



# Elektrotechnik Karl-Heinz Mauz GmbH

**LSM-34M/F** (Artikel-Nr. 115050)

**EKULIT**

## SPECIFICATIONS:

| TYPE                          | UNIT         | LSM-34M/F   |
|-------------------------------|--------------|---|
| Impedance                     | $\Omega$     | 8 $\pm$ 15%   |
| Rated Input Power (long time) | W            | 2.0   |
| Max. Input Power (1 minute)   | W            | 3.0   |
| Resonant Frequency (Fo)       | Hz           | 350 $\pm$ 20%   |
| Sensitivity (S.P.L.)          | dB           | 78 $\pm$ 3/1.0W/0.5m  |
| Frequency Range               | Hz           | Fo~10.000   |
| Total Harmonics Distortion    |              | Max. 5% at 1kHz   |
| Voice Coil                    | $\emptyset$  | 19.45mm   |
| Magnet Rare earth permanent   |              | Nd-Fe-B $\emptyset$ 18mm  |
| Operation Test                |              | Must be normal at program source<br>– 2.0W  |
| Buzz, Rattle, etc.            |              | Should not be audible at 4.0V sine<br>Wave between Fo to 10kHz  |
| Polarity                      |              | When positive voltage is applied to<br>the terminal marked (+), diaphragm<br>should move to the front                 |
| Apperance                     |              | Should not exist any obstacle to be<br>harmful to normal operation;<br>damages, cracks, rust and<br>distortions, etc. |
| Terminal Strength             |              | Capable of withstand 1kg load for<br>30 seconds without resulting in any<br>damage rejection.                         |
| Weight                        | g            | 30 $\pm$ 0.3  |
| Operating Temperature         | $^{\circ}$ C | -20~+60   |
| Storage Temperature           | $^{\circ}$ C | -30~+70   |

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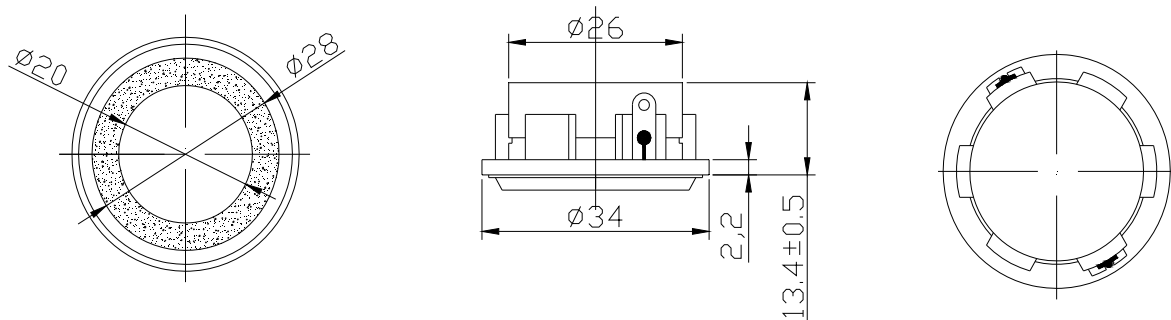
E-mail: **info@ekulit.de** web site: **www.EKULIT.de**

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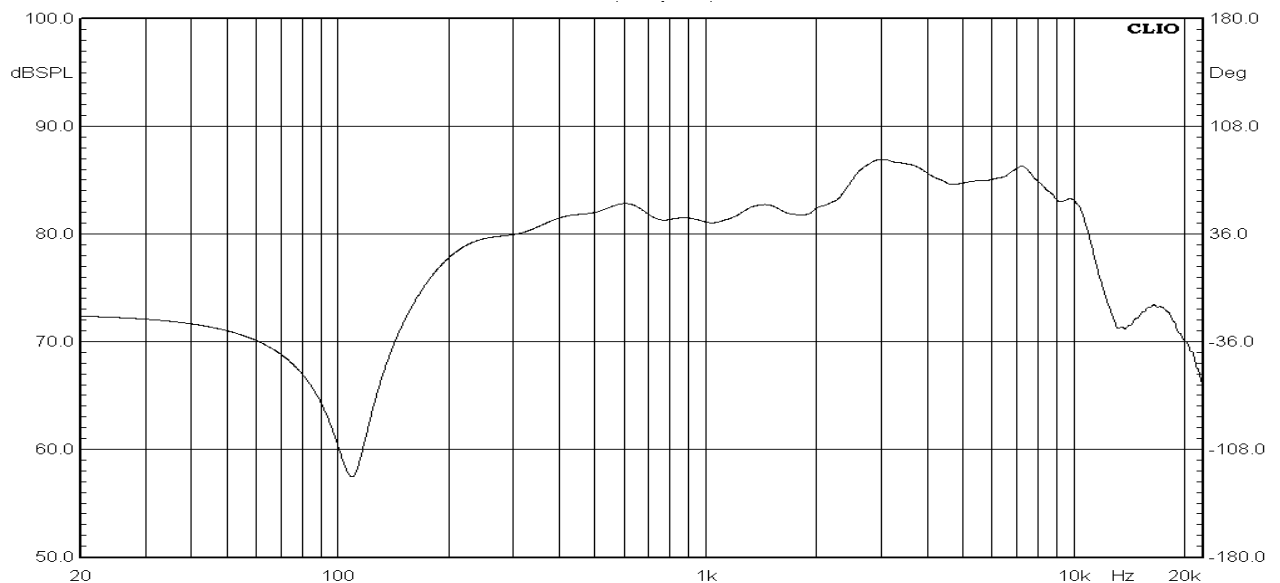
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DIMENSIONS :  
(Unit: mm)



