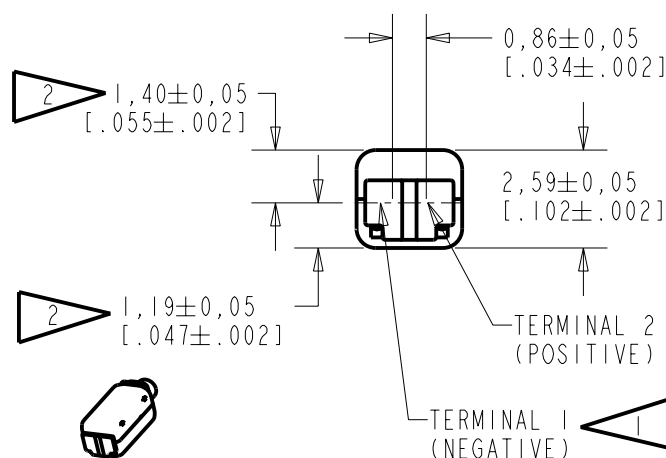
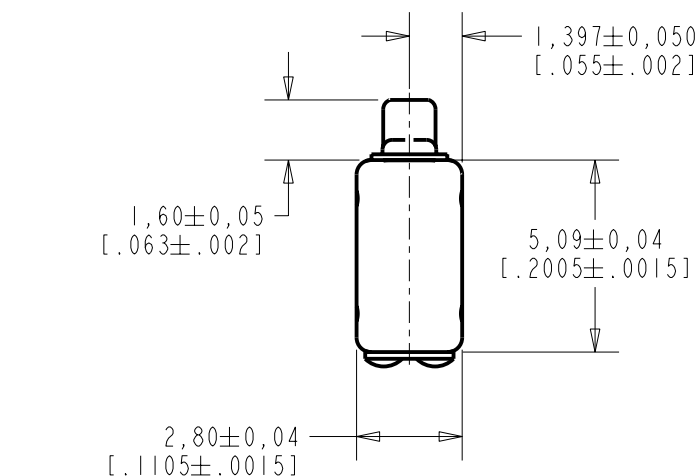


FFH-23371-104

SHT 1.1

NOTES:

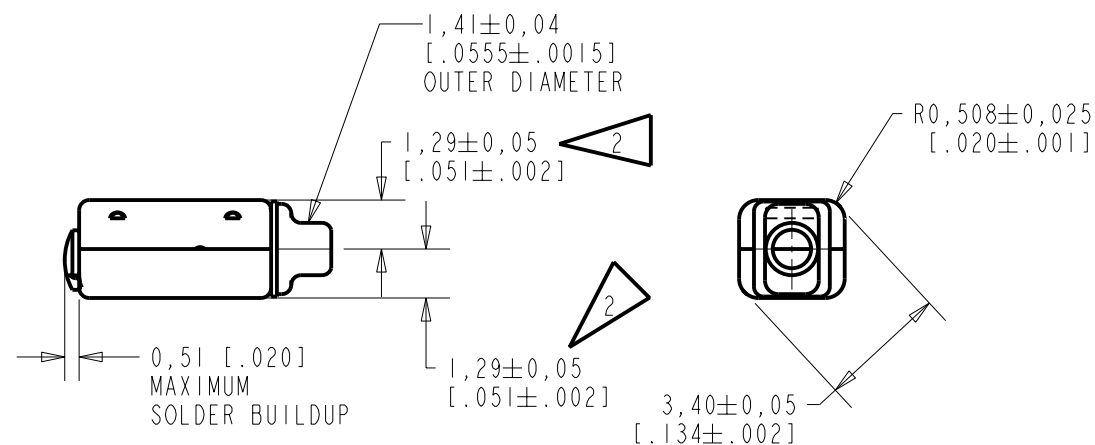
- 1 A POSITIVE GOING VOLTAGE AT TERMINAL 2, RELATIVE TO TERMINAL 1, CAUSES A DECREASE IN PRESSURE AT THE SOUND OUTLET.
- 2 LOCATED FROM TWO SURFACES FOR CUSTOMER CONVENIENCE. ONLY APPLICABLE FROM ONE SURFACE NOT TO BE USED TOGETHER.



SCALE 2:1

NOMINAL WEIGHT
.18 GRAMS

DIMENSIONS IN MILLIMETERS [INCHES]

**KNOWLES ELECTRONICS**
ITASCA, ILLINOIS U.S.A.

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
			Released	A
A	C10103482	12-7-05		
SCALE: 5:1			DR. BY DATE	
DO NOT SCALE DRAWING			CRG 12-7-05	
TITLE: RECEIVER OUTLINE DRAWING			CK. BY DATE	
			GJP 12-8-05	
			APP. BY DATE	
			GJP 12-8-05	

THE FFH-23371-104 IS A FERROFLUID DAMPED FH-23371 RECEIVER WITH A PEAK OF 4dB RELATIVE TO THE SENSITIVITY AT 1kHz UNDER CONSTANT VOLTAGE DRIVE CONDITIONS.

FERROFLUID DAMPING

FFH-23371-104
SHEET 2.1

CONSTANT VOLTAGE DRIVE CONDITIONS

SENSITIVITY IN dB RELATIVE TO 20μPa FOR CONDITIONS SHOWN BELOW

120

115

110

105

100

95

90

85

80

75

70

100

2

3

4

5

6

7

8

9

1000

2

3

4

5

6

7

8

9

10000

FREQUENCY IN HERTZ

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	+1.0	3.0	5.0
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	---	---

PORT LOCATION: 12S

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

FREQUENCY (Hz)	AC DRIVE (V rms)	DC BIAS (V)	LIMIT (%)
500	0.35	0	10
870	0.125	0	6
1300	0.125	0	6

TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	0.125 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)

ELECTRICAL

DC RESISTANCE	61 Ohms ± 10%
IMPEDANCE @ 500 Hz	85 Ohms ± 15%
IMPEDANCE @ 1kHz	128 Ohms ±15%

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

Revision

C.O. #

Implementation Date

RELEASE LEVEL

REVISION

A

C10103482

12-7-05

Released

A

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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-23371-104

SHT 2.1

DR. BY

DATE

CRG

12-7-05

CK. BY

DATE

GJP

12-8-05

APP. BY

DATE

GJP

12-8-05