

Monarch Instrument

MVS-2600 Series Machine Vision Xenon Strobes



The MVS-2600 Series Machine Vision Strobe Systems produce high intensity, short duration light pulses for industrial vision applications. The light output of the strobe may be coupled directly to a Fiber Optic Bundle, a slit projector or an optical assembly to project light to an area remote from the instrument. When used with a CCD/CID camera system, the MVS-2600 Strobes "freeze motion", which eliminates blur and enhances image quality.

The MVS-2600 Series strobes consist of a power supply, a diode pac, a discharge board and a Lite-Pac® containing a 1.5 mm short arc xenon flashlamp. A nose piece and an adapter are used to interface fiber optic bundles to the flashlamp.

The MVS-2600 Series Strobe systems are available in various configurations to satisfy your requirements. The standard MVS-2601 operates up to 60 Hz. An MVS-2612 (400 Hz maximum) or MVS-2613 (1,000 Hz maximum) are available at lower light output energies. The MVS-2611 produces 1 μ sec pulses at 1 kHz maximum.

Optical Specifications	
Spectral Bandwidth (1)	300 - 1100 + nm
Flash rate (2)	60 Hz max.
Flashlamp life (2)	108 flashes while maintaining > 70% of initial intensity
Flash duration (2)(3)	5.5 μ sec typical
Flash to flash	< 5%

Monarch Instrument 15 Columbia Drive Amherst, NH 03031 USA Phone: 603-883-3390
Fax: 603-886-3300 Website: www.monarchinstrument.com

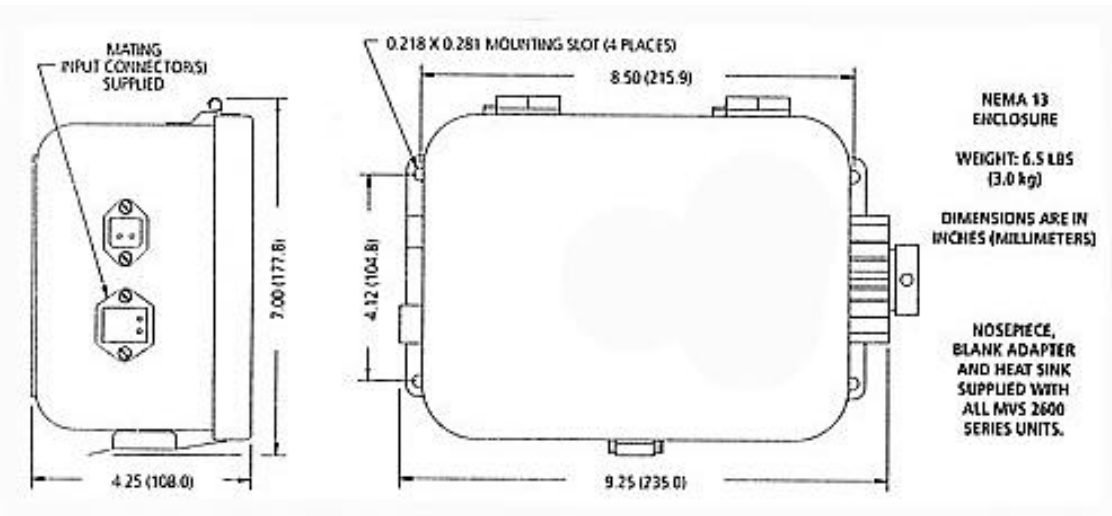
Electrical Specifications	MVS-2601	MVS- 2602
Line input voltage	115/230 \pm 10% Vac 50/60 Hz (factory set at 115)	15 to 28 Vdc
Input current	1.2 A max at 115 Vac	4 A peak at 24 Vdc
Output voltage (4)	225 to 750 Volts	200 to 750 Volts
Output power (5)	43 watts maximum	43 watts maximum
Reference voltage (6)	3 to 10 Vdc	2 to 10 Vdc
Trigger Input		
Trigger	5 Volt pulse into 4N36 opto-isolator with 150 ohm nominal series resistor	
Pulse duration	10 - 100 μ sec	
Environmental Specifications		
Operating temperature	-10 to +110°F (-23 to + 43°C)	
Storage temperature	-40 to + 194°F (-40 to +90°C)	
Shock and vibration	1.5 G, 5 to 200 Hz per MIL-STD-810C	

Notes:

- 1) Spectral bandwidth may be extended into the ultraviolet by using other flashlamp window materials.
- 2) Specifications are for the factory standard MVS-2601 that has a 0.72 joule discharge into the flashlamp. Lower energy discharge levels providing higher flash rates and lower light outputs are available.
- 3) Measured at 1/3 of peak current.
- 4) Output measured at front face of bulb.
- 5) Specify 230 Vac operation if desired.
- 6) Factory set at 600 volts for MVS-2601 and 2602
- 7) Up to 20 watts with heat sink and natural convection cooling. Above 20 watts forced air-cooling is required.
- 8) Output voltage may be adjusted using an external voltage reference source. MVS-2601, 75 volts per volt of reference. MVS-2602, 100 volts per volt of reference.

Figure 1
Mechanical Specifications

All data subject to change without notice, 2000 Monarch Instrument.



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