



Product Specification

| | |
|---------------|---------------------|
| Product Name: | Magnetic Transducer |
| Part Number: | EMX-9TG01PA |
| Version: | 1.02 |
| Date: | 2019-11-6 |
| Note: | |

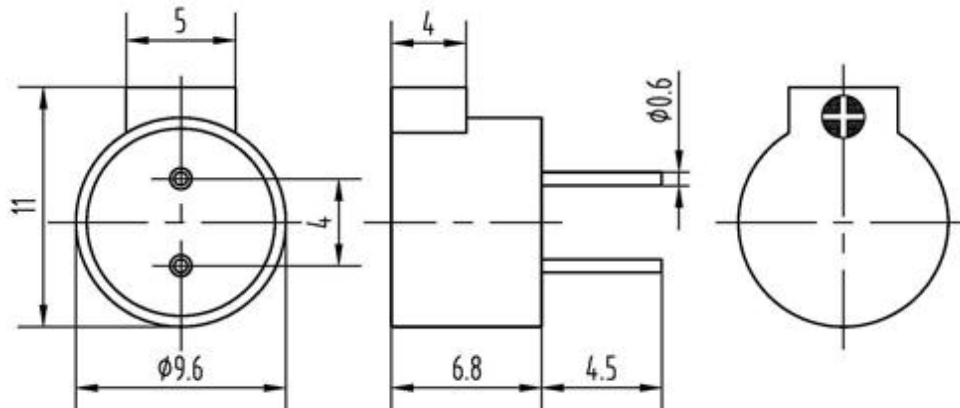
East is an ISO 9001 , IATF16949 and ISO 14001 Certified Company

Revision History

| Rev. | Description | Author/Date | Checked By | Approver |
|------|-----------------------------------|-------------------|------------|----------|
| 1.02 | Quality management system revised | 汤礼东 2019-11-6 | 吕文斌 | 王建成 |
| 1.01 | Add Coil Impedance | 汤礼东 2014-10-29 | 李建华 | 王建成 |
| 1.0 | Released | 汤礼东 2012-3-22 | 陈启旺 | 王建成 |

