



# SPECIFICATION

## FOR APPRONAL

Customer : \_\_\_\_\_

Product Name : Receiver \_\_\_\_\_

Model Name : VSDR153 \_\_\_\_\_

Drawing No. : VS20200226019 \_\_\_\_\_

### Signature of Voise

Approved by	Checkde by	Issued by	Date



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### 1. Revision

Rev.No.	Date	Page	Description of Revision
1.0	2019/9/9		Preliminary

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## 2. Scope

This specification covers a dynamic receiver unit for phone use.

## 3. General Characteristics

- 2.1 Out-Diameter : 28 mm
- 2.2 Height : 7.2 mm
- 2.3 Weight : 18 g
- 2.4 Operating Temperature : -20~+50°C without loss of function
- 2.5 Store Temperature : -20~+60°C without loss of function

## 4. Electrical and Acoustic Characteristics.

Test condition :15 ~ 35 °C Temp., 25% ~ 75% RH,86~106 kPa Refer to IEC60268-1

No	Items	Specification
1	Impedance	150 Ω ± 20% (1Vrms at 1.0KHz)
2	Sound Pressure Level	93 dB ± 2dB (60mV at 1kHz)
3	Resonance Frequency(fo)	
4	Frequency Range	300Hz ~3.4KHz
5	Input Power	Rated 10 mW / Max. 30 mW
6	Distortion	Less than 5% at 1kHz/2Vrms
7	Buzz and Rattle	Should not be audible buzzes,rattles when the 1.22V sine wave signal swept at frequency range.



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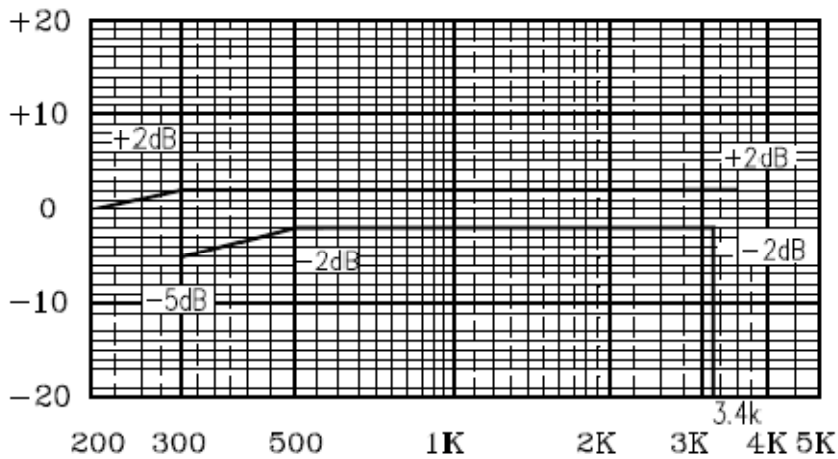
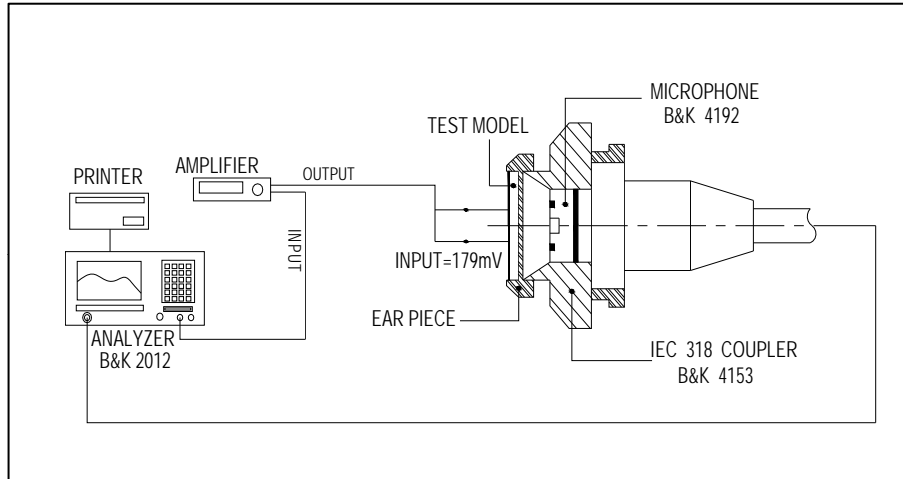
## 5. Reliability Test

After test(1~7item), the speaker S.P.L . difference shall be within  $\pm 3\text{dB}$ , and the appearance not exist any change to be harmful to normal operation

