



# **ELECTRO-OPTICAL PRODUCTS CORP.**

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## **LASER BEAM SAFETY SHUTTER (INTERLOCK) SH-20 SHUTTER**

### **FEATURES AND ADVANTAGES:**

- \*Integrated return spring
- \* 1" (25mm) aperture, larger optional
- \*Size 2.8"W x 3.2"L x 2"D  
  Boxed: 2.8"W x 3.4"L x 2.1"D
- \*Low cost
- \*High reliability, long life
- \*STANDARD or CUSTOM
- \*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.



Patent No.: US 6,215,575 B1

### **DESCRIPTION:**

The **SH-20** shutter consists of blades mounted on rotary solenoids. When the shutter is powered, the blades moves to an "ON" position and clear the path for a laser beam. When the power is turned off, the return springs of the shutters move the blades to an "OFF" position to block the laser beam. The standard blade material is 0.02" thick anodized aluminum; to meet laser specifications, other materials and thickness are available.

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:**

APERTURE SIZE: 1 inch

POWER REQUIREMENTS: 5V dc, 1400 mA. Optional: 12V dc, 600 mA and 24V dc, 320 mA

RESPONSE TIME: 15 mSec

EXPECTED LIFE: Model **SH-20**: 2 million cycles min.

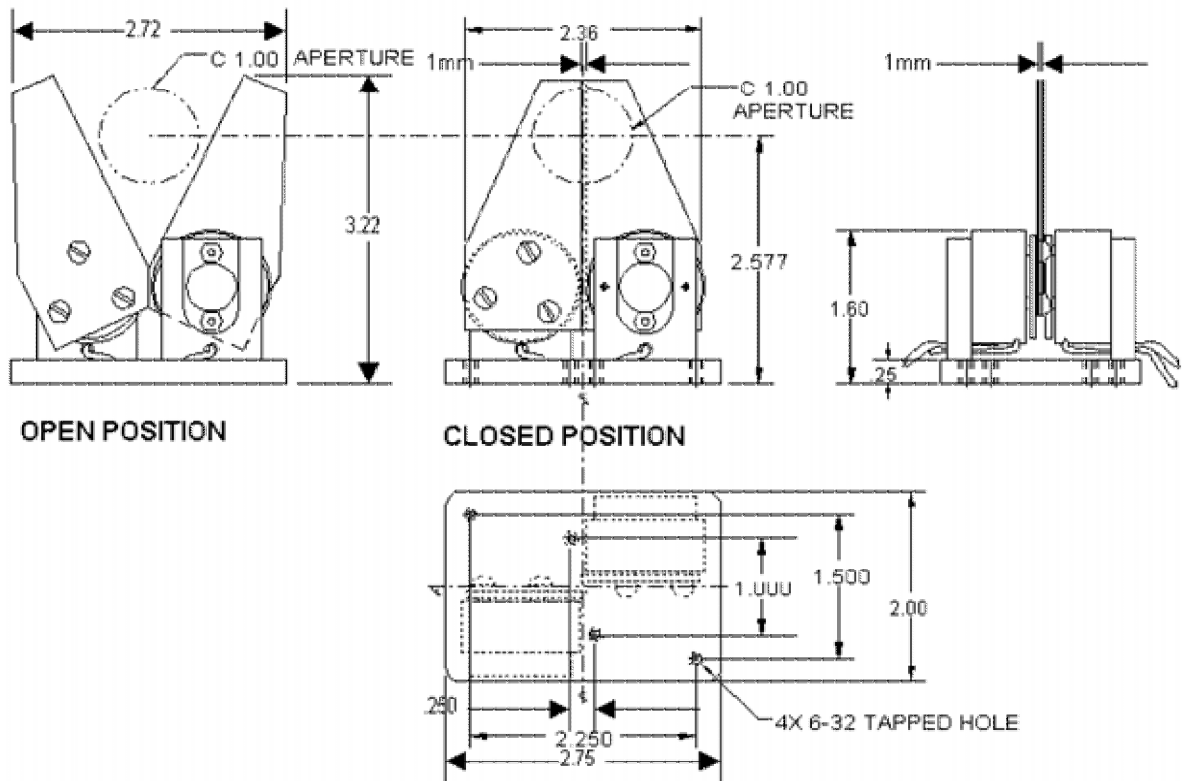
Model **SH-20-L** shutter offers long life operation: 50 million cycles min.

RETURN SPRING TORQUE: 0.0055 to 0.009 Nm

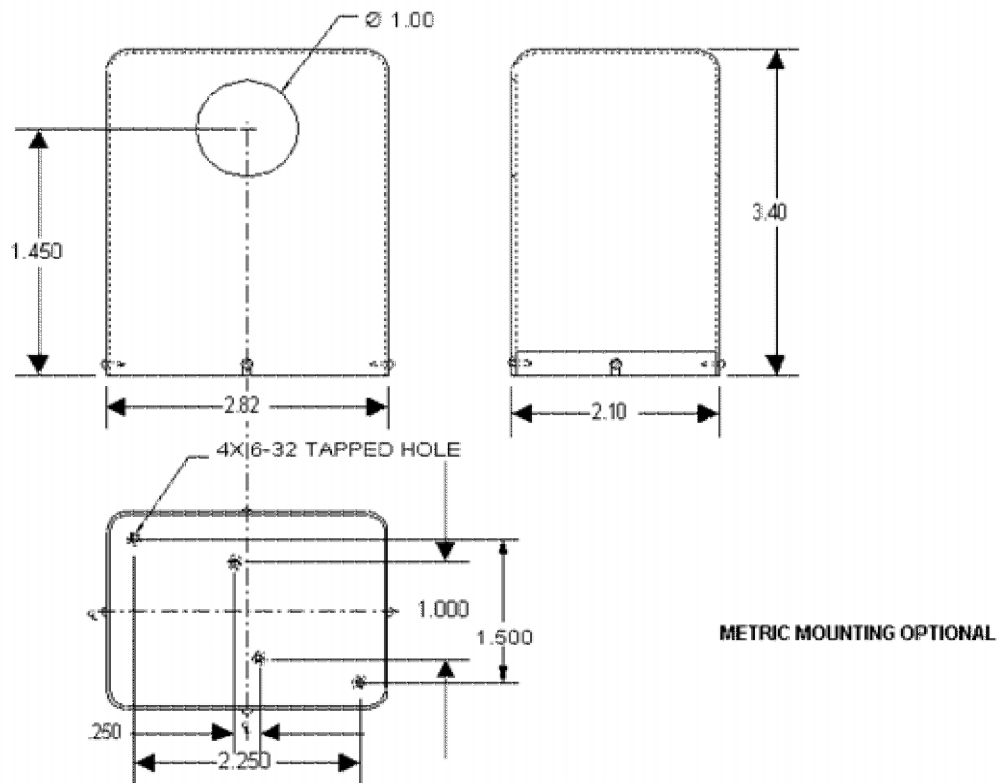
SHUTTER DIMENSIONS: 2.8"W x 3.2"L x 2"D (2.8"W x 3.4"L x 2.1"D boxed)

SHUTTER WEIGHT: 150 grams

MAX. OPERATING TEMPERATURE: 75°C



**SH-20: OUTLINE DRAWING**



METRIC MOUNTING OPTIONAL

**SH-20-B: OUTLINE DRAWING**