Model LST200 Laser Shutter Specifications

This model is designed for use as a high speed exposure and gating shutter. The small rectangular solid geometry allows it to fit into small working zones. With only 9.5 mm thickness in the optical direction, it can be used to modulate larger beams that are focussed through the aperture. The standard mirror is aluminum for broadband use. This model is a popular OEM product providing lifetime cycling in excess of one billion cycles. The solid copper package provides efficient thermal flow into user's thermal sink, such as optical table, bracket, or frame.

Compatible system controllers include the CX2250 and user built circuits.

Options are available using a suffix code system. Many options cannot be installed after manufacture, so choose carefully. The –IR suffix installs a Gold Mirror for use from 700nm to far infrared. It is a no charge option. Other options include Teflon wires/cable and semi-custom aperture changes. Our application engineers can assist with these choices.

See the "Mechanical Drawing" tab for dimensions. Also see the "Application Notes" tab on the home page menu for important operational issues including: thermal mounting, user-built circuits, polarization, lifetime, jitter, vacuum operation, and contamination. See the "Accessories" tab for useful system components.

Special Considerations for this model include careful damage threshold calculations due to small aperture, and proper thermal mounting techniques.

Restricted use for this model include: high energy, short pulse width sources, and combinations of high optical power and high repetition rate cycling (due to thermal load).

Recommended Controller to Achieve Specs	CX2250
Aperture Diameter	2.3 mm
Typical Beam Diameter used for Specs	1.0 mm
Maximum Shutter Repetition Rate	150 Hz
CW and Quasi-CW Optical Power Handling	15 W
Typical Damage Threshold, Aligned Polarization	0.8 J/cm2
Delay to Begin Opening after Command Open	1.0 msec
Opening Time Switching Speed	300 microsec
Delay to Begin Closing after Command Close	1.2 msec
Closing Time Switching Speed	300 microsec
Minimum FWHM Exposure Capability	1.2 msec
Thermal Power Dissipation Holding Open	10 W
Thermal Power Dissipation, Repetitive Cycling	20 W @ 100 Hz
Nominal Magnetic Winding Impedance	22 Ohms
Cable/Wire Type and Length	10 Feet, PVC Jacket Cable
Mounting Surface for Thermal Sinking	Output Aperture Best
Position Sensors	Not Available
Weight	6 Oz. With Cable
Size (see mechanical drawing)	1.35 x 2.10 x .38 Inches