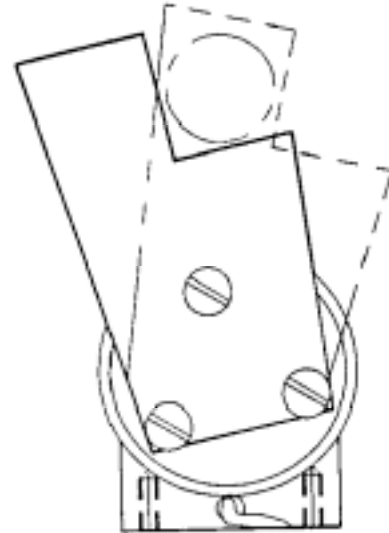




SH-10 and SH-20 Laser Beam Safety Shutter

FEATURES AND ADVANTAGES

- Integrated return spring
- Small size
- Boxed shutter optional
- Low cost
- High reliability, long life
- STANDARD or CUSTOM blade
- Returns to "OFF" position with a power failure
- 5V, 12V or 15V, or 24V dc operation
- Simple drive circuit for TTL input commands
- Special pricing for OEM applications.



DESCRIPTION

The **SH-10** and **SH-20** shutters consists of a blade mounted on a rotary solenoid. The SH-10 blade has a limited rotation angle.

When the shutter is powered, the blade moves to an "ON" position and clears the path for a laser beam. When the power is turned off, the return spring of the shutter moves the blade to an "OFF" position and blocks the laser beam. The standard blade material is 0.01" thick anodized aluminum; to meet laser specifications, other materials and thickness are available.

The Model **SH-10-M** shutter comes with a mounting plate option and allows horizontal and vertical mounting.

The Model **SH-10-L** shutter offers long life operation: 50 million cycles min.

The Model **SH-10-B** shutter is boxed with a 0.42" dia window for laser light, larger available.

The Model **SH-10-M-L** shutter comes with a mounting plate option and allows horizontal and vertical mounting and also offers long life operation: 50 million cycles min.

The Model **SH-10-B-L** shutter is boxed with a window for laser light and also offers long life operation: 50 million cycles min.

SH-10-5 for 5V power requirements, **SH-10-12** for 12V or 15V and **SH-10-24** for 24V dc.

The Model **SH-20-L** shutter offers long life operation: 50 million cycles min.

The Model **SH-20-B** shutter is boxed with a 1" dia window for laser light, larger available.

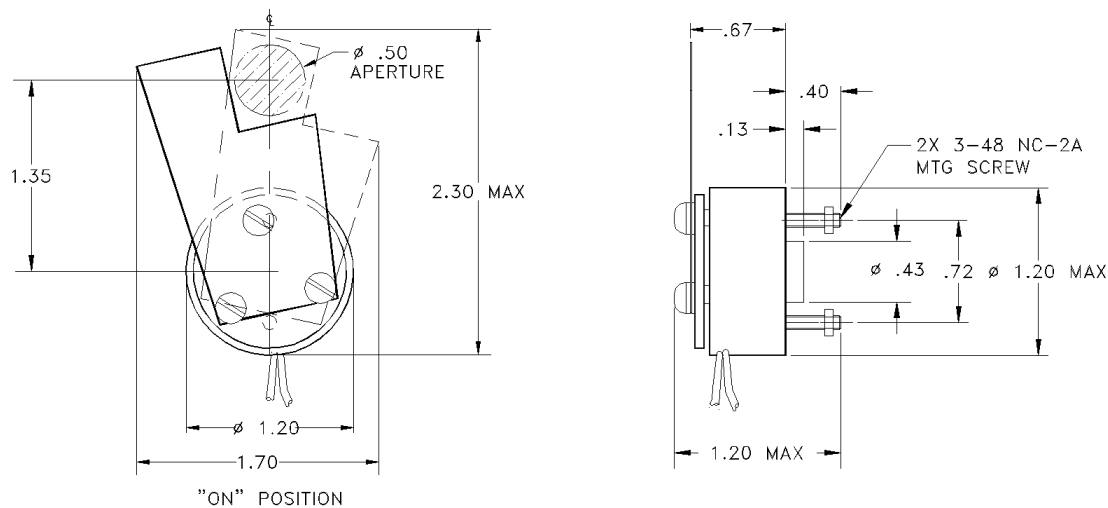
The Model **SH-20-B-L** shutter is boxed with a window for laser light and also offers long life operation: 50 million cycles min.

SH-20-5 for 5V power requirements, **SH-20-12** for 12V or 15V and **SH-20-24** for 24V dc.

