

32-1 CO₂ LASER - DATA SHEET

Ultra compact laser with 5 Watts of average power for precise marking and coding applications

> High performance CO₂ laser engineered for easy integration and mounting onto compact industrial systems

- The only industrial 5 Watt CO₂ laser with an integrated RF to ensure a minimal form factor
- 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 32-1 shown side-byside with the 48-1 laser. The 32-1 is 34% smaller and 22% lighter than the 48-1.





The perfect ultracompact, 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.



NOVANTA'S SMALLEST CO2 LASER

At a fraction over 284 mm (11 inches) long and only 71 mm (2.8 inches) wide, the 32-1 is Novanta's smallest laser. Engineered for compact laser processing systems, the 32-1 easily fits into desk-top sized models. At 3.18 kg (7 lbs.) the 32-1 adds minimal weight, maintains portability, and can easily be integrated into small systems. Built to operate reliably, the ultra compact 32-1 delivers a high quality laser beam in the most demanding conditions.

RECOMMENDED APPLICATIONS



The perfect ultra-compact, lowpower CO₂ laser source for PCB marking and coding applications. Easily applies permanent alpha numeric codes, barcodes, text, and expiration dates to a variety of packaging materials that will not smear or rub off.



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

32-1 CO₂ LASER - SPECIFICATIONS

| Output Specifications | |
|---|--------------------------------------|
| Wavelength | 10.6 µm |
| Output Power ¹ | >5 W |
| Power Stability (cold start) ² | <u>+1</u> 5% |
| Beam Quality (M ²⁾ | <1.2 |
| Beam Diameter ³ | 2.5 mm <u>+</u> 0.5 mm |
| Divergence (full angle) | <u><</u> 8.0 mrad |
| Ellipticity | <1.2 |
| Polarization | Random |
| Rise Time | <150 µs |
| Operating Frequency | 0 - 25 kHz |
| Power Supply | |
| DC Input Voltage | 30 VDC |
| Maximum Current | 4.0 A |
| Cooling | |
| Maximum Heat Load | 150 W |
| Minimum Flow Rate | 150 CFM, 2 required (air) |
| Environmental | |
| Operating Ambient Temperatures | 5 - 40° C |
| Maximum Humidity | <80% RH, non-condensing |
| Physical | |
| Dimensions (LxWxH) mm (inches) | 284 x 71 x 106 (11.2 x 2.8 x 4.2) |
| Weight kg (lbs.) | 3.18 kg (7.0 lbs.) |

1 - Power level guaranteed for 1 year from date of shipment, regardless of operation hours, within recommended coolant flow rate and temperature range.

2 - Measured from cold start as ±(Pmax-Pmin)/(Pmax+Pmin)

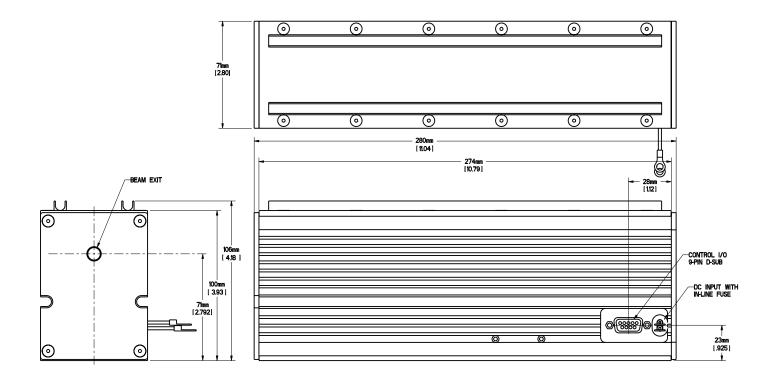
3 - Measured 1/e2 diameter at laser output.

Please see the manual for the full list of specifications and associated measurement conditions.





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