



UNIBLITZ[®]
Electro-Programmable Shutter Systems

NS35B Shutter Series Specifications

Overview

In our ongoing effort to continue to add products and improve the state of shutter technology, Vincent Associates, the manufacturer of UNIBLITZ[®] shutters, has again endeavored to expand the NS Shutter series with the introduction of the 35mm aperture version of the patented N-CAS[®] (Non-Contact Actuation System) shutter, the NS35B. The device's reliability has been enhanced by significantly reducing the number of moving parts. In the 35mm aperture version, the NS35B, 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[®] shutters have demonstrated to be one of the most reliable shutter devices of its type available on the market today!



The NS35B can be actuated by the VDM1000, a new driver built specifically to take advantage of the NS35's low power requirements. This new driver will permit the NS35B to operate with virtually identical open and close times. The NS35B can also be operated by the OEM +12 VDC driver, the ED12DSS. The NS35B will be available in multiple configurations. The standard shutter will operate as a bi-stable. In this configuration the shutter will not require power to remain in the open or closed position.

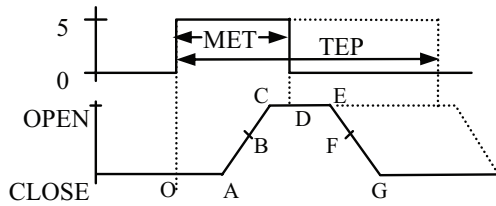
N-CAS series shutters can be configured to uni-stable operation as a special order, the NS35S. In this configuration the shutter will require power to remain open with a failsafe closure. There are no dimensional changes associated with this configuration, merely a different driver circuit which is selectable on the VDM1000. The shutter can also be set to a normally open configuration, the NSR35S.

Features

- Patented N-CAS[®] actuator system radically reduces moving parts.
- Small form factor, 35mm aperture, 3.180 inch overall diameter.
- Bi-stable configuration is standard.
- Reflective blades available.
- Simple design provides maximum clearance around the aperture.
- Terminated to 6 inch 5-pin male connector harness.
- Machined flat surfaces for easy integration into virtually any system.
- Uni-stable version is available by special order and can be configured normally open or normally closed.

NS35B – Product Specifications

TYPICAL PULSE



NS35B Timing Data in msec

Timing data recorded with VDM1000 driver with drive pulse equal to MET.

O-A: Delay time on opening after current is applied	6.5
A-C: Transfer time on opening	12.0
O-C: Total opening time	18.5
C-E: Min. dwell time with min. input pulse	7.0
B-F: Min. equivalent exp. time	19.0
D-E: Delay time on closing after current is applied	4.0
E-G: Transfer time on closing	12.0
A-G: Total window time	31.0
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MET: Min. exposure time	20.0
TEP: Typical exposure pulse	>20.0

NS35B Electrical Specifications

COIL RESISTANCE: 12 OHMS
 PULSE VOLTAGE: 36V
 HOLD VOLTAGE: NOT REQUIRED

NS35B Mechanical Specifications

WEIGHT: 74.8g
 TEMP RANGE: 0-80C
 OPEN BOUNCE: 15%
 CLOSE BOUNCE: 5%
 NO BLADES: 5
 FREQ CONT: 2HZ
 FREQ BURST: 5HZ

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

For OEM driver, contact technical support for typical drive circuit applications and wiring diagrams.

NS35B – Shutter Outline Drawing

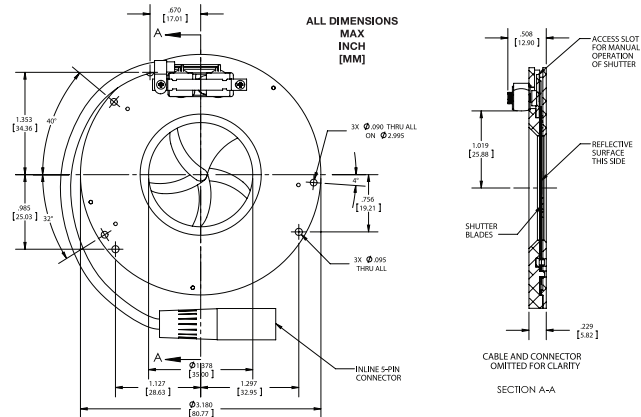


FIGURE #1

FIGURE #2

The UNIBLITZ® NS35 is designed with a low-profile and flat surfaces for easy integration into your system. Hole locations are identical to the current CS35 as well as an additional set of mounting holes to provide supplementary installation options. The body of the shutter measures 3.180" in diameter and only .229" thick. The only protrusion from this envelope is the small actuator and hold down bracket, which has a clearance of 1.019" for the bi-stable coil design, from the center of the aperture.

A standard shutter is terminated by a 5-pin male connector with 6 inch cable assembly. The 510A cable is required when controlling the NS35 with the VDM1000. This cable is included with the VDM1000. There is an access slot located above the actuator that will allow for manual operation of the shutter if so desired. When using the OEM driver, the ED12DSS, the shutter can be equipped with a 2-pin JST connector to facilitate connection to this driver device.

NS35B Product Options

NS35B	1	T	0	
Aperture Size	Housing	Blade Finish	Electronic Sync	Connector
NS35B - 35mm	1- Un-housed (Housing may be available at a future date.)	T-Black both sides Z-AISiO Coated* ZM-AIMgF2 Coated*	0 - Omit Sync N/A (Electronic Sync may be available at a future date.)	Omit L - Install 5-pin Connector with 6" Harness**

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

**For 18" flying leads (omit connector) add an "L" to the end of the part number. This is available by special order.



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