Crystal Laser Systems

FQSS 266-Q

Diode Pumped Passively Q-Switched Solid State Laser

- 266 nm
- Pulsed (≤ 1.0 ns)
- Up to 12 µJ
- Up to 20 kHz
- External and Internal Trigger
- Free Beam
- Single Pulse Operation

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		FQSS266-Q1	FQSS266-Q2	FQSS266-Q3	FQSS266-Q4_1k
Optical Data	Wavelength	266 nm			
	Pulse Energy	> 0.3 µJ @15kHz	> 0.8 µJ @10kHz	> 4 µJ @1kHz	> 12 µJ @1kHz
	Peak Power	> 0.3 kW @15kHz	> 0.8 kW @10kHz	> 4 kW @1kHz	> 12 kW @1kHz
	Pulse Repetition Rate	≤ 20 kHz	≤ 10 kHz	≤ 2.5 kHz	≤ 1 kHz
	Pulse Width, FWHM	≤ 1.0 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	4 / IV	4 / IV
Optical Output	Spatial Mode	TEM_{00} (Main Axis Divergence Ratio < 1.3)			TEM_{00} (< 1.5)
	Beam Divergence, 2Θ	< 2 mrad	< 2 mrad	< 2 mrad	< 2mrad
	Beam Diameter	800 ± 200 µm	800 ± 200 µm	600 ± 200 µm	600 ± 200 µm
Electrical Data	Power Consumption	15 W (max.40 W)	17 W (max.40 W)	20 W (max.70 W)	40 W (max.70 W)
	Operating Voltage	12 V DC			
	Line Voltage	90 - 265 V AC (50 – 60 Hz)			
	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)				
	External beam expander (M = 5x)				
	Manual shutter or electrical beam blocker				
	Manual or electrical driven wavelength switch 266 / 532 nm				
	Manual or electrical attenuator				
	Closed loop operation for pulse energy on request				

[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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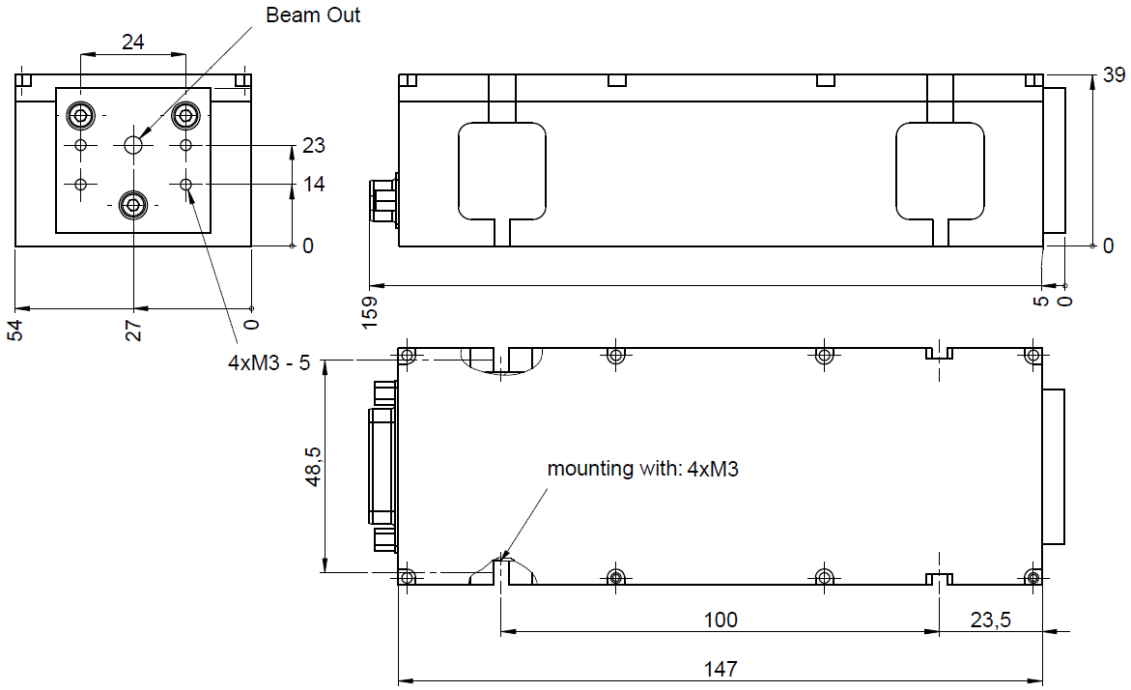
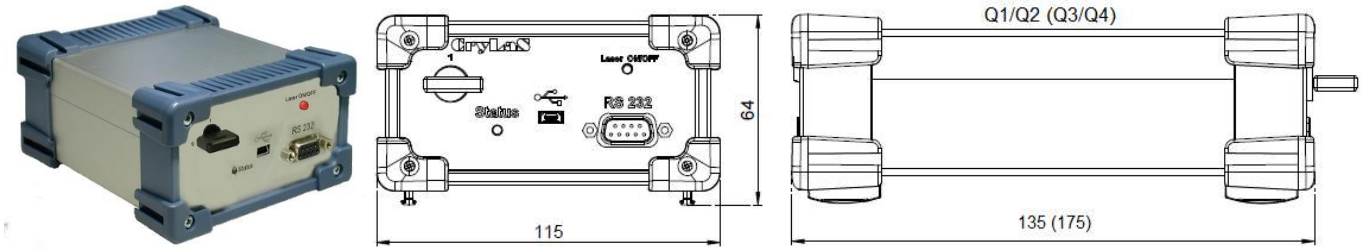
Dimensions

