



EVERYTHING

IN A

NEW

LIGHT.

Machine Vision Strobe

MVS 2020, 2060, 2200

Description

The EG&G MVS 2020, 2060, and 2200 Series Machine Vision Strobe systems produce short duration, high intensity light pulses for industrial vision applications. When coupled to a CCD/CID camera system, the MVS 2020, 2060, or 2200 freezes motion, eliminates blur from the camera image and enhances image quality.

The three models are identical in every respect except the MVS 2060 and 2200 provide higher flash repetition rates at lower flashlamp input energies than the MVS 2020. Each unit is contained in a robust industrial enclosure with two connectors, one for the input power line and the other for trigger and signal inputs.

The light output is focused onto a port configured for mounting one end of a fiber-optic bundle so that the light can be projected to an area remote from the instrument. Various fiber-optic bundles, nose pieces, and adapters are available to interface the fiber cable to the strobe enclosure (refer to the MVS Fiber-Optic data sheet for details).



MVS 2020 with ring fiber

Features

- Connects to fiber-optic bundle for remote illumination
- Accepts single, bifurcated, or ring fibers
- Flash rates to 200 Hz
- Less than 25 microsecond flash duration
- Remote intensity control capability
- External trigger

Reduced EMI units available with

- Less than 25 microsecond flash duration
- Remote intensity control capability
- External trigger

Optical Specifications

	MVS 2020	MVS 2060	MVS 2200
Spectral bandwidth (1)	300 to 1100+ nm	300 to 1100+ nm	300 to 1100+ nm
Photometric light output (2)	6 lumen-sec	3 lumen-sec	1.2 lumen-sec
Radiometric light output (2)	50 mJ	25 mJ	10 mJ
Flash rate per second	20 max	60 max	200 max
Input energy per flash (3)	2.16 joules max	0.72 joules max	0.18 joules max
Light output pulse duration (4)	20 µsec	12 µsec	5 µsec
Flashlamp life	>10 ⁸ flashes maintaining > 70% light output		

Electrical Specifications

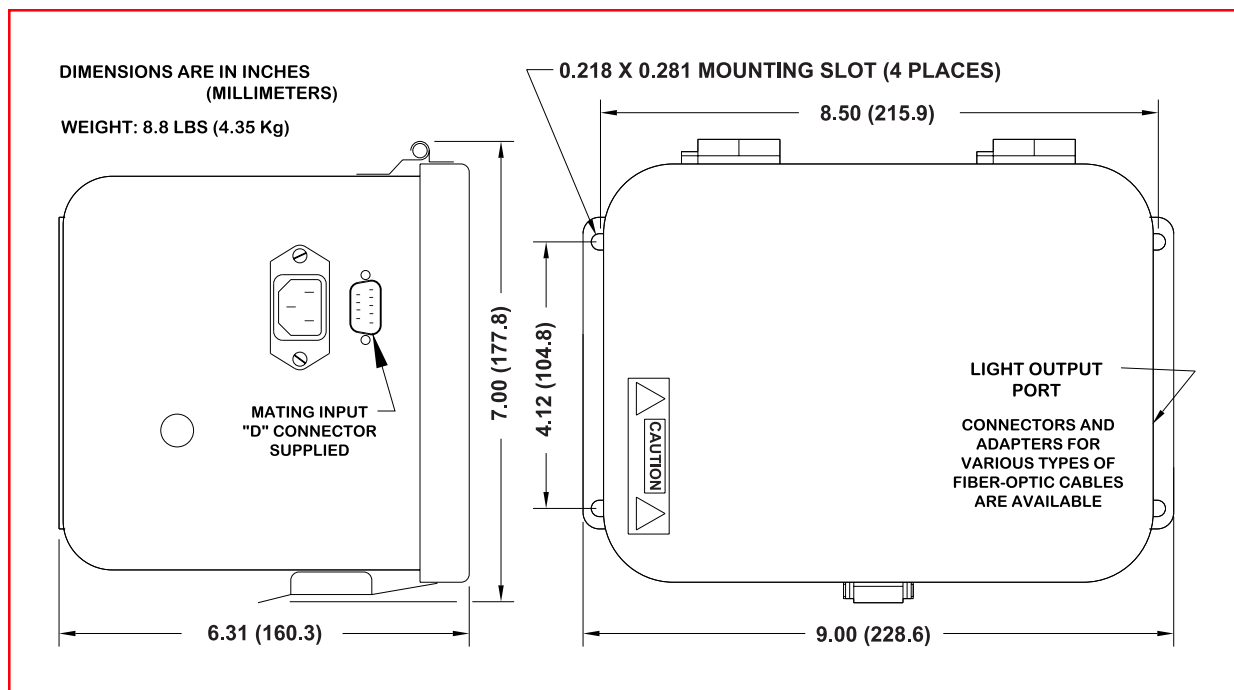
Line input voltage (5)	115/230 VAC ± 10%, 50/60 Hz (factory set at 115 VAC)
Input current	1.2 Amps rms maximum
Intensity control input (6)	2-6 VDC (Vref : Vlamp = 1:100)
Trigger input:	
Trigger	+5 Volt TTL pulse into 4N36 opto-isolator with 150 ohm nominal series resistor
Pulse duration (7)	10-100 microseconds

Environmental Specifications

Operating temperature	-10 to +110° F (-23 to +43° C)
Storage temperature	-40 to +194° F (-40 to +90° C)

- Note: (1) Spectral bandwidth may be extended into the ultraviolet by using other flashlamp envelope materials.
 (2) Measured through a 0.5 inch (13mm) aperture at light output port.
 (3) Energy at 600 VDC ($E=1/2 C \cdot V^2$). Discharge capacitor values are: MVS 2020 - 12 µfd, MVS 2060 - 4 µfd, MVS 2200 - 1 µfd.
 (4) Approximate values at 1/3 peak of light pulse.
 (5) Specify 230 VAC operation if desired.
 (6) Intensity may be changed by adjusting voltage on discharge capacitor from 200-600 VDC.
 (7) Delay between flash command and light output is 8 microseconds typical.
 (8) Optional fiber optic nosepiece: Fostec 0.72" ID (MVS-23), Volpi 0.59" ID (MVS-24) or Dolan Jenner 1.0" ID (MVS-25).

Mechanical Specifications (8)



EG&G welcomes inquiries about special types. We would be pleased to discuss the requirements of your application and the feasibility of designing a type specifically suited to your needs.

For more information e-mail us at eod@egginc.com or visit our Web site at www.egginc.com/opto



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

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