MVS-4000 Machine Vision Strobe



Description

The Excelitas MVS 4000 Mini Strobe produces high intensity, short duration light pulses for industrial vision applications. Operated in conjunction with a CCD/CID solid state video camera, this unit front-lights or back-lights objects, freezes motion, and eliminates blur, thus enhancing image quality.

The MVS 4000 operates from an input voltage of 12 VDC. The trigger input circuit is optically isolated, requiring a 5 volt pulse to flash. The metal enclosure contains a printed circuit module, a 0.75 inch arc quartz flashlamp, and reflector. Inputs are made via a 9-pin connector located on the rear of the strobe.

Features

- Flash Rates to 50 Hz
- 6 Microsecond Flash Duration
- · Small/Light Weight
- Simple Installation and Operation



MVS-4000 Mini Strobe

Optical Specifications

Spectral bandwidth (1) 300 to 1100+ nm
Flash rate 50 Hz maximum
Flashlamp life (3) >10⁸ flashes
Flash duration (2) 6 microseconds

Flash to flash variation < 5%

Illumination Characteristics

Distance	Area Illuminated	Photometric	Radiometric
6 inches	6 in. x 8 in.	19 lux-sec	15 x 10 ⁻⁶ J/cm ²
1 foot	12 in. x 16 in.	5.7 lux-sec	4.5 x 10 ⁻⁶ J/cm ²
2 feet	20 in. x 23 in.	1.5 lux-sec	1.2 x 10 ⁻⁶ J/cm ²
3 feet	36 in. x 48 in.	0.6 lux-sec	0.5 x 10 ⁻⁶ J/cm ²

Note 1: Spectral bandwidth may be extended into the ultraviolet by using other flashlamp envelope and enclosure window materials. Note 2:

Measured at 1/3 of peak value.

Note 3: Prior to light output decreasing to 70% of the initial value. Note

4: Lux-sec - Lumen sec/m²

Physical Specifications

Size Inches (millimeters) 5.20 (132) L x 3.06 (78) W x 2.00 (51) H

Weight 0.75 lbs (0.34 kg)

Mounting 1/4-20 threaded socket in base

Provision for internal optical filter included

Electrical Specifications

Input voltage 11-15 VDC

Input current1.10 amps maximumFlashlamp voltage $600 \text{ volts} \pm 3\%$ Discharge capacitor $1.0 \text{ microfarad} \pm 10\%$ Discharge energy $0.18 \text{ Joules} (\pm 10\%)$ Discharge power10 watts maximum

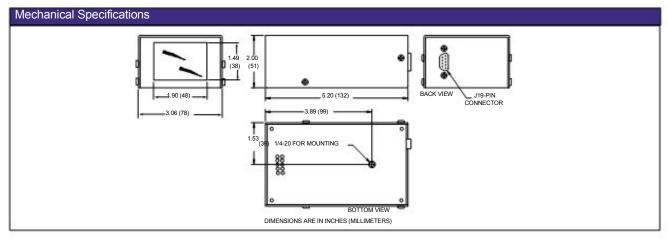
Tirgger input: (1)

Trigger +5 volt pulse into opto-isolator with 150 ohm nominal series resistor

Pulse duration 10 to 100 microseconds

Input connector 9 pin "D" subminiature; mating connector providec

Note 1: Delay between flash command and light output is 8 microseconds typical



For more information email us at generalinquiries@excelitas.com or visit our web site at www.excelitas.com
All values are nominal; specifications subject to change without notice.

USA: Excelitas Technologies 35 Congress Street Salem, MA 01970 Toll Free: (800) 950-3441 (USA) Phone: (978) 745-3200 Fax: (978) 745-0894 Europe: Excelitas Technologies Wenzel-Jaksch-Str. 31, D-65199 Weisbaden, Germany Phone: +49 (0) 611-492-437 Fax: +49 (0)611-492-159

Asia: Excelitas Technologies 47 Ayer Rajah Crescent #06-12 Singapore 139947 Phone: +65 775 2022 Fax: +65 775 1008

