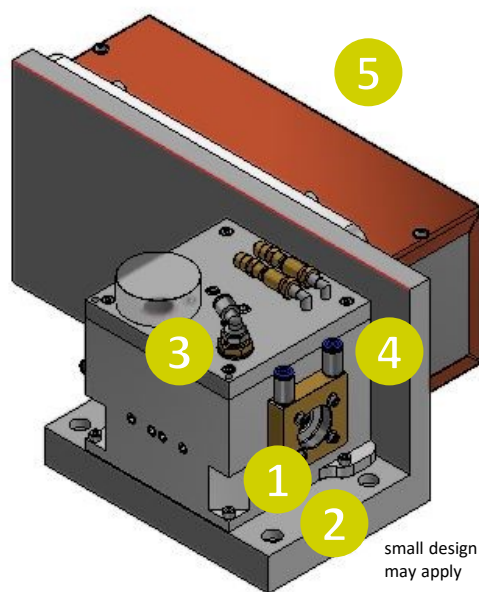
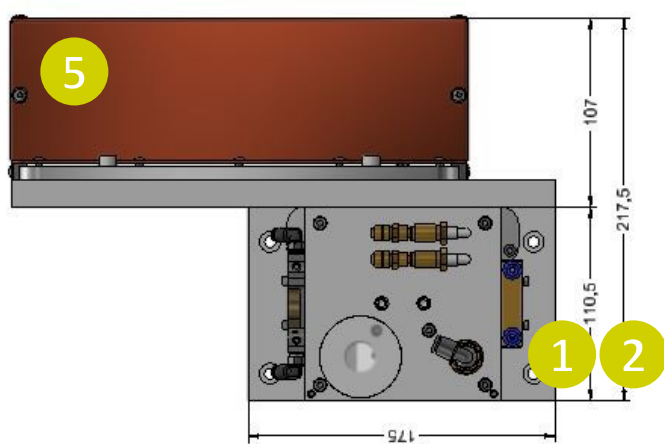


Large Aperture Pockels Cell v2017



Pockels cell for large pulse energies

- ① apertures of 6 mm, 9 mm and 12 mm available
 - prepared for water cooling of apertures and GALDEN® cooling of driver / crystal for operation at > 1 kHz and/or several hundred Watts
- ② SM1 mount at beam entrance and exit
- ③ connection for dry air
- ④ water cooled aperture for beam cleaning
- ⑤ driver for kHz (< 50 kHz) or optionally up to MHz operation
 - damage threshold < 500 MW/cm² for 10 ns, 10 Hz
 - crystal vibration damped, for MHz operation*

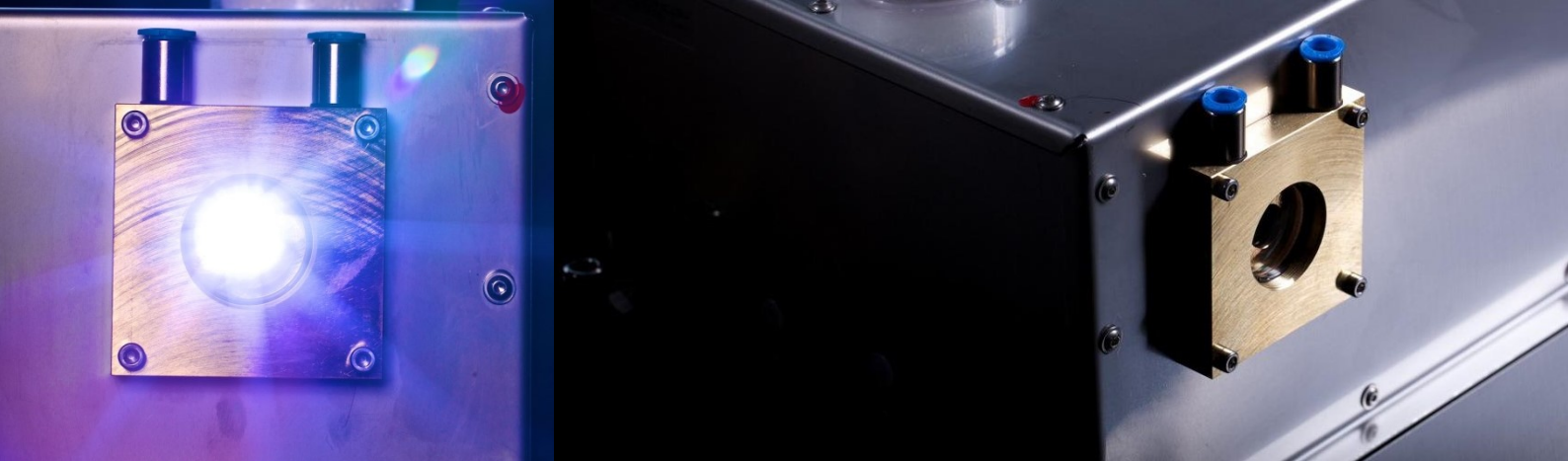
*patent application DE 10 2013 012 966.4



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Large Aperture Pockels Cell v2017

Pockels cell
without electronics:

| | | |
|-----|----------------------|---------------------------|
| | <i>aperture (mm)</i> | <i>number of crystals</i> |
| PC- | 6 | -1xBBO |
| PC- | 6 | -2xBBO |
| PC- | 9 | -1xBBO |
| PC- | 9 | -2xBBO |
| PC- | 12 | -1xBBO |
| PC- | 12 | -2xBBO |

Pockels cell
with electronics:

| | | HV (kV) | Driver | f _{max} (kHz) | |
|---------------|--------|---------|--------|------------------------|------|
| 1/4 operation | PC- 6 | -1xBBO | -1/4 | 8 HV-8kV | 289 |
| | PC- 6 | -2xBBO | -1/4 | 4 HV-6kV | 1521 |
| | PC- 9 | -1xBBO | -1/4 | 9.5 HV-12kV | 135 |
| | PC- 9 | -2xBBO | -1/4 | 5 HV-6kV | 973 |
| | PC- 12 | -1xBBO | -1/4 | 12.7 HV-15kV | 30 |
| | PC- 12 | -2xBBO | -1/4 | 8 HV-8kV | 289 |

| | | HV (kV) | Driver | f _{max} (kHz) | |
|---------------|--------|---------|--------|------------------------|-----|
| 1/2 operation | PC- 6 | -2xBBO | -1/2 | 7 HV-8kV | 377 |
| | PC- 9 | -2xBBO | -1/2 | 9.5 HV-12kV | 135 |
| | PC- 12 | -2xBBO | -1/2 | 12.7 HV-15kV | 30 |

Available driver:

| HV (kV) | rise time (0.8 V _{max}) | max. Current (mA) | min. pulse width (ns) |
|---------|-----------------------------------|-------------------|-----------------------|
| HV-6kV | 6 | 250 | 50 |
| HV-8kV | 8 | 190 | 50 |
| HV-12kV | 12 | 125 | 150 |
| HV-15kV | 15 | 50 | 150 |

A **high voltage supply** can also be supplied.

A **GALDEN cooling unit**, also offered by D+G, is required in case of repetition rates > 10 kHz and/or average powers of > 100 W being transmitted through the Pockels cell aperture.

For **pulse cleaning** and 1/2 operation a special driver with shorter minimum pulse duration can be supplied. Please contact D+G for a quote.



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