No	Items	Specification
1	High Temp.Test	Keep 96 hours at $+65\pm 3\text{ }^\circ\text{C}$ ,and leave 1 hours in normal temperature and then check.
2	Low Temp.Test	Keep 96 hours at $-25\pm 3\text{ }^\circ\text{C}$ ,and leave 1 hours in normal temperature and then check.
3	Humidity Test	Keep 96 hours at $-40\pm 3\text{ }^\circ\text{C}$ ,relative humidity 85 to 90% and leave 1 hours in normal temperature and then check.
4	Thermal Shock Test	Each temperature cycle shall consist of 2 hours at $+25\pm 3\text{ }^\circ\text{C}$ followed by 2hours at $+60\pm 3\text{ }^\circ\text{C}$ ,and followed by 2hours at $-20\pm 3\text{ }^\circ\text{C}$ with a 20 to 40 minutes transition time between each 2 temperature extremes. The test duration is for 2 cycle.
5	Vibration Test	Being applied vibration of amplitude of 1.5mm with 10-55-10Hz band of vibration frequency,X.Y.Z.3 direction.2 hours each, total 6 hours.
6	Drop Test	Free drop fram 1.0 meter height to a board 20mm thick hard wood board. and be nothing mechanical damage. tatol 6 times.
7	Load test	Loading white noise with input rate power for 24 hours, then placed in natural condition for 1 hour and then check.
8	Insulation test	When they are measured with DC 100V the insulation resistance between v.c. terminal and frame must be more than 1 M $\Omega$

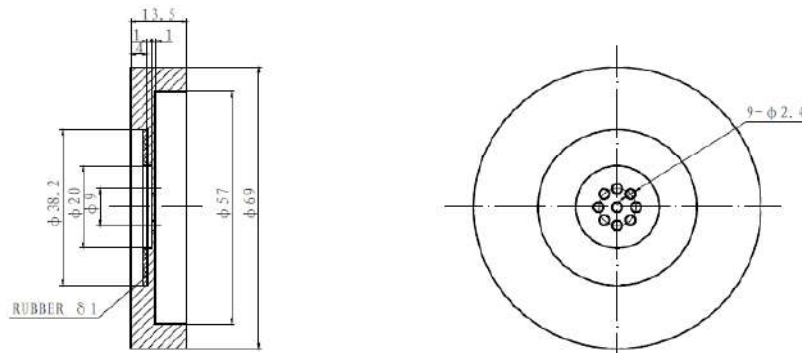
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## 6. Measurement Method & Frequency Response curve



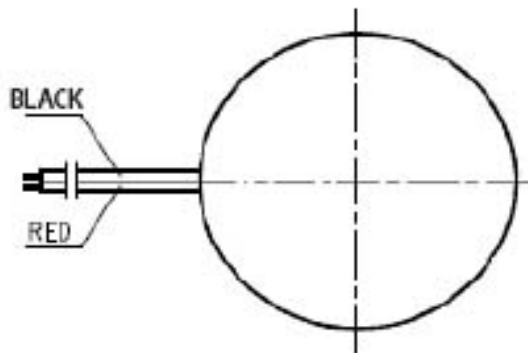
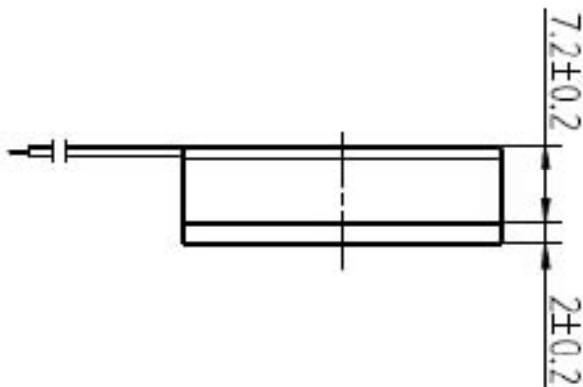
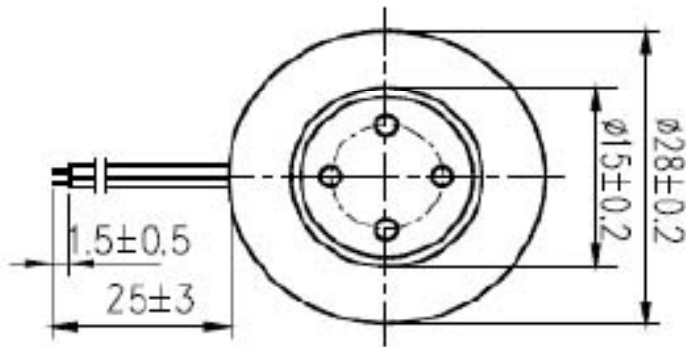
Brüel & Kjær

Earpiece

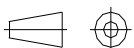


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### 7. Dimensions



FIRST ANGLE PROJECTION



UNIT : mm

Tolerance :  $\pm 0.2$