Optical Chopper

OE3001 − Optical chopper system

Fe atures

- **1 Hz~5 kHz chopping frequencies**
- **Frequency accuracy up to 0.5%**
- **Replaceable external blade**
- **High-quality motor with PID technology**
- **Standard TTL/CMOS level input & output**
- **Suitable for 50mm optical platforms**

Overview

OE3001 optical chopper is high-precision optical equipment with its chopper frequencies from 1 Hz to 5 kHz. With the advantage of PID technology and high-quality motor, the frequency accuracy of OE3001 is up to 0.5%. OE3001 consists of a console, a chopper head and a control line. The main function of the console is to control the speed of the motor to achieve the target speed. The chopper head is mainly composed of a base and a motor with a blade.

With a 320*240 color LCD display and a control knob on the front panel, OE3001 can be set to the specific chopping frequency that users need. All the functions can be implemented by rotating and pressing the control knob. The blade of OE3001 can be replaced with different slots blade to achieve different chopping frequency ranges. The standard blade is 10-slot blade with chopping frequency from 20 Hz to 1000 Hz. For other suitable blades and corresponding frequency ranges, please refer to the table below.

Chopper Blades & Frequencies

OE1B2 (2 slot)	**1~200 Hz**
OE1B10 (10 slot)	**20 Hz~1 kHz**
OE1B15 (15 slot)	**30 Hz~1.5 kHz**
OE1B30 (30 slot)	**60 Hz~3 kHz**
OE1B60 (60 slot)	**120 Hz~5 kHz**
OE1B57 (in 5 out 7 slot)	**In:10~500 Hz Out:14~700 Hz**

Specifications

Frequency Stability	250ppm/℃（typ.）
Frequency Accuracy	<1%
	<0.5%（typ.）
Frequency Resolution	1 Hz
Operating Temperature	10-40℃

Display

Display	2.4 inch，320*240 LCD

Input & Output

Connector	BNC
Compatibility	standard TTL/CMOS
Voltage	0~5 V
Input High Level	>3.6 V
Input Low Level	<0.4 V
Min Load Resistance	500 Ω

Interface

RS-232 to USB interface. All instrument functions can be controlled and read through USB interface

General

Power requirements

Voltage	100/120/220/240 VAC
Frequency	50/60 Hz
Power Consumption	< 20 W

Dimensions

Width	206 mm
Depth	150 mm
Height	70 mm