

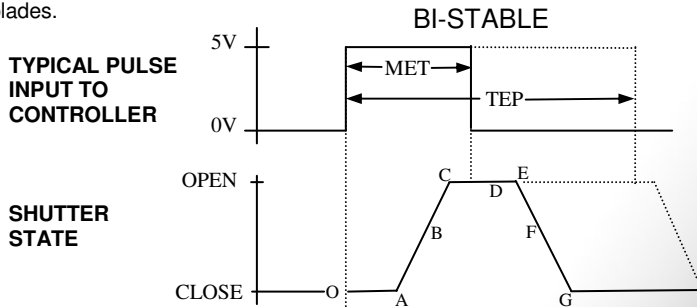
FEATURES

- ⌚ All new **N-CAS®** actuator system radically reduces moving parts.
- ⌚ Easily configured for bi-stable or uni-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 in uni-stable version.
- ⌚ Small form factor, 25mm aperture, 2.250 inch overall diameter.
- ⌚ Reflective blades available.
- ⌚ Terminated to 6 inch 5-pin male connector harness.

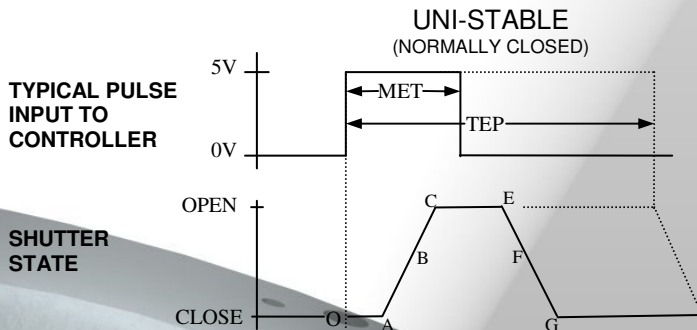
In our ongoing effort to improve the state of shutter technology, Vincent Associates, the manufacturer of **UNIBLITZ®** and now **UNIBLITZ® II** shutters, has again endeavored to provide an even more reliable shutter product for the Photonics industry with the introduction of the 25mm aperture version of the patent pending **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!

TIMING

Typical timing values (msec.) using UNIBLITZ drive equipment and measured with UNIBLITZ shutters equipped with standard TEFLON® coated shutter blades.

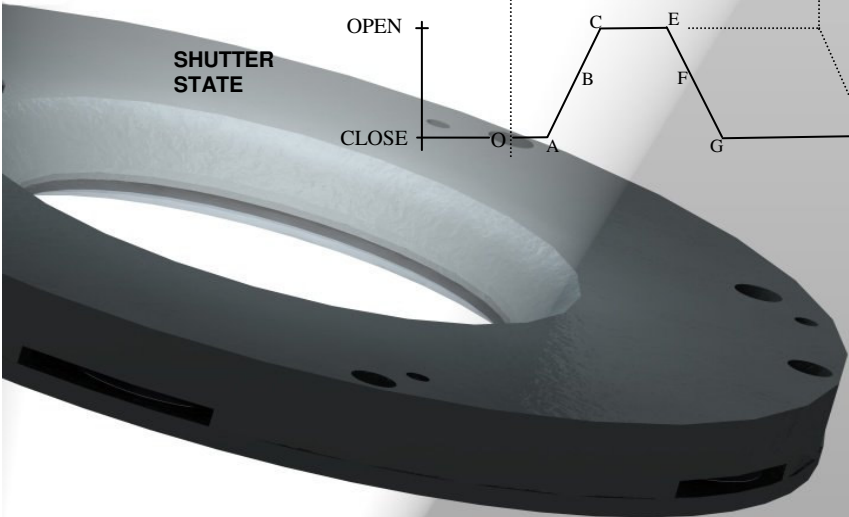


O-A Delay time on opening after current is applied	3.0
A-C Transfer time on opening	5.0
O-C Total opening time	8.0
B-F Min. equivalent exp. Time	11.0
C-E Min. dwell time with min. input pulse	6.0
D-E Delay time on closing after current is applied	3.0
E-G Transfer time on closing	5.0
A-G Total window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



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C-E Min. dwell time with min. input pulse	6.0
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



PRODUCT OPTIONS

NS25S	1	T	0	L
APERTURE SIZE	HOUSING	BLADE FINISH	ELECTRONIC SYNC.	CONNECTOR
NS25S-25mm	1-UNHOUSED	T-TEFLON COATED	0-OMIT SYNC.	L- 18" FLYING LEADS, OMIT 5-PIN CONNECTOR
NSR25S-25mm (normally open)	HOUSING AVAIL AT A FUTURE DATE	S-POLISHED STAINLESS STEEL BLADES*	SYNC AVAIL AT A FUTURE DATE	OMIT "L"- INSTALL 5-PIN CONNECTOR WITH 6" HARNESS (SEE FIG 1)
NS25B-25mm (Bistable)		ZM- AlMgF ₂ COATED BeCu BLADES* Z- AlSiO COATED BeCu BLADES*		

