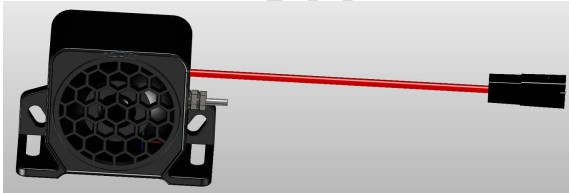


Speaker Alarm

Product No. 112248

BUS102DWT

Issue No. BS/TEA01.1086



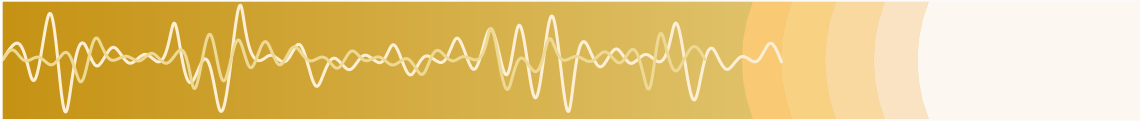
Features:

- IP67 waterproof rating
- Loud sound output
- RoHS

BESTAR Holdings Co., Ltd.

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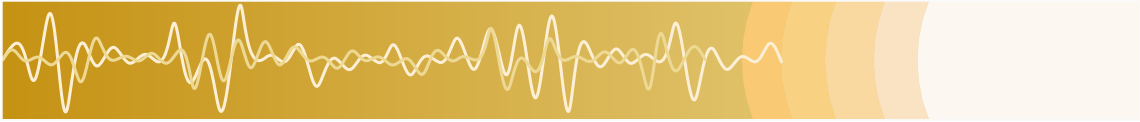
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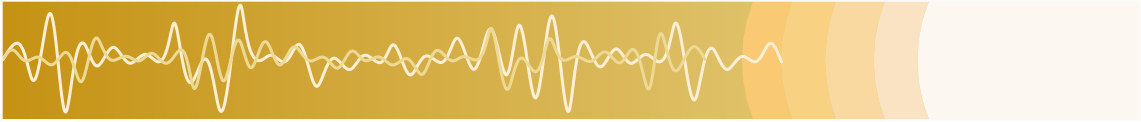


1. Characteristic

1.1 Technical terms

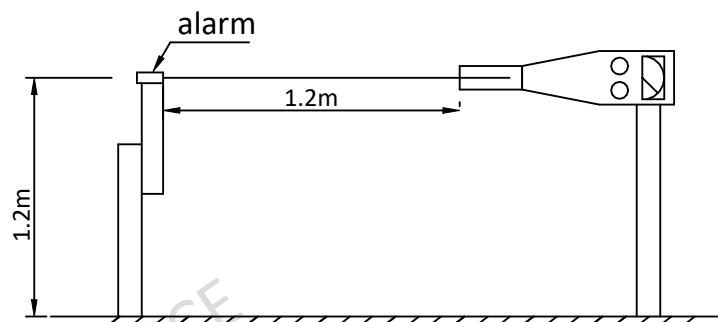
1. Rated Voltage	14/28VDC
2. Operating Voltage	9-32VDC
3. Current Consumption	≤1A
4. SPL at 1.2m	102±4dB
5. Interrupter frequency	5.5Hz
6. High frequency	1281±150Hz
7. Low frequency	Actual High-70Hz(±20Hz)
8. Low tone/High tone ratio	50%±20%
9. Temperature Range	-40~+85℃
10.Storage Range	-50~+85℃
11.Housing material	PA66-GF15
12.IP-rating	IP67
13.Housing color	Black

