DATASHEET

VIGI-Lux™ Industrial Vision Strobe
by Excelitas
MVS 4100, 4200 Series

Overview

The VIGI-Lux™ MVS 4100 and MVS 4200 by Excelitas are cost-effective strobes for a wide variety of industrial inspection applications. The linear xenon flashlamp, mounted in a reflector for maximum intensity, provides 6 microsecond pulses at flash rates up to 100 Hz.
The discharge energy-per-flash remains constant at 180 mJ; no range-switching is needed.

The Xenon flashlamp in the VIGI-Lux MVS 4100 and 4200 produces intense pulses of radiant energy covering the full light spectrum from the ultraviolet (UV) to the visible (VIS) to near infrared (NIR). The spectral output of the Xenon lamp when coupled with CCD, CMOS and CID silicon cameras freezes motion, eliminates blur, and enhances image quality with high intensity and short duration pulses.

These 20 Watt strobes are housed in a convection-cooled, rugged enclosure. Threaded holes at the bottom of the enclosure allow the unit to be hard mounted.

The VIGI-Lux MVS 4100 has an optically isolated trigger input and requires an external +5V TTL pulse to flash. The VIGI-Lux MVS 4200 has an internal oscillator and can be run in either external or internal trigger mode. It is ideal as a stand-alone unit for "stroboscopic" applications.

Features and Benefits

- Long life Xenon flashlamp: > 10^8 flashes
- Low cost
- Compact/light weight
- Universal AC input (90-230 VAC, 560/60 Hz)
- Flash rates to 100 Hz
- Pulse duration 6 µsec
- Internal/external trigger
- Convection cooled

Applications

- Color differentiation
- Edge detection
- Quality assurance
- Label reading

VIGI-Lux™ MVS 4100, 4200 TECHNICAL SPECIFICATIONS

Optical Specifications

Spectral bandwidth[1]	300 to 1100+ nm
Flash rate	Up to 100 Hz (6,000 fpm)
Flashlamp life[3]	> 10^8 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

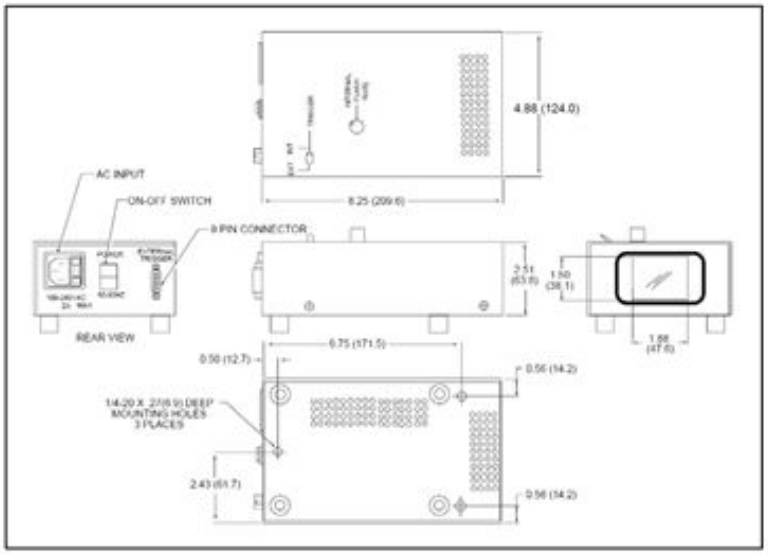
[1] Spectral bandwidth may be extended into the ultraviolet with other flashlamp envelope and enclosure window materials. Contact factory for IR or UV filters.
[2] Measured at 1/3 peak value
[3] Prior to light output decreasing to 50% of the initial value
[4] Area where energy is not less than 50% of maximum
[5] Lux-sec = Lumen-sec/m^2
[6] Delay between flash command and light output is 8 µsec typical

Electrical Specifications

Input voltage	90 - 230 ±10% VAC, 50/60 Hz
Input current	2.0 amps maximum
Flashlamp voltage	600 volts
Discharge capacitor	1.0 microfared ± 10%
Discharge energy	0.18 Joules (± 10%)
Discharge power	20 watts maximum
Trigger	+5 volt pulse into opto-isolator with 150 ohm nominal series resistor
Pulse duration	10 to 100 microseconds
Internal oscillator	10 -100 Hz (10 turn potentiometer) (MVS-4200 only)

Delay between flash command and light output is 8 µseconds typical.

MECHANICAL SPECIFICATIONS



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

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