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



FRONT VIEW

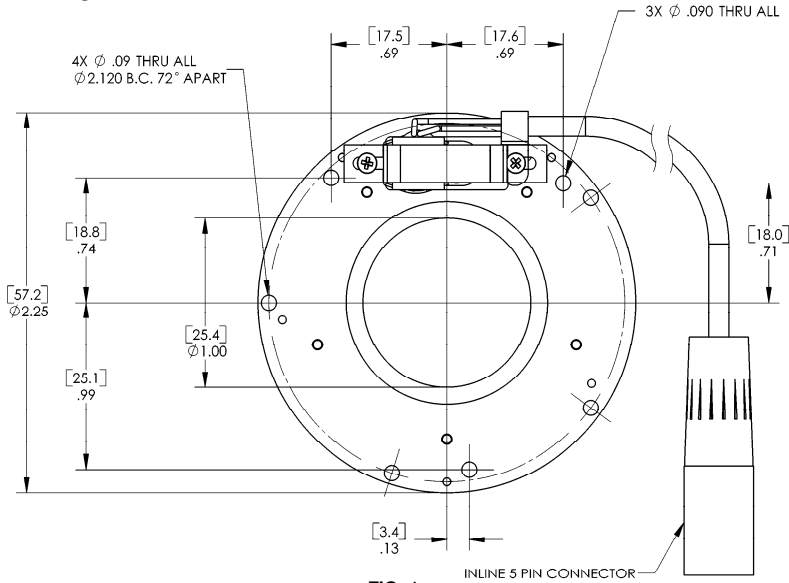


FIG. 1

**SIDE VIEW
(CROSS-SECTION)**

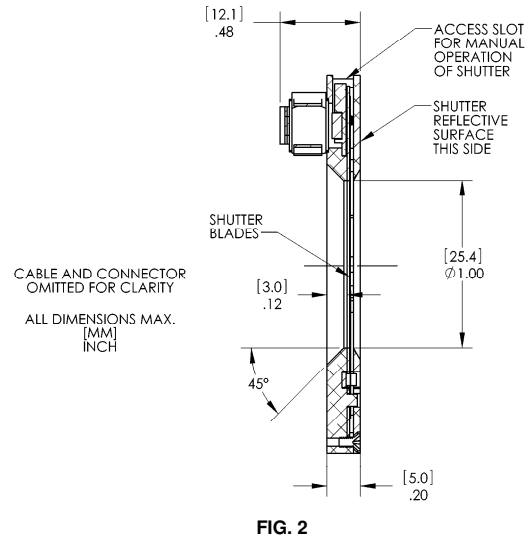


FIG. 2

ELECTRICAL

Coil Resistance	12 Ohms
Pulse Voltage to Open	+36VDC
Hold Voltage ¹	+5VDC

*For OEM driver applications contact technical support for typical drive circuits and wiring diagrams.

¹Voltage level required across actuator coil when being held in the open position, this voltage is not required in bi-stable mode.

²CONTInuous 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, 25°C ambient, actuator coil with heat sink bracket. For additional information on maximum sustained frequencies obtainable, please contact one of our technical representatives.

MECHANICAL

Weight Un-Housed	1.33oz(41.6g)
Operating Temperature	0°C to +80°C
Maximum Opening bounce	15%
Maximum Closing Bounce	5%
Maximum Freq of Operation(CONT/BURST) ²	5Hz/30Hz
Number of Blades	5

The **UNIBLITZ® II** 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 .71" from the center of the aperture.

The NS25 will be actuated by the VDM1000, a new driver built specifically to take advantage of the NS25's low power requirements. This new driver will permit the NS25 to operate with virtually identical open and close times.

The NS25 will be available in multiple configurations. The standard shutter will operate as a uni-stable, normally closed shutter. In this configuration the shutter will require power to remain open with a failsafe closure. The NS25 can also easily be configured normally open to provide reverse functionality. N-CAS® series shutters can be converted to bi-stable operation, with no power required to hold the shutter in either the open or closed state. There are no dimensional changes associated with this configuration, merely a different driver circuit which is selectable on the VDM1000.

The standard shutter is terminated by a 5-pin male connector with 6 inch cable assembly. The 510A cable is required when controlling the NS25 with the VDM-1000. This cable is included with the VDM-1000. There is an access slot located above the actuator that will allow for manual operation of the shutter if so desired.

Due to our ongoing product development program, Vincent Associates reserves the right to discontinue or change specifications or designs at any time, without incurring any obligations. Teflon® is a registered trade mark of E.I. DuPont U. S. Pat. No. 3,427,576; 3,595,553; 3,967,293; 6,652,165. Drawing shown for illustrative purposes only. Patent applied for.

Updated 01/08.