

Hinds' detection systems are specifically designed for use with high frequency optical signals including those generated in Photoelastic Modulator (PEM) applications.

Hinds' detector features include:

- Frequency response. DC to several times the PEM operating frequency.
- Dark-current and/or background DC null.
- Preamplification for current to voltage conversion and buffering for impedance matching to signal cables.
- Separate lowpass or DC signals and wide-band AC signals derived from the detector output.



APD Detector Module

Features

- Power, bipolar, ± 12 volts
- Operating Temperature Range, -10° to 50° C
- High sensitivity, large active area (19.6 mm^2) Si APD
- Detects optical signals from fixed DC light to 450 kHz
- Easy access potentiometer allows user gain adjustment for varying light intensity and to zero offset voltage
- Choice of side or back mounting holes for mounting
- Compact, self-contained, and lightweight
- Power supply and post mount included

These detectors are supplied in rectangular housings $4" \times 3" \times 1.4"$, with 2 $\frac{1}{4}$ -20 tapped holes for post mounting.

APD-100 DETECTION CHARACTERISTICS						
MODEL	TYPE	SPECTRAL RANGE (NM)	PEAK SENSITIVITY WAVELENGTH, λ	PHOTODIODE DIAMETER	EFFECTIVE ACTIVE AREA	FREQUENCY BANDWIDTH (3dB)
001	Si-APD	200 - 1000nm	620 nm	5 mm	19.6 mm^2	DC to 450 kHz
Maximum light input power for linear response, (632.8nm laser)						
Minimum Gain		Maximum Gain				
250 μW		5 μW				
Detector DC output (into a 5.6 k load @ Maximum light input)						
Minimum Gain		Maximum Gain				
1.3 V_{DC}		8.5 V_{DC}				