DSS 1064-Q

Diode Pumped Passively Q-Switched Solid State Laser

- 1064 nm
- Pulsed (≤ 1.5 ns)
- > 90 µJ
- Up to 20 kHz
- External and Internal Trigger
- Free Beam or Fiber Coupling
- Single Pulse Operation

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		DSS1064-Q1	DSS1064-Q2	DSS1064-Q3	DSS1064-Q4
Optical Data	Wavelength	1064 nm			
	Pulse Energy	> 10 µJ @15kHz	> 20 µJ @10kHz	> 50 µJ @1kHz	> 90 µJ @1kHz
	Peak Power	> 6.5 kW @15kHz	> 13 kW @10kHz	> 30 kW @1kHz	> 60 kW @1kHz
	Pulse Repetition Rate	≤ 20 kHz	≤ 10 kHz	≤ 2.5 kHz	≤ 1 kHz
	Pulse Width, FWHM	≤ 1.5 ns			
	Polarization Ratio	> 100:1 vertical			
	Pulse Energy Drift [1]	< ± 5 %	< ± 5 %	< ± 5 %	< ± 5 %
	Pulse-To-Pulse RMS [2]	< 3% @15kHz	< 2% @10kHz	< 2% @1kHz	< 2% @1kHz
	Laser Classification	4 / IV	4 / IV	3B / IIIb	3B / IIIb
Optical Output	Spatial Mode	TEM_{00}			
	Beam Divergence, 2Θ	< 3.0 mrad	< 3.0 mrad	< 4.0 mrad	< 4.0 mrad
	Beam Diameter	500 ± 100 µm	500 ± 100 µm	600 ± 100 µm	650 ± 100 µm
Electrical Data	Power Consumption	10 W (max.40 W)	13 W (max.40 W)	15 W (max.70 W)	22 W (max.80 W)
	Operating Voltage	12 V DC			
	Line Voltage	90 - 265 V AC			
	Marking	CE			
Interfaces	RS 232, USB				
	External Trigger (TTL, rising edge) single shot (pulse on demand) – max. repetition rate				
	Interface for TTL-control and power monitor				
Miscellaneous	Warm-up Time	< 5 min			
	Operating Temperature	18 - 38 °C			
Options	Stand-alone system (incl. key-switch, heat-sink and manual shutter; CDRH compliant)				
	Synchronization signal output (rise time < 2 ns)				
	Fiber coupling for fiber with core diameter > 70 µm				
	Manual shutter or electrical beam blocker				
	External beam expander (e.g. 3x)				
	Manual or electrical attenuator				

[1] Drift over 6 hours, energy averaged over 10 sec after 5 min of continuous operation, temperature variation ± 3 °C and < 3 °C/hour.
[2] RMS over 1000 pulses after 5 min of continuous operation.

