

Uniblitz® ES6B

6mm Bi-Stable Laser Shutter



Overview

The Uniblitz ES6B is a 6mm bi-stable laser shutter with a very low-profile construction and **guaranteed lifetime of 25,000,000 actuations**. Its lack of an external protruding actuator makes it very slim and flexible for system integration. Precision exposure control and laser switching are applications that benefit greatly from the precise, highly repeatable characteristics of the ES shutter series.

Bi-stable shutter devices, like the ES6B, require no power to hold the blades in either the open or closed state.

Need Support? Please [visit our website](#) or email us at info@uniblitz.com.

Tel: 585-385-5930 | Toll-Free: 800-828-6972 | Fax: 585-385-6004 | 803 Linden Ave. Rochester, NY 14625

Updated 4/18 | Datasheet Version 5.1 | ©2018 Vincent Associates

Key Features

- 6mm aperture
- **Guaranteed lifetime of 25,000,000 actuations**
- Bi-stable operation
- **RoHS Compliant**
- Transfer time on opening:
1.9 milliseconds
- Total opening time:
3.7 milliseconds
- Configured for the **VED24 Shutter Driver**

Product Options

ES6B 2 3 4 5

Ex: ES6B1T0L

1 Shutter Series:

- **ES6B**

2 Housing:

- **1**: Un-housed

3 Blade Coating: ¹

- **T**: Low Energy (Teflon®)
- **ZM**: High Energy (AlMgF₂)²
- **Z**: High Energy (AlSiO)²

4 Electronic Sync:

- **0**: Omitted

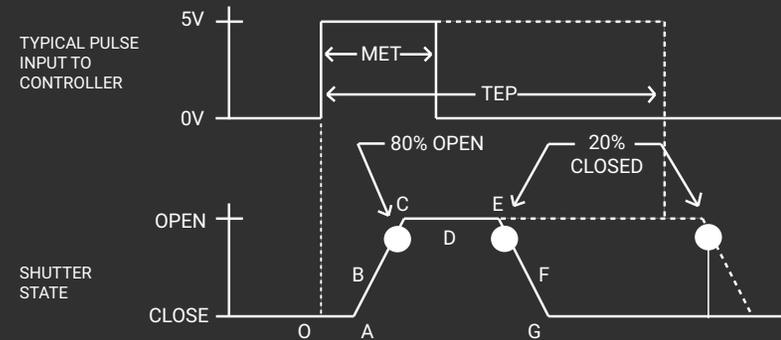
5 Connector:

- **L**: 2 wire bare leads attached to a 4" flex connector
- Leave blank for 2-pin JST connector

¹ Other blade coating options may be available by special order.

² Input side only; Teflon® coating is on opposite side to protect shutter blade surface. Light source must be input to the reflective side only.

Shutter Timing



ES6B (w/ Uniblitz driver and Teflon® coated blades) Time (msec.)

Transition	Description	Time (msec.)
O - A	Delay time on opening after current applied	1.8
A - C	Transfer time on opening	1.9
O - C	Total opening time	3.7
C - E	Min. dwell time with min. input pulse	9.4
B - F	Min. equivalent exp. time	11.0
D - E	Delay time on closing after current applied	1.8
E - G	Transfer time on closing	1.9
A - G	Total window time	13.2
MET	Min. exposure time	11.0
TEP	Typical exposure pulse	>11.0

Technical Specifications

Coil Resistance	Voltage to Open	Hold Voltage
8 Ω	+10.7 VDC ¹	N/A

¹ Peak voltage as provided by the **VED24 Driver**

² (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.

Series	Weight	Operating Temp.	Max. Opening Bounce	Max. Closing Bounce	Max. Freq. of Operation ²	Number of Shutter Blades
ES6B	0.32 oz (9.20 g)	-10 - +65 °C	5%	5%	15 Hz / 45 Hz	1

Technical Drawings - ES6B

