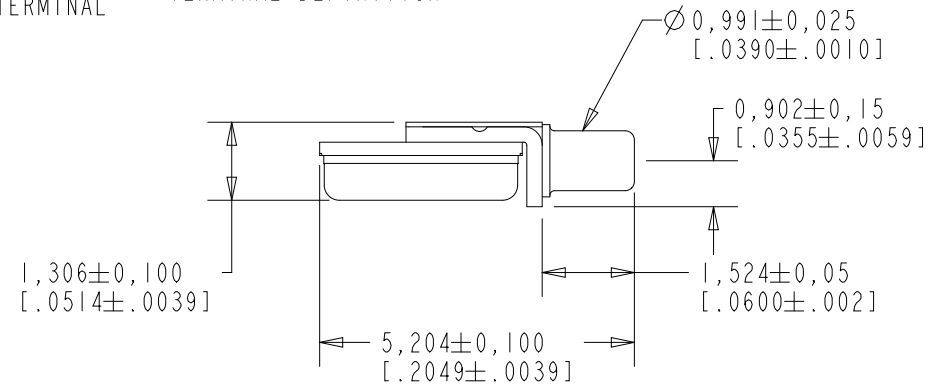
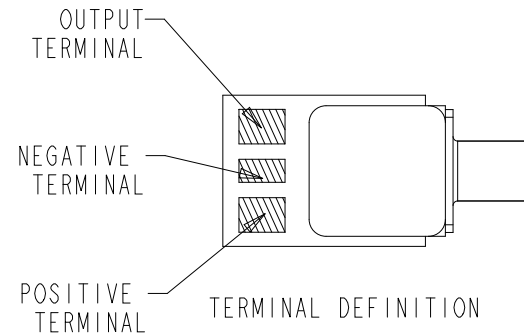


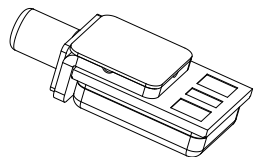
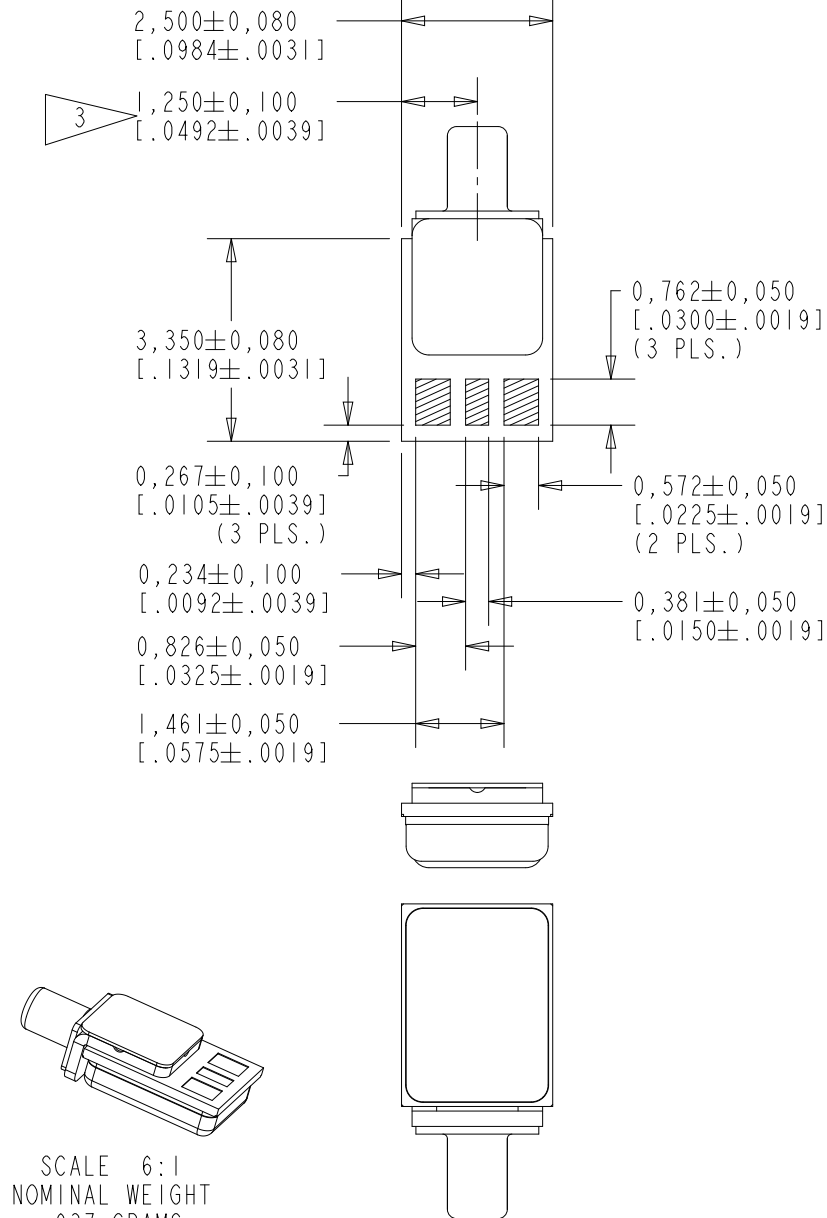
# NOTES:

- DO NOT PULL A VACUUM OR APPLY AIR PRESSURE OVER THE PORT HOLE OF THE MICROPHONE. PULLING A VACUUM OR APPLYING AIR PRESSURE OVER THE PORT HOLE CAN DAMAGE THE DEVICE.
- DO NOT INSERT ANY OBJECT IN THE PORT HOLE OF DEVICE AT ANYTIME AS THIS CAN DAMAGE THE DEVICE.

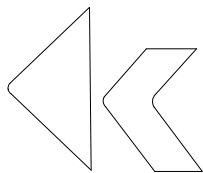
3 DIMENSION APPLIES TO THE EDGE OF THE MICROPHONE TO THE CENTER OF THE TUBE.



DIMENSIONS IN MILLIMETERS [INCHES]



SCALE 6:1  
NOMINAL WEIGHT  
.037 GRAMS



knowles

| REVISION        | ECR NO.   | IMP. DATE | SCALE                              | DR. BY  | DATE    |
|-----------------|-----------|-----------|------------------------------------|---------|---------|
|                 |           |           | 8:1                                | HLD     | 2-15-22 |
|                 |           |           |                                    | CH. BY  | DATE    |
| A               | M10109330 | 2-15-22   |                                    | GJP     | 2-15-22 |
| RELEASE LEVEL   |           | REVISION  | DO NOT SCALE DRAWING               | APP. BY | DATE    |
| Active          |           | A         | DIMENSIONS IN MILLIMETERS [INCHES] | GJP     | 2-15-22 |
| TITLE:          |           |           | MM20-33769-000                     |         |         |
| MICROPHONE      |           |           | SHEET 1.1                          |         |         |
| OUTLINE DRAWING |           |           | KE111ASIZE.FRM                     |         |         |

Rev: B

MM20-33769-000

Sht 2.1

RoHS Compliant

Typical Sensitivity

| Frequency (Hz) | Sensitivity (dB re 1V/0.1Pa) |
|----------------|------------------------------|
| 100            | -58                          |
| 1,000          | -56                          |
| 10,000         | -47                          |