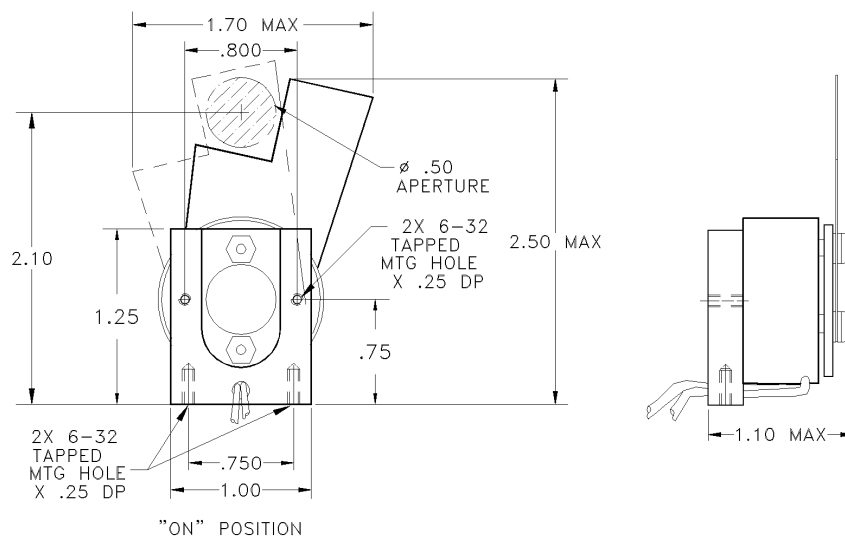


SPECIFICATIONS

	SH-10	SH-20
Aperture Size	0.5 inch, larger available	1 inch, larger available
Shutter Dimensions	1.7"W x 2.3"L x 1.2"D 1.9"W x 2.8"L x 1.3"D boxed	2.8"W x 3.2"L x 2"D 2.8"W x 3.4"L x 2.1"D boxed
Shutter Weight	60 grams	150 grams
Power Requirements	5V DC, 1400mA Optional: 12V DC, 600mA and 24V DC, 320mA	5V DC, 700mA Optional: 12V DC, 300mA and 24V DC, 160mA
Response Time	15 mSec	
Expected Life	2 million cycles minimum -L model shutter offers long life operation: 50 million cycles min.	
Return Spring Torque	0.0055 to 0.009 Nm	
Max. Operating Temperature	75°C	

