

Iradion® Infinity 9.3 HS Series

9.3 Ceramic CO₂ Lasers, High stability

NEW



The new **Iradion Infinity** CO₂ laser series combines the exceptional performance of a monolithic ceramic resonator with the latest RF design into a single integrated package.

The result is a compact, efficient, and powerful laser with **fastest rise and fall time and best stability in the industry.**

Feature	Benefit
Pure ceramic	No contamination, no leaks
Low thermal expansion	Enhanced laser stability < 1.5%
Fast driver electronics	Quick rise and fall time <50 µsec
High efficiency	Air cooled up to 100 Watts
30% fewer parts	Higher reliability
Adjustable power <1 W to MAX	Flexibility
Long lifetime	No need to ever refill tube
OEM configurations available	Optimized for your application

IRADION
Ceramic Core CO₂ Lasers

www.iradionlaser.com

Specifications (preliminary)

Infinity 15XXHS* Models	155*HS-9.3	156*HS-9.3	158*HS-9.3	1510*HS-9.3
Rated Optical Power (Watts)	50	60	80	100
Mode Quality (M2)	≤ 1.2	≤ 1.2	≤ 1.2	≤ 1.2
Beam Ellipticity	< 1.2:1	< 1.2:1	< 1.2:1	< 1.2:1
Beam Diameter (mm) 1/e ²	2.5	2.5	2.5	2.5
Beam Divergence (mrad, full angle)	<7	<7	<7	<7
Wavelength (μm)	9.3	9.3	9.3	9.3
Rise Time (μs)	<50	<50	<50	<50
Power Stability, Fan Cooled (% after 5 minutes warmup)	<± 4 %	<± 4 %	<± 4 %	<± 4 %
Power Stability, Water Cooled (% after 5 min warmup)	<± 1.5 %	<± 1.5 %	<± 1.5 %	<± 1.5 %
Polarization	Linear	Linear	Linear	Linear
Cooling	Air, fan, water	Air, fan, water	Air, fan, water	Air, fan, water
Input Power (Watts)	900	1000	1125	1500
Input Voltage / Current	36V / 25A	40V / 25A	45V / 25A	48V / 30A
Weight (kg/lbs)	14.7 / 32.4	14.7 / 32.4	14.7 / 32.4	14.7 / 32.4

Specifications are preliminary and subject to change without notice

All specifications are at rated power

Laser Interface

Connectors	15 pin D	RJ45
Fire Command	Yes	Yes
Interlock	Yes	Yes
Fault Signal	Yes	Yes
RS232 Comm*	Yes	Yes
Ready Signal	Yes	No
Key Switch Control	Yes	No
Forward RF Signal	Yes	No
Reflected RF Signal	Yes	No
Lase Light Signal	Yes	No
Temperature Warn	Yes	No

Indicator lights:

LASE ●● FAULT IN
 LOCK ●● TEMP
 READY ●● POWER

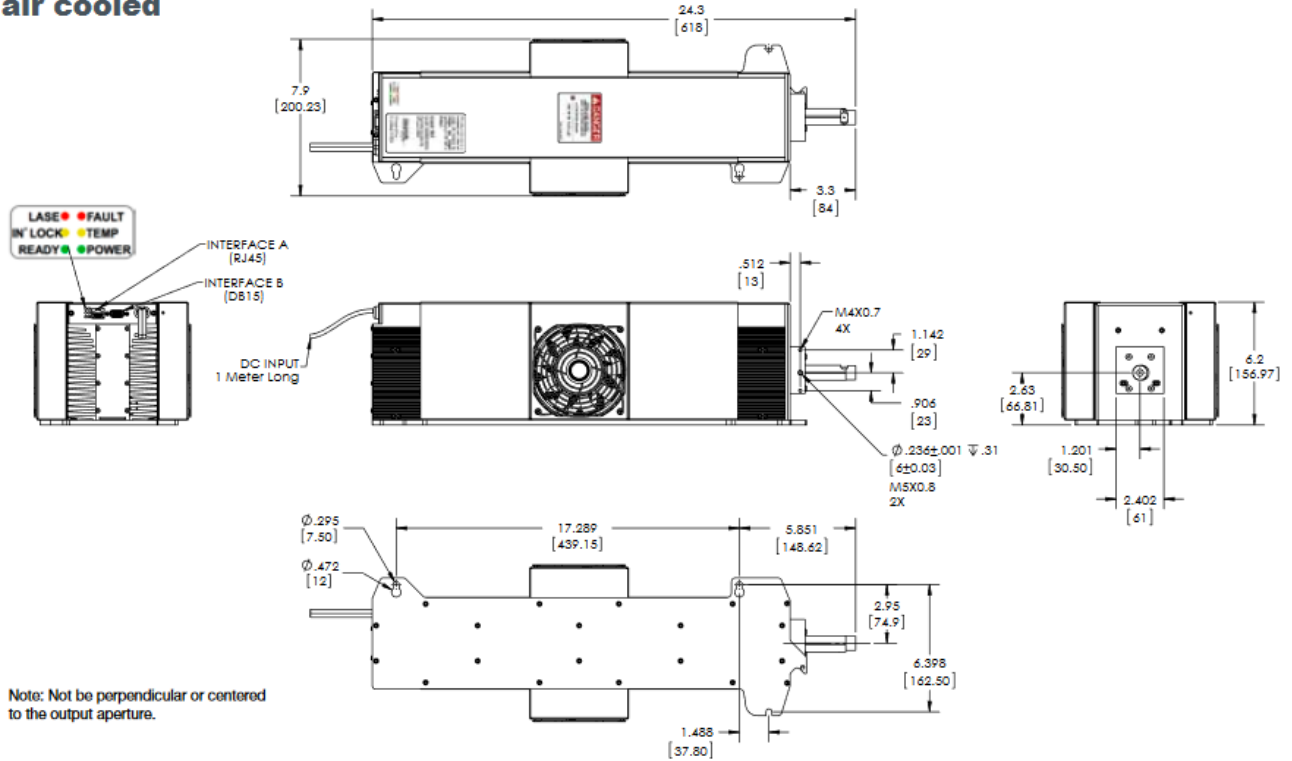
* The laser control card can be monitored via RS232 communications. A variety of signals, laser information, and the temperature can be interfaced to your host controller



