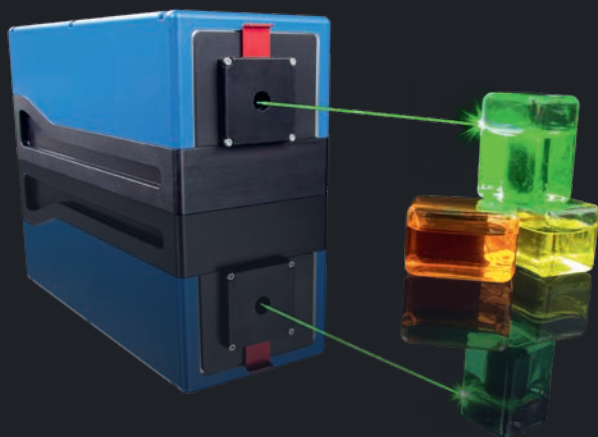


# proven.

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 0.6 kHz free running
- Linewidth below 1 Hz possible with lock to external reference cavity on selected wavelengths

learn more...



[www.toptica.com/proven](http://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                          |   |
|---|---|
| Wavelength coverage [nm]                | 369 .. 519 *, 628 .. 1770 *   |
| Typical power range                     | 10 .. 300 mW  |
| Typical coarse tuning range             | 2 .. 100 nm   |
| Typical mode-hop free tuning range      | ≥ 20 GHz  |
| Typical instantaneous linewidth         | 0.6 .. 90 kHz   |
| Typical output beam polarization        | linear, > 100:1   |
| ASE background, typ.                    | < -40 dB  |
| Optical isolation                       | optional  |
| Fiber coupling efficiency**: min (typ.) | 55 (65) %   |
| Dimensions laser head (H x W x D)       | 90x90x240 / 300 mm <sup>3</sup> ***                                       |
| Environmental conditions                | 15 - 30 °C (operating), 0 - 40 °C (storage and transport), non condensing |

| Other Models       |             |                                 |                                  |
|--------------------|-------------|---------------------------------|----------------------------------|
| DL pro HP          | DL pro F    | DL pro SMC                      | DL pro BFY                       |
| Power up to 400 mW | Faster lock | Long-term active mode stability | Long-term passive mode stability |

\* 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.

