

## 300W 激光斩波器

## 产品应用:

High Energy Pulses

Interlock

Thin Zones

Multi-line Lasers

## 产品特点:

Optical Power: 1-300 W

Aperture Size: 14 mm

Optics: Dielectric

Optics Options

Switching Speed: 40 ms

Position Sensors



This model is designed for use primarily as a safety interlock shutter for YAG and similar solid-state lasers with high Q-Switched energy per pulse. It uses dielectric optics from world-leading coating suppliers, providing damage thresholds of 5 J/cm<sup>2</sup> at 355 nm to 15 J/cm<sup>2</sup> at 1064 nm for low ns laser pulses. The redirected energy is diffused thru UV grade fused silica, then absorbed inside the shutter. The 40 msec switching speed allows it to extract single pulses from lasers pulse trains up to 10 Hz. Closing settling time depends on orientation w/r to gravity. For fastest closure, use the CX3000B or CX4000B controller PCB. Options are available using a suffix code system. Many options cannot be installed after manufacture, so choose carefully. Standard 1.000" round dielectric optics on 1 mm substrates are used from major industry suppliers. Mirrors are bonded into moving assembly. Use suffix -1 for 1064 nm, -2 for 532 nm, -3 for 355 nm, -4 for 266 nm, and -12 for 532+1064 harmonic mirror (lower damage threshold). Use -C2 for CO<sub>2</sub> use. Additional mirrors are available for specific laser lines. Contact our application engineers. Referring to the plane of the Base Plate, the CX3000B or CX4000B controller can be calibrated for horizontal or vertical calibration. Horizontal is the default (as shown in product photo). Circuits not using dampening on closure will generate longer settling times for closure spec, up to 100 msec maximum.

# Specifications

<b>Aperture Diameter</b>	14.0 mm
<b>Typical Beam Diameter used for Specs</b>	10.0 mm
<b>Maximum Shutter Repetition Rate =</b>	3 Hz
<b>CW and Quasi-CW Optical Power Handling</b>	300 W chiller plate
<b>Typical Damage Threshold, Aligned Polarization</b>	5-15 J/cm <sup>2</sup>
<b>Delay to Begin Opening after Command Open</b>	10 ms
<b>Opening Time Switching Speed</b>	40 ms
<b>Delay to Begin Closing after Command Close</b>	10 ms
<b>Closing Time Switching Speed</b>	40 msec using CX3000B, 100 msec w/o dampening
<b>Minimum FWHM Exposure Capability</b>	60 msec using CX3000B
<b>Thermal Power Dissipation Holding Open</b>	6 W
<b>Thermal Power Dissipation, Repetitive Cycling</b>	15 W @ 3 Hz
<b>Nominal Magnetic Winding Impedance</b>	8 Ohms
<b>Cable/Wire Type and Length</b>	6 Ft Cable, PVC Jacket  Cable

## customize

**Aperture Size Range**

14mm to 15mm

**Optics**

Aluminum, Coated aluminum, Dielectric, and

Gold

**Wire Length**

Any length

**Wire/Cable Type Wire Gauge**

6-C CABLE

**Connector**

Any 6 pin connector

**Size**4 x 6 x 1 in., note: minimal size change can be  
designed**Identification**

Engraving, Labels

**Standard Shutter Format, Mechanical Microswitches for Position Sensors:**

<b>White</b>	+Power to Winding
<b>Black</b>	-Power to Winding
<b>Red/Orange Pair</b>	Open Switch, Reads Continuity when Shutter Open
<b>Blue/Green Pair</b>	Closed Switch, Reads Continuity when Shutter Closed

*Switches rated for 1 A at 24 VDC.*

