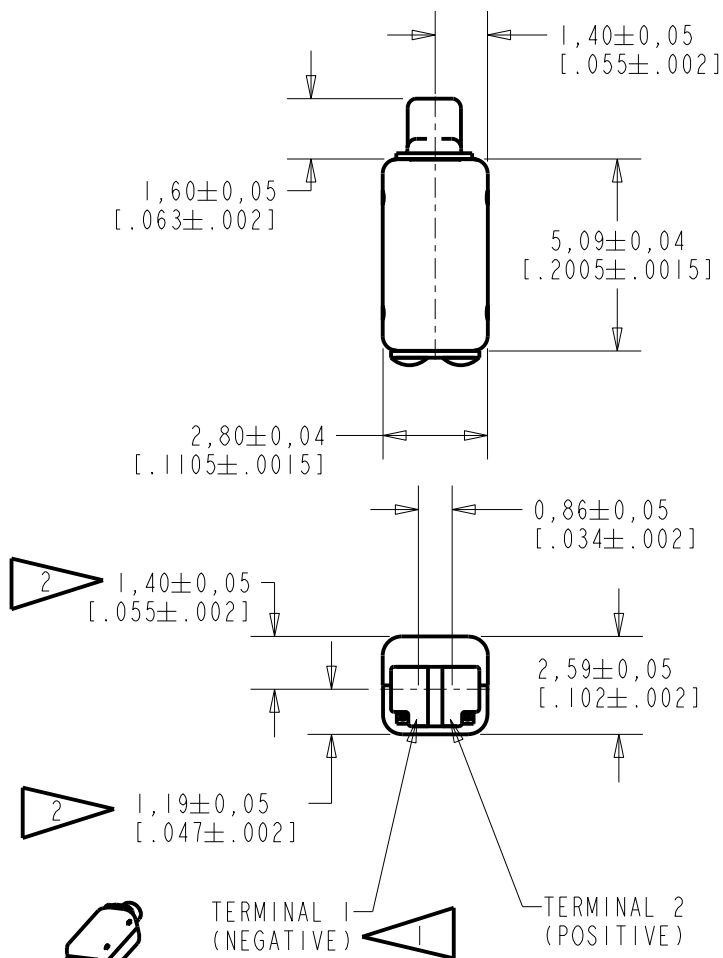


FFH-23469-104

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
 .18 GRAMS

DIMENSIONS IN MILLIMETERS [INCHES]

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	C10109708P	10-28-10	Active	B
A	C10103482	12-7-05		

