EX5/EX10-CO_2

Long gas lifetime

Corona PreIonization

On-Board Vacuum Pump

Long life optics

The laser is an all metal/ceramic device and uses the most advanced design of any commercial TEA CO_2 laser.

10.6µm CO_2 TEA Laser

EX10-CO_2

Reliable High power Laser

High Power and High stability

The EX10-CO_2 laser is designed to provide high power industrial laser performance in a low cost, high reliability system. The unique linear design of GAM LASER products allows power scaling to be achieved at low incremental cost. The EX10-CO_2 provides the first cost effective high power laser.

The EX10-CO_2 gives repetition rates to 100Hz .The laser gives up to 100W output power. Exceptional dynamic and static gas lifetime is obtained from the total metal/ceramic design and corona preionization system with over 5 million pulses to 50% energy and 8 weeks static gas lifetime.

The laser is an all metal/ceramic device and uses the most advanced design of any commercial laser. The laser of course includes standard features such as active thermal stabilization, constant power and energy control, automatic refill and automatic gas control. The laser can be completely controlled from a Windows software package.

An Active-X is available for those wishing to write custom software for the laser, or to incorporate the laser into a larger software routine. The enhanced industrial software control package is standard with the EX10-CO_2 laser.

High efficiency discharge

This 100Hz model is air cooled. The EX10-CO_2 laser is designed to give high electrical to optical conversion efficiency. The high discharge efficiency reduces the load on the heat transfer system and allows air cooled operation at 100Hz.

Economical Operation

The EX10-CO_2 is designed to allow simple and low cost replacement and refurbishment of the laser chamber. This gives minimal downtime for scientific and Industrial applications.

Automatic Gas Handling

The EX10-CO_2 uses one small cylinder of gas for up to 2 years of operation. When a gas refill is required the autofill software option replaces the gas fill in under 1 minute using the internal vacuum pump and filter.

Low cost of Ownership

The EX10-CO_2 is designed for simple, low cost refurbishing and replacement of the laser chamber. This minimizes down time and maintains a low cost of ownership.

O p t i o n s

- **Clean Room Package**
- **Unstable Resonator Optics**
- **EX5-CO_2 Mini laser**

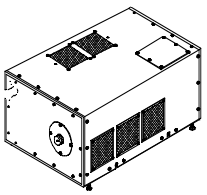
EX10-CO_2

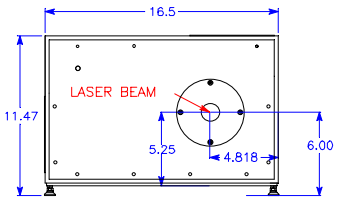
Specifications

PARAMETER	EX10 CO_2	EX5 CO_2
Wavelength µm	10.6	
Energy Max. mJ	40	20
Average Power @ 100 Hz W	2.5	1.0
Dynamic gas lifetime Pulses to 50% energy	5E6	3E6
Repetition rate Hz	100	100
Shelf life approx. to 50% energy	60 days	60 Days
Pulse Length nS	250 [b]	250
Beam Size mm	8 x 6	6 X 4
Stability	< 5% Standard Deviation [c]	
Divergence mRad	1.5 x 3 [d]	
Cooling	Air / Water	

Dimensions and electrical service

The EX10-CO_2 gives high performance in a compact package. The laser is 65cm long. The entire laser is packaged in one computer controlled table top unit.





Dimensions:
65 X 44 X 30cm (L X W X H)
Power Requirements:
125/250 Hz 95-240 VAC,8/15A,47/63Hz
Weight 65kg

b At Max. Voltage
c typical
d Full Width Half Max - Depends upon gas and Optics.

K e y B e n e f i t s

- **A powerful high power laser system in a compact package.**
- **Low divergence output**
- **Excellent Pulse to Pulse stability**
- **Low Jitter <2nS standard deviation**

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MADE IN USA

Reliable High power Laser