Sensitivity measured in a pressure cavity under the nominal conditions shown below:

| Power Requirement |      |         |         |         |         |
|-------------------|------|---------|---------|---------|---------|
| Parameters        | Unit | Minimum | Nominal | Maximum | Remarks |
| DC Power Supply   | V    | 0.9     | 0.9     | 1.3     | --      |

| Performance             |        |                |         |         |         |                                                 |
|-------------------------|--------|----------------|---------|---------|---------|-------------------------------------------------|
| Parameters              |        | Unit           | Minimum | Nominal | Maximum | Remarks                                         |
| Sensitivity             | 100Hz  | dB             | -3.5    | -1.5    | +0.5    | re sensitivity at 1kHz                          |
|                         | 1000Hz | dB             | -59     | -56     | -53     | dB re 1V/0.1Pa                                  |
|                         | 10kHz  | dB             | 6.0     | 9.0     | 12.0    | re sensitivity at 1kHz                          |
| Amplifier Current Drain |        | μA             | 22      | 38      | 48      | --                                              |
| Output Load Voltage     |        | V <sub>L</sub> | 0.45    | 0.55    | 0.65    | Open Load (after settled)                       |
| A-Weighted Noise        |        | dB SPL         | --      | 27      | 29.5    | Input referred noise<br>re sensitivity at 1kHz. |
| Output Impedance        |        | Ohms           | 3850    | 5100    | 6350    |                                                 |

Notes:

1. Reflowed cup connected to negative terminal.
2. Performance parameters are valid at 0.9 VDC. Typical test environment: 50% RH, 21°C (70°F).
3. Port location : 12S

Knowles reserves the right to make changes to improve reliability and performance of the product.

Knowles Corporation

Microphone  
Performance Specification

| Revision | C.O. #    | Implementation Date | Active | Revision |
|----------|-----------|---------------------|--------|----------|
|          |           |                     | Active | A        |
|          |           |                     |        |          |
|          |           |                     |        |          |
| A        | M10109330 | 2-15-22             |        |          |

|                                                                                                                                                                                                               |        |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|
| 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    |
|                                                                                                                                                                                                               | HLD    | 2-15-22 |
|                                                                                                                                                                                                               | Ck by  | Date    |
|                                                                                                                                                                                                               | GJP    | 2-15-22 |
|                                                                                                                                                                                                               | App by | Date    |

|                |     |         |
|----------------|-----|---------|
| MM20-33769-000 | GJP | 2-15-22 |
| Sht 2.1        |     |         |

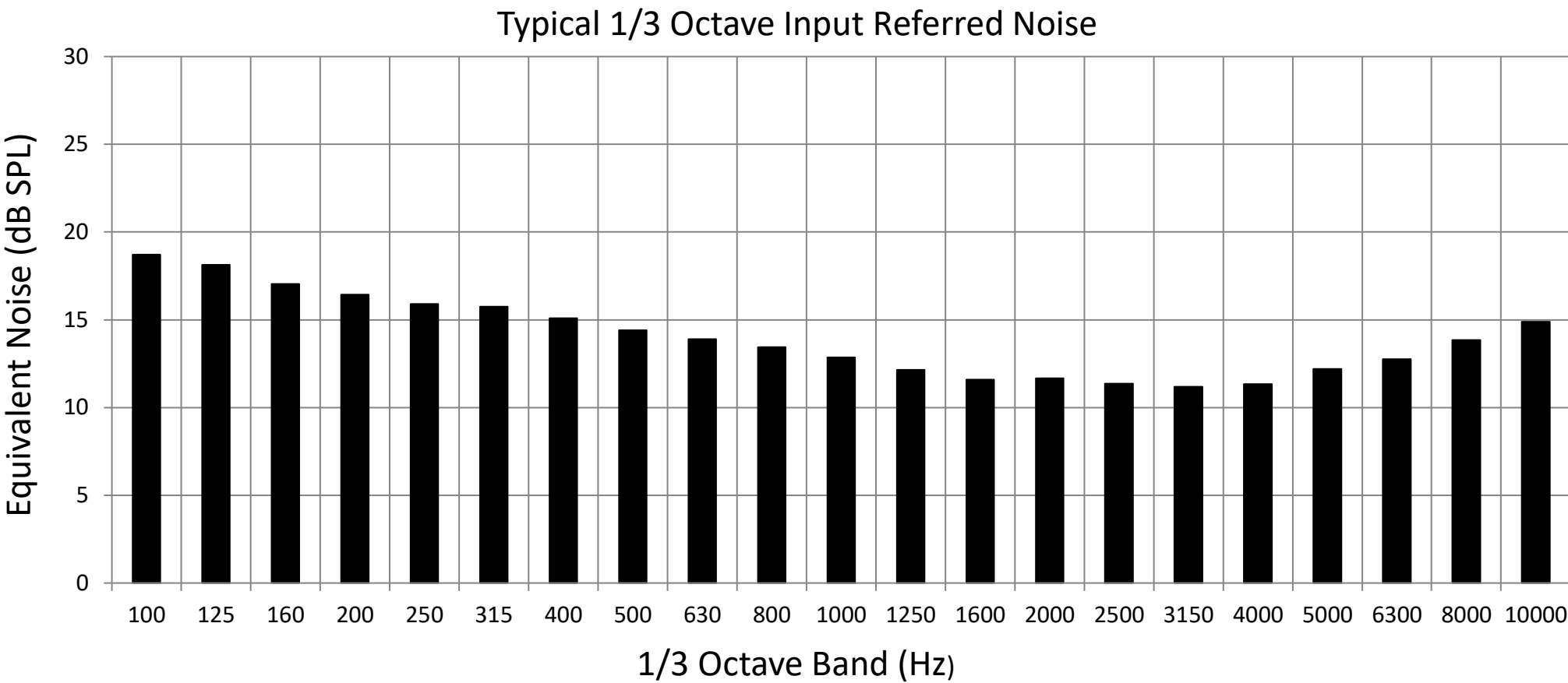
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Performance information in this sheet is only for reference purpose

MM20-33769-000

Sht 2.2

RoHS Compliant



| Performance                         |                                                                |         |           |         |           |                               |
|-------------------------------------|----------------------------------------------------------------|---------|-----------|---------|-----------|-------------------------------|
| Parameters                          |                                                                | Unit    | Minimum   | Nominal | Maximum   | Remarks                       |
| Power Supply Rejection Ratio (PSRR) | 1000Hz                                                         | dB      | --        | -32     | -24       | Supply voltage @ 0.9 VDC      |
| Input Referred Vibration            | 1000Hz                                                         | dB SPL  | --        | 50      | 56        | Blocked port; 1g acceleration |
| Humidity Coefficient                | 1000Hz                                                         | dB      | --        | 0.0     | --        | per %RH                       |
| Temperature Range                   | Operation                                                      | °C (°F) | -17 (1.4) | --      | 63 (145)  | Celsius (Fahrenheit)          |
|                                     | Storage                                                        | °C (°F) | -40 (-40) | --      | 100 (212) | Celsius (Fahrenheit)          |
| ESD Tolerance                       | MIL-Std-750 Class 2 rating<br>EOS/ESD-S5.I-1993 Class 2 rating |         |           |         |           |                               |

Knowles reserves the right to make changes to improve reliability and performance of the product.

| Revision                                                                                                                                                                                                      | C.O. #    | Implementation Date | Release level  |         | Revision |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------|----------------|---------|----------|
|                                                                                                                                                                                                               |           |                     | Active         |         | A        |
|                                                                                                                                                                                                               |           |                     |                |         |          |
| A                                                                                                                                                                                                             | M10109330 | 2-15-22             |                |         |          |
| 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    |          |
|                                                                                                                                                                                                               |           |                     | HLD            | 2-15-22 |          |
|                                                                                                                                                                                                               |           |                     | Ck by          | Date    |          |
| Microphone<br>Performance Specification                                                                                                                                                                       |           |                     | MM20-33769-000 | GJP     | 2-15-22  |
|                                                                                                                                                                                                               |           |                     |                | App by  | Date     |
|                                                                                                                                                                                                               |           |                     |                |         |          |

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