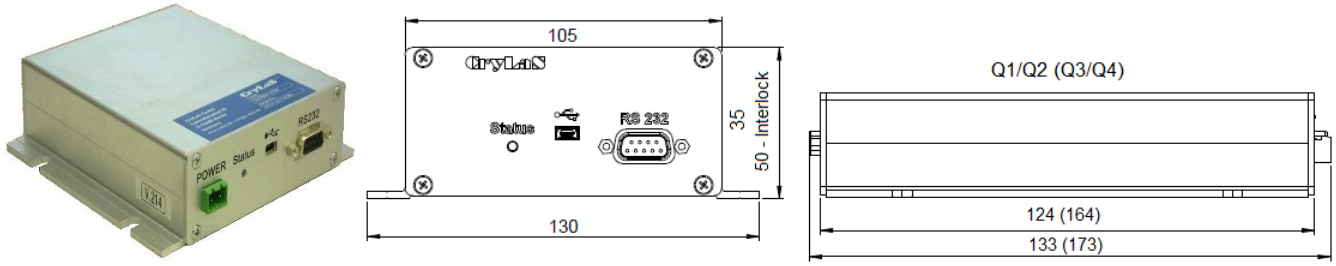
Laser Head: 159 x 54 x 39 mm



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

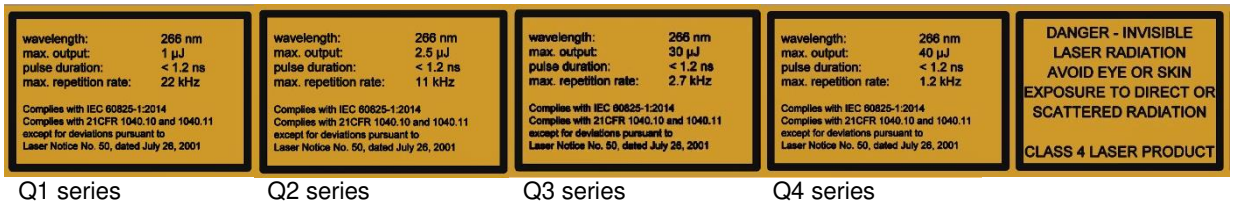


Controller OEM: Q1, Q2: 133 x 130 x 35/50 mm; Q3, Q4: 173 x 130 x 35/50 mm



Laser Safety Label

The FQSS266-Q lasers are class 4/ IV according to IEC 60825-1:2014



Q1 series Q2 series Q3 series Q4 series

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