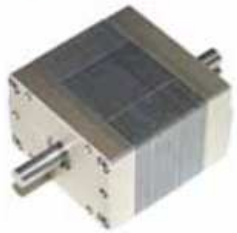
Lasers & Sources

Rotary actuator

Pangolin Laser Systems



Pangolin Laser Systems introduces a low-power rotary actuator based on an innovative, dual-coil, segmented stator design. The new VRAD-1510 significantly increases the speed, range of rotation, response, and precision of motor shaft movement while reducing the actuator's cost by at least one-third compared to existing devices.

While conceived for use in high-speed laser scanning and lighting gear, the VRAD-1510 is sufficiently versatile for use across a wide range of electro-mechanical applications, including mechanical and automotive systems, industrial and commercial machinery, robotics, vending, HVAC, valve control, and other uses.

The VRAD-1510 employs a magnetic spring and pre-loaded precision ball bearings for extreme durability. The new design also precludes the need for mechanical stops on shaft rotation, all but eliminating noise, wear, and vibration, while enabling a wider range of potential applications. The range of shaft rotation is greater than +/- 60 degrees from the neutral position.

A key innovation is Pangolin's patent-pending stator design, which uses a series of asymmetrical, interleaved laminations that are inexpensive to make, easy to assemble, and which fit together in a way that prevents the introduction of air gaps to the motor's magnetic field.

The VRAD-1510 is configurable to customer specifications of all key parameters, including torque factor, magnetic spring stiffness, coil resistance and inductance, shaft diameter and length, bearing pre-load, and temperature operating range. The VRAD-1510 has a rectangular-shaped stator with exterior dimensions of 1.5"W x 1.0"H x 1.5"D.

Pangolin also makes LASORB, a component designed specifically to protect laser diodes from direct and indirect electrostatic discharge and power surges.

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