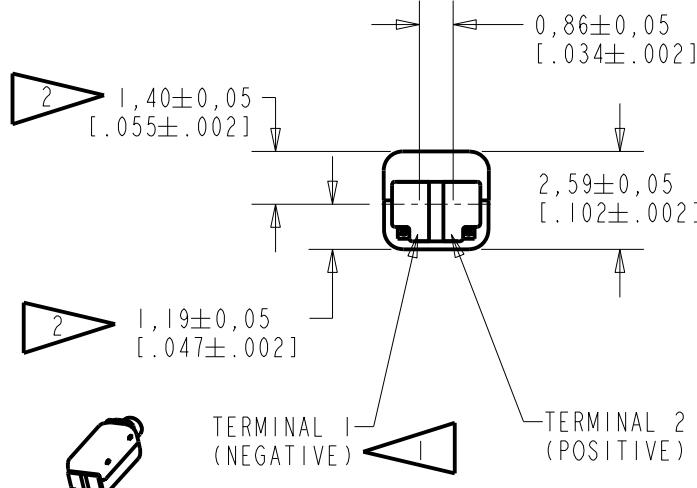
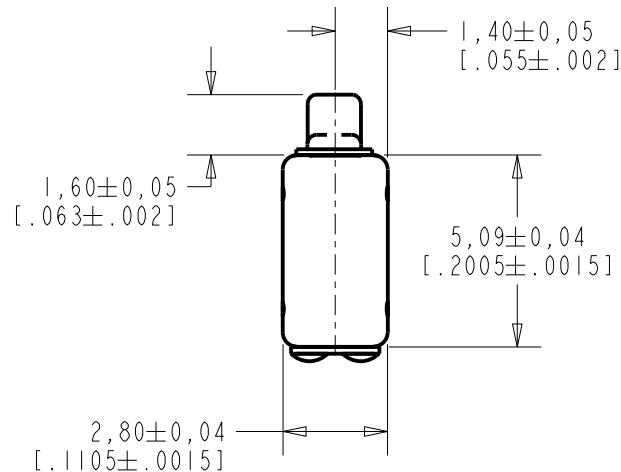


FFH-23469-104

SHT 1.1



SCALE 2:1

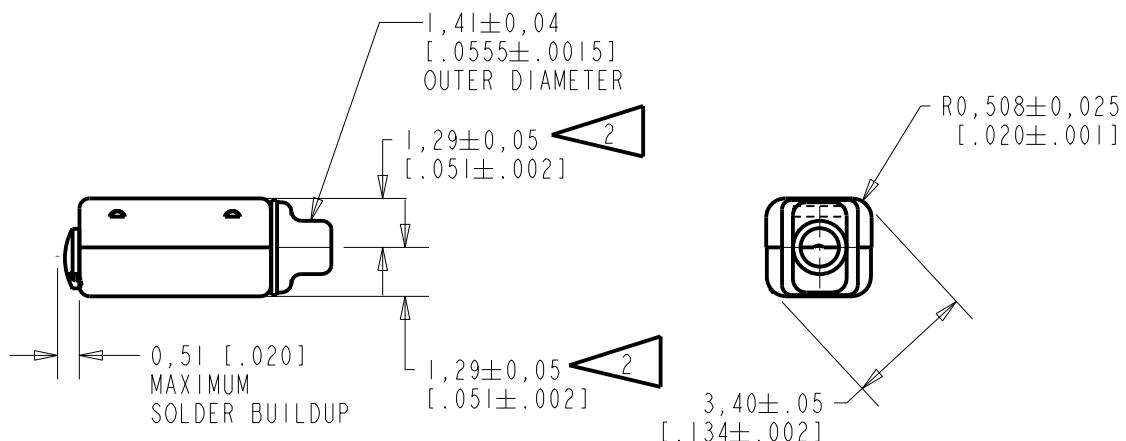
NOMINAL WEIGHT
.18 GRAMS

DIMENSIONS IN MILLIMETERS [INCHES]

KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

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.



