



SUPERLASERS FOR THE REAL WORLD

HILASE POCKELS CELL SYSTEMS

When voltage is applied across a specific electro-optic crystal, also known as a Pockels Cell, a birefringence is induced within the crystal, which in turn alters the polarization of light transmitted through the crystal. In application, a Pockels Cell System is comprised of three main components: the electro-optic crystal, the high-voltage driver and source, and the holder that brings these two together. Each of these components require high quality materials and engineering to ensure proper and reliable operation.



ENGINEERS WITH EXPERT KNOWLEDGE

Customized Pockels Cell Holders

Due to a lack of commercially available, the scientific and engineering teams at HiLASE have developed a unique holder to handle large aperture and high power laser demands. The main challenges for this design were to handle the thermal and vibration effects inherent in high power and high repetition rate laser development. As a result, HiLASE can offer complete Pockels Cell systems and the expertise for the custom design and installation of such systems.

FEATURES / ADVANTAGES

- Our holder is universal and will work with any type crystal
- Piezo ringing is mitigated with spring suppression
- Ceramic material is especially chosen to eliminate any sparks

SPECIFICATIONS

- Voltage: 0 – 17.5 kV (tested)
- Repetition rate: 0 – 100 kHz (Single shot available)
- Crystal aperture: 8 mm² – 12 mm²
- Water cooling: 1 liter/min at 2 bar at 20 ° C

OFFERED SERVICES

- Complete systems for high power laser requirements, including regenerative amplifiers, q-switching or pulse pickers.
- Individual HiLASE Pockels Cell Holders for integration into your system or product.

For more information please contact: solutions@hilase.cz



CUSTOMIZED POCKELS CELL HOLDERS



POCKELS CELL SYSTEM IN A LASER CAVITY