1. Part Number EMX-9TG01PA

2. Dimension Drawing (Unit: mm)



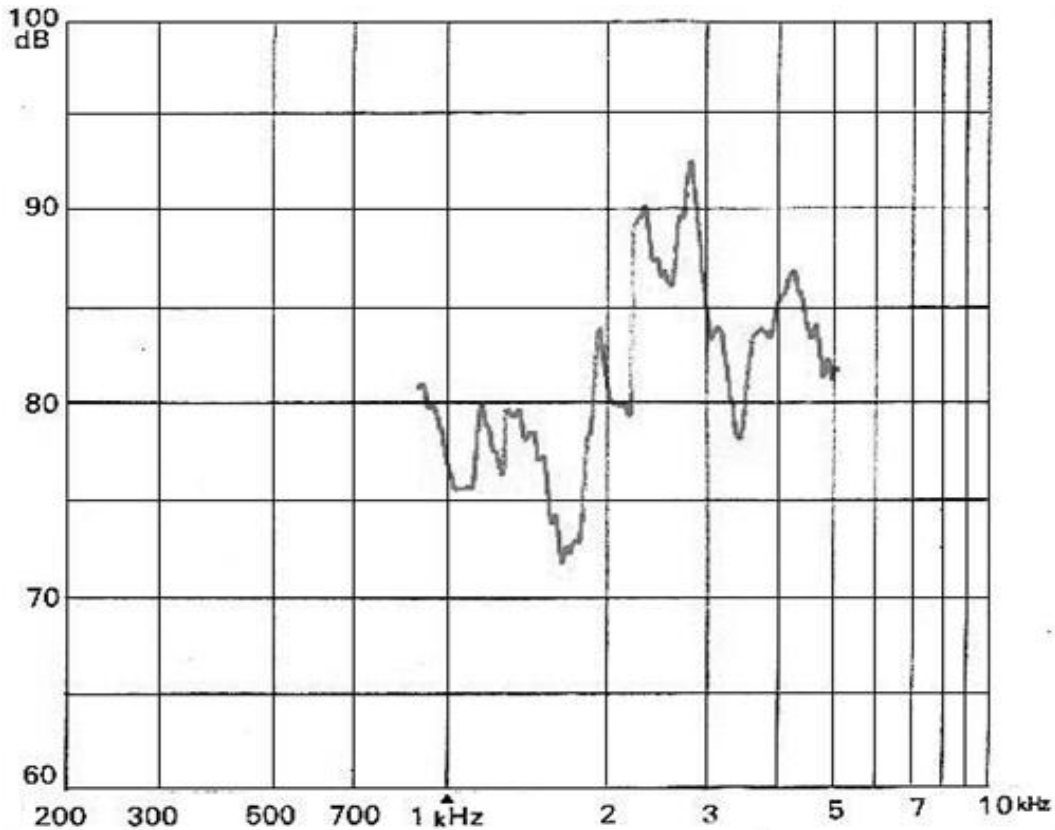
3. Specification

| No. | Item | Specification |
|------|---|-------------------------------|
| 3-1 | Min. Sound Pressure Level | 85dB/2731Hz/1.5V /10cm |
| 3-2 | Rated Voltage | 1.5V |
| 3-3 | Operating Voltage | 1~2V |
| 3-4 | Max. Consumption (At 1.5V _{DC}) | 80mA/2731Hz/3Vp-p square wave |
| 3-5 | Resonant Frequency | 2731Hz |
| 3-6 | Coil Resistance | 5.5±2Ω |
| 3-7 | Coil Impedance | 9.5Ω |
| 3-8 | Operating Temperature | -20~+80°C |
| 3-9 | Storage Temperature | -20~+80°C |
| 3-10 | Weight | 0.8g |
| 3-11 | Pin Strength | More than 10N |

NOTES:

- 1、 Value applying rated voltage(resonant frequency,1/2duty,square wave)
- 2、 Test should be made under the conditions of room temperature (20±10°C), normal humidity (60±20%) and normal atmospheric pressure. In this case, however, that the judgment is questionable, the test conditions are to be changed to room temperature 20±2°C, relative humidity 60~70% and normal atmospheric pressure

4. Typical Frequency Response Curve



Note: Input Voltage 1.5V
Distance 10 cm

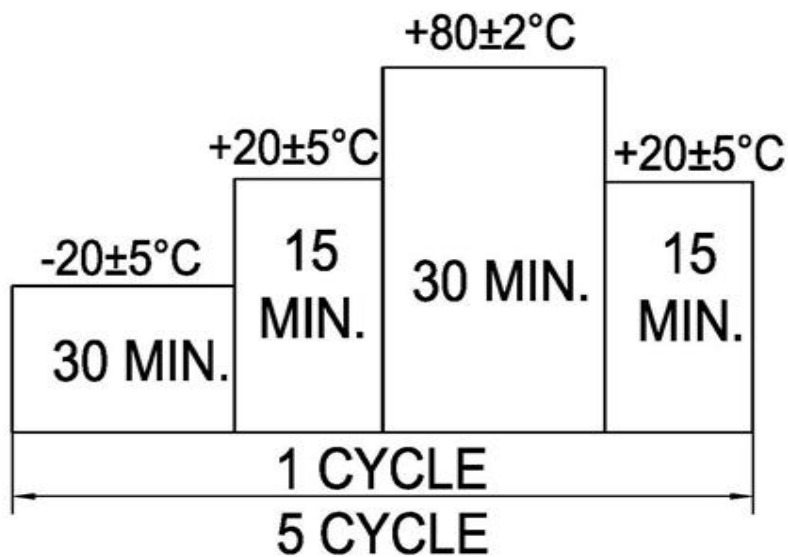
5. Reliability Test

| No. | Item | Method of Test | Tolerance after Testing |
|-----|---------------------------------------|---|---|
| 5-1 | Operating Temperature | -20~+80°C | Sound pressure level initial value ± 10 dB Max. consumption value $\pm 20\%$ |
| 5-2 | Storage in high temperature | Storage in +80°C test box 96 hours then exposed to the room temperature for 2 hours | |
| 5-3 | Storage in low temperature | Storage in -30°C test box 96 hours then exposed to the room temperature for 2 hours | |
| 5-4 | Life test in the room temperature | Operate the product continuously 5 seconds on 5 seconds off 300 hours at rated voltage | |
| 5-5 | Temperature / humidity cycle test | Storage in +40°C, 93 \pm 3%RH test box 96 hours then exposed to the room temperature for 2 hours | |
| 5-6 | Temperature (high and low) cycle test | Conduct the test for 5 cycles without applying power then expose to the room temperature for 2 hours.(See Figure 5-6) | |