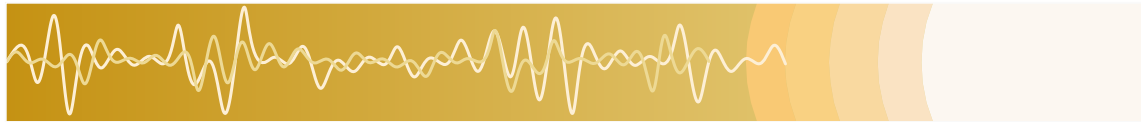




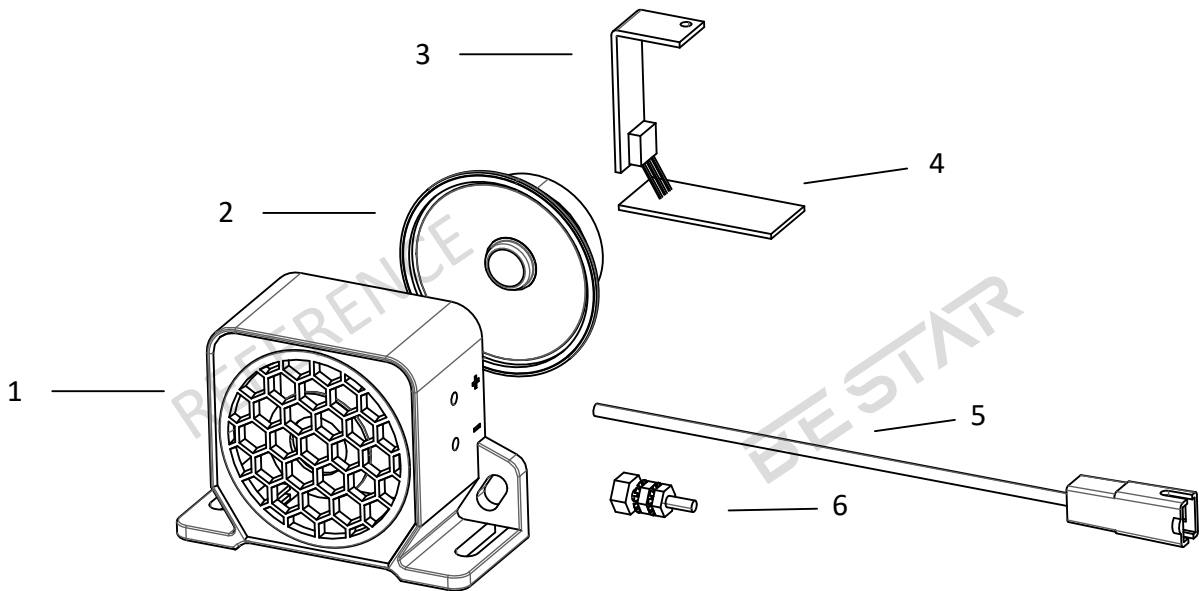
1.2 Test method:

The alarm is located in a free field or an equivalent fully anechoic room. The microphone is directed toward the alarm sound output opening along the zero degree axis and at the distance specified by the test requirement.





2.Part List



6. Screw

5. Connector with wire

4. PCBA

3. Heat sink

2. Speaker

1. Housing

Stainless steel

2-pin

FR-4

Aluminum

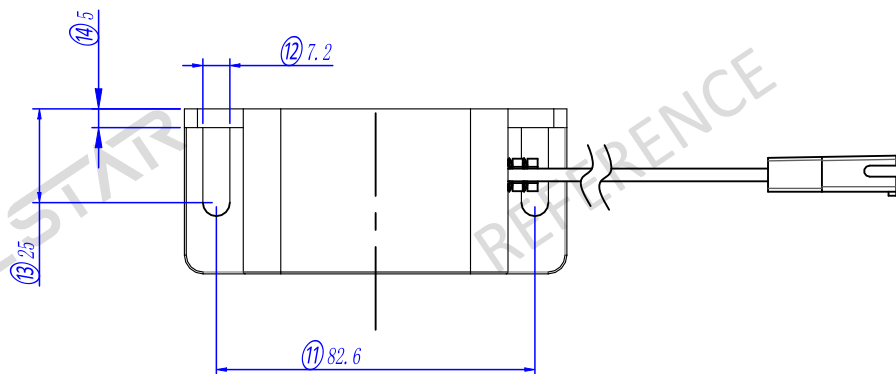
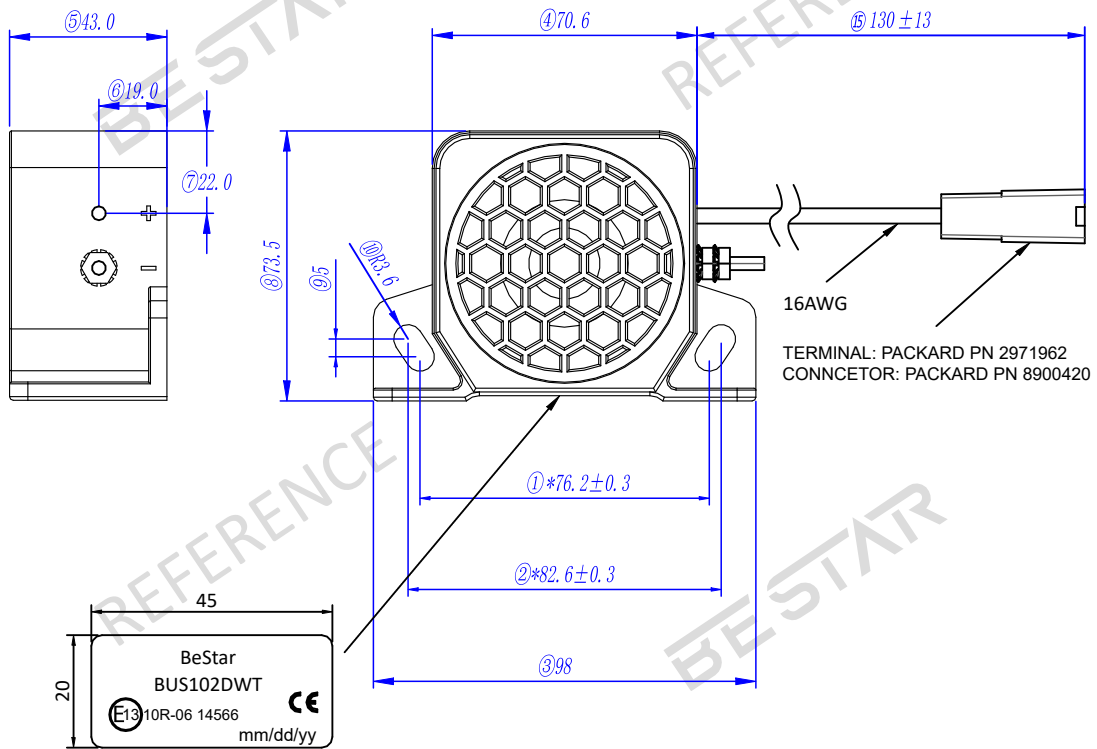
Moving-coil

