

*Mission Statement: "To serve the New Product Development market in the field of  
Optical Spectroscopy with dedication, integrity and excellence"*

## **SCIDTGS-PE: ROOM TEMPERATURE PYROELECTRIC DETECTOR**

Sciencetech's proprietary wideband detector design comes packaged in our standard "hockey puck" enclosure (2" diameter x 1" high) and is connectorized to be powered directly from the Stanford SR-810/830 type lock-in amplifiers,

Features of our SCIDTGS-PE Room Temperature Pyroelectric Detector:

Element size:	2.0 mm dia.
NEP	1.0e-10 Watts (100Hz, 1Hz BW)
Frequency response	8.8Hz - 265Hz (-3db points)
Sensitivity	133,000 V/W (HDPE Window)

The spectral range is limited by high density polyethylene window.

The detector WILL saturate on the visible light from the lamp. After alignment, cover the entire input opening of the detector head with thin black polyethylene to prevent undesired visible light from overloading the detector.

This detector is suitable for direct connection to Stanford SR-830 lockin preamp power. When using the Stanford lock-in, the signal overload indicator will light just before the detector saturates. The SCIDTGS-PE detector is suitable for testing FTIR alignment and material transmission measurements without special cooling.

Upon installation, the optical system MUST be re-aligned to image the iris of the light source onto the detector element. This may require rotating the entire detector head to an optimum position and/or adjusting mirrors and re-focusing.

Power requirements: +/- 15 to +/- 24 volts max @ +/- 8 mA max.  
Power connections: (Connectorized for Stanford SR 510/810/830)

DB-9M	Pins 2 - 5 , 9 no connection
+V In	Pin 1
-V In	Pin 6
Common	Pin 7
Shield	Pin 8

Our current specifications for Sciencetech's SCIDTGS-PE are subject to change without notice.