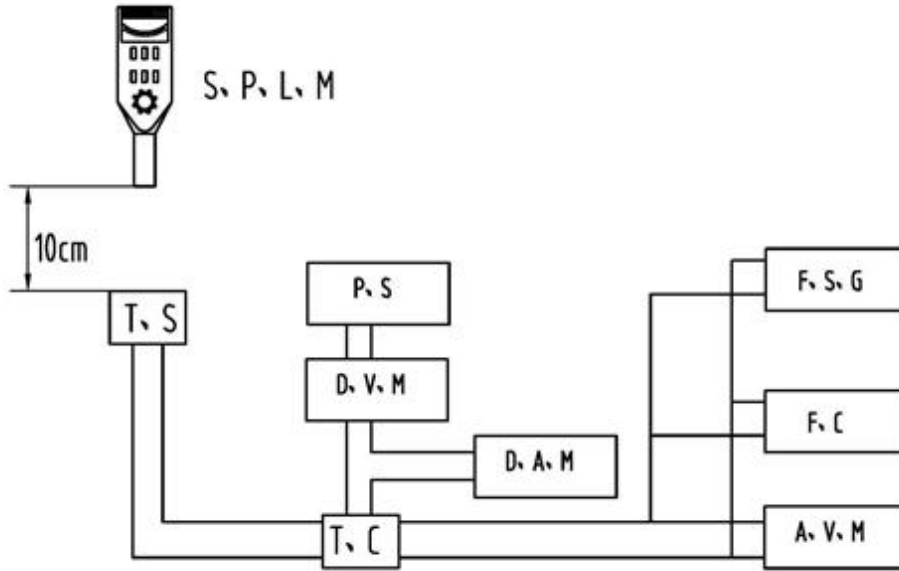
| | | | |
|------|--------------------------------|--|--|
| 5-7 | Vibration test | Conduct the test for the directions of X Y and Z for 0.5 hour each (total 1.5 hours). To-and Fri sweep time(from 10 to 55Hz and then 55 to 10) under single amplitude of 0.75mm is 3 minute, then expose to the room temperature for 2 hours | |
| 5-8 | Drop test | Drop a product naturally from the height of 700mm onto the surface of 100mm thick wooden board. Two directions: upper and side of the product are to be applied for this drop test once respectively | |
| 5-9 | Soldering heat resistance test | Dip the connecting pins in soldering at $260\pm 5^{\circ}\text{C}$ for 10 ± 1 seconds | |
| 5-10 | Test of soldering | Dip the connecting pins in soldering at $230\pm 5^{\circ}\text{C}$ for 3 ± 0.5 seconds | Solder shall be attached around over 95% of the dipped portion |

NOTE: The pins are allowed to deform after drop test.

Figure 5-6

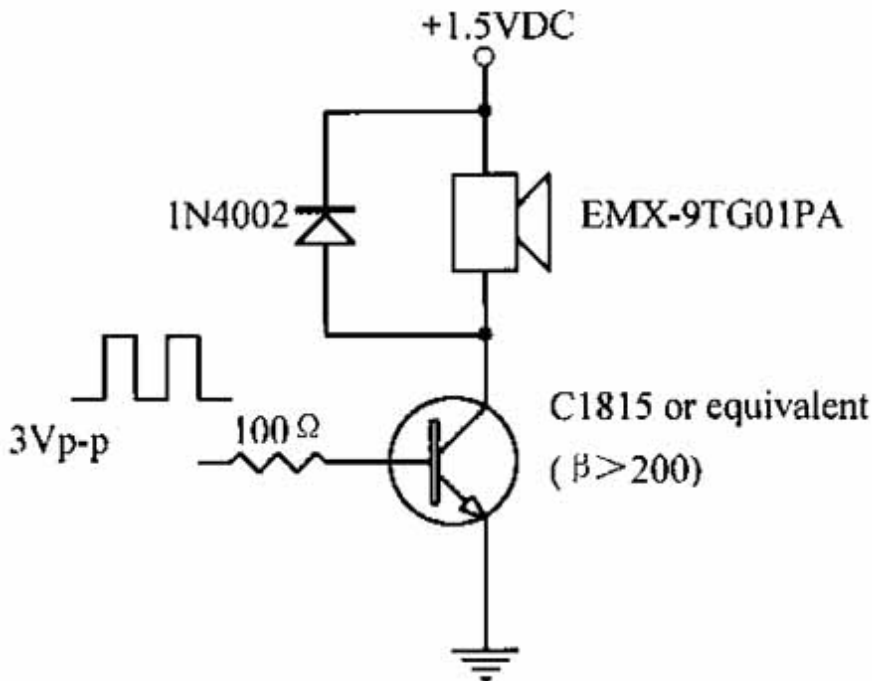


6. Electrical Testing Method



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|---------|----------------------------|
| S.P.L.M | Sound Pressure Level Meter |
| T.S | Testing Sample |
| F.C | Frequency Counter |
| T.C | Test Circuit |
| F.S.G | Frequency Signal Generator |
| A.V.M | AC Voltage Meter |
| P.S | Power Supply |
| D.V.M | DC Voltage Meter |
| D.A.M | DC Ampere Meter |

TEST CIRCUIT:



7. Packing Information

Packing: 3000 pcs per export carton

Carton Size: 47× 30.5× 29 cm

G. Weight: 3.9 kgs N. Weight: 2.4 kgs