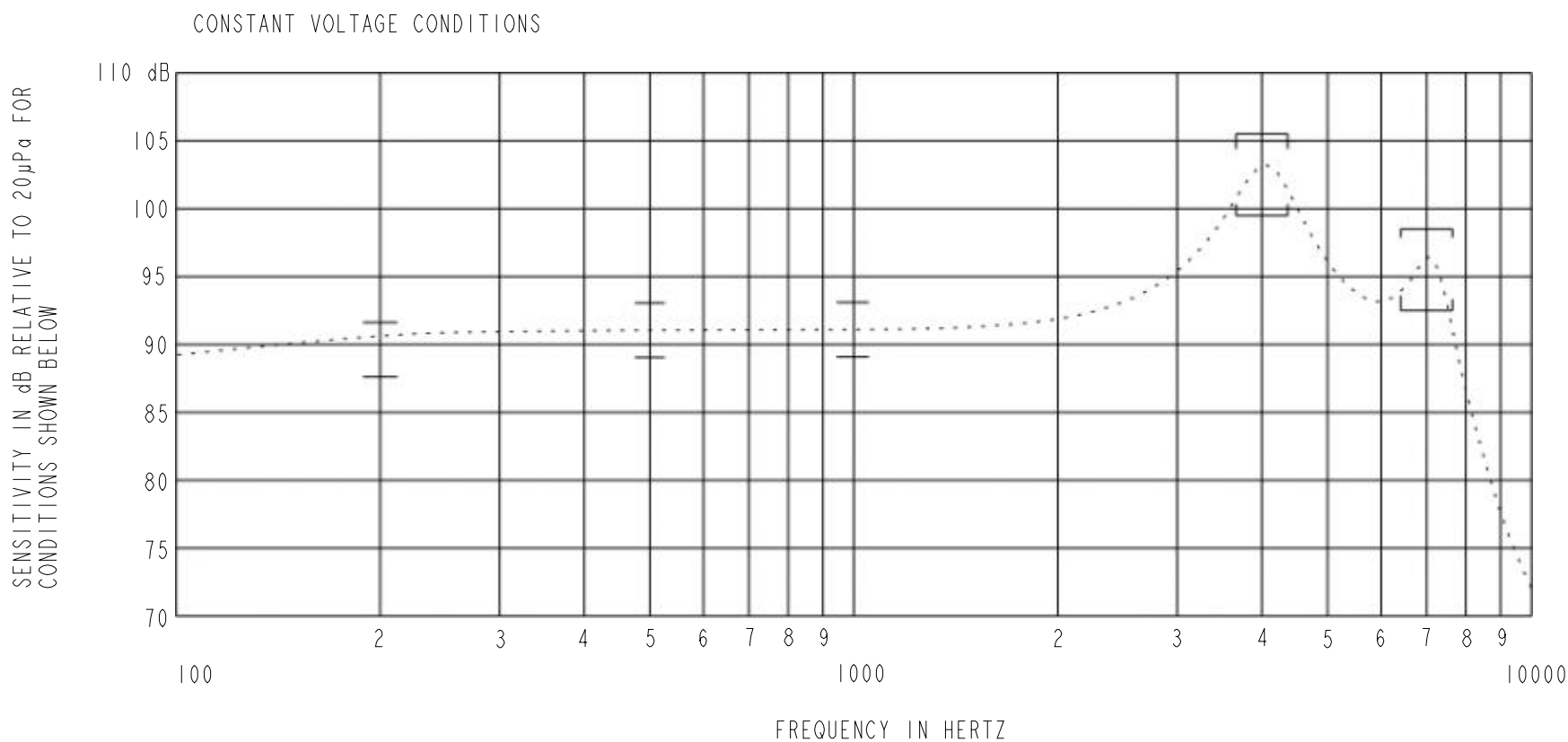
AN UNDAMPED AND TUBELESS MAGNETIC BALANCED ARMATURE RECEIVER  
INTENDED FOR USE AS THE HIGH FREQUENCY DRIVER IN A HIFI SYSTEM.

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

NO DAMPING

WBFK-23990-000

SHEET 2.1



### 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	-3.0	-1.0	+1.0
500	-2.0	0.0	+2.0
1000	-2.0	91.0	+2.0
3700-4300	+9.5	+12.5	+15.5
6600-7600	+2.5	+5.5	+8.5

TABLE 1

#### MECHANICAL

PORT LOCATION: 12N  
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.

#### TOTAL HARMONIC DISTORTION\*

DEVICE WILL NOT EXCEED TOTAL HARMONIC DISTORTION LEVELS LISTED BELOW.

FREQUENCY (Hz)	AC DRIVE (V rms)	DC BIAS (V)	LIMIT (%)
1280	0.188	0	5
1920	0.188	0	5
1920	0.530	0	10

TABLE 2

### TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	0.188 V rms, 0 mA 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 126)

TABLE 3

### ELECTRICAL

DC RESISTANCE	50 Ohms ± 10%*
IMPEDANCE @ 500 Hz	53 Ohms ± 15%*
IMPEDANCE @ 1kHz	57 Ohms ± 15%*

TABLE 4

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

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
F	PI0005527	8-10-21	Active	F
E	CI0108259P	12-31-08		
D	CI0105003	10-18-06		

**KNOWLES CORPORATION**

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

WBFK-23990-000  
SHT 2.1

DR. BY	DATE
CRG	2-9-06
CK. BY	DATE
GJP	2-9-06
APP. BY	DATE
GJP	2-9-06