

X-ray PIN Diode Detector

The XPD100 PIN diode detector system is designed for optics and beam alignment applications with both in-house (rotating anode and sealed tube) and synchrotron sources. The detector has a large dynamic range ($>10^5$) and can be used in the direct beam at flux levels $>10^{12}$ photons / sec. The use of XPD100 can dramatically speed up the alignment of x-ray mirrors, monochromators, collimators, slits, detectors, and samples. With calibrated response and good linearity the detector can be used to measure absolute beam flux.



FEATURES

- Active Area: 10 mm x 10 mm
- Flux Level: $10^4 - 10^{12}$ photons / sec (any 10^5 range within these limits)
- Linearity better than 2%
- Voltage display for visual intensity monitoring
- TTL pulse output for intensity counting (connect to any counter/timer card)
- Calibrated intensity output for absolute flux measurement (within 5% at 8 keV)
- Manual gain control
- Easy mounting with standard metric or inch posts
- Universal power input (80-240VAC, 50/60 HZ)
- Dimensions (case): 129.5 mm (width) x 71.5 mm (height) x 180 mm (depth)

APPLICATIONS

- Diffractometer Alignment (mirrors, monochromators, slits, collimators, beam stop, etc.)
- Optics Characterization
- Sample Positioning
- Beam Profiling and Flux Measurement
- X-ray Reflectivity

