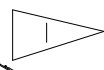
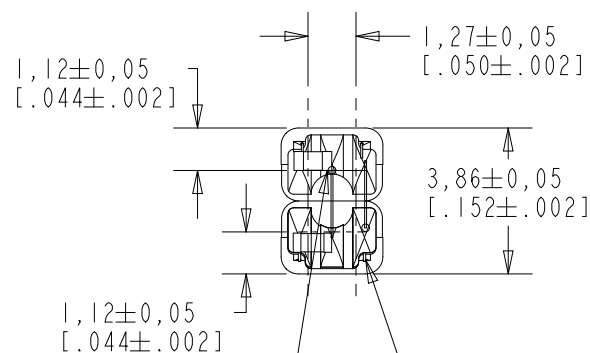
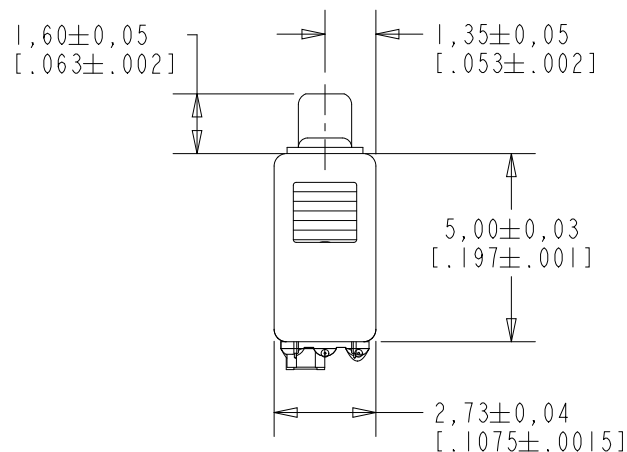


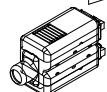
TWFK-31129-000

SHT 1.1



TERMINAL 1  
(NEGATIVE)

TERMINAL 2  
(POSITIVE)



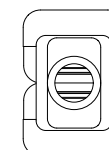
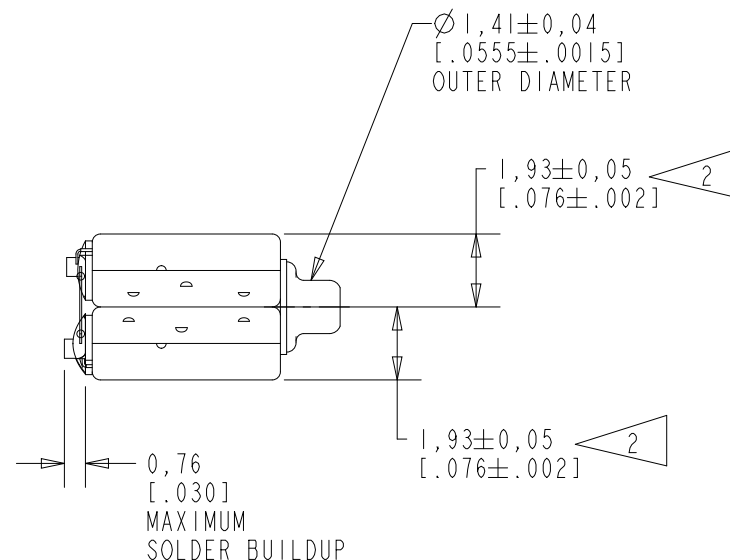
SCALE 2:1  
NOMINAL WEIGHT  
.22 GRAMS

DIMENSIONS IN MILLIMETERS [INCHES]

# 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
C	PI0003586	11-18-19	Active	C
B	PI0000650	1-18-17		
A	CI0111527	12-8-10		

SCALE: 5:1

DO NOT SCALE DRAWING

TITLE: RECEIVER  
OUTLINE DRAWING

TWFK-31129-000  
SHT 1.1

DR. BY	DATE
LSY	12-8-10
CK. BY	DATE
GJP	12-15-10
APP. BY	DATE
GJP	12-15-10

KNOWLES CORPORATION

UNDAMPED

TWFK-31129-000

SHEET 2.1

UNDAMPED MAGNETIC BALANCED ARMATURE RECEIVERS INTENDED FOR USE AS THE MID AND HIGH FREQUENCY DRIVES. THE TWFK IS A WIDEBAND FK AND FK RECEIVER PAIR WITH AN EXTENDED HIGH FREQUENCY RESPONSE AND SHOCK PROTECTION.

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

CONSTANT VOLTAGE DRIVE CONDITIONS.

SENSITIVITY IN dB RELATIVE TO 20μPa FOR CONDITIONS SHOWN BELOW

110 dB

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 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	-19.0	-16.0	-13.0
500	-9.0	-7.0	-5.0
1000	-2.0	95.0	+2.0
2630-3230	+5.0	+8.0	+11.0
4500	-8.0	---	---
5750-6750	-3.0	0.0	+3.0

TABLE 1

TOTAL HARMONIC DISTORTION\*

DEVICE WILL NOT EXCEED TOTAL HARMONIC DISTORTION LEVELS LISTED BELOW.

FREQUENCY (Hz)	AC DRIVE (V rms)	DC BIAS (mA)	LIMIT (%)
930	.085	0	5
1400	.085	0	5
500	.240	0	10

TABLE 2

TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	.085 V rms, 0 V 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 60318-5)

TABLE 3

ELECTRICAL

DC RESISTANCE	25 Ohms FK / 12.5 Ohms WBFK
IMPEDANCE @ 500 Hz	62.5 Ohms ± 15%*
IMPEDANCE @ 1kHz	35.5 Ohms ± 15%*

TABLE 4

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

MECHANICAL

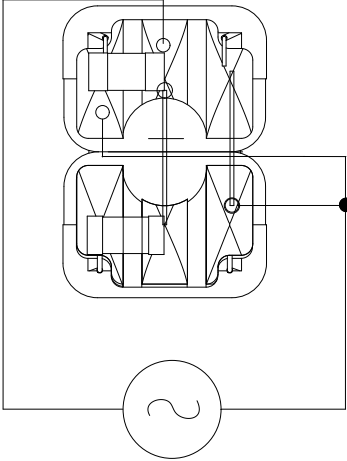
PORT LOCATION: 12S

SOLDER TYPE: SAC305

TEMPERATURE:

OPERATING: SENSITIVITY AT 500Hz WILL NOT VARY BY MORE THAN ±3 dB FROM 0°C TO 63°C.

STORAGE: -40°C TO 63°C.



KNOWLES CORPORATION

RECEIVER

PERFORMANCE SPECIFICATION

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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

DR. BY

DATE

LSY

12-8-10

CK. BY

DATE

GJP

12-15-10

APP. BY

DATE

GJP

12-15-10

TWFK-31129-000

SHT 2.1