

Model LST18 Laser Shutter Specifications

This model is designed for use as a low optical power safety and process shutter. It is driven directly from 12 VDC. It provides quiet operation and low shock/vibration. A built-in fly-back diode is standard. Both side mount and through-hole mounting is offered

Compatible system controllers include user built 12 V circuits and any of our controllers.

Options are available using a suffix code system. Many options cannot be installed after manufacture, so choose carefully. Higher optical power handling can be achieved with special mirrors installed. Call our staff for mirror suffix and pricing. Properly mounted, options can raise the power rating to 30 Watts.

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 attention to mounting near magnetic elements, such as Faraday rotators, etc. The efficient magnetic system is affected if the nearby field is strong.

Restricted use for this model include observing power rating, CW or Quasi-CW use only, and a firm 12 VDC source, especially if long wires and cables are used.

Recommended Controller to Achieve Specs	Straight 12 VDC or Cap Discharge
Aperture Diameter	2.5 mm
Typical Beam Diameter used for Specs	1 mm
Maximum Shutter Repetition Rate	5 Hz
CW and Quasi-CW Optical Power Handling	500 mW
Typical Damage Threshold, Aligned Polarization	30 mJ/cm ² (PW=10 ns)
Delay to Begin Opening after Command Open	10 ms
Opening Time Switching Speed	10 ms
Delay to Begin Closing after Command Close	10 ms
Closing Time Switching Speed	10 ms
Minimum FWHM Exposure Capability	30 ms
Thermal Power Dissipation Holding Open	2 W
Thermal Power Dissipation, Repetitive Cycling	1 W @ 5 Hz
Nominal Magnetic Winding Impedance	70 Ohms
Cable/Wire Type and Length	18 inch, 22 g. twisted pair leads
Mounting Surface for Thermal Sinking	Side or Output Face
Position Sensors	N/A
Weight	5 Oz.
Size (see mechanical drawing)	2.00 x 2.00 x 0.75 Inches