

218M Optical Chopper & Control Module Brochure



Overview

The 218M optical chopper and control module enables light source amplitude modulation for applications in the infrared and with high ambient illumination.

Four easily interchangeable chopping discs are provided as standard which allow chopping frequencies in the range of 5Hz to 3kHz.

Key features of the 218M, such as phase jitter, frequency stability and a long motor life, have been prioritised over more esoteric features not required in most applications to offer outstanding performance in a cost-effective solution.

Core benefits

- ✓ Reliable optical chopping
- ✓ Excellent phase jitter and frequency stability
- ✓ Research-grade specification, cost effective solution
- ✓ Long motor life

Features

- ◆ Modular optical chopper control unit with remote chopper providing frequencies of 5Hz-3kHz
- ◆ Square wave reference output for use with lock-in amplifiers
- ◆ Front panel control
- ◆ Arrest function for source integrated arrestable choppers
- ◆ Fully programmable via USB 2.0 interface

218M Optical Chopper & Control Module Specifications

	Model	218M Optical Chopper & Control Module
Electrical	Chopping Frequency with 2-slot blade	10Hz to 250Hz
	Chopping Frequency with 5-slot blade	12.5Hz to 500Hz
	Chopping Frequency with 10-slot blade	25 Hz to 1kHz
	Chopping Frequency with 30-slot blade	75 Hz to 3kHz
	Phase Jitter with 2-slot blade	0.6° pk-pk over entire frequency range.
	Phase Jitter with 5-, 10- and 30-slot blades	1° pk-pk over entire frequency range.
	Reference Output	800mV positive going wave from 200W, sensed by IR LED/photodiode mounted on chopping head
	Resolution	1Hz with 10-slot disc
	Motor	High quality 11-pole DC motor with precious metal commutator
	Temperature Dependence of Frequency Stability	Less than 0.01% change per K
Line Voltage Dependence of Frequency Stability	Less than 0.01% change results from a change in line voltage from 190V to 265/ 95V to 130V	
Interface, Mechanical	Control	Front panel
	Front Panel Controlled Features	Chopping frequency set, chopper on/off
	Dimensions	Single width module, 3U high
	Connector	Amphenol (chopper), BNC (reference)



Ordering Information

S200_218_M	218M Optical Chopper & Control Module
S200_218_B	Blade set (2, 5, 10 and 30 slot)
S200_218_H	Chopping head
SUND_CMP	Chopper mounting plate for monochromator entrance slit
17596	Chopper mount for IL1, IL6, IL7 and IL8

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