

XPIN-XT

Applications

Portable/ Benchtop XRF

- RoHS/ WEEE
- Light element analysis
- Metallurgy
- Alloy sorting
- Scientific research
- Nuclear monitoring
- Quality control
- Brand protection
- Coating analysis
- Plastic additive analysis
- Soil analysis
- OSHA compliance
- Contamination sampling
- Archeology
- Art authentication
- Forensic- Mobile crime lab

The XPIN™ detector is Moxtek's best performing Si-PIN detector. XPIN detectors use a 625µm thick silicon PIN diode, multi layer collimator, and thin DuraBeryllium™ window achieving great resolution and x-ray sensitivity. The XPIN preamp provides a low-noise signal output to an analog or digital pulse shaping amplifier. *The XPIN-XT package is ideal for benchtop and portable applications where an integrated temperature controller is not required.*

Features

- Si-PIN Diode
- Small, compact design
- Two-stage thermoelectric cooler
- Stable resolution
- Thin DuraBeryllium® windows
- Wide ambient temperature range
- Multi layer Collimator

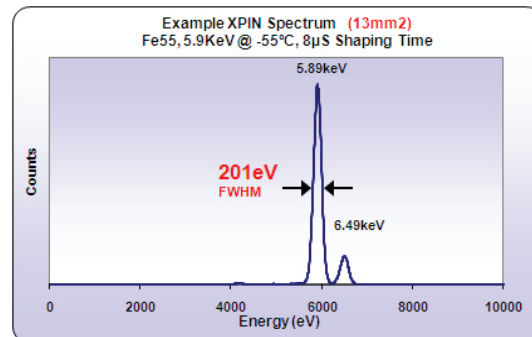
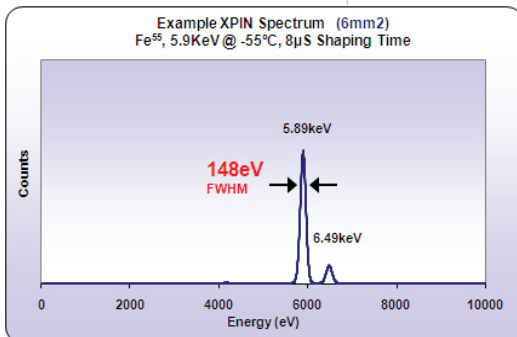
Benefits

- Low cost
- Close coupling of detector/source, portable
- No liquid nitrogen, fast cooling
- Low calibration maintenance
- Lt-element identification, Corrosion resistant
- Industrial applications
- Minimal stray peaks

Standard Package Includes:

XPIN Detector

- Vacuum sealed detector module
- Preamplifier with input/ output connector
- Optional preamp configurations
- Optional metal mounts/ enclosures



XPIN-XT

Detector Specifications

- Diode Active Area: 6 mm² or 13 mm²
- Diode Thickness: 625 μm
- Detector Window: 8μm or 25μm thick DuraBeryllium®
- Collimator Material: W/Co/Ti/Al
- *Energy Resolution: 6mm²: <190eV FWHM
13mm²: <230eV FWHM

- *Peak to background: 6mm²: 3600/@1keV (typical)
13mm²: 3000/1 @1keV (typical)

*Conditions: 8μ sec shaping time, MXDPP-200, Fe55, 5.9 KeV, 7000 CPS

- Weight: 41 grams (Housing)
17 grams (Angle bracket)
10 grams (Bare)

Standard Warranty: One year.

