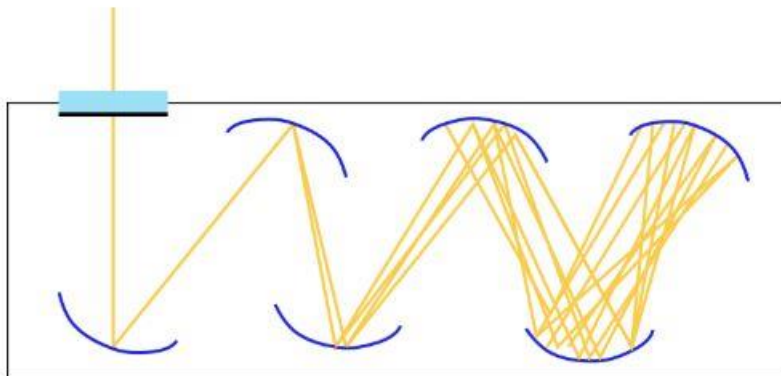


Single Channel Detectors

Single channel detectors are used with IsoPlane, SpectraPro and TriVista spectrometers, enabling efficient operation from UV to IR. These include three photomultiplier tubes, two silicon detectors, plus InGaAs, PbS, InSb, HgCdTe and infrared detectors.

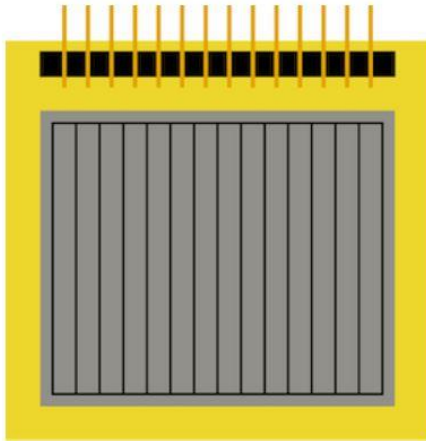
Detector Types

Photomultiplier Tubes



Photomultiplier tubes are highly sensitive detectors for low-level light in the UV-VIS-NIR range. The tubes are vacuum phototubes which are able to greatly multiply the current produced by any incident light. Photomultiplier tubes are used in applications such as low-light spectroscopy, Raman spectroscopy, astronomy, and particle physics.

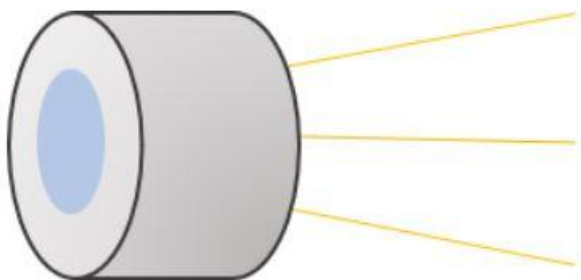
Silicon Detectors



Silicon light detectors are able to convert light into electrical current over the wavelength range 190 – 1100 nm.

They have a long lifetime with high quantum efficiency for a wide range of applications, such as micro-computed tomography and industrial sensors.

Gallium(Ga), arsenic(As), and indium (In) compounds



Ga, As, and In can be used as part of the detector to cover select wavelengths of the 190 – 2000 nm spectral range. For example, InGaAs detectors are specialised for sensing in the 1000 – 1500 nm range.

Family Models

Model	Description	Available for
ID-441	InGaAs Detector includes pre-amplifier, uncooled version	IsoPlane, SpectraPro, TriVista
ID-441-C	InGaAs Detector includes pre-amplifier, cooling ready version; Requires 442-1A Thermoelectric	IsoPlane, SpectraPro, TriVista
ID-442-P	PbS Detector includes pre-amplifier, cooling ready version. Spectral Range 1.1 – 2.9 μm Requires 442-1A thermoelectric cooling for operation. Chopper and lock-in amplifier for operation not included.	IsoPlane, SpectraPro, TriVista
ID-443	InSb Detector, 4mm diameter active area, for use from 1500-5000nm, LN2 cooled, with housing and dewar. Requires chopper and lock-in amplifier for operation.	IsoPlane, SpectraPro, TriVista
PD-438	Universal PMT detector housing. Mounts to SpectraPro slit assembly. Requires 1 1/8 side window PMT and high voltage power supply for operation.	IsoPlane, SpectraPro, TriVista
PD-439	Universal PMT detector housing. Mounts to SpectraPro slit assembly. Requires 1 1/8 side window PMT and high voltage power supply for operation.	IsoPlane, SpectraPro, TriVista
PD-471	Integrated PMT detector housing with built-in high voltage power supply. Mounts to SpectraPro slit assembly. Requires 1 1/8 side window PMT and SpectraHUB for operation.	IsoPlane, SpectraPro, TriVista
PD-473-1	Integrated photon counting detector system for 185-850 nm. Includes PMT, amplifier/discriminator and built-in high voltage power supply. Mounts on SpectraPro slit assembly. Requires SpectraHUB for operation.	IsoPlane, SpectraPro, TriVista
P1	Photomultiplier Tube, 1 1/8 side window tube, requires housing and power supply for operation	IsoPlane, SpectraPro, TriVista
P2	Photomultiplier Tube, 1 1/8 side window tube, requires housing and power supply for operation HAMAMATSU PN# R928	IsoPlane, SpectraPro, TriVista
P3	Photomultiplier Tube, 1 1/8 side window tube, requires housing and power supply for operation. Range 300 – 1100 nm	IsoPlane, SpectraPro, TriVista
PHV-400	Programmable PMT High Voltage power supply, 0-1000V For use with PMT's and housings	IsoPlane, SpectraPro, TriVista