

## 218 Optical Chopper

*When it comes to optical choppers you won't find better value or performance than the Bentham 218. That's because we've concentrated on the important things like phase jitter, frequency stability and long motor life and left out some of the more esoteric features not required in most applications.*



The 218 optical chopper consists of a free-standing or modular control unit coupled by a 2m long lead to the chopping head.

Four, easily interchangeable, chopping discs are provided as standard which allow chopping frequencies in the range of 0.5Hz to 4kHz (3kHz for the modular control unit).

A variable aperture 2-slot disc and higher frequency discs are also available. The free-standing control unit includes LCD display of chopping frequency, while the modular unit uses a digital indicating dial. Both units provide a square wave reference output suitable for use with lock-in amplifiers.

### Specification

<b>Chopping Frequency:</b>	2-slot disc 5Hz to 200Hz 5-slot disc 12.5 Hz to 500Hz 10-slot disc 25 Hz to 1kHz 30-slot disc 75 Hz to 3KHz
<b>Phase Jitter:</b>	2-slot disc: 0.6° pk-pk over entire frequency range. 5, 10 & 30-slot disc: 1° pk-pk over entire frequency range.
<b>Frequency Selection:</b>	By multi-turn potentiometer
<b>Reference Output:</b>	800mV positive going wave from 200W. Sensed by IR LED/Photodiode mounted on chopping head.
<b>Display:</b>	LCD frequency display on free-standing controller turns counting dial on modular unit
<b>External Control:</b>	The chopping frequency can be externally controlled via a front panel socket. Maximum input is = 15V into 20kW.
<b>Resolution:</b>	1Hz with 10-slot disc.
<b>Motor:</b>	High quality 11-pole dc motor with precious metal commutator.
<b>Calibration Accuracy:</b>	± 1% for setting between 15% and 100% of full scale.
<b>Variable Aperture:</b>	A variable aperture 2-slot disc is available for non-even mark space modulation.
<b>Frequency Stability:</b>	Versus Temperature: Less than 0.01% change per K. Versus Line Voltage: Less than 0.01% change results from a change in line voltage from 190V to 265(95V to 130V)

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## Dimensions

