



NEWSLETTER ELLIPTEC 12/2008

Dear Sir or Madam,

Welcome to the new issue of Elliptec's Newsletter, presenting updates on our piezoelectric drives and technologies.

For questions and comments, please feel free to contact us at info@elliptec.com

Visit Elliptec's website at www.elliptec.com for further information, including application examples, or [contact us by phone](#).

Elliptec AG, Dortmund

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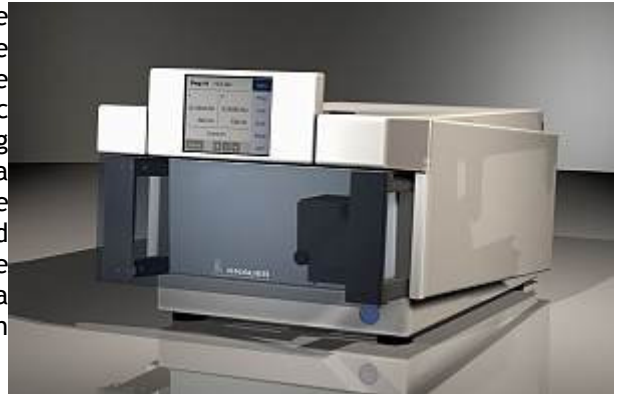
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1. Elliptec Motors in HPLC

[Wissenschaftliche Gerätebau Dr. Ing. Herbert Knauer GmbH](#) is Germany's first manufacturer of osmometers and high performance liquid chromatography systems (HPLC) and part of the TOP100 most innovative medium-size companies of Germany. In April 2008, the company introduced the ultra-fast PLATINblue UHPLC, which is superior to other fast chromatography techniques. Faster analysis means increased productivity and more samples can be tested in a shorter period.

Piezoelectric drives of Elliptec Resonant Actuator AG are used to position PLATINblue's order sorting and line filters. The 1.2 grams light Elliptec Motor positions the filters exactly with single-digit μm -precision. The Elliptec Motor receives the position feedback from the measuring unit itself. Each filter position is learned during a calibration run when transmission gradients are measured. Limit switches serve as reference points and the mechanical filter positions can henceforth be addressed reproducibly. The filter wheel is rotated with a resolution of a few millirad. Switching times are between 50 and 100ms.



The Elliptec Motor X15G replaces the commonly used worm-gear stepper motors and offers considerable cost savings. No additional sensors are needed, which further lowers system cost.

2. Speckle contrast reduction

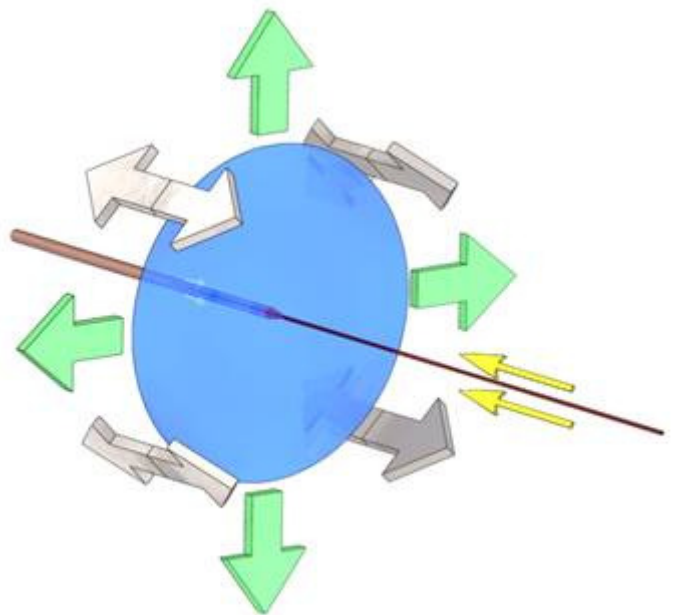
A typical laser projection display exhibits "speckling", which is a granular or mottled pattern with high contrast due to the scattering of the coherent laser light on rough surfaces (e.g., the projection screen).

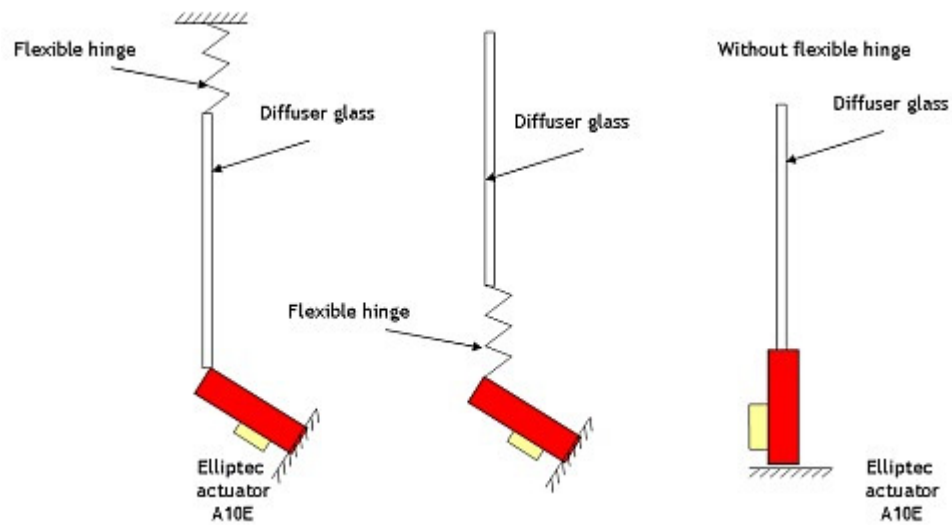
Speckling impairs the visual enjoyment of the viewer, masks pixels and distorts display information.

To eliminate or reduce speckling, the projected laser image is dynamically blurred. The softened image appears more natural and considerably reduces eye strain.

A mechanical despeckler vibrates an optical element in the projection path at sufficiently high frequencies and amplitudes to create the desired amount of blur.

The vibrating optical element can be a mirror, lens, filter, diffuser, or even the light source itself. It is most efficient to augment an existing optical element with a vibration-type despeckler designed by Elliptec.





3. Season's Greetings

We would like to use this opportunity to wish all our customers and readers of our newsletter happy holidays and a peaceful, healthy and prosperous 2009!



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