



# Uniblitz® NS65B

## 65mm Bi-Stable Optical Shutter

### Overview

The Uniblitz NS65B is a 65mm-aperture bi-stable optical shutter utilizing our patented N-CAS® technology. The NS65B's simple design provides maximum clearance around the aperture, and a machined flat surface makes for its easy integration into telescopes, video cameras, etc. The NS65B has an overall diameter of 5.15 inches, and an electronic synchronization may be available by special order. Bi-stable shutter devices, like the NS65B, require no power to hold the blades in either the open or closed state.

### Key Features

- Large 65mm aperture
- Only two unique moving parts
- Can be configured for the [VED24](#) or [VDM1000](#) shutter drivers
- **RoHS Compliant**
- Transfer time on opening:  
33.0 milliseconds
- Transfer time on closing:  
31.0 milliseconds

### Specifications

#### Electrical Specifications

Coil resistance	12 OHMS <sup>1</sup>
Voltage to Open	+18 VDC <sup>2</sup>
Hold Voltage (Nominal)	N/A

#### Mechanical Specifications

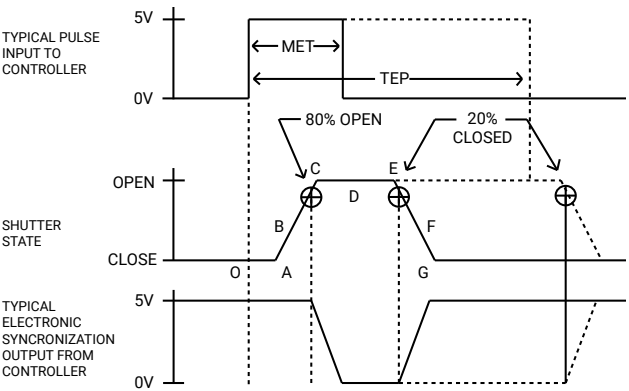
Weight Unhoused	140.0 g
Operating Temp.	10 - 50 °C
Max. Opening Bounce	15%
Max. Closing Bounce	5%
Max. Freq. of Operation <sup>3</sup>	1 Hz / 3 Hz
Number of Shutter Blades	6

<sup>1</sup> Two 24 ohm coils wired in parallel.

<sup>2</sup> Peak voltage as provided by the VED24 Driver.

<sup>3</sup> (Continuous/Burst) Continuous frequency rating specified at shutter's minimum exposure pulse. Burst frequency rating specified for four (4) seconds maximum with one (1) minute minimum between bursts.

Shutter Timing Data



<sup>1</sup> Under no circumstances should any type of lubricant be applied to the shutter blade area. Lubricating the shutter blades will likely slow the shutter down and may eventually render it inoperable.

NS65B (w/ VDM1000 and "T" blades) <sup>1</sup>		Time (msec.)
O - A	Delay time on opening after current applied	10.0
A - C	Transfer time on opening	33.0
O - C	Total opening time	43.0
C - E	Min. dwell time with min. input pulse	15.0
B - F	Min. equivalent exp. time	47.0
D - E	Delay on closing after current applied	12.0
E - G	Transfer time on closing	31.0
A - G	Total window time	79.0
MET	Min. exposure time	70.0
TEP	Typical exposure pulse	>70.0

Product Options

NS65B 2 3 4 5 - 6 - 7

Ex: NS65B1T0L-EC-VED

1 Shutter Series:

NS65B

2 Housing:

1: Un-Housed

3 Blades: <sup>2</sup>

T: Low Energy (Teflon®)

