Datasheet

Uniblitz® NS65B

65 mm Bi-Stable Optical Shutter



Overview

The Uniblitz® NS65B is a 65 mm-aperture bi-stable optical shutter using our patented N-CAS® technology. Its simple design gives maximum clearance around the aperture, and a machined flat surface makes it easy to integrate into virtually any system. The NS65B has an overall diameter of 5.15 in, and an electronic sync 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 65 mm aperture
- ✓ Only two unique moving parts
- ✓ Can be configured for the VED24 or VDM1000 drivers
- ✓ Transfer time: 33.0 ms opening, 31.0 ms closing
- ✓ RoHS compliant

Specifications

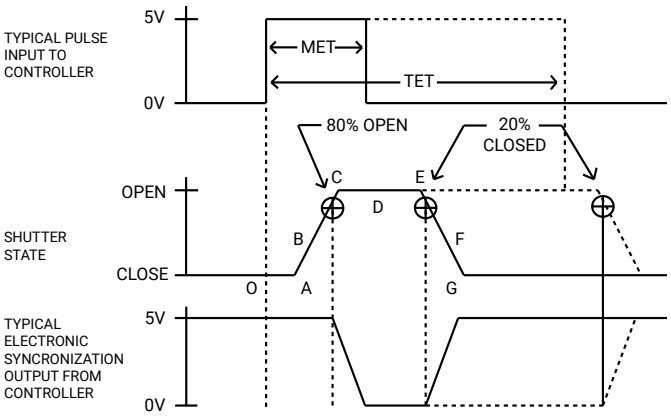
Electrical	
Coil resistance[1]	12 Ω
Voltage to open[2]	+18 VDC
Hold voltage (nominal)	N/A

Mechanical	
Weight, un-housed	140.0 g
Operating temperature	10–50 °C
Max. opening bounce	15%
Max. closing bounce	5%
Max. frequency[3]	1 Hz / 3 Hz
Number of shutter blades	6

1 Two 24 Ω coils wired in parallel.
2 Peak voltage, as provided by the VED24 driver.
3 Continuous: at the shutter's minimum exposure pulse. Burst: 4 s maximum, with at least 1 min between bursts.

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Shutter timing data[2]



1 Measured with the VDM1000 and Teflon® blades.
2 Never lubricate the blade area. It slows the shutter and can make it inoperable.

Segment	Description	ms[1]
O–A	Delay time on opening after current is 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 exposure time	47.0
D–E	Delay time on closing after current is applied	12.0
E–G	Transfer time on closing	31.0
A–G	Total window time	79.0
MET	Minimum exposure time	70.0
TET	Typical exposure time	>70.0

Product options

NS65B 2 3 4 5 – 6 – 7

Example: **NS65B1T0L-EC-VED**

2	**Housing**
1	Un-housed
3	**Blades[1]**
T	Low energy (Teflon®)
ZM	High energy ($AlMgF_2$)[2]
4	**Electronic sync**
0	Omitted

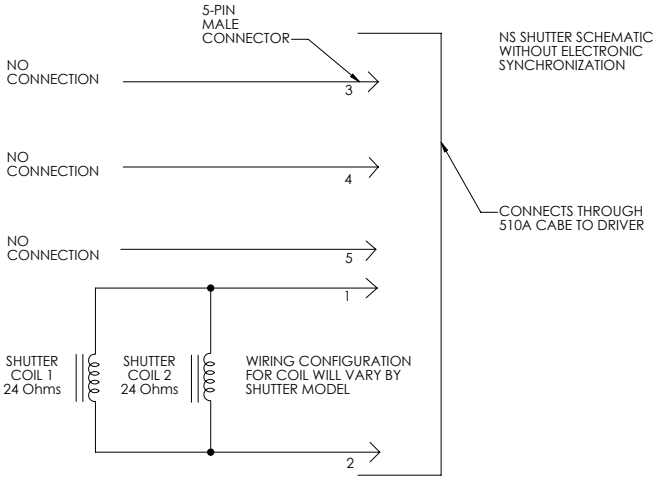
5	**Connector**
L	18 in (457 mm) flying leads
—	Leave blank for 5-pin Switchcraft® connector with 6 in harness
6	**Encapsulated coil**
EC	Included
—	Leave blank if not required
7	**Driver compatibility**
VED	VED24 compatibility
—	Leave blank for VDM1000 compatibility

1 Other blade coatings may be available by special order.
2 Input side only; the Teflon® coating on the opposite side protects the blade surface. Light must enter on the reflective side.

Wiring schematic

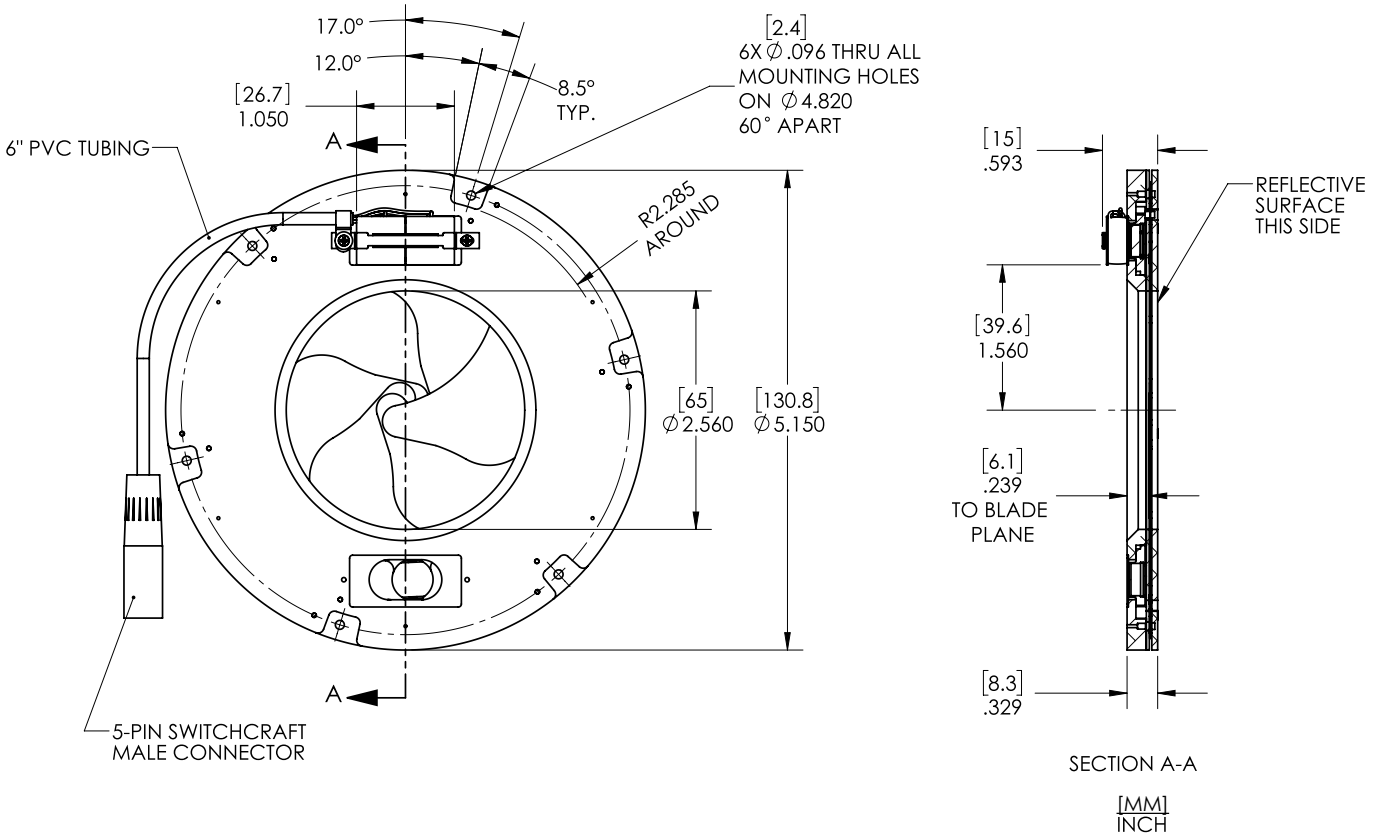
The schematic shows the NS65B's wiring: two 24 Ω coils wired in parallel, for an equivalent resistance of 12 Ω.

The NS65B doesn't include a sync system as a standard option, so pins 3, 4 and 5 have no connections. A sync may be available by special order if your application needs one. Contact us to discuss it.



Technical drawings

NS65B shutter layout



NS65B mounting

