Holder Type-All Attitude, High Performance Mounts

Holder type mounts are shock and vibration isolators designed for the protection of sensitive equipment in severe dynamic environments. Specifically designed for high performance in challenging aerospace applications, they are efficient, lightweight and extremely durable. They are suitable for all attitude mounting, are fail-safe and provide protection in all axes. They are designed to produce natural frequencies in the range of 20 — 25 Hz in an ambient temperature range of –65 to + 300 °F. The silicone elastomer blend used in the construction of holder type mounts produces excellent damping characteristics resulting in a maximum amplification at resonance of 4.0 for all sizes under typical environmental conditions.

Holder type mounts employ a robust construction that is capable of withstanding 30G 11ms half sine shock pulses without failure. They are capable of withstanding repeated 15G shock pulses and can isolate vibration at static accelerations up to 5 G.

They are available in 3 sizes with load ratings from 1 to 100 lbs. Series VIB3710, VIB3720 and VIB3722 are designed for base mounting. While sizes VIB3711, VIB3721 and VIB3723 are inverted for internal configurations.

Features:

- Lightweight, low-profile design
- Efficiently isolates vibration in all directions
- 1:1 Axial to Radial spring rate
- Fail-safe construction

Holder type mounts are available in three sizes:

- 3722/3723 size: 5 load ratings from 1 to 7 lb
- 3720/3721 size: 3 load ratings from 10 to 20 lb
- 3710/3711 size: 5 load ratings from 23 to 100 lb

Applicable Military Specifications:

- MIL-STD-810

VIB3720/VIB3721 Series

VIB3722/VIB3723 Series

VIB3710/VIB3711 Series
Solutions for shock, vibration, noise, and sealing challenges

**VIB3722/VIB3723 Series**

### PRODUCT SPECIFICATIONS

- **Operating Temperature:** -65 to +300 F
- **Maximum Transmissibility at Resonance:** 4.0
- **Load Capacity:** 1.0 – 7 lb
- **Axial-Radial Stiffness Ratio:** 1:1
- **Part Weight:** 1.0 oz.
- **Materials & Finish:**
  - **Holder:** Aluminum alloy 6061-T6 per ASTM B221, Anodized and dyed Grey per MIL-A-8625
  - **Elastomer:** Silicone
  - **Core:** 2024-T4 per QQ-A-225/6, Alodine per MIL-C-5541 Class 1A, Gold
  - **Washer:** 2024-T0 per QQ-A-250/4, Alodine per MIL-C-5541 Class 1A, Gold

### Performance Characteristics

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Max. Static Load (Axial)</th>
<th>Axial Natural Frequency</th>
<th>Dynamic Axial Spring Rate</th>
<th>Dynamic Radial Spring Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lbs</td>
<td>Hz</td>
<td>lb/in</td>
<td>N/mm</td>
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<tr>
<td>VIB3722-1</td>
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</tbody>
</table>

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:

\[ F_n = F_{nn} \times \sqrt{P_r/P_a} \]

Where:
- \( F_n \): Natural Frequency at actual load (Hz)
- \( F_{nn} \): Nominal Natural Frequency (Hz)
- \( P_r \): Rated load
- \( P_a \): Actual load
Solutions for shock, vibration, noise, and sealing challenges

VIB3720/VIB3721 Series

PRODUCT SPECIFICATIONS

Operating Temperature: -65 to +300 F
Maximum Transmissibility at Resonance: 4.0
Load Capacity: 10 – 20 lb
Axial-Radial Stiffness Ratio: 1:1
Part Weight: 2.7 oz.

Materials & Finish:
- **Holder**—Aluminum alloy 6061-T6 per ASTM B221, Anodized and dyed Grey per MIL-A-8625
- **Elastomer**—Silicone
- **Core**—2024-T4 per QQ-A-225/6, Alodine per MIL-C-5541 Class 1A, Gold
- **Washer**—2024-T3 per QQ-A-250/4, Alodine per MIL-C-5541 Class 1A, Gold

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<tr>
<td></td>
<td>Lbs</td>
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<td>N/mm</td>
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To correct for loads lower than rated load use:

\[ F_n = F_{nn} \cdot \sqrt{P_r/P_a} \]

Where:
- \( F_n \): Natural Frequency at actual load (Hz)
- \( F_{nn} \): Nominal Natural Frequency (Hz)
- \( P_r \): Rated load
- \( P_a \): Actual load
VIB3710/VIB3711 Series

PRODUCT SPECIFICATIONS

Operating Temperature: -65 to +300 F
Maximum Transmissibility at Resonance: 4.0
Load Capacity: 23 – 100 lb
Axial-Radial Stiffness Ratio: 1:1
Part Weight: 4.8 oz
6.5 oz (-5)

Materials & Finish:
Holder—Aluminum alloy 6061-T6 per QQ-A-250, Anodized and dyed Grey per MIL-A-8625
Elastomer—Silicone
Core—2024-T351 per QQ-A-225/6, Alodine per MIL-C-5541 Class 1A, Gold
Core (-5)—303 or 304 SST per AMS 5639 or 5640, Passivate per AMS 967
Plate—2024-T3 per QQ-A-250/4, Anodized and dyed Grey per MIL-A-8625

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<td>lb/in</td>
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</table>

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To correct for loads lower than rated load use:

$$F_n = F_{n\text{nom}} \times \sqrt{\frac{P_a}{P_r}}$$

Where:

- $F_n$: Natural Frequency at actual load (Hz)
- $F_{n\text{nom}}$: Nominal Natural Frequency (Hz)
- $P_a$: Rated load
- $P_r$: Actual load