PA66-GF15

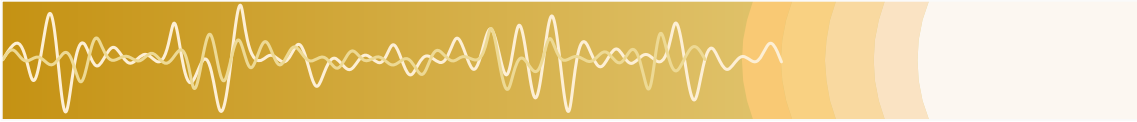
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3.Dimension



Tolerance: ±0.5mm



4. Reliability test

4.1 Temperature Test

4.1.1 Low Temperature, System Voltage Extremes (Test standard: SAE J994 7.1)

Rated Voltage	Extreme Low System Voltage : 9VDC Extreme High System Voltage : 32VDC Nominal System Voltage : 14VDC
Duration	2hrs
Temperature	-40°C ± 3°C

4.1.2 High Temperature, System Voltage Extremes (Test standard: SAE J994 7.2)

Rated Voltage	Extreme Low System Voltage : 9VDC Extreme High System Voltage : 32VDC Nominal System Voltage : 14VDC
Duration	2hrs
Temperature	+85°C ± 3°C

4.2 Rain Test (Test standard: SAE J994 7.3)

Precipitation rate	2.5(+1.6/-0)mm/min
Duration	Min. 2hrs
Direction	Delivered at an angle of 45 degrees from a nozzle with a solid cone spray and Subject all exposed sides of the alarm item to simulated blown rain.

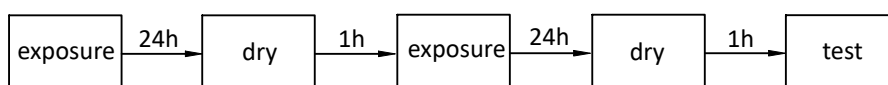
With a solid cone spray and Subject all exposed sides of the alarm item to simulated blown rain.

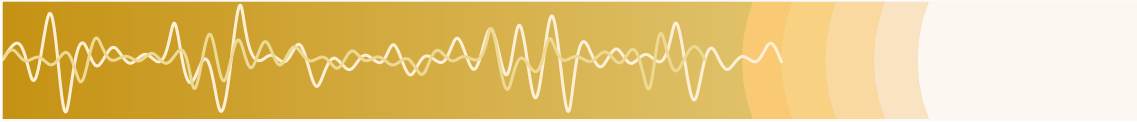
4.3 Vibration Test

Vibration	15.32Grms, 24-2kHz	W/power on or W/O
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4.4 Corrosion Test (Test standard: SAE J994 7.5)

Duration	50hrs (NaCl 5%)
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4. Reliability test

4.5 High Pressure Hot Water Test (Test standard: SAE J994 7.6)

Hot water temperature	Min. + 85°C
Pressure	Min.6.9MPa
Flow rate	Min.18.9L/min
Direction	15 degree spray angle and distance alarm sound opening 300 mm Spray and drain cycle is a cycle . Spray needs 10s and drain cycle needs 30s.A total of 50 cycles.

