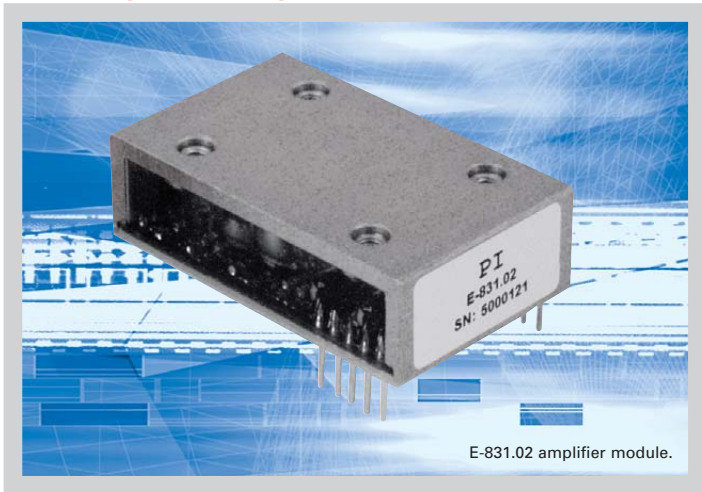


E-831 - E-841 - E-842

OEM Piezo Driver and Power Supply Modules

>> Click <http://www.pi.ws/fwd/Piezo-Driver> for the Latest Specs on these Products



E-831.02 amplifier module.

- Cost Effective Piezo Driver
- Small Size
- Low Noise, High Stability
- Easy-to-Use
- Full Overcurrent, Short-Circuit and Temperature Protection
- Power-up/down Without Voltage Spikes

The E-831.02 OEM piezo driver module is a very compact, cost-effective, single-channel, 4-quadrant power amplifier for low-voltage piezoelectric actuators (LVPZTs).

It provides a peak output power of 12 W and average power of 2 W (expandable to 5 W with external heat sink). The E-831.02 is a high-precision amplifier with a fixed gain of 10.0 and outputs voltages in

the range of -20 to 120 V for control input signals ranging from of -2 to 12 V. The output is fully compensated for the capacitive loads of up to 10 μ F typical of PI's low-voltage PZTs such as PICMA[®] piezo actuators. For monitoring purposes, the output voltage is internally divided by 100 and provided at a special monitor pin.

Because piezo actuators require virtually no power in

steadystate operation and the power consumption depends on the operating frequency, high-powered amplifiers are not required for many applications. With a peak output current of 100 mA (sink/source) the E-831 is well-suited for switching applications and fast transitions where the capacitive load (the piezo actuator) needs to be charged as quickly as possible. The small-signal bandwidth is about 3 kHz.

Power Supplies for E-831.02

The E-841.05 (input voltage range 10 to 30V) and E-842.05 (input voltage range 30 V to 72 V) switched power supply modules provide all the operating voltages (± 15 V, -26 V and +127 V DC) required by the E-831.02 amplifier module. Both models supply enough power for up to three E-831.02 amplifiers with a total output power of 5 W.

A sync. input on the power supply allows synchronization of the internal switching frequency with an external clock (185 to 220 kHz) for elimination of interference in AC-driven position sensors or DACs.

Easy Implementation

E-831 and E-841/E-842 modules are enclosed in metal cases with solderable pins for PCB mounting. They are designed to work together without additional components.

Triple Safety

The E-831 amplifier is short-circuit proof with both a low-speed current limiter of 50 mA and a high-speed (8 msec) current limiter of 100 mA. When the case temperature rises above 70 °C (can be reached after a few minutes with maximum current) an internal temperature sensor shuts down

Ordering Information

- E-831.02**
Single-Channel Piezo Driver Module for LVPZTs
- E-841.05**
Power Supply Module for E-831, Input 10 to 30 V
- E-842.05**
Power Supply Module for E-831, Input 30 to 72 V

the output stage until the temperature drops below 60 °C. This operation mode is indicated by the active-high TEMP-OFL TTL status line.



E-841.05 power supply module