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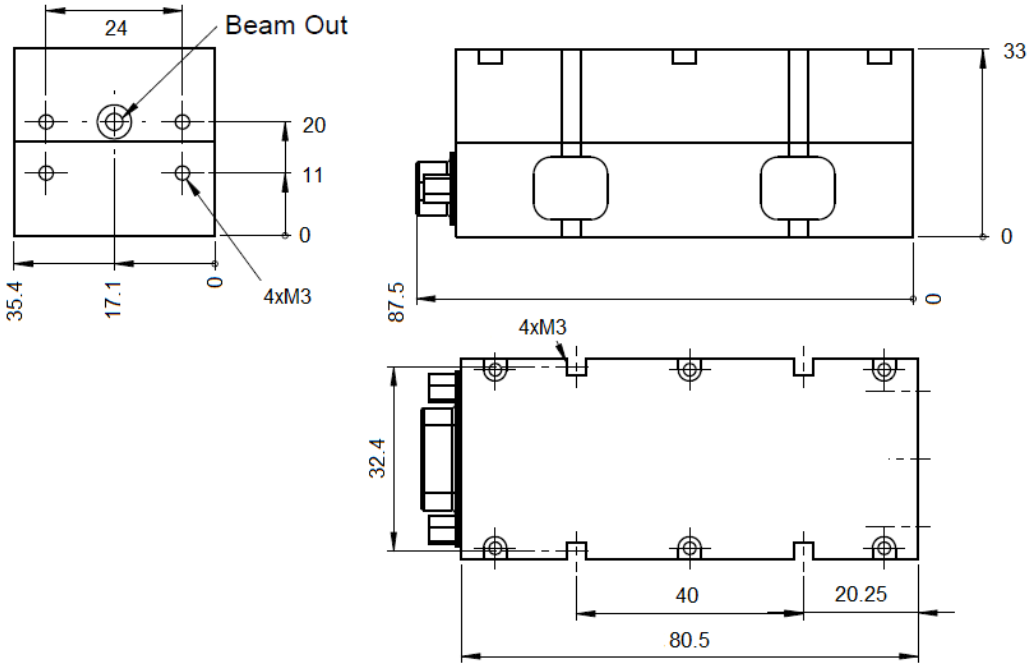
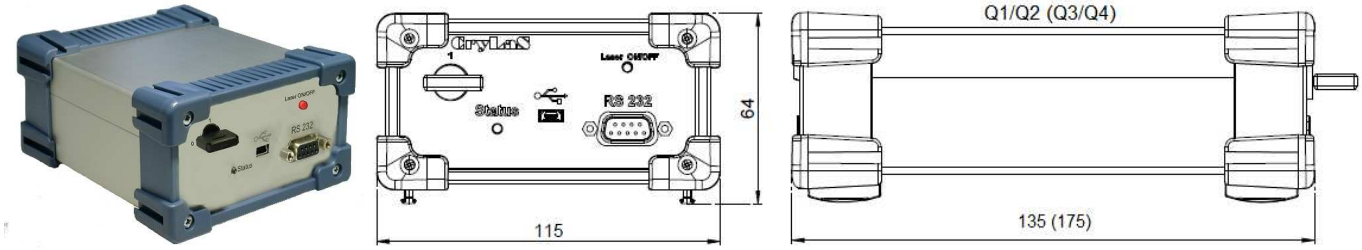
Dimensions

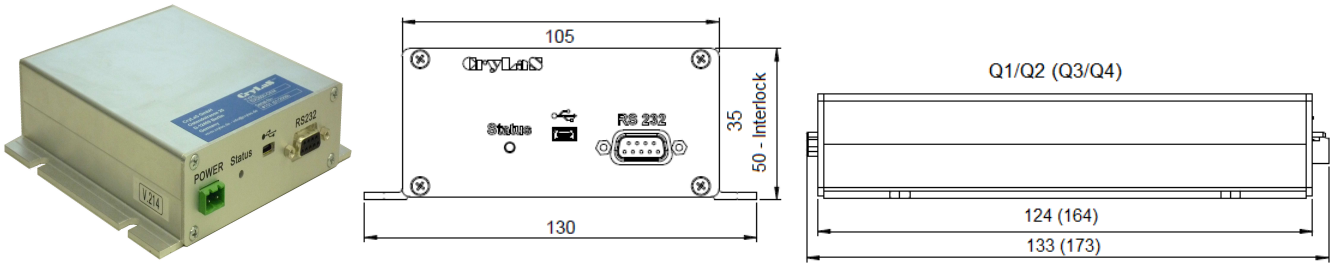
Laser Head: 87.5 x 35.4 x 33 mm



Controller Stand-Alone: Q1, Q2: 135 x 115 x 64 mm; Q3, Q4: 175 x 115 x 64 mm

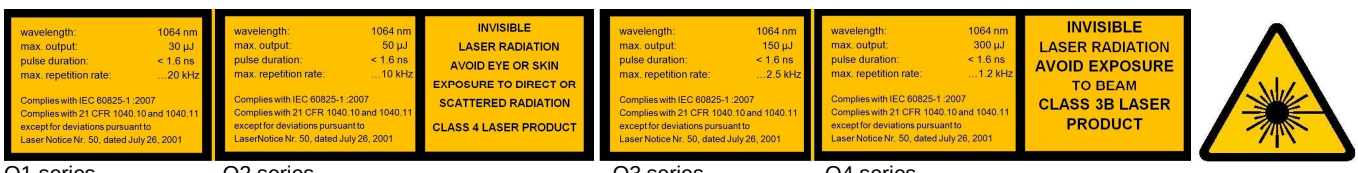


Controller OEM: Q1, Q2: 133 x 130 x 35 (50) mm; Q3, Q4: 173 x 130 x 35 (50) mm (OEM-IL)



Laser Safety Label

The DSS1064-Q lasers are class 4 / IV or 3B / IIIb according to IEC 60825-1:2007



Q1 series Q2 series Q3 series Q4 series

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