ZM: High Energy (AlMgF2) <sup>3</sup>

4 Electronic Sync:

0: Omitted

5 Connector:

L: 18" Flying Leads

Leave blank for 5-pin Switchcraft® connector with 6" harness

6 Encapsulated Coil:

EC: Included

Leave blank if not required

7 Driver Compatibility:

VED: VED24 compatibility

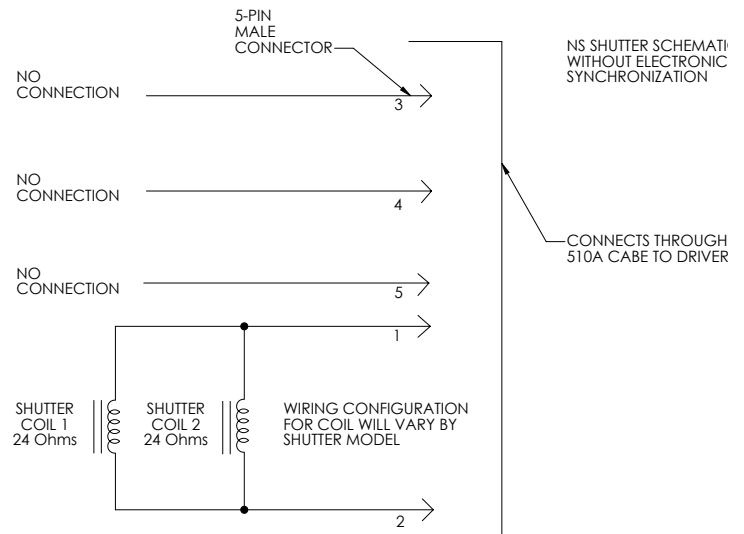
Leave blank for VDM1000 compatibility

<sup>2</sup> Other blade coating options may be available by special order.  
<sup>3</sup> Input side only; Teflon® coating is on opposite side to protect shutter blade surface. Light source must be input to the reflective side only.

## Wiring Schematic

The schematic to the right illustrates the wiring for the NS65B. The schematic also shows the two 24  $\Omega$  coils wired in parallel to provide an equivalent resistance of 12  $\Omega$ .

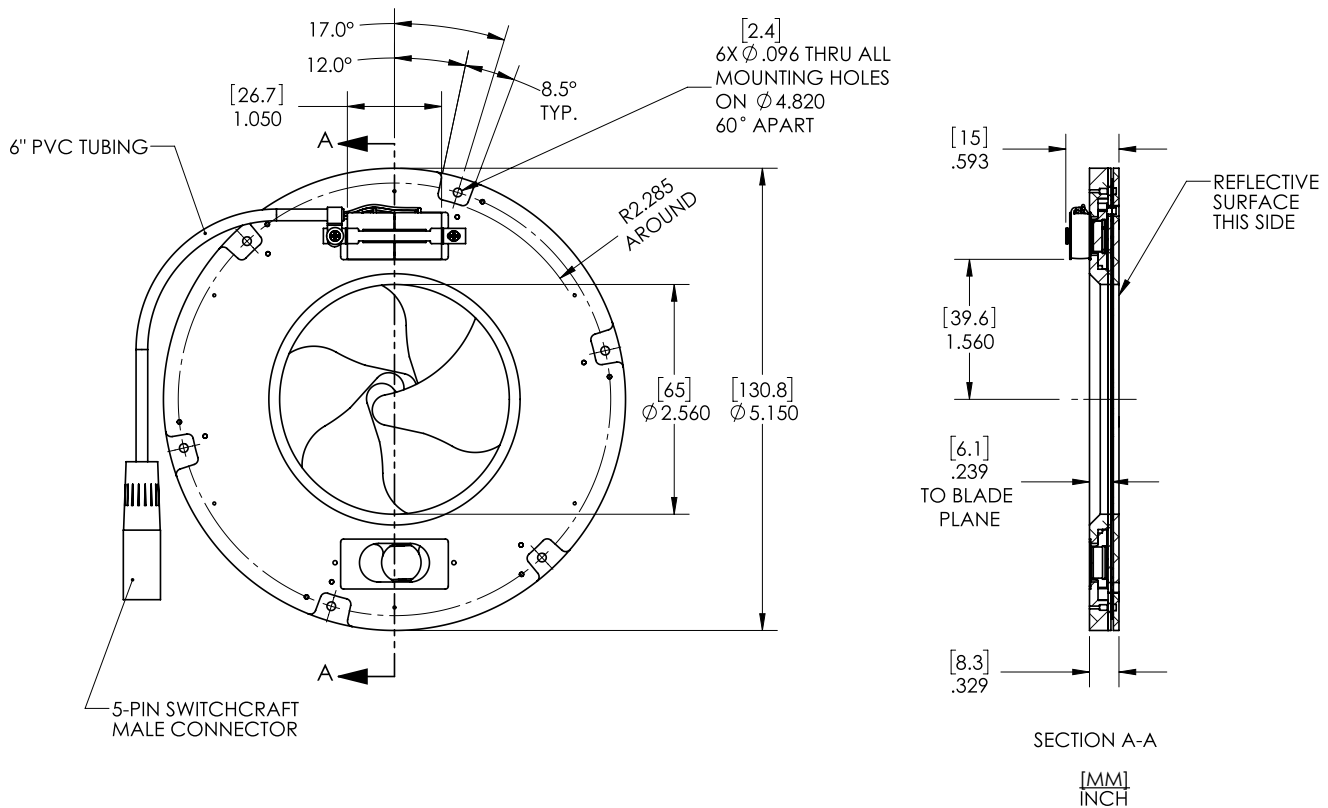
Presently, the NS65B does not include a synchronization system as a standard option. Pins 3, 4, and 5 have no connections at this time. The synchronization feature may be available by special order if it is required for your application. Please contact us to discuss your request in further detail.





## Uniblitz® NS65B Technical Drawings

### Shutter Layout



### Mounting

