

NS25 Shutter Specifications

Overview

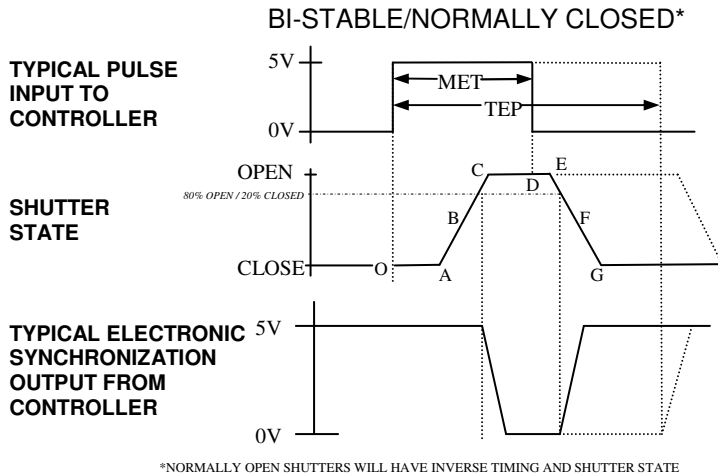
In our ongoing effort to improve the state of shutter technology, Vincent Associates, the manufacturer of **UNIBLITZ**[®] has again endeavored to provide an even more reliable shutter product for the Photonics industry with the introduction of the 25mm aperture version of the patented **N-CAS** (Non-Contact Actuation System) shutter, the **NS25**. The device's reliability has been enhanced by significantly reducing the number of moving parts. In the 25mm aperture version, the **NS25**, has a total number of six moving parts, five of which are the blades themselves! The activating mechanism is non-contact and has shown to increase its reliability through testing over similar shutter designs. The **N-CAS** shutter has demonstrated to be the most reliable shutter device of its type available on the market today!



Features

- Patented **N-CAS** actuator system radically reduces moving parts.
- Easily configured for bi-stable operation.
- Simple design provides maximum clearance around the aperture.
- Machined flat surfaces for easy integration into virtually any system.
- Available normally open or normally closed
- Small form factor, 25mm aperture, 2.250 inch overall diameter.
- Reflective blades available.
- Electronic synchronization now available.

NS25 - Product Specifications



NS25 Timing Data in msec

Timing data recorded with VDM1000 driver.

O-A: Delay time on opening after current applied	3.0
A-C: Transfer time on opening	5.0
O-C: Total opening time	8.0
C-E: Min. dwell time with min input pulse	11.0
B-F: Min. equivalent exp. Time	6.0
D-E: Delay on closing after current is applied	3.0
E-G: Transfer time on closing	5.0
A-G: Total window time	16.0
MET: Min. exposure time	13.0
TEP: Typical exposure pulse	>13.0

The question regarding enhancement of shutter speed with the application of user supplied lubricants has been repeatedly asked. It is our experience that lubricating the shutter blades will actually slow shutter down and eventually render the shutter inoperable. UNDER NO CIRCUMSTANCES SHOULD ANY TYPE OF LUBRICANT BE APPLIED TO THE SHUTTER BLADE AREA..

NS25 Electrical Specifications (BI-STABLE/UNI-STABLE)

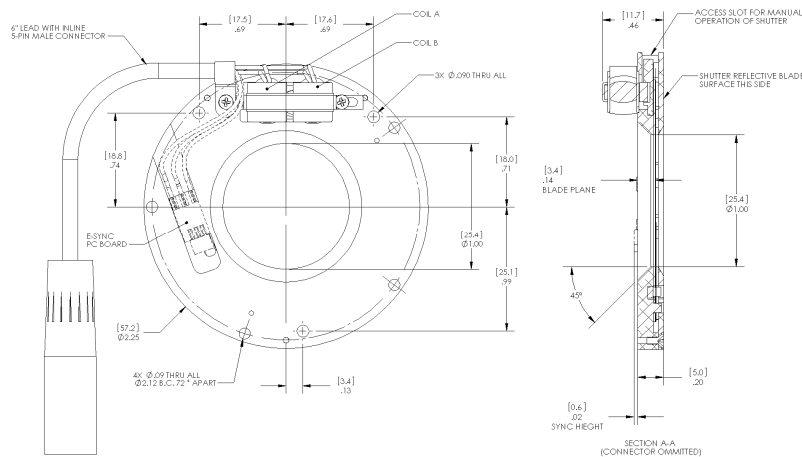
COIL RESISTANCE: 6 OHMS / 12 OHMS
 PULSE VOLTAGE: 36V / 36V
 HOLD VOLTAGE: NA / 5V

NS25 Mechanical Specifications

WEIGHT: 1.33oz (41.6g)
 TEMPERATURE RANGE: 0-80C
 OPEN BOUNCE: 15%
 CLOSE BOUNCE: 5%
 NUMBER OF BLADES: 5
 CONTINUOUS FREQUENCY: 5Hz
 BURST FREQUENCY: 30 Hz

Continuous frequency rating specified at shutter's minimum exposure pulse. BURST frequency rating specified for (4) four seconds maximum with (1) one minute minimum between bursts. Frequency measurements are taken in free air and 25°C ambient. For additional information on maximum sustained frequencies obtainable, please contact one of our technical representatives.

NS25 - Shutter Outline Drawing



3D Models available upon request

The **UNIBLITZ®** NS25 is designed with a low-profile and flat surfaces for easy integration into your system. Hole locations are identical to the current CS25 as well as an additional set of mounting holes to provide supplementary installation options. The body of the shutter measures 2.25" in diameter and only .20" thick. The only protrusion from his envelope is the small actuator and hold down bracket which have a clearance of .63" from the center of the aperture.

The NS25 will be available in multiple configurations. As a uni-stable shutter the NS25 can be configured normally open or normally closed depending on the desired default state. Uni-stable shutters will have only one coil (A or B above). Bi-stable shutters are equipped with both coils A and B and require no hold voltage. The NS25 can now be configured with an electronic synchronization circuit. A hall effect sensor is mounted to the shutter base plate and will send a signal back to the controller when the shutter has reached 80% open position. This sync function is active on VDM1000 and VED24 shutter controllers.

Uni-stable NS25 shutters can be driven by the VDM1000 and VED24 shutter controllers. Bi-stable units can be driven with VDM1000, VED24 and ED12DSS shutter controllers. NOTE: Timing values listed here pertain to VDM1000 driver only.

NS25 Product Options

NS25S	1	T	0	
Configuration	HOUSING	Blade Finish	Electronic Sync	Connector
NS25S- Normally Closed	1-Unhoused	T- Black Teflon	0- Omit Sync	Omit - 5 pin male Switchcraft connector on 6" lead.
NSR25 - Normally Open		Z- AlSiO Coated*	1 - Electronic Sync Included	L - 2 Wire 18" bare leads
NS25B - Bi-stable		ZM- AlMgF ₂ Coated*		

*Input side only, black coating on opposite side. Intended to protect the shutter blade surface. The light source must be input to the reflective side only.



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