Preamp Specifications

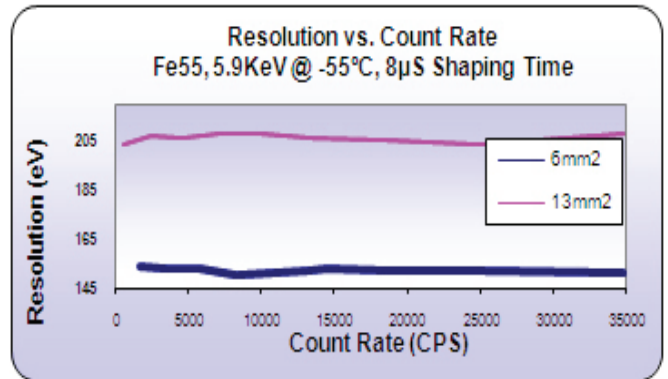
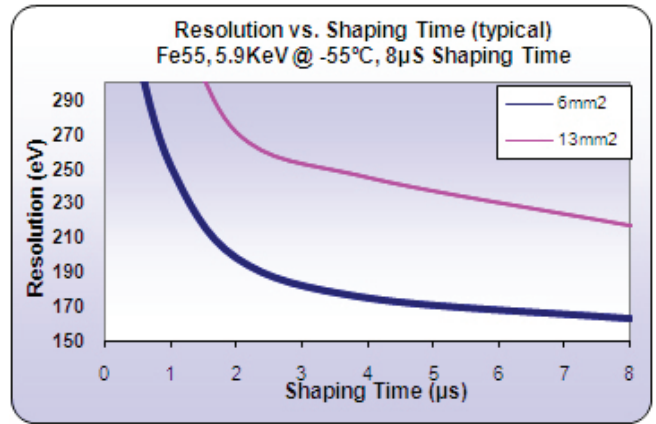
Inputs

- Detector Power: ±4.75V to ±5.25V
- Cooler Power: +0 to 3.5V max, 0.56A max

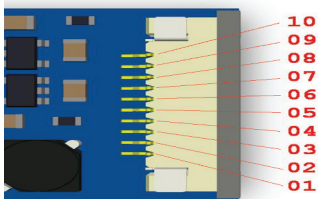
High Voltage Diode Bias: +130 VDC maximum

Outputs

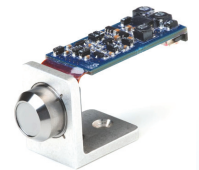
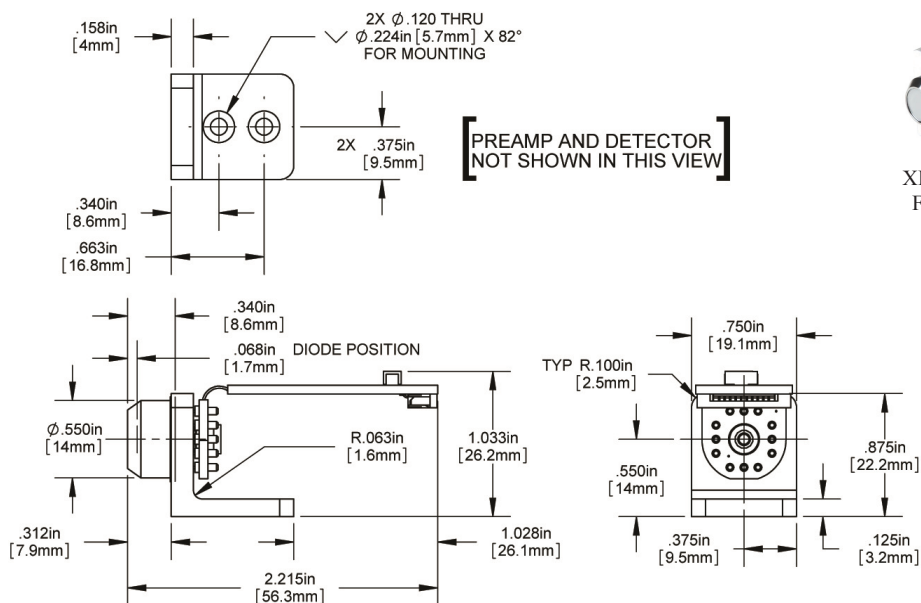
- Preamp power swing: -2V to 2V
- Charge Conversion Gain: 1mV/KeV minimum
- Detector Output Signal: Pulse reset negative ramp voltage swing +2V to -2V



XPIN-XT Mount Options & Electrical Pinout



Pin ID	Description
1	TEC -
2	TEC +
3	+ 5V
4	- 5V
5	GROUND
6	SIGNAL
7	THERMISTOR
8	GROUND
9	NOT CONNECTED
10	HV BIAS



XPIN-XT P20 with Flex preamplifier



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DET-DATA-XPIN-XT, REV A (0610)

Subject to technical change without notices