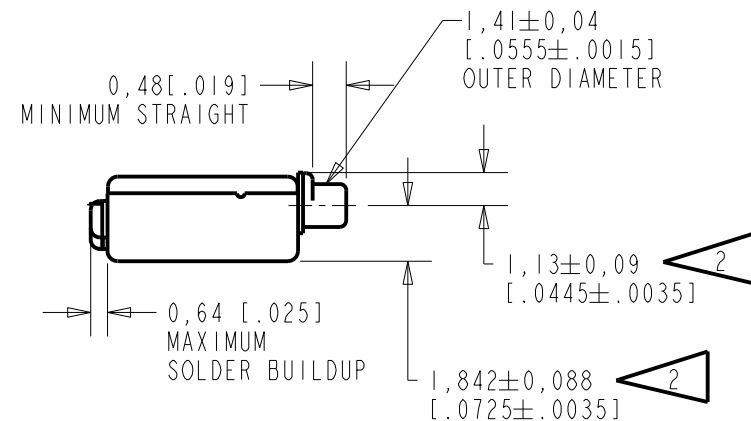
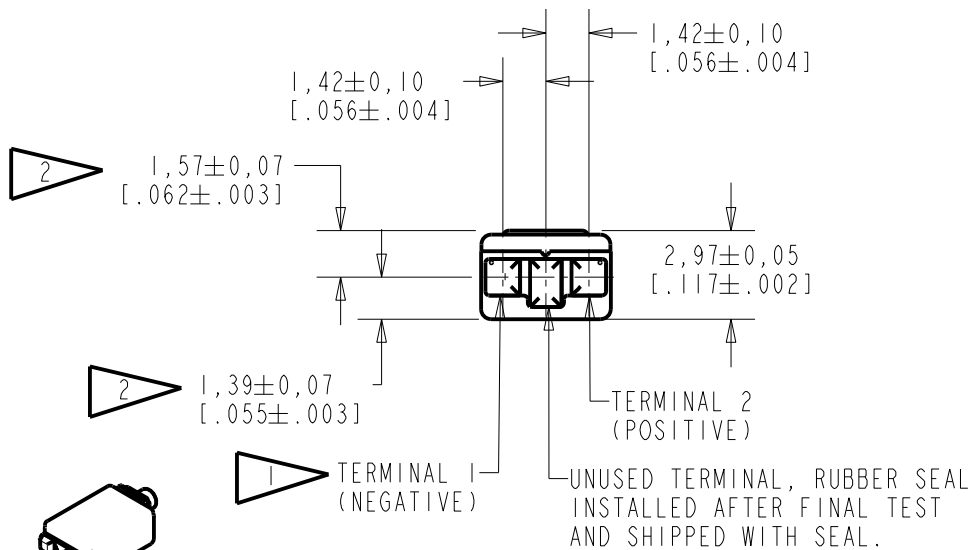
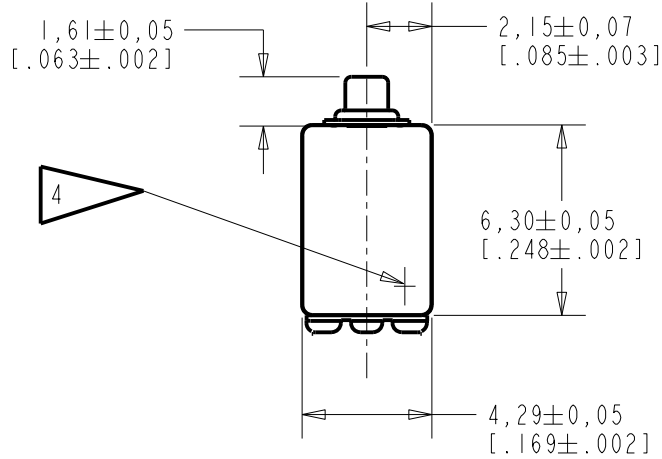


ED-31197-163

SHT 1.1

NOTE:

- 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. HORIZONTAL LOCATION FOR TERMINAL CENTERED TO  $\pm 0,17$  [0.007].
- 3. THIS IS A HALOGEN FREE ASSEMBLY.
- 4 LASER MARK + FOR POSITIVE TERMINAL AS SHOWN.



SCALE 2:1

NOMINAL WEIGHT  
.31 GRAM

DIMENSIONS IN MILLIMETERS [INCHES]

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
A	CI0112376P	5-17-11	Active	A

SCALE: 4:1		DR. BY	DATE
DO NOT SCALE DRAWING		OO	5-17-11
TITLE: RECEIVER		CK. BY	DATE
OUTLINE DRAWING		GJP	5-20-11
ED-31197-163		APP. BY	DATE
SHT 1.1		GJP	5-20-11