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

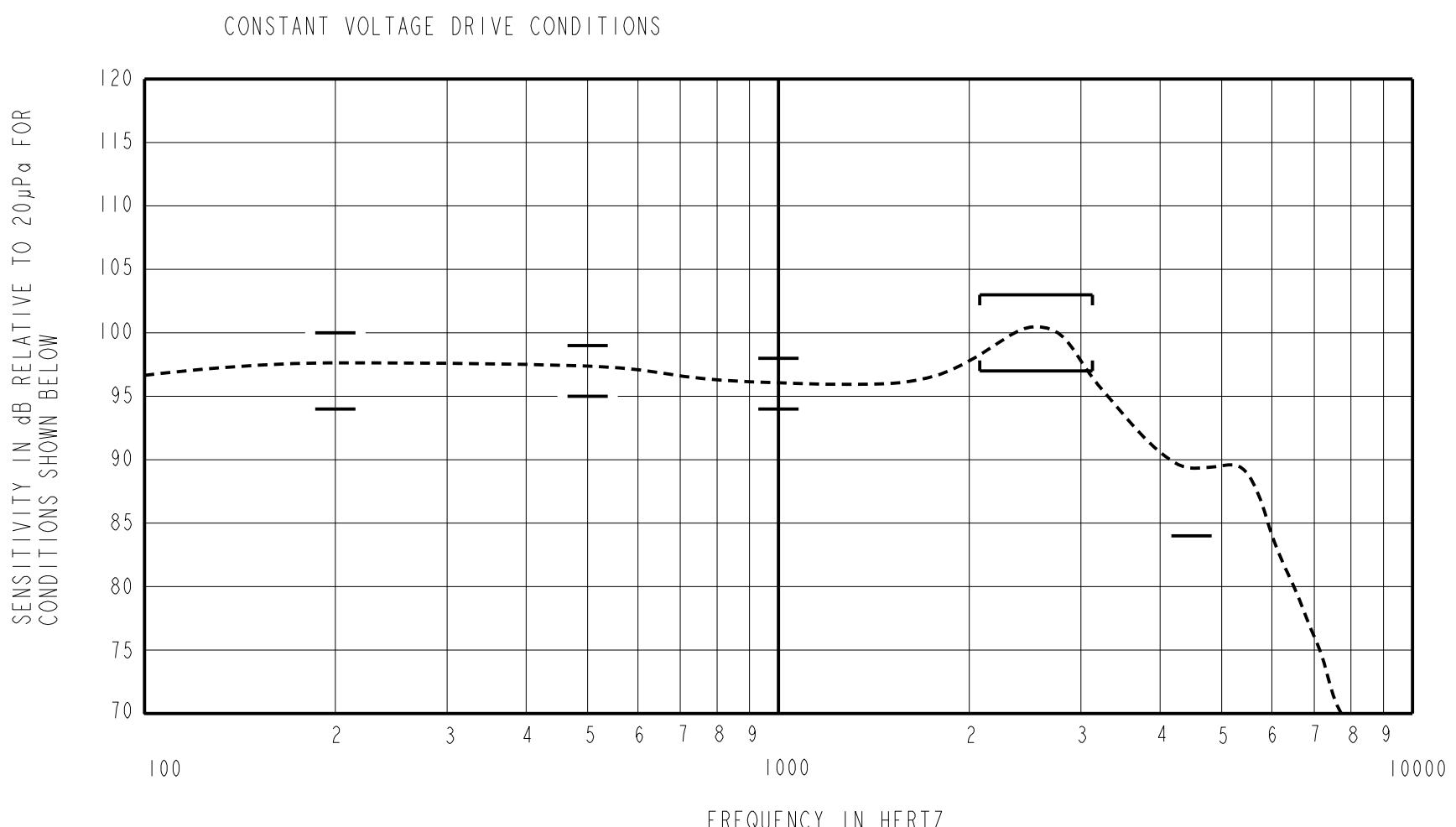
SCALE:	5:1	DR. BY	DATE
	DO NOT SCALE DRAWING	CRG	12-7-05
TITLE:	RECEIVER	CK. BY	DATE
	FFH-23469-104	GJP	12-8-05
	OUTLINE DRAWING	APP. BY	DATE
		GJP	12-8-05

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 $20\mu\text{Pa}$. 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 \pm 10%
IMPEDANCE @ 500 Hz	360 OHMS \pm 15%
IMPEDANCE @ 1kHz	564 OHMS \pm 15%

TABLE 4

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

TEMPERATURE: OPERATING RANGE FROM 0°C TO 63°C (SENSITIVITY WILL NOT VARY BY MORE THAN \pm 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

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
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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

TITLE: RECEIVER

PERFORMANCE SPECIFICATION

FFH-23469-104

SHT 2.1

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

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