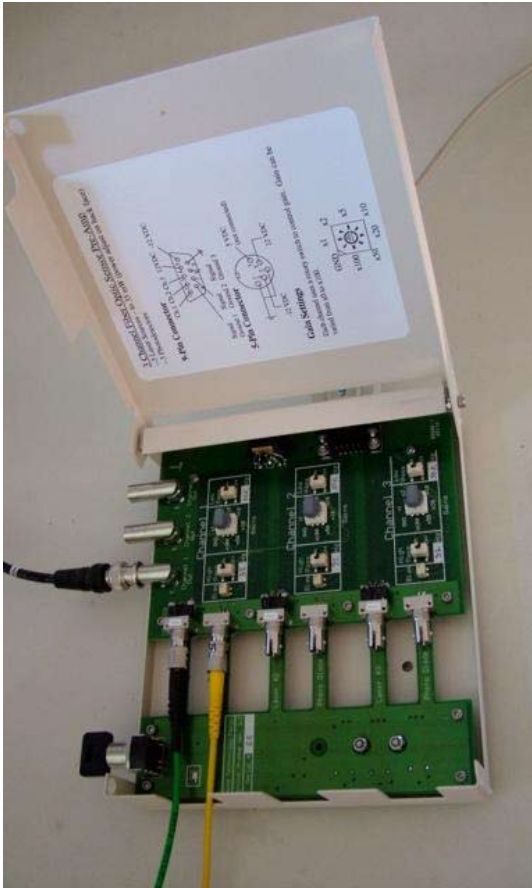


Optical Preamplifier Model 3.33 30 August 2009

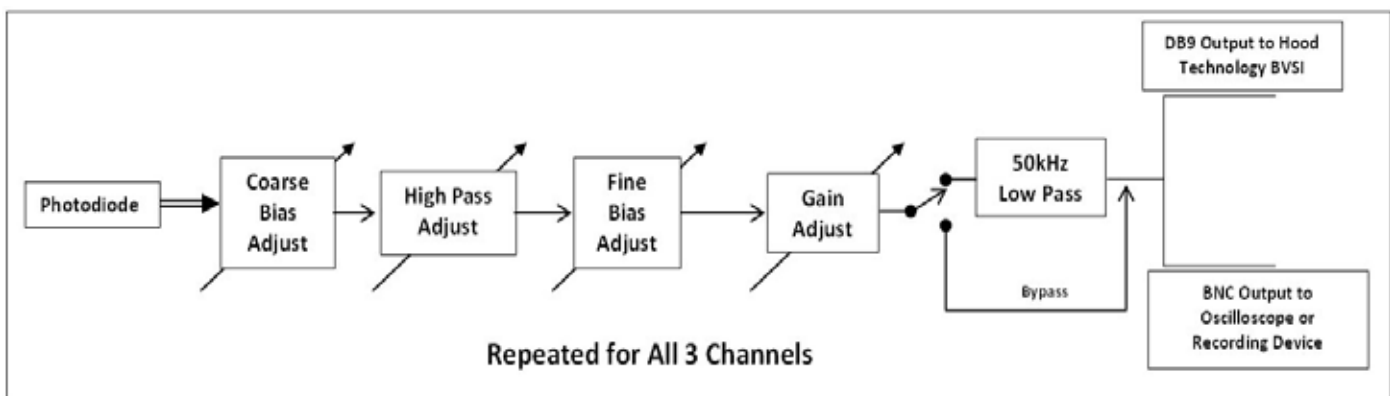
Hood Technology™ Blade Vibration Monitoring

Overview

- Provides a laser source
- Collects reflected light
- Converts reflected light into voltage (photodiode)
- Conditions analog signals: adjustable gain, high-pass and low-pass filter
- Low impedance output enables signals to be routed long distances (>100m) without compromising signal integrity.
- Designed to interface with Hood Technology™ Blade Vibration Monitoring System Optical Tip Timing Sensors. It can also be used with third party sensors with ST connectors.



Schematic





General Specifications

- Adjustable Gain: 7 positions (1x to 100x)
- High Pass filter: 5 positions (DC to 10kHz) and Auto Zero
- Low Pass filter: 50kHz or 2MHz
- Bias Adjustment
- Size: 7.25 in x 7.00 in x 1.75 in / 18.4 cm x 17.7 cm x 4.4 cm
- 2 lbs/ 907.18 grams
- Powered from Hood Technology™ Blade Vibration Sensor Interface (BVSI) or operates standalone with external (+/-12VDC) power supply
- Built in laser safety features

Auto -Zero Feature

- Auto-Zero Plus (AZ+) slowly adjusts the minimum return to 0V.
- Auto-Zero Minus (AZ-) slowly adjusts the maximum return to zero. This is often useful for applications that observe gaps in a reflective disk.

Interface

- 3 Sensor Channels per Preamp
- 2 ST Optical Connectors per channel (laser, photodiode)
- DB-9: Input/output for 100 m connection to Hood Technology™ Blade Vibration Sensor Interface
- BNC: Conditioned analog output for each channel
- DIN5: External power supply input for standalone applications

Laser Safety

- Physical Key turns off laser diode
- Preamp case design reduces chance of accidental laser exposure
- Rubber caps for each laser diode when disconnected

Laser Specifications

Class 3B Lasers: 658 nm / 40 mW

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