

Product showcase

Switching regulator

Linear Technology's

LTM4600HVMPV is a complete and encapsulated 10-A switching dc/dc regulator system, the first device in a family of uModule dc/dc regulators designed for rugged military and avionics applications. The device is tested over the temperature range of -55 to +125°C. It is offered in a 15- x 15- x 2.8-mm military plastic land grid array package. The unit is suited for high-power dc/dc solutions because of its lower thermal impedance when compared to a similar size ball grid array package. The device operates from an input supply range of 4.5-28 V and regulates an output of 0.6-5 V. It can deliver 10 A continuous load current (14 A peak) and achieve efficiencies as high as 92%.



Vibration sensors

A line of sensors from Wilcoxon

Research is rated for operation in hazardous areas. IS vibration sensors measure acceleration or velocity at ranges that monitor low frequency and general purpose uses. The 4 to 20 mA line of loop-powered vibration sensors is available with IS and explosion-proof ratings. Dynamic and 4 to 20 mA output sensors can be ordered with a side connector for measurements in locations with a low profile. Top-exit and side-connector sensors with an integral cable are also available. An IS accelerometer and charge amplifier system measures vibrations in very high temperature applications up to 500°F. Also offered is a dual-output vibration sensor, which allows users to measure vibration and temperature using one hazardous-area rated sensor.



Valve spring compressor tool

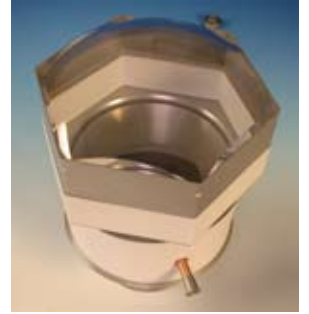
The Valve Wizard from Airborne Flying Service

is a series of valve spring compressor tools for Lycoming and Continental piston engines that allows mechanics the use of both hands to remove and replace springs, keepers, stems and guides, rocker arms, spacers, push rods, push rod housings, and cylinder hold-down nuts. The unit mounts to the cylinder on-engine, allowing easier access for removal of the parts and, in turn, the removal of the cylinder from the crankcase. The device attaches to the cylinder head via the rocker cover bolts on each cylinder. Threaded shafts compress the springs and maintain hands-free compression during the process. Both intake and exhaust valves can be worked on at the same time.



Ceramic insulators

Morgan Advanced Ceramics is supplying Photek with hexagonal ceramic insulators for intensifiers used in NASA's OWL mission. The use of ceramic in the OWL's "eyes" will enable an accurate image of the particles to be generated. In the intensifier, a lens focuses an image into a vacuum tube, and a photocathode at one end releases electrons by the photoelectric effect of the incoming photons. Tight control of the raw material production and methods used to manufacture the part ensure that it shrinks evenly in all directions. Accuracy of the component is also critical. Tolerance was tight at 5 µm. The firms worked together to develop the hexagonal design that enables the intensifiers to fit together easily in a honeycomb style, for maximum collection of UV light.



Rugged sensor

The GS-1630 linear gauge sensor from Ono Sokki Technology is a compact and lightweight digital sensor that can be installed in current production equipment and existing fixtures. The sensor is designed to measure dimensions, thickness, curvature, displacement, variation, and position as well as a half dozen other attributes. Suited for harsh environments, the GS-1630 has a waterproof seal, and a dust bellow is provided for additional protection. Endurance testing revealed that the sensor has a lifespan beyond 5 million strokes.



Noise reduction

Adchem's foam bonding adhesive tapes for sound attenuation and vibration damping are suited for applications in the aerospace industry. The company's foam bonding solutions can



be adhered to a variety of natural and synthetic materials. The viscoelastic properties of Adchem's adhesive tapes are designed to create structural borne wave interference and refraction when placed between two sheets of material. This composite exhibits less vibration, reducing the amount of sound energy that is generated.