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## Uniblitz® DSS10B

10mm Bi-Stable Optical Shutter



### Overview

The Uniblitz DSS10B is a 10mm 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 DSS10B 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 DSS10B, require no power to hold the blades in either the open or closed state.

### Key Features

- 10mm aperture
- Bi-stable operation
- Extremely low-profile form-factor
- **RoHS Compliant**
- Transfer time on opening:  
**5.0 milliseconds**
- Total opening time:  
**8.6 milliseconds**
- Configured for the **VED24 Shutter Driver**

# Product Options

DSS10B 2 3 4 5

Ex: DSS10B1T0L

**1** Shutter Series:

- **DSS10B**

**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

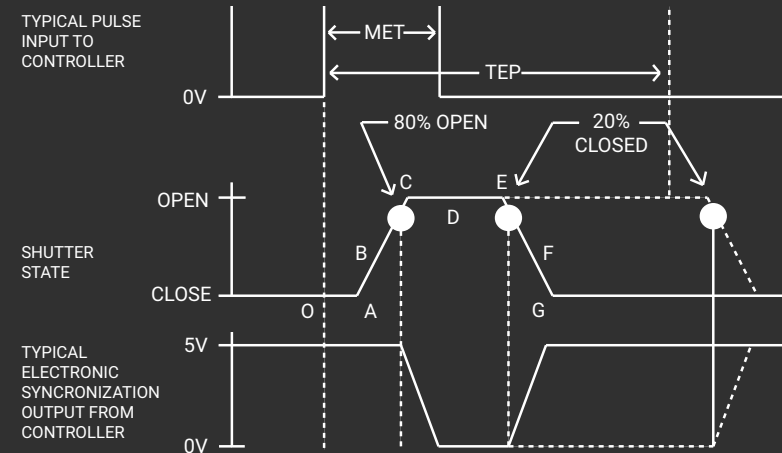
**5** Connector:

- **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



**DSS10B** (w/ ED12DSS driver and Teflon® coated blades) **Time (msec.)**

O - A	Delay time on opening after current applied	3.6
A - C	Transfer time on opening	5.0
O - C	Total opening time	8.6
C - E	Min. dwell time with min. input pulse	5.0
B - F	Min. equivalent exp. time	3.6
D - E	Delay time on closing after current applied	10.0
E - G	Transfer time on closing	5.0
A - G	Total window time	15.0
MET	Min. exposure time	15.0
TEP	Typical exposure pulse	>15.0

# Technical Specifications

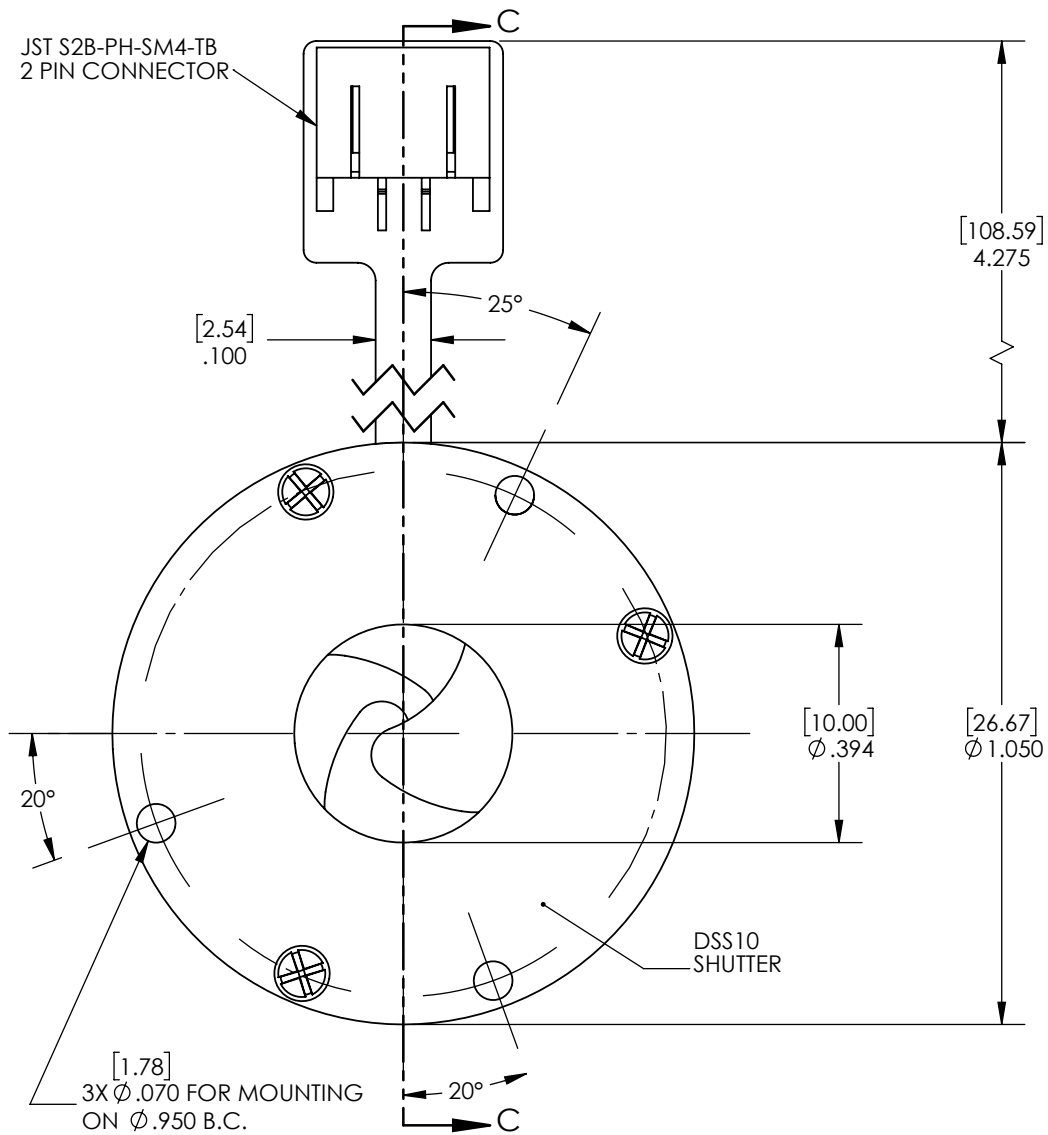
Coil Resistance	Voltage to Open	Hold Voltage
8 $\Omega$	+10.7 VDC <sup>1</sup>	N/A

<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
DSS10B	0.17 oz (4.70 g)	-10 - +65 °C	15%	5%	5 Hz / 20 Hz	4

# Technical Drawings - DSS10B



[mm]  
INCH

