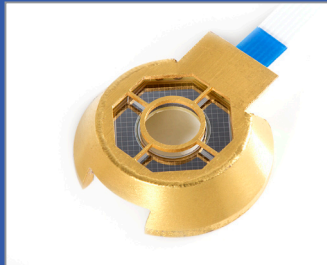
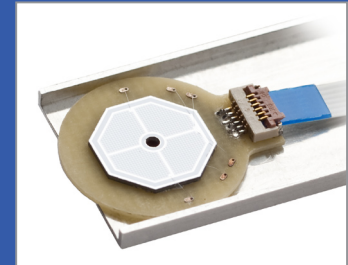


# Solid State Backscattered Electron Detector

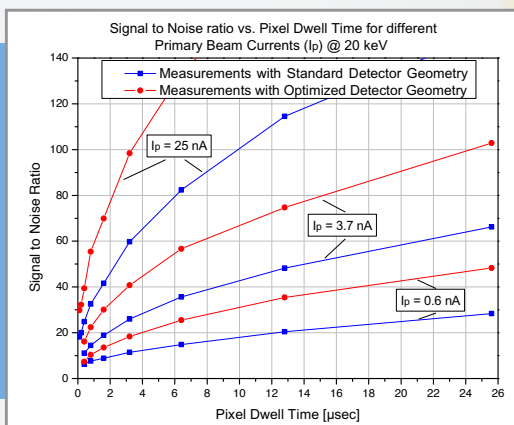
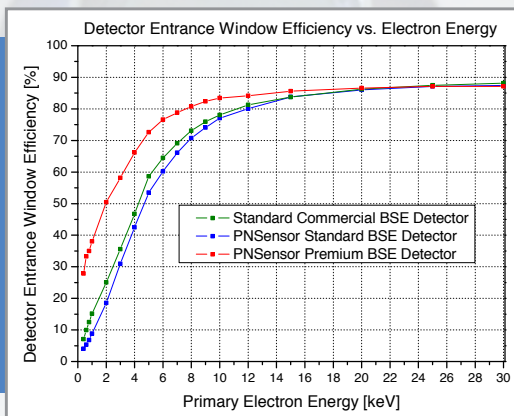
4 Quadrant Annular Detector for High Bandwidth and Low Energy Applications



50 mm<sup>2</sup> Chip mounted in pole piece configuration



40 mm<sup>2</sup> Chip mounted on retractable holder



### Technical Specifications

- ▶ 4-element detector device with 40 mm<sup>2</sup> or 50 mm<sup>2</sup> active area
- ▶ Flat assembly designs, enabling working distances down to 2.5 mm
- ▶ Ø 5.6 mm or Ø 1.0 mm central hole
- ▶ Non-magnetic assembly materials with low outgassing
- ▶ Custom designed detector and housing designs for SEM integration
- ▶ Thin detector entrance window optimized for energies below 10 keV. Quantum Efficiency > 45 % @ 2 keV
- ▶ Signal capacitance < 3 pF @ full depletion for pixel dwell times < 100 ns (TV-Speed)
- ▶ Detector leakage current < 300 pA / cm<sup>2</sup> @ RT and full depletion
- ▶ Higher Signal to Noise ratios with optimized detector geometry
- ▶ Preamplifier Electronics for integration into the SEM available

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