



In measurement scenarios where the optical signal to be measured may be confounded with a background optical signal, either from ambient lighting, or, in the infrared, heat (or infrared radiation) emitted by instrumentation and the background, a means of discrimination between the two is required. This is achieved by modulating the desired optical signal on a known carrier wave by an optical chopper.

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

Four, easily interchangeable, chopping discs are provided, which allow chopping frequencies in the range of 0.5Hz to 4kHz. A variable aperture 2-slot disc and higher frequency discs are also available.

The 218M provides a square wave reference output suitable for use with lock-in amplifiers.

The 218M is a single-width module, housed within the 417/T mother unit.

Core Features

- Excellent phase jitter and frequency stability
- Long motor life
- Chopping frequencies from 0.5Hz to 4kHz

Specification	
Chopping Frequency:	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
Phase Jitter:	2-slot disc: 0.6° pk-pk over entire frequency range. 5, 10 & 30-slot disc: 1° pk-pk over entire frequency range.
Frequency Selection:	By multi-turn potentiometer
Reference Output:	800mV positive going wave from 200W. Sensed by IR LED/Photodiode mounted on chopping head.
Display:	LCD frequency display on free-standing controller turns counting dial on modular unit
External Control:	The chopping frequency can be externally controlled via a front panel socket. Maximum input is = 15V into 20kW.
Resolution:	1Hz with 10-slot disc.
Motor:	± 1% for setting between 15% and 100% of full scale.
Calibration Accuracy:	A variable aperture 2-slot disc is available for non-even mark space modulation
Frequency Stability:	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)