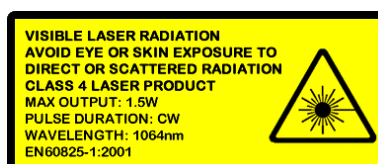


I4 (1064nm) DIODE PUMPED SOLID STATE LASER



Model Name	I4-500-1064	I4-700-1064	I4-1000-1064
Wavelength	1064nm		
Output Power	500mW	700mW	1W
Spatial Mode	TEM ₀₀ , M ² < 1.2		
Longitudinal Mode	Single Longitudinal Mode (SLM)		
Power Stability	< +/- 2 % over 8 hours		
Noise	< 0.5 % RMS (typ. 0.2%)		
Beam Diameter	Approx. 1mm at output aperture		
Beam Divergence	< 2mRad		
Polarization	>100:1, Vertical		
Laser Head Size	126mm long x 62mm x 51mm		
Power supply	279mm x 205mm x 138mm		
Cooling	Head: Internal TECs, convection through base, 12 W. PSU: Internal fan air cooled		
Power requirement	100 - 240 VAC, 50 / 60 Hz Max 60W		



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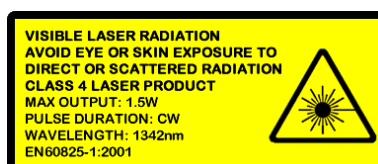
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I4 (1342nm) DIODE PUMPED SOLID STATE LASER



Model Name	I4-250-1342	I4-500-1342	I4-1000-1342
Wavelength	1342nm		
Output Power	250mW	500mW	1W
Spatial Mode	TEM ₀₀ , M ² < 1.2		
Longitudinal Mode	Single Longitudinal Mode	Multi-Mode	
Power Stability	<+/- 2 % over 8 hours		
Noise	<0.5 % RMS (typ. 0.2%)		
Beam Diameter	Approx. 1mm at output aperture		
Beam Divergence	< 2.5mRad (collimation options available)		
Polarization	>100:1, Vertical		
Laser Head Size	126mm long x 62mm x 51mm		
Power supply	279mmx 205mm x 138mm		
Cooling	Head: Internal TECs, convection through base, 12 W. PSU: Internal fan air cooled		
Power requirement	100 - 240 VAC, 50 / 60 Hz Max 60W		



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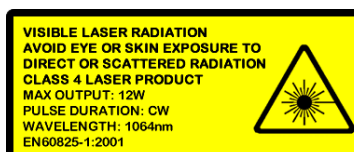
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HPI CW SERIES LASER



Model Name	HPI-5	HPI-8
Wavelength	1064nm	
Output Power	5W	8W
Spatial Mode	TEM ₀₀ , M ² < 1.2	
Power Stability	< +/- 2 % over 1 hour	
Noise	< 0.5% RMS	
Beam Diameter	2mm at output aperture	
Beam Divergence	< 1mRad	
Polarization	> 100:1	
Laser Head Size	132mm x 110mm x 376mm	
Power supply	2U high 19 inch rack	
Control	Local & RS232	
Cooling	Air cooled	
Power requirement	100 - 240 VAC, 50 / 60 Hz Max 1000W	



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SHORT PULSE OPTICAL TECHNOLOGY

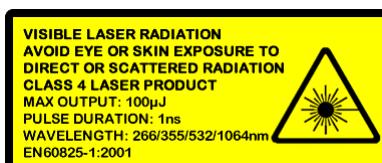


Elforlight SPOT lasers produce pulse widths of < 2ns at repetition rates from single shot up to >50 kHz.

The short pulses are created by a combination of short cavity lengths and a novel fast electro-optic q-switching technique.

Applications include laser induced fluorescence, time resolved fluorescence, micromachining, biotechnology, plasma generation, remote sensing, photo acoustic imaging, MALDI mass spectrometry and MALDI imaging.

Model Name	SPOT-10-500-1064	SPOT-10-100-532	SPOT-10-200-532	SPOT-10-100-355
Wavelength	1064nm	532nm	532nm	355nm
Maximum Pulse Energy @ $\leq 10\text{kHz}$	50 μJ	10 μJ	20 μJ	10 μJ
Minimum Pulse Width	< 2ns	< 1.8ns	< 1.8ns	<1.5ns
Repetition Rate	Single shot to > 50kHz			
Jitter	< +/- 1ns from external trigger input (typ.0.5ns)			
Power Stability	<+/- 2 % over 8 hours			
Spatial Mode	TEM ₀₀ , M ² < 1.2			
Beam Diameter	~ 1mm			
Operating temp.	10-35 deg. C			
Laser Head Size	220mm long x 122mm x 60mm			
Controller Size	350mmx 260mm x 120mm			
Frequency Control	TTL trigger input required at up to 50kHz			
Cooling	Air cooled			
Power requirement	100 - 240 VAC, 50 / 60 Hz Max 100W			



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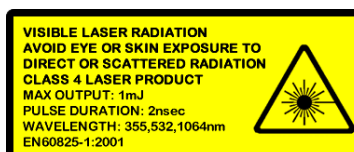
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FQS Q-SWITCHED SERIES LASERS



Model Name	FQS-400-1-1064	FQS-200-1-532	FQS-100-1-355
Wavelength	1064nm	532nm	355nm
Pulse Energy @ 1kHz	> 400μJ	> 200μJ	> 100μJ
Spatial Mode	TEM ₀₀ , M ² < 1.2		
Repetition Rate	Up to 10kHz	Up to 10kHz	Up to 10kHz
Minimum Pulse Width	< 5ns	< 5ns	< 4ns
Jitter	< +/- 1ns (typ. +/- 0.5ns) WRT ext. trigger input		
Beam Diameter	1mm at output aperture		
Beam Divergence	< 1mRad at 1mm diameter		
Polarization	>100:1		
Laser Head Size	240mm x 210mm x 100mm		
Power supply	2U high 19 inch rack		
Control	RS232		
Cooling	Air cooled		
Power requirement	100 - 240 VAC, 50 / 60 Hz Max 1000W		



