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Bistable Rotary Optical Shutters

Takano is one of the first company to manufacture bi-stable rotary solenoids. Its 30 years of experience in rotary actuation field enables to provide not just as a single solenoid but also to offer unique optical shutter units with various benefits.

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Features

1. Extremely small in size [miniature rotary solenoid]

Takano Optical Shutter BOS series is based on our miniature bi-stable rotary solenoids.

2. Low power consumption, energy efficient [permanent magnet retention, pulse driven]

Takano Bi-stable Optical Shutter BOS series holds the position of the shutter blade by the force of the permanent magnet inside the solenoid body while it is de-energized. Power needs to be applied only when rotating the blade for open/close (pulse-driven) which makes our shutter unit extremely power efficient.

3. High responsive open/close [bi-stable magnetic structure]

Unlike the conventional rotary solenoid based optical shutter, a spring is not used for the motion of the shutter for its open and close. Takano Optical Shutters actuate with the repulsive and attractive magnetic force by switching the current direction. This enables our optical shutter to be extremely high speed and high power.

4. Extremely long life [5M cycles]

Expected life time is 5 million cycles and over.

5. Custom design solution

Takano is ready to utilize our expertise to design and develop custom design solutions to meet your unique requirements in shape, size, angle, characteristics, etc.

Series List

Type	Series	Features
Bi-Stable Optical Shutter	BOS series BOS7/10 BOS10/15	◆Low power consumption Position held by force of permanent magnet. Electricity necessary only when open/close (pulse driven).

Products

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Applications

[Light Control](#)

Series Comparative Table				
	Rated voltage	Rotation	Response speed	Rotary solenoid dimension
<u>BOS7/10</u>	3V DC	50°	3VDC:<17msec 5VDC:<13msec 12VDC:<8msec	Φ7×10 mm
<u>BOS10/15</u>	5V DC	50°	5VDC:<13msec 12VDC:<8msec	Φ10×20 mm
Please refer to each product page for detail specifications.				

Contact us

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