

Technical Data

**NEW**

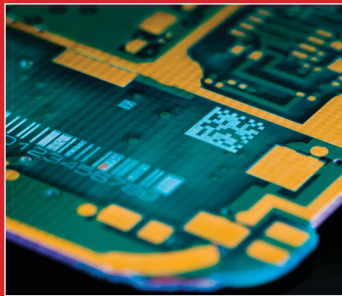
# 32-1 CO<sub>2</sub> Laser

Ultra compact 5 Watt CO<sub>2</sub> laser for precise marking and coding applications



High performance CO<sub>2</sub> 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 CO<sub>2</sub> laser source for PCB marking and coding applications.

Versatile low-power CO<sub>2</sub> 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, $\mu\text{m}$                     | 10.57 - 10.63                  |
| Power Output                                  | 5 W                            |
| Power Stability (cold start)                  | $\pm 15\%$                     |
| Beam Diameter, mm (at $1/e^2$ )               | $2.3 \pm 0.5$                  |
| Beam Divergence, full angle at $1/e^2$        | $\leq 8.0$ mrad                |
| Ellipticity                                   | $<1.2$                         |
| Polarization                                  | Random                         |
| Rise Time (measured at 1 kHz, 50% duty cycle) | $<150$ $\mu\text{sec}$         |
| Fall Time (measured at 1 kHz, 50% duty cycle) | $<150$ $\mu\text{sec}$         |
| Input Specifications                          |                                |
| Power Supply Voltage                          | 30 VDC $\pm 2.0$ 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)               |

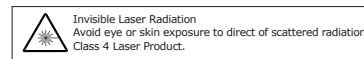
## Synrad's Smallest Laser

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.

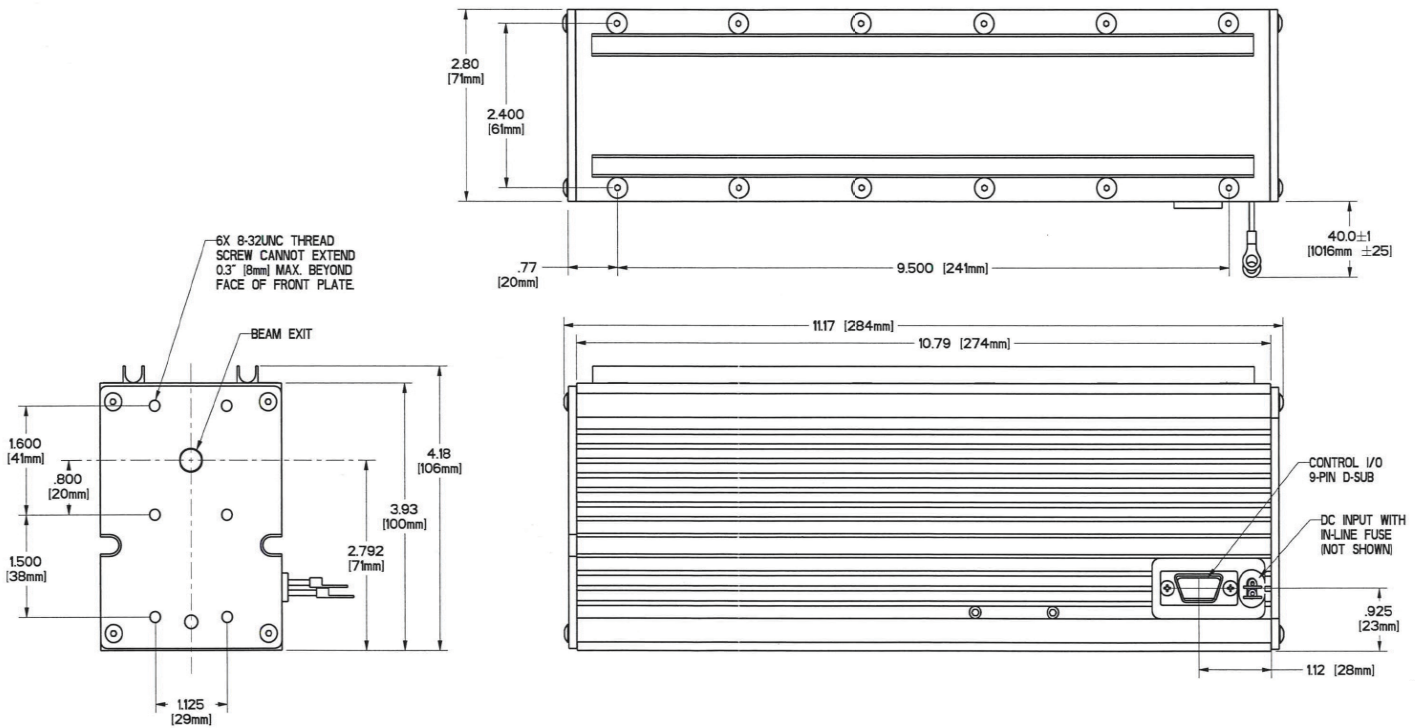


# SYNRAD

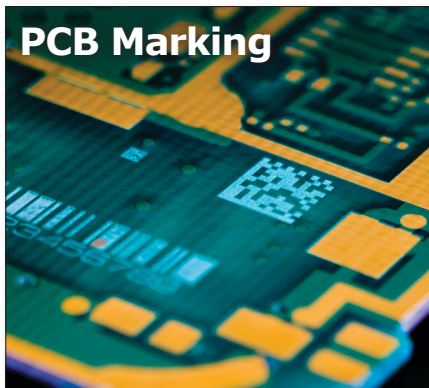
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# NEW 32-1 CO<sub>2</sub> Laser

Technical Illustrations dimension are in inches (mm)



## Recommended Applications



### PCB Marking

The perfect ultra-compact, low-power CO<sub>2</sub> 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.

## Contact Us

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