Frequency Response Curve:



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### MEASURING METHOD

#### Test Condition

#### A.STANDARD

Temperature : 15 ~ 35°C

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

Atmospheric pressure : 860mbar to 1060mbar.

#### B.BASIC

Temperature : 20±3°C

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

#### C.Standard Test Fixture

Test and measurement will be carried out under normal condition of temperature within 5°C to 35°C, relative humidity within 45% to 85% and air pressure of 860mbar to 1060mbar.

Should uncertainty arise in data obtained from the above atmosphere, control of temperature at 20°C±2°C and relative humidity within 60% and 70%, with air pressure remaining unchanged, to be enforced.

1. Microphone : B&K 4191

2. Standard Baffle : In IEC 268-5 Where 1350mm x 1650mm

3. Testing Distance : 0.1m

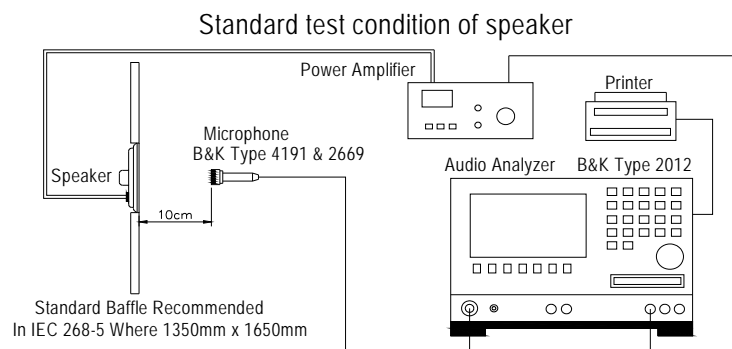
4. Zero Level : -dB

5. Mode : SPEAKER

6. Input Power : 2 W

7. potentiometer Range : 50dB

8. Sweep Time : 0.5sec





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## Reliability test

| Items.   |                        | Specifications  |
|--|------------------------|---|
| 01   | High temp. Test        | Keep 96 hours at $+70^{\circ}\text{C}\pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check  |
| 02   | Low temp. Test         | Keep 96 hours at $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$ and leave 3 hours in normal Temperature and then check  |
| 03   | Humidity test          | Keep 96 hours at $+ 60^{\circ}\text{C}\pm 3^{\circ}\text{C}$ relative humidity 95% and leave 3 hours in normal temperature and then checked.  |
| 04   | Temp./Humidity cycle   | <p>The part shall be subjected 5 cycles. One cycle shall be 12 hours and consist of;</p> <p>90 ~ 95 % RH</p> <p>65°C</p> <p>25°C</p> <p>0.5hr 6hrs 0.5hr 5hrs</p>                   |
| 05   | Thermal cycle test.    | Low temperature: $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$ , temperature: $+70^{\circ}\text{C}\pm 3^{\circ}\text{C}$ , cycle: 1 hour/cycle each, and then keep 5 cycles in a room. |
| 06   | Vibration              | 10~200~10Hz sin-wave sweep 15min. 5G(constant) X,Y, Z 3 direction. 2 hours each, total 6 hours.   |
| 07   | Fix drop test          | Fix on jig. Then drop from 152cm height to the concrete floor X, y, z 6 direction. 5 times each, total 30 times.  |
| 08   | Free drop test         | Free drop from 100cm height to the concrete floor X, y, z 6 direction. 1 times each, total 6 times.   |
| 09   | Rated Power test       | Rated Power white noise is applied for 96 hours   |
| 10   | Max Power test         | Max power 1 min on – 2 min off 10 cycles.   |
| 11   | Terminal strength test | Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection.  |
| <p>Criterion:<br/>After these test , the change of S.P.L shall be within <math>\pm 3</math> dB .</p> |                        |   |

## SOLDERING CONDITION

Recommend using constant branding iron in 30W, and in temperature range 350°C.

Soldering time not over 2 seconds.

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