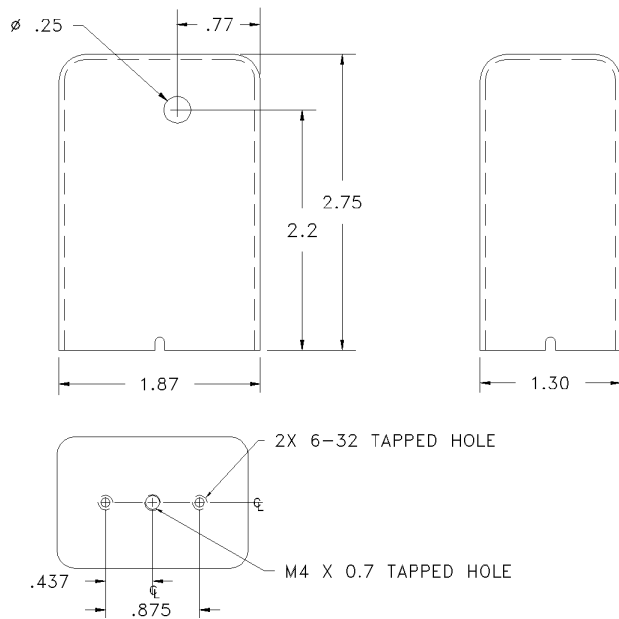


SH-10: OUTLINE DRAWING



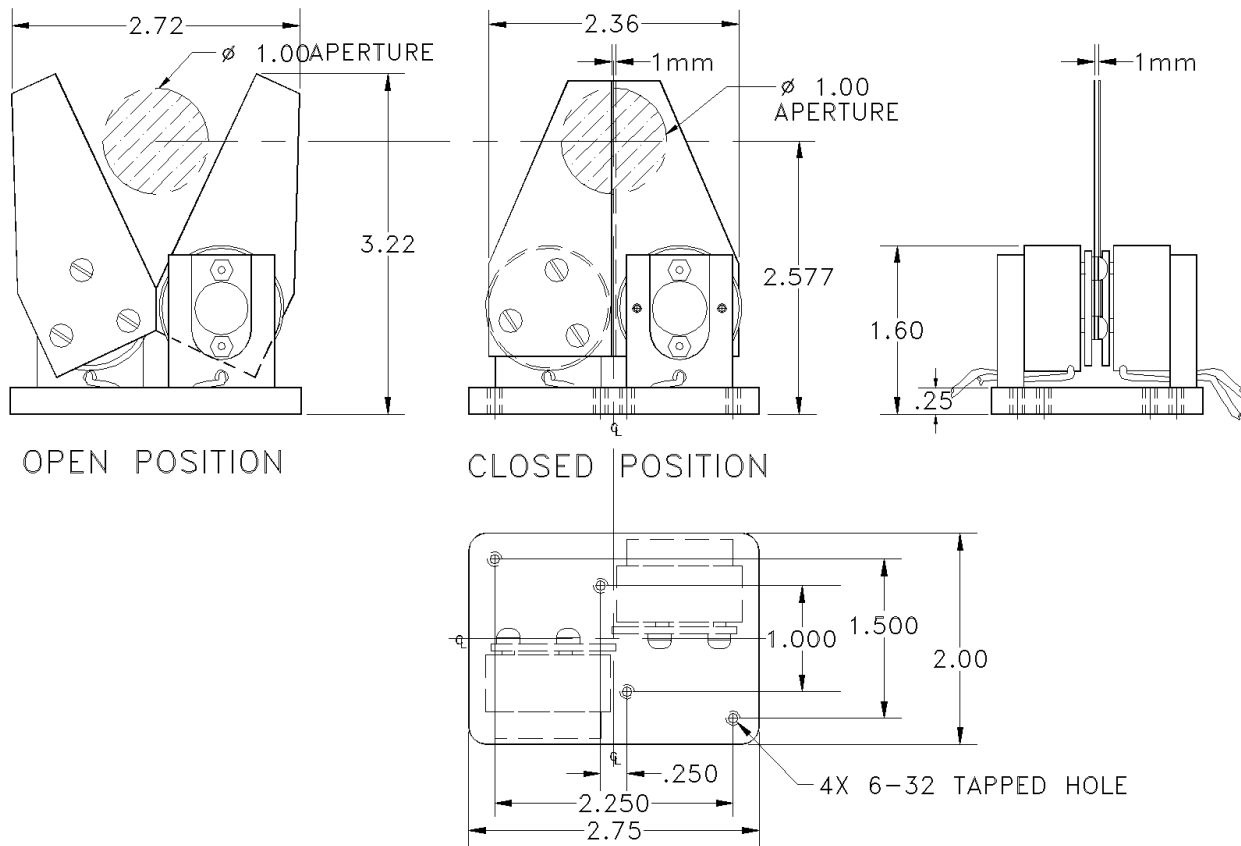
SH-10-M: OUTLINE DRAWING





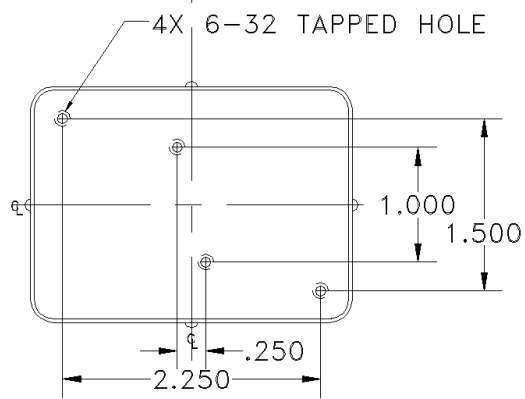
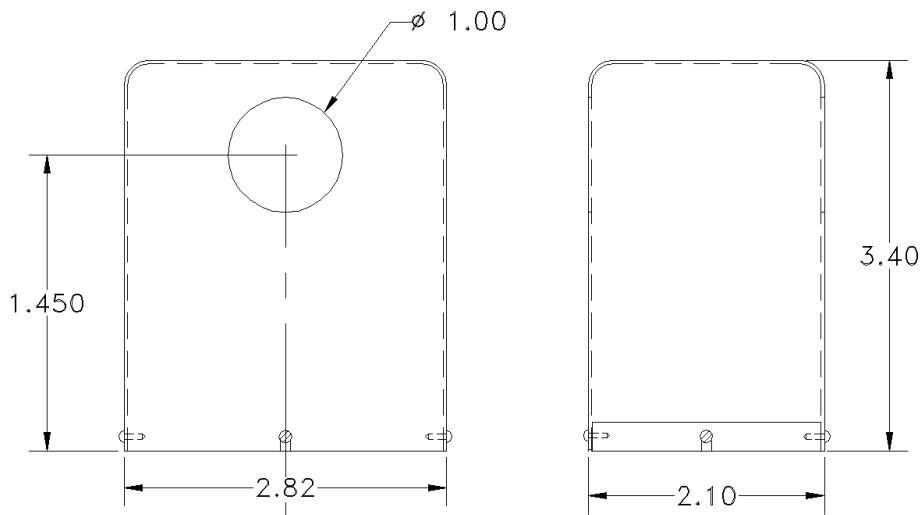
SH-10-B: OUTLINE DRAWING

DIMENSIONS ARE IN INCHES
METRIC MOUNTING HOLES OPTIONAL



SH-20: OUTLINE DRAWING





METRIC MOUNTING OPTIONAL

SH-20-B: OUTLINE DRAWING

