USES
• Vibration testing
• Mechanical impedance measurements
• Educational demonstrations
• Structural response testing
• Vibration transducer calibration

FEATURES
• Force rating 112 N (25 lbf) sine peak (187 N (42 lbf) with cooling)
• Frequency range 5 Hz to 10 kHz
• First axial resonance 10 kHz
• Maximum bare table acceleration 700 m/s\(^2\) (71 g)
• Rugged construction
• Low cross motion and low distortion
• Lapped and hardened surface
• Replaceable inserts for moving element protection
• Robust rectilinear guidance system
• Highly damped axial, transverse and flexural resonances
• Continuous 12.7 mm (0.5 in) peak-to-peak displacement with overtravel stops
• Interconnecting cable with two high-quality, 4-pin Neutrik\textsuperscript{®} Speakon\textsuperscript{®} connectors

Description
Permanent Magnetic Vibration Exciter Type 4808 is a high-quality, compact machine with a permanent magnetic field. It is designed for long, trouble-free operation, and has a force rating of 112 newton (25 lbf) enabling relatively heavy loads to be excited to high g levels. Type 4808 will normally be driven by Power Amplifier Type 2719 rated at 180 VA, but can also be driven by any amplifier up to a maximum input current of 15 A RMS without assisted cooling.

The moving element is supported by a robust rectilinear guidance system consisting of grouped radial and transverse flexures in a unique construction. The flexures are made from a bonded sandwich of spring steel and a damping elastomer, providing a clean acceleration waveform with low cross motion and low distortion characteristics.
**Fig. 1**
Sine performance curves for Vibration Exciter
Type 4808 for operation without assisted cooling

![Sine performance curves for Vibration Exciter Type 4808](image)

### SPECIFICATIONS – Permanent Magnetic Vibration Exciter Type 4808

**COMPLIANCE WITH STANDARDS**
- Compliance with EMC Directive
- Compliance with EMC Requirements of Australia and New Zealand

**Safety, EMC Emission and Immunity:**
According to relevant standards:
- EN 61010-1, IEC 61010–1, UL 3111–1
- EN 50081–2–1, EN 61326–1, CISPR 22 Class B limits, FCC Rules Part 15, IEC 60068–2–2
- Storage temperature: –25 to +70°C (–13 to +158°F)
- Operating temperature: +5 to +40°C (+41 to +104°F)
- Humidity: According to IEC 60689–2–1, IEC 60689–2–2

**SPECIFICATIONS**

- **Rated Force:** 112 N, 25 lbf sine-peak (with assisted air cooling 187 N, 42 lbf peak)
- **Frequency Range:** 5 Hz to 10 kHz bare table
- **Max. Bare Table Acceleration:** 700 m/s² (71 g)
- **Max. Displacement:** 12.7 mm (0.5 in) peak-to-peak
- **Max. Velocity:** 1.4 m/s (55 in/s)
- **Dynamic Weight of Moving Element:** 180 gram (0.35 lb)
- **Static Stiffness:** 5.6 N/mm (32 lbf/in)
- **Maximum Input Current:** 15 A RMS (with assisted air cooling 25 A RMS)
- **Current-To-Force Ratio:** Coils in parallel: approximately 0.16 A/F (sine peak), Coils in series: approximately 0.08 A/F (sine peak)

**Stray Magnetic Field**
- 20 × 10⁻⁵ Tesla at table face
- 8 × 10⁻³ Tesla at 12.7 mm (0.5 in) above table face

**Coil Impedance:** Approximately 0.8 Ω at 500 Hz with bare table and coils in parallel

**Table Size:** 62.5 mm (2.45 in) diameter

**Fastening Thread:** 5 × 5/16" – 18 UNC for M5 and 10–32 UNF inserts. 1 central insert plus 4 equi-spaced on circle of Ø50.8 mm

**WEIGHT AND DIMENSIONS**
- **Weight:** 35 kg (77.1 lb.)
- **Diameter:** 215 mm (8.46 in)
- **Height:** 200 mm (7.87 in)

### Ordering Information

<table>
<thead>
<tr>
<th>Type 4808</th>
<th>Permanent Magnetic Vibration Exciter</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ-0649-D-050</td>
<td>Interconnecting Cable 5 m (two Neutrik® 4-pin Speakon® Plug + AG-0007)</td>
</tr>
<tr>
<td>10 × YS-0810</td>
<td>M5 stud inserts (M5)</td>
</tr>
<tr>
<td>10 × YS-0811</td>
<td>M5 stud inserts (10–32UNF)</td>
</tr>
<tr>
<td>2 × YA-0061</td>
<td>Insert Mounting Tool</td>
</tr>
<tr>
<td>2 × YM-2002</td>
<td>Blanking Plugs</td>
</tr>
<tr>
<td>1 × QS-0003</td>
<td>Bottle of Locktite compound</td>
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</tbody>
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</tr>
</thead>
<tbody>
<tr>
<td>UA-0125</td>
<td>Mounted Equipment (including isolated studs YY-0150 and non-isolated studs YQ-2960)</td>
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<tr>
<td>WA-0309</td>
<td>Trunnion</td>
</tr>
<tr>
<td>UA-2054</td>
<td>Bushing Adaptors, 10–32 UNF to ¼–28 UNF</td>
</tr>
<tr>
<td>UA-2052</td>
<td>Adaptor studs, 10–32 UNF to ¼–28 UNF</td>
</tr>
</tbody>
</table>

**CABLES AND CONNECTORS WITH OLD TYPE 2712**
- **JJ-0500** Plug must be soldered onto AQ-0649 Cable where one Neutrik 4-pin Speakon plug is first removed

### TRADEMARKS

Neutrik and Speakon are registered trademarks of Neutrik AG

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HEADQUARTERS: DK-2850 Nærum · Denmark · Telephone: +45 4580 0500
Fax: +45 4580 1405 · www.bksv.com · info@bksv.com

Local representatives and service organisations worldwide

Brüel & Kjær