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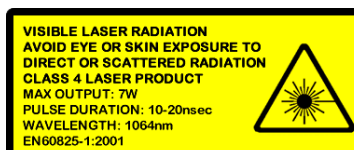
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FQ Q-SWITCHED SERIES LASERS



Model Name	FQ-600-5-Y-1064	FQ-50-100-V-1064
Wavelength	1064nm	
Average Power	3W at 5kHz	5W at 100kHz
Spatial Mode	TEM ₀₀ , M ² < 1.5	
Repetition Rate	Up to 10kHz	10 to 100kHz
Pulse Width	10-15ns	< 20ns at < 50kHz
Power Stability	< +/- 2 % over 1 hour	
Pulse to Pulse Stab.	< +/- 3%	
Beam Diameter	2mm at output aperture	
Beam Divergence	< 1mRad at 2mm diameter	
Polarization	>100:1	
Laser Head Size	132mm x 110mm x 376mm	
Power supply	2U high 19 inch rack	
Control	RS232	
Cooling	Air cooled	
Power requirement	100 - 240 VAC, 50 / 60 Hz Max 1000W	



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DL SERIES DYE LASERS



DL series dye lasers convert the output of Elforlight pulse lasers to other useful wavelengths, whilst maintaining the benefits of short pulses and high repetition rates. The self-contained dye reservoir and pump enable operation for several weeks on one dye fill. Options of broad and narrow (15 to <1nm) wavelength bandwidth are available.

Model Name	DL-10-5	DL-1-50
Maximum Pulse Energy	> 5μJ	> 50μJ
Minimum Pulse Width	< 2ns	< 5ns
Repetition Rate	Single shot to > 10kHz	Single shot to > 1kHz
Jitter	< +/- 1ns from external trigger input (typ.0.5ns)	
Wavelength	In range 560 – 610nm (Other dyes/wavelengths available)	
Beam Diameter	~ 1mm	
Line Width	~4nm	
Dye Head Size	270mm long x 122mm x 60mm	
Dye Used	Pyrromethene 597	

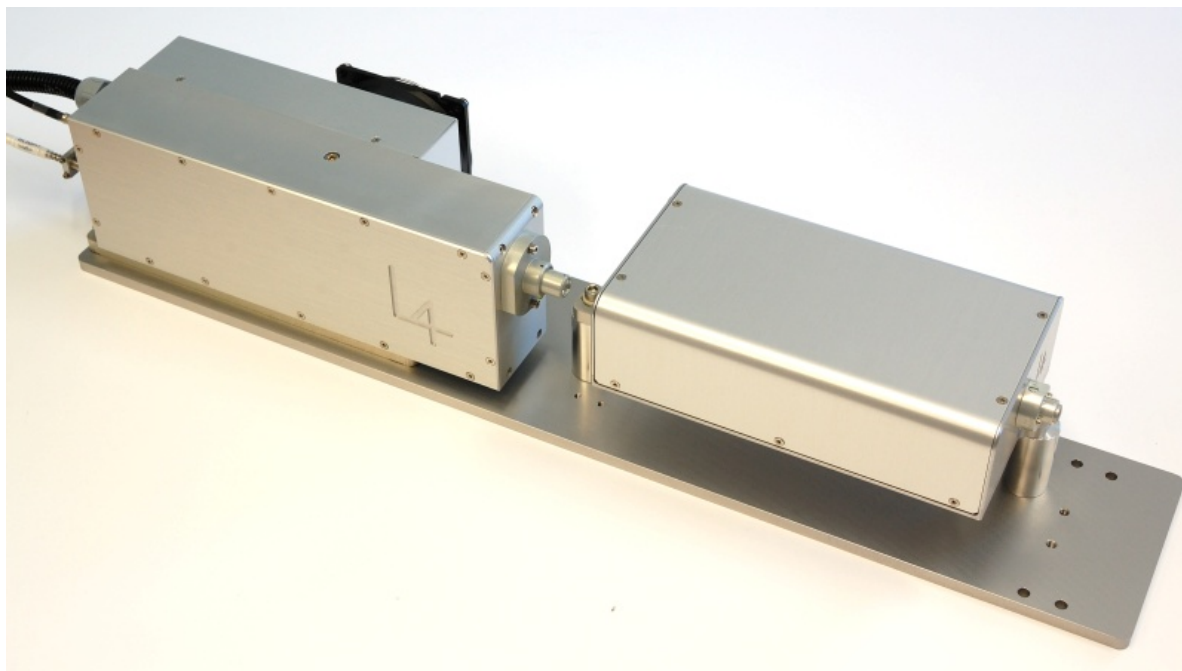


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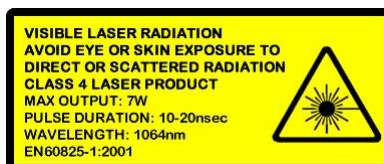
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OPO SERIES LASERS



To extend the options of our pulsed laser systems, Elforlight can offer OPO attachments for the FQ and FLP series lasers. Current models offer 3 micron outputs which is ideal for pioneering MALDI applications.

Model Name	OPO-3-100	OPO-3-500
Pump Power	1mJ	5mJ
Pump wavelength	1064nm	
Repetition Rate	100hz	50Hz
OPO Power	100µJ	0.5mJ
OPO Wavelength	3µm tunable	



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