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

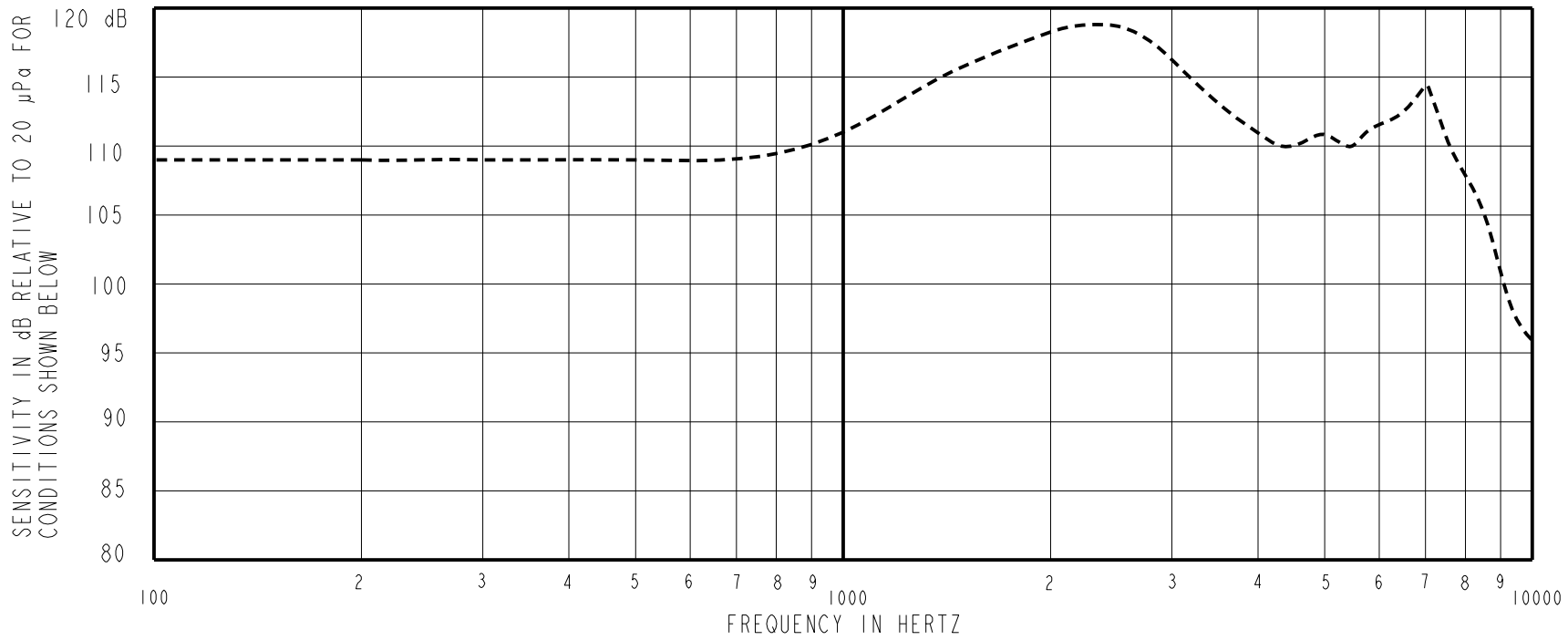
**DESCRIPTION**

NO DAMPING

ED-31197-163  
SHEET 2.1

THE ED-31197-163 HAS CUSTOMIZED TESTING  
THIS RECEIVER IS HALOGEN FREE.

CONSTANT VOLTAGE DRIVE CONDITIONS



**ACOUSTICAL**

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

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
200	-5.0	-2.0	+1.0
500	-5.0	-2.0	+1.0
1000	-2.0	111.0	+2.0
1950-2750	+4.0	+7.0	+10.0
5000	-6.0	---	---
6300-7700	-1.0	+2.0	+5.0

PORT LOCATION: 12C

**BUZZ TEST**

LISTENING TEST CONDUCTED BETWEEN 50Hz  
TO 20KHz TO DETECT BUZZ.

INPUT VOLTAGE DRIVE SIGNAL	.153 V
----------------------------	--------

TABLE 5.

TABLE 1.

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

FREQUENCY (Hz)	DRIVE (V RMS)	DC BIAS (MA)	LIMIT (%)
500	.427	0	10
1175	.153	0	5
780	.153	0	5

TABLE 2.

**TEST CONDITIONS**

NOMINAL SOURCE VOLTAGE	.153 Vrms, 0 Vdc BIAS, CUSTOMER CORRELATED
SOURCE IMPEDANCE	< 1 Ω
TUBING	TUBELESS, KNOWLES TOOL NUMBER T8688
COUPLER CAVITY	IEC 60318-4(IEC 711)

TABLE 3.

**ELECTRICAL**

NOMINAL SOURCE VOLTAGE	.153 Vrms, 0 Vds BIAS
DC RESISTANCE	32.7Ω ±10%
IMPEDANCE @ 500 Hz	34.5Ω ±20%
IMPEDANCE @ 1 kHz	40Ω ±20%

TABLE 4.

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

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
			<b>Active</b>	<b>A</b>
A	C10112376P	5-17-11		
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: <b>RECEIVER</b>		<b>ED-31197-163</b>	DR. BY	DATE
PERFORMANCE SPECIFICATION		<b>SHT 2.1</b>	OQ	5-17-11
			CK. BY	DATE
			GJP	5-20-11
			APP. BY	DATE
			GJP	5-20-11

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