

# High Frequency Optical Chopper



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Stock **#28-115** **1 In Stock**

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## Product Downloads

### General

**Slot Variants Included:**

445 (In Blade Protector)

**Note:**

Compatible Discs: [#28-117](#), [#28-127](#), [#28-129](#), [#28-130](#)

### Physical & Mechanical Properties

**Dimensions (mm):**

Control Unit: 254 W x 76 H x 178 D  
Chopping Head: 32 W x 73 H x 75 L

Control Unit: 2.6

Weight (kg):

1:1 When Using 1 Blade

Mark-Space Ratio:

## Optical Properties

Temperature Coefficient @ 25°C (%/°C):  
±0.01

## Electrical

Frequency Stability (%):  
Short Term: See blade specification for phase jitter  
Long Term: ±0.1% of maximum frequency

## Hardware & Interface Connectivity

Connector:  
0-5 VHCT TTL Pulse via BNC

Operating Voltage (V):  
100 - 130 or 200 - 260

## Regulatory Compliance

Certificate of Conformance:  
[View](#)

## Product Details

- Range of Interchangeable Chopping Discs
- Frequencies Ranging from 5Hz to 110 kHz
- Manual or External Frequency Control

Optical Choppers are used to mechanically modulate light sources that pass through their discs. These optical choppers include a range of interchangeable discs from 2 to 200 slots for the standard chopper and 445 slots for the high frequency chopper, supporting frequencies up to 20kHz and up to 110kHz respectively. Chopping frequency can be adjusted by either a ten-turn dial or by applying an external DC voltage to the "Control In" BNC port on the front panel. Optical Choppers are ideal for use in a variety of applications including Lock-in Detection, Fluorescence Decay Measurement, Rotation Detection, and Reduction of Average Power. These choppers feature a "Reference Out" BNC port that provides a TTL pulse at the chopping frequency and in phase with the chopping action.

Please exercise caution when utilizing the high frequency chopper, #28-115, in applications where it is not possible to completely remove the danger of finger ingress. For safe operation a blanking plate is included to cover all unused apertures and to reduce the size of the aperture in use. High chopping frequencies also lead to heated jets of air to be released through any open apertures in the blade protector and operation is loud and should be considered for applications where noise is a concern. Please ensure the chopper head is securely bolted to the operating surface due to vibrations from the high chopping frequencies.

## Technical Information

