

# MVS-4000

## Machine Vision Strobe



### Description

The PerkinElmer 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)	>10 <sup>8</sup> 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 <sup>-6</sup> J/cm <sup>2</sup>
1 foot	12 in. x 16 in.	5.7 lux-sec	4.5 x 10 <sup>-6</sup> J/cm <sup>2</sup>
2 feet	20 in. x 23 in.	1.5 lux-sec	1.2 x 10 <sup>-6</sup> J/cm <sup>2</sup>
3 feet	36 in. x 48 in.	0.6 lux-sec	0.5 x 10 <sup>-6</sup> J/cm <sup>2</sup>

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/m<sup>2</sup>

## Physical Specifications

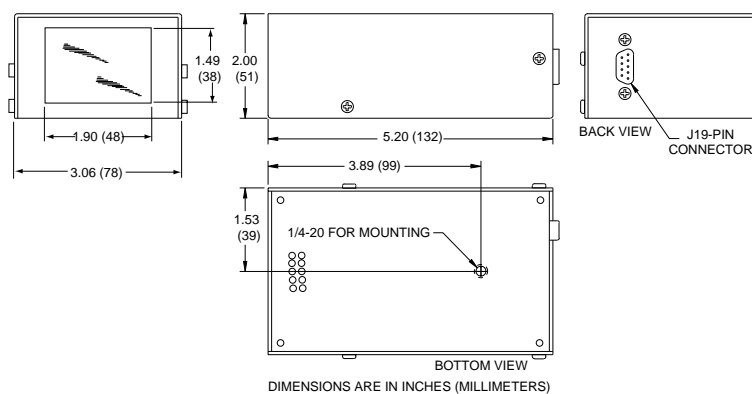
Size	Inches (millimeters) 5.20 (132) L x 3.06 (78) W x 2.00 (51) H
Weight	0.75 lbs (0.34 kg)
Mounting	1/4-20 threaded socket in base Provision for internal optical filter included

## Electrical Specifications

Input voltage	11-15 VDC
Input current	1.10 amps maximum
Flashlamp voltage	600 volts ± 3%
Discharge capacitor	1.0 microfarad ± 10%
Discharge energy	0.18 Joules (± 10%)
Discharge power	10 watts maximum
Trigger 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 provided

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

## Mechanical Specifications



For more information e-mail us at [opto@perkinelmer.com](mailto:opto@perkinelmer.com) or visit our web site at [www.perkinelmer.com/opto](http://www.perkinelmer.com/opto).

All values are nominal; specifications subject to change without notice.

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