

# Uniblitz® DSS25B

## 25mm Bi-Stable Optical Shutter

### Overview

The Uniblitz DSS25B is a 25mm bi-stable optical shutter with an extremely low-profile construction. Its lack of an external protruding actuator makes it very slim and flexible for system integration. The inherent reliability of the DSS25B comes from the fact that it contains only two moving parts: the drive ring and the blades. It is guaranteed to operate for 2,000,000 operations. Bi-stable shutter devices, like the DSS25B, require no power to hold the blades in either the open or closed state.

### Key Features

- 25mm aperture
- **2,000,000 actuation guarantee**
- Configured for the [VED24 Shutter Driver](#)
- **RoHS Compliant**
- Transfer time on opening:  
12.6 milliseconds
- Transfer time on closing:  
14.0 milliseconds

### Specifications

#### Electrical Specifications

Coil resistance	7.5 OHMS
Voltage to Open <sup>1</sup>	+10.7 VDC
Hold Voltage (Nominal)	N/A

#### Mechanical Specifications

Weight	20.7 g
Operating Temp.	-10 - +65 °C
Max. Opening Bounce	15%
Max. Closing Bounce	5%
Max. Freq. of Operation <sup>2</sup>	5 Hz / 10 Hz
Number of Shutter Blades	5

<sup>1</sup> Peak voltage as provided by the VED24 Driver.

<sup>2</sup> (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.

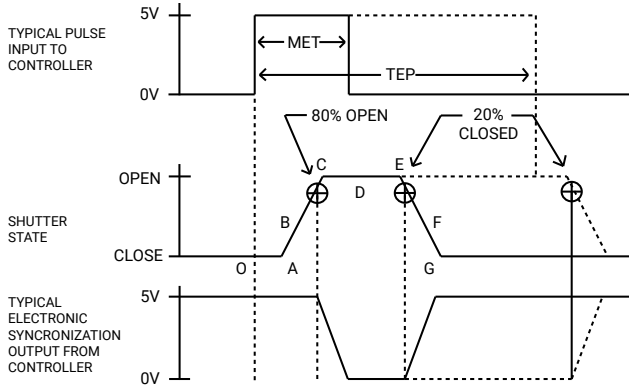


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## Shutter Timing Data



<sup>1</sup> Under no circumstances should any type of lubricant be applied to the shutter blade area. Lubricating the shutter blades will likely slow the shutter down and may eventually render it inoperable.

### DSS25B (w/ VED24 and "T" blades) <sup>1</sup>

### Time (msec.)

<b>O - A</b>	Delay time on opening after current applied	13.2
<b>A - C</b>	Transfer time on opening	12.6
<b>O - C</b>	Total opening time	25.8
<b>C - E</b>	Min. dwell time with min. input pulse	23.2
<b>B - F</b>	Min. equivalent exp. time	36.6
<b>D - E</b>	Delay time on closing after current applied	14.0
<b>E - G</b>	Transfer time on closing	14.0
<b>A - G</b>	Total window time	50.8
<b>MET</b>	Min. exposure time	35.0
<b>TEP</b>	Typical exposure pulse	>35.0

## Product Options

DSS25B **2** **3** **4** **5**

Ex: DSS25B1T0L

#### 1 Shutter Series:

DSS25B

#### 2 Housing:

1: Un-Housed

#### 3 Blades: <sup>2</sup>

T: Low Energy (Teflon®)

ZM: High Energy (AlMgF<sub>2</sub>) <sup>3</sup>

#### 4 Electronic Sync:

0: Omitted

#### 5 Connector: <sup>4</sup>

L: 2 wire bare leads attached to a 4" flex connector

Leave blank for 2-pin JST connector

<sup>2</sup> Other blade coating options may be available by special order.

<sup>3</sup> Input side only; Teflon® coating is on opposite side to protect shutter blade surface. Light source must be input to the reflective side only.

<sup>4</sup> Custom terminations are available. Please contact a technical representative for more information.

# Uniblitz® DSS25B Technical Drawings

## Shutter Layout

