



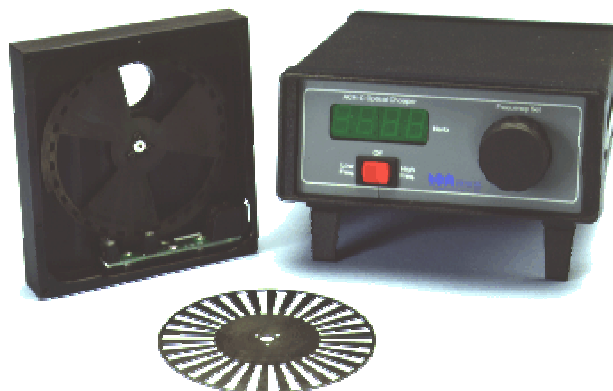
### ACH-C

#### Phase-Locked-Loop Compact Optical Chopper:

The ACH-C Optical Chopper is a general-purpose optical chopper designed for enhancing NIR detectors or modulating light. The ACH-C may be phase-locked to either its own internal clock generator or a user-supplied external clock. Additionally the unit may be controlled by means of an externally applied DC voltage.

The ACH-C can provide chopping rates ranging from 4 Hz to 5000 Hz with the use of two supplied chopper blades. The chopping frequency is measured by an internal crystal-controlled frequency counter and displayed by means of a 4 digit, 0.56" (14 mm) high, green LED display. The display update rate is once per second.

Two ranges are provided: 4 to 500 Hz and 40 to 5000 Hz. A TTL/CMOS compatible phase reference signal is provided for use with lock-in amplifiers or other ancillary test equipment. Attachment to the controller is made via a ten foot (3.6 m) coiled modular cable that is detachable at both ends.



ACH-C Chopper

#### Specifications

Frequency Range	4.0 to 500 Hz (3 slot blade) 40 to 5000 Hz (30 slot blade)
Frequency Readout Accuracy:	0.1% of setting / hour
Frequency Stability:	1 Hz $\pm$ 0.01% of setting / hour $\pm$ 2 (Internal Clock)
Frequency Stability:	0.1% of setting / hour $\pm$ 2 Hz (External DC Source)
Phase Jitter:	0.1% peak-to-peak, 3 slot blade % peak-to-peak, 30 slot blade
Settling Time to Lock:	< 5 seconds for full scale change < 1 second for 10% change
External Frequency Input (Hz):	TTL/CMOS Compatible, 40 to 5000
External Voltage Control Input:	0 - 4 VDC takes unit through entire speed range
Ext. Voltage Input Impedance:	> 100 K
Display:	4 Digit LED, Green 0.56 in., (14 mm) Height
Operating Temperature:	0 - 40 °C
Size:	Controller: 2.6" H x 6.5" W x 8.5" D Head: 5" H x 4.75" W x 1" D (2.25" for motor)
Weight:	5 lbs, (2.25 kg)

#### Features

- Frequency Range of 4 to 5000 Hz.
- Digital display
- Mounts directly to LSH Lamps and TRIAX series spectrometers
- Compact design can be combined with AFW-C6P filter wheel
- Use with lockins and DSS Detectors in low light applications.

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