**PRODUCT DATA**

**Vibration Exciter Type 4809**

**Uses**
- Accelerometer calibration
- Vibration testing of small objects
- Mechanical impedance and mobility measurements
- Experimental modal analysis

**Features**
- Force rating 45 N (10 lbf) sine peak, 60 N with air cooling
- Frequency range: 10 Hz to 20 kHz
- First axial resonance: 20 kHz
- Maximum displacement: 8 mm (0.32 in) peak-to-peak
- Maximum bare table acceleration: 736 m/s² (75 g), 981 m/s² with air cooling
- Robust rectilinear guidance system
- Low cross motion and low distortion
- Optimal performance using Power Amplifier Type 2718

**Description**
Vibration Exciter Type 4809 is a small versatile exciter with an impressive performance. High quality materials result in long-term constructional reliability, and strict quality control ensures consistent high performance. Type 4809 can be driven without assisted cooling by any small power amplifier with a sufficient voltage rating and an input current of a maximum of 5 A. Brüel & Kjær Power Amplifier Type 2718, rated at 75 VA, has been designed specifically to drive Type 4809.

**Fig. 1** Sine performance curves for Vibration Exciter Type 4809 operating without assisted cooling

**Attaching the Exciter**
A threaded insert is set into the table surface for attachment purposes. The insert is replaceable and acts as a mechanical fuse, protecting the moving element against damage. For most types of abusive treatment, the inner threads fail before the moving element is damaged. A continuous 8 mm (0.315 in) peak-to-peak displacement is possible. If the exciter should be over-driven, over-travel stops will prevent excessive displacements.
Specifications – Vibration Exciter Type 4809

COMPLIANCE TO STANDARDS

Temperature: According to IEC 60068–2–1 & IEC 60068–2–2
Operating temperature: 5 to 40 °C (41 to 104 °F)
Storage temperature: –25 to +70 °C (–13 to +158 °F)
Humidity: According to IEC 60068–2–3
Damp Heat: 90% RH (non-condensing at 40 °C (104 °F))

SPECIFICATIONS

Rated Force: 44.5 N (10 lbf) sine peak; 60 N (13.5 lbf) with forced air cooling
Frequency Range: 10 Hz to 20 kHz bare table
Axial Resonant Frequency: 20 kHz bare table
Max. Bare Table Acceleration: 736 m/s² (75 g); 1000 m/s² (100 g) with air cooling
Max. Displacement: 8 mm (0.315 in) peak-to-peak
Max. Velocity: 1.65 m/s (65 in/s) peak
Dynamic Weight of Moving Element: 60 g (0.132 lb)
Dynamic Flexure Stiffness: 12 N/mm (69 lbf/in)

Optional Accessories

Type 4809 Vibration Exciter includes the following accessories:

- 4 × YS-0810: Thread Inserts (M5)
- 4 × YS-0811: Thread Inserts (10–32 UNF)
- 1 × QA-0061: Insert Mounting Tool
- 1 × QA-0029: Tap for 10–32 UNF
- 1 × DB-1416: Hose Connection
- 2 × YM-0414: Nuts
- 5 × YQ-2960: Steel Studs, 10–32 UNF

TRADEMARKS

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