Article Side

Try Miniature Translation Stage for Precision Positioning by Piezo

Article published on June 25th 2012 | Marketing

Today, a number of applications that require highly measured and control motion over a few millimeters rely on micropositioning systems to achieve the desired results. Micropositioning systems essentially comprise of stages that are driven by a motor and are capable of covering travel ranges ranging from a couple of millimeters to several hundred millimeters. Such systems also possesses a resolution and repeatability that up to 1 micron. However, it needs to be noted here that these two factors are limited mainly because the guiding systems tend to produce a small amount of friction.

A miniature translation stage can be employed in order to achieve precision positioning. These devices are intelligently engineered and have several desirable features. Leading companies offer models that feature add-ons such as an optical linear encoder and an efficient ball screw. Letâ€™s take a look at some of the other features that prove to be the USP of these micropositioners.

You can expect to achieve a travel range of 25mm, which is great for smaller devices that require highly precise distances. These devices are usually palm-top-sized.

The presence of a 0.1 micron optical linear encoder allows the user to benefit from a higher accuracy and repeatability. And with a minimum incremental motion of just about 0.2 microns, the positioning is precise.

You could use these devices for applications that require a velocity of up to 20 millimeters per second.

The presence of cross roller bearings helps bring down the occurrence of friction to the minimum possible level. The same features help in reducing backlash to a considerable extent. Experts opine that the efficiency of these devices is much better than lead screws.

Overall, such devices require comparatively low investments in maintenance and a markedly better duty-cycle operation, even at velocities that go up to 20 millimeters per second.

These precision positioning machines also feature re-circulating ball screw drives because of which the users can expect higher speeds and longer lifetimes.

Some of the most commonly known application areas of these devices is in photonics packaging, fiber positioning, metrology, testing equipment, micromachining and even quality assurance testing.

It is wise to invest in these precision positioning devices because they offer several operational advantages over and above the conventionally used stepper motor stages. In fact, they are also a better alternative to rotary encoder servo motor stages. In comparison with conventionally used devices, you can expect these new age micropositioners to incur a lower maintenance costs, thus translating into a lower ownership cost. All in all, if you are looking for higher performance at the most marginal costs, you could consider investing in the new age miniature translation stages for precision positioning.

Article Source:

http://www.articleside.com/marketing-articles/try-miniature-translation-stage-for-precision-positioning.htm - Article Side

Piezo - About Author:
Technology has always fascinated the technician inside me. And writing about the latest in technologies and mechanisms in usage has been my forte over the last few years. Follow my write ups to know about the latest in technologies and mechanisms this season for one. This fall a precision positioning systems are very much in demand among the technical and mechanical industries across the world. Keep yourself updated on these products exclusively from USA.

Article Keywords:
Precision Positioning

You can find more free articles on Article Side. Sign up today and share your knowledge to the community! It is completely FREE!