

Technical Data

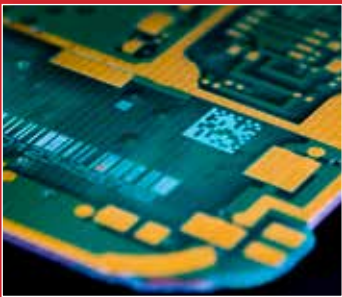
NEW 32-1 CO₂ Laser

Ultra compact 5 Watt CO₂ laser for precise marking and coding applications



High performance CO₂ laser engineered for easy integration and mounting onto compact coding and marking systems.

- Easily fits into tight spaces and onto weight-sensitive marking and coding systems
- Outstanding maximum operating environment temperature (up to 40° C) ensures reliable operation in a wide range of conditions



The perfect ultra-compact, low-power CO₂ laser source for PCB marking and coding applications.

Versatile low-power CO₂ laser source that delivers clean, consistent results on a variety of materials.



Specifications

Specifications are preliminary and are subject to change without notice

Output Specifications	
Wavelength, μm	10.57 - 10.63
Power Output	5 W
Power Stability (cold start)	$\pm 15\%$
Beam Diameter, mm (at $1/e^2$)	2.3 ± 0.5
Beam Divergence, full angle at $1/e^2$	≤ 8.0 mrad
Ellipticity	<1.2
Polarization	Random
Rise Time (measured at 1 kHz, 50% duty cycle)	<150 μsec
Fall Time (measured at 1 kHz, 50% duty cycle)	<150 μsec
Input Specifications	
Power Supply Voltage	30 VDC ± 2.0 VDC
Power Supply Maximum Current	4.0 A
Input Signals	
Frequency	DC - 25kHz
Cooling Specifications	
Maximum Heat Load	150 Watts
Maximum Tube Temperature	60° C
Minimum Flow Rate	150 CFM per fan (2 required)
Environmental Specifications	
Operating Ambient Temperature Range	5° C - 40° C
Humidity	$\leq 80\%$ RH, non-condensing
Physical Specifications	
Length	11.2 in. (284 mm)
Width	2.8 in. (71 mm)
Height	4.2 in. (106 mm)
Weight	7 lbs. (3.18 kg)

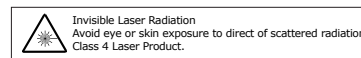
Synrad's Smallest Laser

At a fraction over 11 inches (284 mm) long and only 2.8 inches (71 mm) wide, the 32-1 is Synrad's smallest laser. Engineered for compact laser processing systems, the 32-1 easily fits into desk-top sized models. At 7 lbs. (3.18 kg) the 32-1 adds

The Synrad 32-1 shown side-by-side with the 48-1 laser. The 32-1 is 34% smaller and 22% lighter than the 48-1.



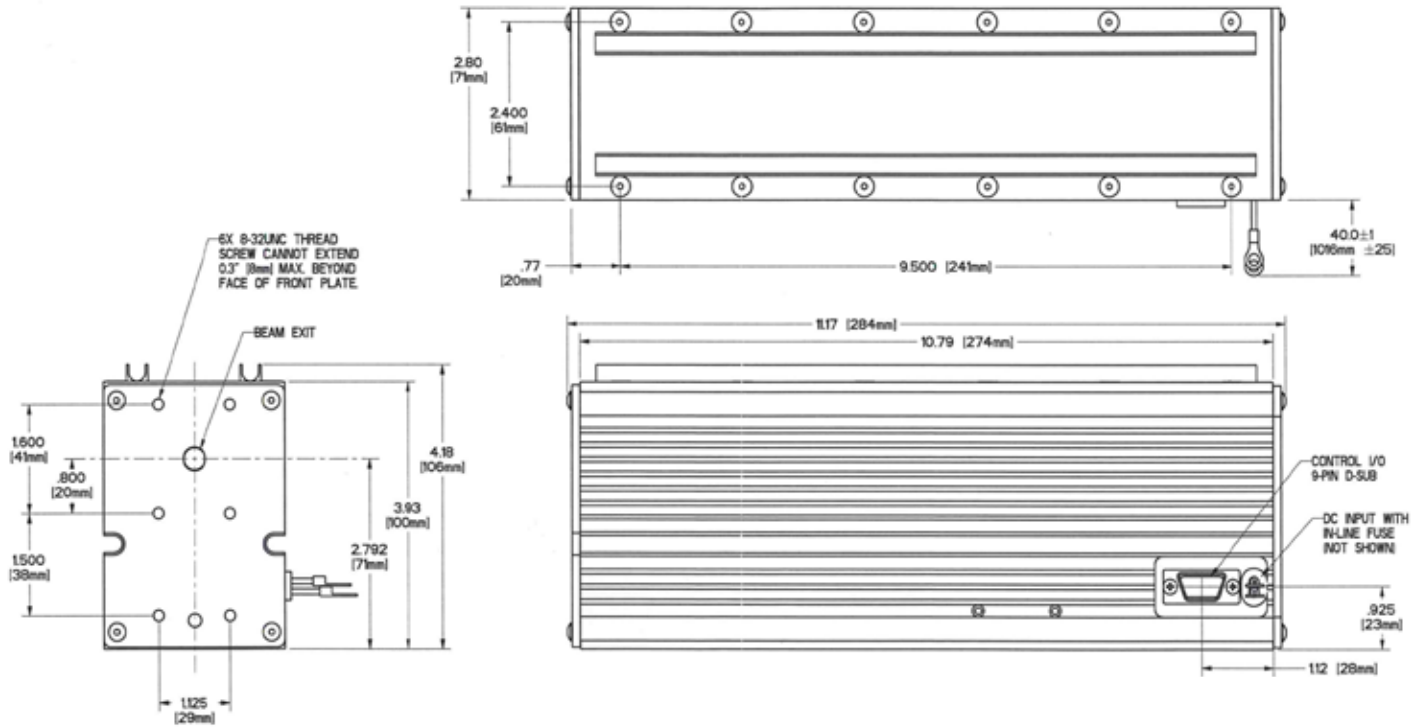
minimal weight, maintains portability, and can easily be integrated into small systems. Built to operate reliably, Synrad's ultra compact 32-1 delivers a high quality laser beam, even in the most demanding conditions.



SYNRAD
A Novanta Company

NEW 32-1 CO₂ Laser

Technical Illustrations dimension are in inches (mm)



Recommended Applications



PCB Marking

The perfect ultra-compact, low-power CO₂ laser source for PCB marking and coding applications.



Package Coding

Easily applies alpha numeric codes, barcodes, text, and expiration dates to a variety of packaging materials that will not smear or rub off.



Parts Marking

Apply permanent marks, text, and codes to variety of parts (both big and small) for faster, easier tracking.

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