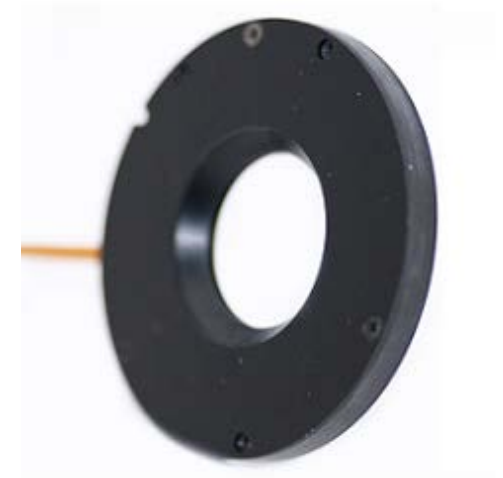


# Uniblitz® DSS20B

20mm Bi-Stable Optical Shutter



## Overview

The Uniblitz DSS20B is a 20mm bi-stable optical shutter that withholds an extremely low-profile construction. The device's lack of an external protruding actuator makes it very slim and flexible for system integration. The inherent reliability of the DSS20B 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 DSS20B, 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](mailto:info@uniblitz.com).

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## Key Features

- 20mm aperture
- Bi-stable operation
- Extremely low-profile form-factor
- **RoHS Compliant**
- Transfer time on opening:  
**12.5 milliseconds**
- Total opening time:  
**20.3 milliseconds**
- Configured for the **VED24 Shutter Driver**

# Product Options

DSS20B 2 3 4 5

Ex: DSS20B1T0L

## 1 Shutter Series:

- **DSS20B**

## 2 Housing:

- **1:** Un-housed

## 3 Blade Coating: <sup>1</sup>

- **T:** Low Energy (Teflon®)
- **ZM:** High Energy (AlMgF2) <sup>2</sup>

## 4 Electronic Sync:

- **0:** Omitted

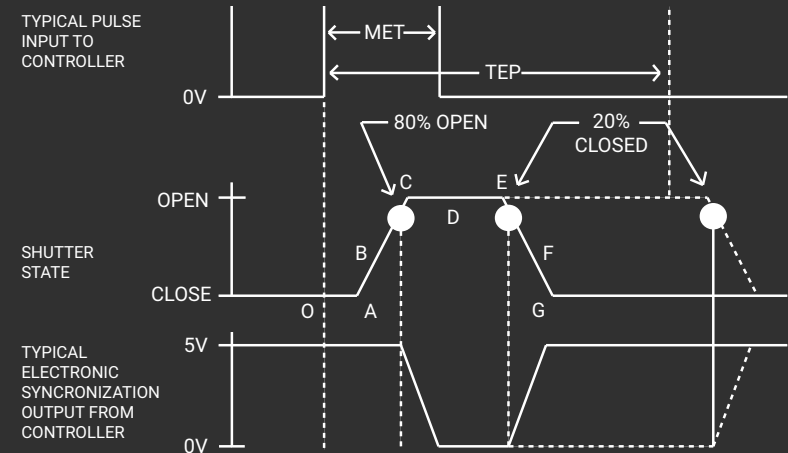
## 5 Connector:

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

<sup>1</sup> Other blade coating options may be available by special order.

<sup>2</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.

# Shutter Timing



## DSS20B (w/ ED12DSS driver and Teflon® coated blades) Time (msec.)

Transition	Description	Time (msec.)
O - A	Delay time on opening after current applied	7.8
A - C	Transfer time on opening	12.5
O - C	Total opening time	20.3
C - E	Min. dwell time with min. input pulse	14.7
B - F	Min. equivalent exp. time	27.0
D - E	Delay time on closing after current applied	10.0
E - G	Transfer time on closing	12.1
A - G	Total window time	39.3
MET	Min. exposure time	25.0
TEP	Typical exposure pulse	>25.0

# Technical Specifications

Coil Resistance	Voltage to Open	Hold Voltage
8 $\Omega$	+10.7 VDC <sup>1</sup>	N/A

<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.

Series	Weight	Operating Temp.	Max. Opening Bounce	Max. Closing Bounce	Max. Freq. of Operation <sup>2</sup>	Number of Shutter Blades
DSS20B	0.55 oz (15.50 g)	-10 - +65 °C	15%	5%	10 Hz / 20 Hz	4

# Technical Drawings - DSS20B

