

# PilotPZ

External Cavity Diode Laser Controller  
Low Current Noise, High Temperature Stability  
Low Noise Piezo Amplifier, Ramp Generator

Electronic Systems & Devices



## Product Features

- Frontpanel graphic interface
- 500mA / 3000mA LD current source with forward voltage measurement
- Const current or const power mode
- 16 W / 32 W TEC control
- Various laser protection features
- - 13V .. +13V Piezo Voltage
- 0.1Hz .. 10kHz Piezo Scan Rate
- Current coupling for mode-hop free tuning
- GPIB, USB and RS232 remote interface
- Automated wavelength scans via remote control
- Signal monitoring for closed loop applications



## Specifications

### Laser Current Source

#### PC500 Drive Current Output

Output Current Range	0-500mA
Setpoint Resolution	0.1mA
Setpoint Accuracy	±0.1%
Noise (10Hz to 10MHz)	(See Note No. 20)
Compliance Voltage	0-7V adjustable

### Temperature Control

#### TEC Output

Output Type	Bipolar Constant Current Source
Compliance Voltage	8V
Maximum Output Current	-3A to 3A
Maximum Power	32 Watt

### PC4000 Drive Current Output

Output Current Range	0-4000mA
Setpoint Resolution	1.0mA
Setpoint Accuracy	±0.1%
Noise (10Hz to 10MHz)	(See Note No. 20)
Compliance Voltage	0-7V adjustable

### Sensor

Temperature Sensor	Thermistor (10k NTC)
	IC Temp Sensor AD590
Temperature Control Range	-5°C to 30°C
Setpoint Resolution	1mK (-5°C to 30°C)

### Photodiode Feedback

Photodiode Current Range	0-5000µA
Type	Diff. 100R

### Common Data

Dimension (WxHxD)	270 x 110 x 320 mm
Weight	< 5kg
Line Voltage	110V / 115V / 230V +/- 10%
Line Frequency	50 .. 60Hz
Warm-up Time	10min
Storage Conditions	-25 .. 70°C
Operating Temperature	0 .. 40°C

### Piezo Amplifier

Voltage Range	-13V .. +13V
Setpoint Resolution	<1mV
Scan Rate	0.1 Hz .. 10kHz