

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*



LST400 Laser Shutter

Features
Optical Power Handling: up to 50 W
Aperture: 8 mm
Switching Speed: 20 ms
Logic Position Sensors
Optics: Metal or Dielectric

Applications
Safety Interlock
Processing
Diverging Beams
Tight Zones
OEM Integration Top Loader

Optical Specifications

Aperture Diameter	8.0 mm
Typical Beam Diameter	2.0 to 6.0 mm
Max. Optical Power Handling	50 W (Dielectric Optics)
Optics Options	Gold, Aluminum, or Dielectric
Dielectric Optics Suffix	1064 nm (-1), 532 nm (-2), 355 nm (-3), 266 nm (-4), 532/1064 nm (-12)
Metal Optics Suffix	CO2 (-C2), IR (-IR), STD (-AL)
Laser Induced Damage Threshold	500 mJ/cm^2 at 10 ns (Custom 2 J/cm^2 at 10 ns)

Performance Specifications

Open Delay Time	5 ms
Open Rise Time	15 ms
Open Total Time	20 ms
Close Delay Time	5 ms
Close Fall Time	15 ms
Close Total Time	20 ms
Min. FWHM Exposure	30 ms
Max. Shutter Repetition Rate	5 Hz
Lifetime	50 Million Cycles

Thermal Specifications

Thermal Power Dissipation Holding Open	4 W
Thermal Power Dissipation Cycling	10 W at 5 Hz
Mounting Surface for Thermal Sinking	Datum A, Datum B

Custom Options

Aperture Size Range	8 mm, 10 mm, 8 x 12 mm Obround

Electrical Specifications

Power Supply	24 VDC, 1 Amp Rating
Electrical Drive Circuit	Boost Open = 24 V at +45 ms Hold Open = 7 V Delay Close = 8 ms Brake Close = 24 V for 6 ms
Recommended Controller	CX4000B
Winding Resistance	15 ohms Nominal
Winding Inductance	10 mH
Position Sensors	Logic TTL, Require 5 VDC @ 30 mA
Cable/Wire Type, No., Length, Termination	22 g, six wires, 18 in., MTA-100, AMP, P/N 643813-60
User Drive Circuit/Cap Discharge	24 V, C=4700 mmF, R=50 ohm, use Flyback Diode 1N4001
User Drive Circuit/PWM Type	24 V for 50 ms, then drop to 7 V hold, use Flyback Diode 1N4001

Read sensor outputs with reference to the blue ground wire. These outputs are totem-pole buffered TTL, seeking a load of ~10 K ohms. Typical output is 4.5 V. Do not try to draw more than about 5 mA from the Yellow or Orange outputs, or the voltage will load down.

Wire Pin # - Color

1 – Red	Power Winding (+)
2 – Black	Power Winding (-)
3 – Violet	Sensor Supply, 5 VDC(+) – 30 mA
4 – Yellow	Normally Open Sensor (HI – Open)
5 – Orange	Normally Closed Sensor (HI – Close)
6 – Blue	5V Return and Sensor Ground

Attributes

Dimensions	3.80 in. x 2.06 in. x 0.64 in.
Weight	~4 oz.
Classification	Safety/Process

Privacy - Terms

Optics Options	Gold, Aluminum, or Dielectric
Wire Length	Any Length
Wire/Cable Type	Teflon or Vinyl
Connector	Any 6-pin Connector
Identification	Engraving, Labels

Gravity Considerations	Symmetric Open/Close speed with base down. More power used for upside-down mounting
Specifications Date	April 29, 2021

Description

The **LST400** laser shutter model is designed for use as a laser safety interlock and processing applications. The LST400 provides TTL output position sensors for the open and closed states as standard equipment. The thin body style and 8 mm aperture accommodate many popular laser sources. Compatible system controllers are CX4000B or user-built circuits designed around 24 VDC. Options are available using a suffix code system. Many options cannot be installed after manufacture, so choose carefully. Choose -C2 for CO2 laser use (see LST400-C2). Choose the –IR suffix for IR use, starting at about 700 nm. The –IR suffix replaces the over-coated aluminum mirror with gold. The standard over-coated aluminum mirror is good from deep UV to about 700 nm (see LST400-AL). Special dielectric mirrors are available for OEM applications (see LST400-123 or LST400-4). Cable options are also available, call for details. Special considerations for this model include damage threshold assessment. The shutter is not designed for high energy, low repetition rate, Joule-level Q-switched lasers (see LST800 or LST500 for these applications). Thermal mounting must be given strong attention if optical power dissipation is near the upper limit of the rating. For smaller package or high-speed processing, consider LST4WBK2 or LST200SLP. Restricted use for this model is only limited to damage threshold and wavelength considerations. It can be used in any orientation with regards to gravity; more symmetric switching in standard mounting. See the Mechanical Drawing for dimensions. Also see the Application Notes in the Technical Information menu for important operational issues including: thermal mounting, user-built circuits, polarization, lifetime, jitter, vacuum operation, and contamination. See the Product Matrix page to compare laser shutter models.

Copyright © 2024, NM Laser Products, Inc. All rights reserved.

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP