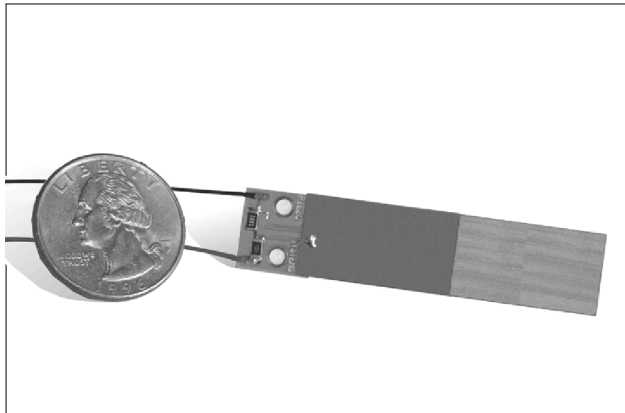


**12 -15VDC / LOW POWER PIEZO FAN BLADE  
110 HZ VERSION**

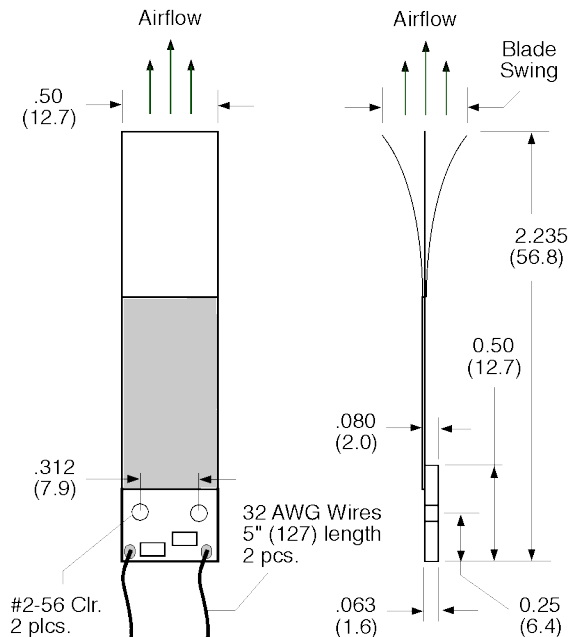


**DESCRIPTION OF LOW VOLTAGE FAN**

The low voltage / low power piezo fan is a solid state device designed to be used where low DC input voltage (12 - 15 VDC) is available. The fan comprises a compound piezo/stainless steel blade mounted to a PCB mount incorporating a filter and bleed resistor. Oscillating blade motion creates a high velocity flow stream emanating from the leading edge of the blade. Air intake is above and below the swept out volume of the blade.

Piezo fans offer advantages over conventional fan technology. These include: instant start/stop with no power surge (especially desirable for spot cooling); ultralight weight; thin profile; no EMI; high reliability; operation over a wide temperature range; and essentially no heat dissipation (ideal for sealed enclosures), and low power consumption.

“Off-the-shelf” delivery. Custom configurations available upon request.



**INVERTER DRIVE CIRCUIT**

The piezo fan blade requires an oscillating drive signal matched to the resonant frequency of the blade. This may be provided by a frequency generator/amplifier or an inverter circuit. Piezo System’s Inverter Drive Circuit (P/N EIN-409, see page 9) is used to drive the low power piezo fan blade.

**RESONANT BLADE EVALUATION KIT**

The Low Voltage / Low Power Piezo Fan Evaluation Kit includes one low voltage piezo fan and one EIN-401 Inverter Drive Circuit.

**PERFORMANCE (DRIVING FAN WITH EIN-401 INVERTER DRIVE CIRCUIT)**

|  | VDC         | 12VDC       | 15VDC       |
|--|-------------|-------------|-------------|
| Input Voltage to EIN-409 Inverter Drive Circuit: | VDC         | 12VDC       | 15VDC       |
| Current drawn by fan and circuit:                | mA          | 2.2         | 2.8         |
| Power Consumption of fan and circuit:            | mW          | 26          | 42          |
| Volume Flow Rate:                                | CFM (l/s)   | 0.5 (.24)   | 0.75 (.35)  |
| Peak Air Velocity:                               | FPM (m/s)   | 275 (1.4)   | 435(2.2)    |
| Resonant Frequency:                              | Hz          | 110         | 110         |
| Blade Swing, peak to peak:                       | inches (mm) | 0.31 (7.9)  | 0.375 (9.5) |
| Fan Capacitance                                  | nF          | 90          | 90          |
| Fan Weight                                       | grams       | 2.0         | 2.0         |
| Fan Temperature Range:                           | °C          | -40° to 90° | -40° to 90° |

**ROHS** Compliant. Piezo exempt.

| ORDERING INFORMATION                  | PART NO.    | 1 pc. | 5 pc. | 25 pc. | 100 pc. |
|---------------------------------------|-------------|-------|-------|--------|---------|
| Low Voltage / Low Power Piezo Fan     | RFNI-LV-02  | \$164 | \$98  | \$65   | \$55    |
| Low Voltage / Low Power Piezo Fan Kit | RFNIK-LV-02 | \$275 |       |        |         |