SCALE: 5:1

DO NOT SCALE DRAWING

TITLE: RECEIVER

OUTLINE DRAWING

FFH-23469-104

SHT 1.1

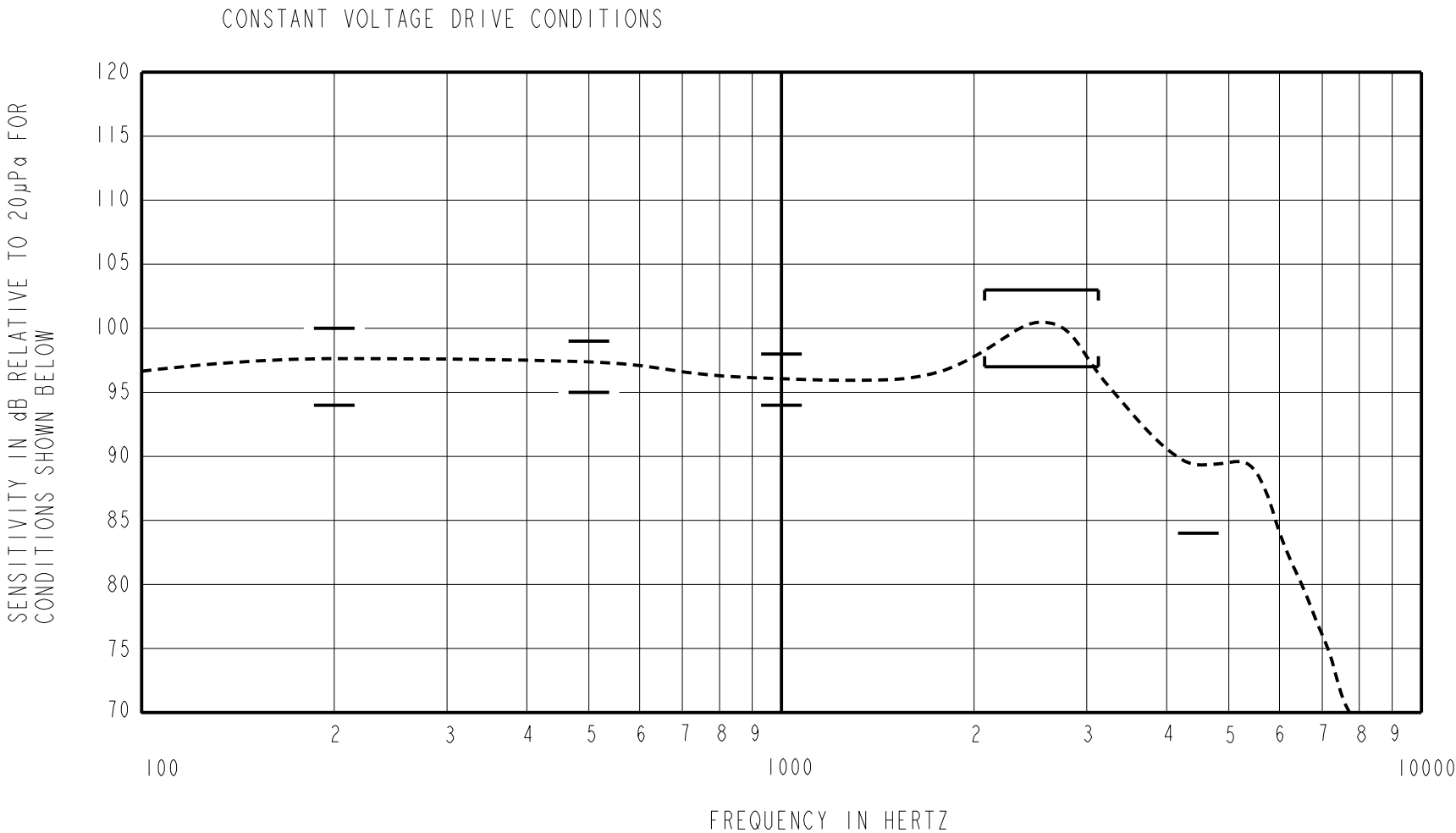
DR. BY	DATE
CRG	12-7-05
CK. BY	DATE
GJP	12-8-05
APP. BY	DATE
GJP	12-8-05

KNOWLES ELECTRONICS
 ITASCA, ILLINOIS U.S.A.

THE FFH-23469-104 IS A FERROFLUID AND TYPE III DAMPED FH-23469 RECEIVER WITH A PEAK OF 4dB RELATIVE TO THE SENSITIVITY AT 1kHz UNDER CONSTANT VOLTAGE DRIVE CONDITIONS.

FERROFLUID AND
TYPE III DAMPING

FFH-23469-104
SHEET 2.1



ACOUSTICAL

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

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
200	-2.0	1.0	+4.0
500	-1.0	+1.0	3.0
1000	-2.0	96.0	2.0
2100-3100	+1.0	+4.0	+7.0
4500	-12.0	---	---

TABLE 1

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

FREQUENCY (Hz)	AC DRIVE (V rms)	DC BIAS (V)	LIMIT (%)
500	0.733	0	10
870	0.260	0	6
1300	0.260	0	6

TABLE 2

TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	0.260 V rms, 0 mA 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	240 OHMS ± 10%
IMPEDANCE @ 500 Hz	360 OHMS ± 15%
IMPEDANCE @ 1kHz	564 OHMS ± 15%

TABLE 4

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

TEMPERATURE: OPERATING RANGE FROM 0°C TO 63°C (SENSITVITY WILL NOT VARY BY MORE THAN ±3 dB WITHIN RANGE)
SENSITIVITY AT 0°C IS 2dB LOWER THAN THE SENSITIVITY AT ROOM TEMPERATURE.
DELTA PEAK IS 1.5dB HIGHER AT BODY TEMPERATURE (37°C))
STORAGE RANGE FROM -40°C TO 63°C

PORT LOCATION: 12S

KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	C10109708P	10-28-10	Active	B
A	C10103482	12-7-05		
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 CRG	DATE 12-7-05
TITLE: RECEIVER			CK. BY GJP	DATE 12-8-05
PERFORMANCE SPECIFICATION			FFH-23469-104 SHT 2.1	APP. BY GJP 12-8-05