

RP Sensors

30mW to 1500W

30A-P-RP



FL250A-RP



L1500W-LP1-RP

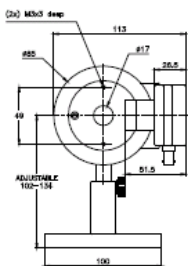


Features

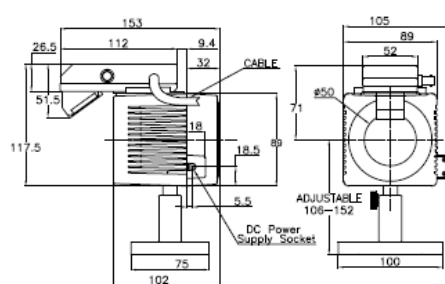
- Very long pulse repetitive lasers
- Energy measurement at high average powers
- Pulse rates to 15KHz
- Pulse widths to 200ms
- Temporal pulse shape measurement into scope

Model	30A-P-RP	FL250A-RP	L1500W-LP1-RP						
Use	Short pulse lasers	Long pulse lasers	High power pulsed lasers						
Absorber Type	P type	Broadband	LP1						
Spectral Range for Power μm	0.19 – 6	0.19 – 6	0.6 – 1.1						
Spectral Range for Energy μm	0.19 – 1.1	0.4 - 1.1	0.6 – 1.1						
Aperture mm	ϕ 17mm	ϕ 50mm	ϕ 50mm						
Power Mode									
Power Range	30mW to 30W	100mW to 250W	10W to 1500W						
Power Scales	30W / 3W	250W / 30W	1500W / 300W						
Power Noise Level mW	3	10	700						
Maximum Average Power Density KW/cm ²	0.05	8	6						
Response Time with Display (0-95%) typ. s	2.5	2.5	2.7						
Power Accuracy +/-%	3	3	5 at 800nm and 1064nm						
Linearity with Power +/-%	1.5	1	2						
Minimum Average Power	30mW	100mW	10W						
Energy Mode									
Energy Range	3J to 50 μ J	100J to 100 μ J	200J to 150mJ						
Energy Scales	3J to 30mJ	100J to 30mJ	200J to 1J						
Energy Accuracy for energies >30% of full scale	\pm 5%	\pm 5%	\pm 5%						
Minimum Energy	50 μ J in repetitive mode. 30mJ in single shot mode	100 μ J in repetitive mode. 50mJ in single shot mode	150mJ in repetitive mode. 500mJ in single shot mode						
Maximum Pulse Width ms	200	200	200						
Stabilization Time s	6	6	8						
Maximum Energy Density and Rep Rate vs. Pulse Width	Pulse Width	J/cm ²	pps	Pulse Width	J/cm ²	pps	Pulse Width	J/cm ²	pps
	<10 μ s	1	15000	<10 μ s	0.3	15000	<10 μ s	0.05	15000
	0.5ms	1	1400	0.5ms	5	1400	0.5ms	20	1400
	5ms	1	150	5ms	20	150	5ms	120	150
100ms	1	7	100ms	400	7	100ms	2000	7	
Pulse Shape Photodiode									
Response Time	6ns	1 μ s	1 μ s						
Peak Voltage into 50 Ω	0.5V for 10MW peak power at 1064nm	0.3V for 1KW peak power at 1064nm	0.3V for 1KW peak power at 1064nm						
System Specifications with USB PC Interface									
Frequency Measurement Accuracy	\pm 0.01%								
Statistics Displayed	Min, Max, Std Dev								
Maximum Data Acquisition Rate	Sample to 15KHz, every pulse to 1000Hz								
Cooling	convection	fan	water						
Weight Kg	0.6	1.2	1.4						
Version		V1							
Part number	7Z02913	7Z02921	7Z02919						

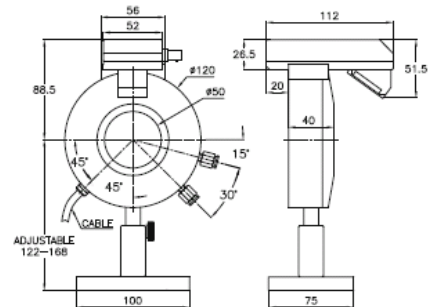
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Maximum Laser Repetition Rate for a Given Pulse Width Setting for RP Heads

