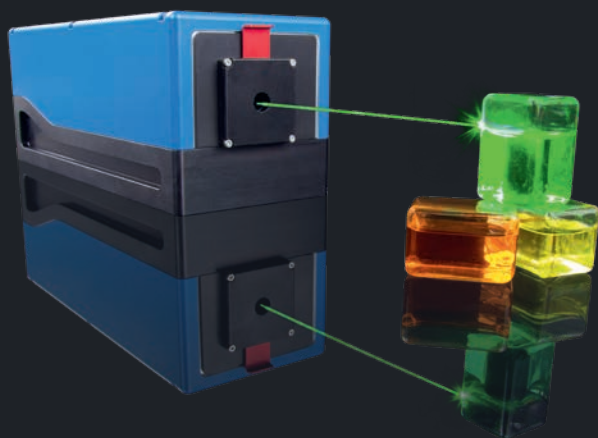


proven.

The lab standard for all atoms and ions



DL pro

Tunable external cavity diode laser for cooling and controlling all atoms and ions

- Intelligent locking to absorption lines or HighFinesse wavelength meters
- Convenient local and remote operation (with DLC pro)
- Efficient atom cooling with narrow linewidth down to 10 kHz free running
- Linewidth below 1 Hz possible with lock to external reference cavity

learn more...



www.toptica.com/proven

DL pro



DANGER – AVOID EXPOSING EYES AND SKIN TO THE LASER BEAM, INCLUDING ANY STRAY LASER LIGHT. CLASS 3B LASER PRODUCT, EN 60825-1:2014

| Specifications | | | |
|---|---|---------------------------------|----------------------------------|
| Model | DLC DL pro | DLC DL pro HP | DLC DL pro F |
| Wavelength coverage [nm] | 369 .. 519 *, 628 .. 1770 * | 369 .. 519 *, 633 .. 641 | please inquire |
| Typical power range | 10 .. 300 mW | 15 .. 400 mW after the isolator | similar to DLC DL pro |
| Typical coarse tuning range | 2 .. 100 nm | 2 .. 5 nm | |
| Typical mode-hop free tuning range | ≥ 20 GHz | | ≥ 5 GHz |
| Typical linewidth (5 μs integration time) | 10 .. 300 kHz | 150 .. 500 kHz | 10 .. 100 kHz **** |
| Typical output beam polarization | linear, > 100:1 | | |
| ASE background, typ. | < -40 dB | | |
| Optical isolation | optional | built-in, > 30 dB | built-in, > 60 dB |
| Fiber coupling efficiency**: min. (typ.) | 55 (65) % | | |
| Dimensions laser head (H x W x D) | 90x90x240/300mm ³ *** | 90 x 90 x 240 mm ³ | 90x90x240/300mm ³ *** |
| Environmental conditions | 15 - 30 °C (operating), 0 - 40 °C (storage and transport), non condensing | | |

* Spectral coverage with gaps

** With TOPTICA's FiberDock, efficiencies are possibly lower with strong ellipticity or short wavelengths

*** The standard length is D=240 mm. If needed a housing of D=300 mm is automatically used.

**** Same linewidth as DLC DL pro with Narrow Linewidth option

