



LASER DIODE CONTROLLERS

	LDC500	LDC2000	LDC201ULN	LDC202	LDC210	LDC220
Current Control						
Control Range (continuous)	0 to ± 500 mA	0 to ± 2 A	0 to ± 100 mA	0 to ± 200 mA	0 to ± 1 A	0 to ± 2 A
Compliance Voltage	>4	>4	>2.5 V	>6 V	>4 V	>4 V
Resolution	<5 μ A	<5 μ A	10 μ A	10 μ A	100 μ A	100 μ A
Accuracy	100 μ A	100 μ A	± 50 μ A	± 100 μ A	± 1 mA	± 2 mA
Noise(10 Hz to 10 MHz, RMS)	<2 μ A	<20 μ A	<0.2 μ A	<1.5 μ A	<5 μ A	<15 μ A
Ripple (50 Hz, RMS), typical	<2 μ A	<5 μ A	<0.5 μ A	<1.5 μ A	<3 μ A	<5 μ A
Transients, typical	<0.5 μ A	<2 mA	<50 μ A	<0.2 mA	<1 mA	<2 mA
Drift (30 min, 0 to 10 Hz), typical	<50 μ A	<200 μ A	<10 μ A	<20 μ A	<100 μ A	<200 μ A
Temperature Coefficient	<50 ppm/ $^{\circ}$ C	<50 ppm/ $^{\circ}$ C	<50 ppm/ $^{\circ}$ C	<50 ppm/ $^{\circ}$ C	<50 ppm/ $^{\circ}$ C	<50 ppm/ $^{\circ}$ C
Power Control						
Control Range Photo Current	5 μ A to 2 mA					
Resolution Photo Current					0.1 μ A	
Accuracy	0.1 μ A	0.1 μ A			± 2 μ A	
Current Limit						
Setting Range			0 to ± 100 mA	0 to ± 200 mA	0 to ± 1 A	0 to ± 2 A
Resolution	100 μ A	100 μ A	10 μ A	10 μ A	100 μ A	100 μ A
Accuracy	± 1.5 mA	± 5 mA	± 0.5 mA	± 0.5 mA	± 2.5 mA	± 5 mA
Modulation, Analog Control Input						
Input Resistance				10 k Ω		
Modulation Coefficient, CC	50 mA/V	200 mA/V	10 mA/V $\pm 5\%$	20 mA/V $\pm 5\%$	100 mA/V $\pm 5\%$	200 mA/V $\pm 5\%$
3 dB Bandwidth DC	150 kHz DC	50 kHz DC	3 kHz DC	250 kHz DC	100 kHz DC	50 kHz
Modulation Coefficient, CP				0.2 mA/V $\pm 5\%$		
Control Output for Laser Current						
Load Resistance				>10 k		
Transmission Coefficient			100 V/A $\pm 5\%$	50 V/A $\pm 5\%$	10 V/A $\pm 5\%$	5 V/A $\pm 5\%$
Connectors						
Laser Diode, Photodiode, LASER ON signal, Interlock	DB9 Female	DB9 Female	9-pin D-sub			
Modulation Input	BNC					
Control Output Laser Current	BNC					
Chassis Ground	4 mm banana					
General Data						
Line Voltage	110 V $\pm 10\%$, 115 V $\pm 10\%$, 230 V $\pm 10\%$					
Line Frequency	50 to 60 Hz					
Maximum Power Consumption	30 W	60 W	13 W	15 W	30 W	45 W
Operating Temperature	0 to +40 $^{\circ}$ C					
Storage Temperature	-40 $^{\circ}$ C to +70 $^{\circ}$ C					
Warm-up Time for Rated Accuracy	10 min					
Weight	<6.6 lb.			<3 kg		
Dimensions (W x H x D)*2	5.8 x 2.8 x 12.5"			146 x 66 x 290 mm		