Outline Drawings

1 Meter
Power Cord

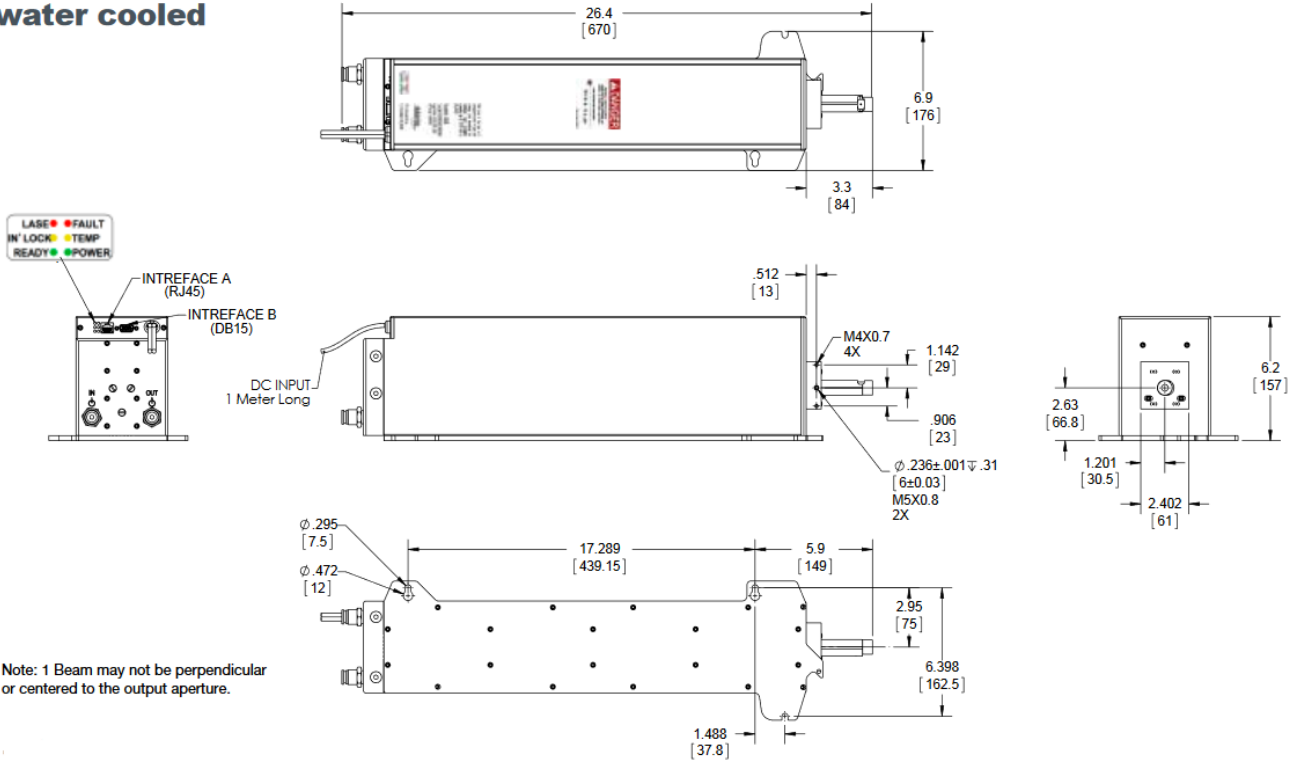
Dimensions air cooled



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water cooled



Note: 1 Beam may not be perpendicular or centered to the output aperture.

Order Information: 15XX*HS-9.3

*Model designator:

- F = for fan cooled
- W = for water cooled
- A = for air cooled (no fans)

Example: 60 Watts water cooled 156WHS-9.3

Patents: US 7460577 B2
US 8295319 B2



Invisible Laser Radiation
Avoid eye Skin exposure to
direct or scattered radiation.
Class 4 Laser Product.

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