

CTL200-0 - Digital laser diode controller



Koheron CTL200-0 is a digital low-noise laser diode driver combined with a TEC controller. It drives up to 600 mA laser current with a compliance voltage up to 3.2 V. It is the screw terminal version of the [CTL200 digital butterfly laser diode controller](#).

Specifications



| | B-200 (200 mA) | B-400 (400 mA) | B-600 (600 mA) |
|------------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Current driver | | | |
| Laser current | 5 - 225 mA | 10 - 450 mA | 15 - 675 mA |
| Laser current resolution | 5 µA | 10 µA | 15 µA |
| Compliance voltage at max. current | up to 3.3 V | up to 3.3 V | up to 3.2 V |
| RMS noise (10 Hz - 1 MHz) | 220 nA _{rms} | 430 nA _{rms} | 650 nA _{rms} |
| Current noise density (1 kHz) | 230 pA/√Hz | 450 pA/√Hz | 670 pA/√Hz |
| 1/f corner noise | 100 Hz | 100 Hz | 100 Hz |
| Temperature coefficient | 35 ppm/°C | 35 ppm/°C | 35 ppm/°C |
| Slow start (90 % setpoint) | 5000 ms | 5000 ms | 5000 ms |
| Modulation gains | 250 µA/V, 2.5 mA/V, 25 mA/V | 500 µA/V, 5 mA/V, 50 mA/V | 750 µA/V, 7.5 mA/V, 75 mA/V |
| 3 dB modulation bandwidth | 10 MHz | 10 MHz | 10 MHz |
| TEC controller | | | |
| Maximum current | 1.15 A | 1.15 A | 1.15 A |
| Compliance voltage | ±3 V | ±3 V | ±3 V |
| Temperature stability | 0.002 °C/°C | 0.002 °C/°C | 0.002 °C/°C |
| Laser power monitor | | | |
| Photodiode current | 0 - 2.5 mA | 0 - 2.5 mA | 0 - 2.5 mA |
| Other | | | |
| Outside Dimensions | 58 mm x 100 mm x 15 mm | 58 mm x 100 mm x 15 mm | 58 mm x 100 mm x 15 mm |
| Weight | 38 g | 38 g | 38 g |
| Supply voltage | 7.5 V to 12.5 V | 7.5 V to 12.5 V | 7.5 V to 12.5 V |
| Operating temperature | 0 °C - 50 °C | 0 °C - 50 °C | 0 °C - 50 °C |
| Compatible lasers | Floating diodes / anode-grounded | Floating diodes / anode-grounded | Floating diodes / anode-grounded |