



## Z-Piezo Module Specification

The Z-Piezo rapid objective positioning device works alongside the motorized Z-axis to provide high-speed, high-precision scanning not possible with standard mechanisms.



### Compatible With Any Objective

Thread adaptors allow use with any commercially available objective, including but not limited to:

- *with M25 thread:*
  - Olympus 20X High NA water
  - Nikon 5X air
  - Nikon 40X water
  - Nikon 60X water
- *with RMS thread:*
  - Olympus 20X water
  - Olympus 40X water
  - Olympus 60X water
  - Olympus 100X oil
  - Olympus 10X air
- *with M27 thread:*
  - Zeiss 10X
  - Zeiss 60X

**Accuracy**  
+/-10nm

### Speed and Automated Tuning

The immediate response of the solid-state Piezo drives enables rapid Z-steps with typically 10 to 20 times faster step and settle times than classical stepper motor drives. This leads to higher image acquisition speed and throughput.

### **Range of Travel**

Approximately 135-150 $\mu$ m; up to 161 $\mu$ m. The automated tuning procedure conservatively restricts movement range somewhat to allow for 'headroom' at either end of the travel range.

### **Position Control**

- Manual, by knob or controller
- Remote, by PC commands
- Analog signal input (0-10V signal for controlling position 25 $\mu$ m/volt) and analog position output (0-10V signal, 25 $\mu$ m/volt)
  - Note: The usable range is ~5.5V-6V within this 10V span, though corresponding to the 135-150 $\mu$ m range.
- Digital input trigger for stepping position, by PC commands

### **For More Information**

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