4.6 Dust Test (Test standard: SAE J994 7.7)

Dust	50% fine and 50% coarse particles
Direction and Method	compress air or fan blower blasts in a downward direction to diffuse the dust uniformly throughout the cube
Duration	5hrs (Among them every 15min±0.5min for approximately a 2 s period compress air or fan blower blasts in a downward direction)

4.7 Life test (Test standard: SAE J994 8)

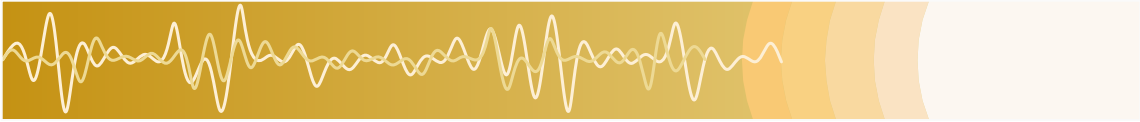
4.7.1 Endurance Test at Low Temperature (Test standard: SAE J994 8.1)

Power	30s ON then 30s OFF
Rated voltage	9±0.2 VDC
Temperature	-40°C±3°C
Duration	4hrs

4.7.2 Endurance Test at High Temperature (Test standard: SAE J994 8.2)

Rated voltage	32±0.2 VDC
Temperature	+85°C±3°C
Duration	4hrs





4. Reliability test

4.7.3 Room Temperature Endurance Test (Test standard: SAE J994 8.3)

Rated voltage	14±0.2 VDC
Temperature	+25°C±11°C
Duration	100hrs

Notice: All specification must be satisfied in this condition.

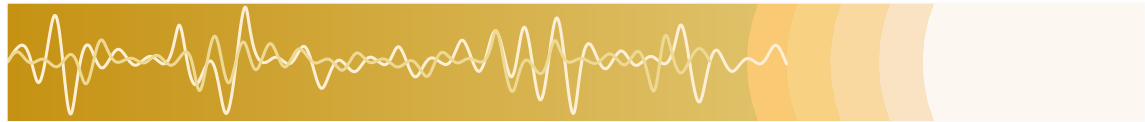
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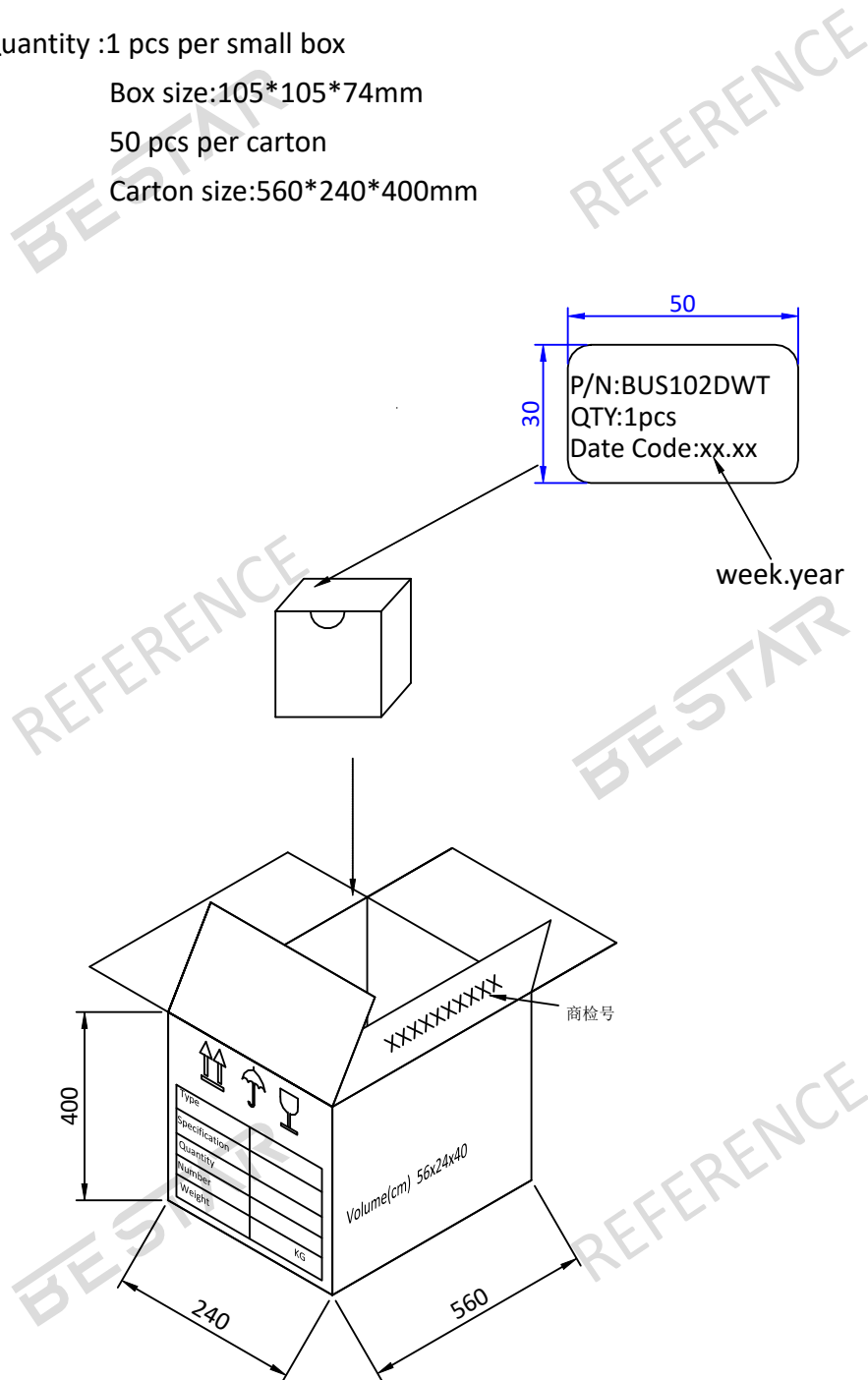
5. Packing

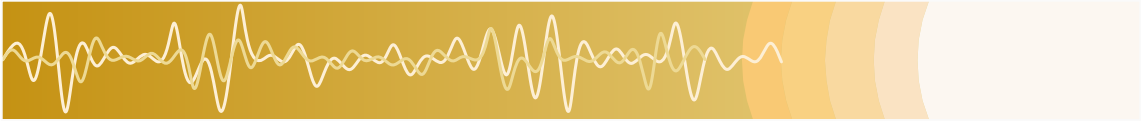
Packing Quantity :1 pcs per small box

Box size:105*105*74mm

50 pcs per carton

Carton size:560*240*400mm





6. History change record

Version	Change Items	Date	Drawn	Checked	Approved
A0	First Edition	2022.01.03	Claire.Fu	Chloe.Gong	Richard.Cheng

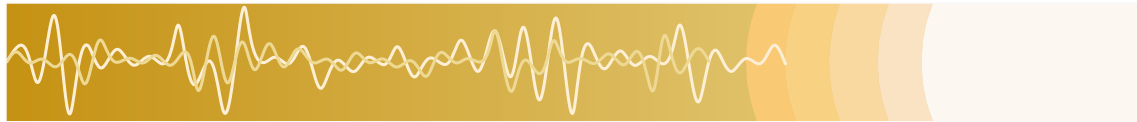
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7. Important Notice

7.1 The products mustn't be washed

7.2 Store Condition (Packing)

The products should be stored in the room, where the temperature/humidity is stable. And avoid such places where there are large temperature changes. Please store the products at the following conditions:

Temperature: -10 to + 40 °C Humidity: 15 to 85% R.H.

7.3 Expire Date on Storage

Expire date (Shelf life) of the products is six months after delivered under the conditions of a sealed and an unopened package. Please use the products within six months after delivered.

If you store the products for a long time (more than six months), use carefully because the products may be degraded in the solderability and/or rusty. Please confirm solderability and characteristics for the products regularly.

7.4 Notice on Product Storage

- (1) Please do not store the products in a chemical atmosphere (Acids, Alkali, Bases, Organic gas, Sulfides and so on), because the characteristics may be reduced at quality, and/or be degraded in the solderability due to the storage in a chemical atmosphere.
- (2) Please use the products immediately after the package is opened, because the characteristics may be reduced at quality, and/or be degraded in the solderability due to storage under the poor condition.

