Measurement Specifications

Detector	**N – Lateral Effect**	**L – Lateral Effect**	**U – Four Quadrant**	**Q – Four Quadrant**
Size	10mmx10mm	9mmx9mm	10mmx10mm	10mmx10mm
Type	Dual-axis Si with glass cover	Dual-axis Si resin No glass	4XSi sectors separated by 10µm gap, glass cover	4XSi resin sectors separated by 30µm gap, no glass cover
Usable beam size	50µm to ∅8mm	50µm to ∅9mm	50µm to ∅5mm	50µm to ∅5mm
Position measurement range	∅8mm	∅ 9mm	One beam radius up to ±2.5mm	One beam radius up to ±2.5mm
Position resolution	Down to 0.1µm at 50Hz digital filter plus averaging	Down to 0.1µm at 50Hz digital filter plus averaging	Down to 0.25% of beam size	Down to 0.25% of beam size
Position accuracy	±25µm over 8mm dia.	±12.5µm over 9mm dia.	±1µm or ±0.025% of beam size	±1µm or ±0.025% of beam size
Update rate	Max 150Hz at 500Hz digital filter			
Spectral range	350-1100nm			
Power range	10µW to 10mW with attenuating ND filters			
Power accuracy (*)	±5%			

(*)To maintain full calibration accuracy, attenuating optical filters may be necessary for operation with beams greater than 1mW. Saturating "non-linear" effects depend on the beam size, type and wavelength, but caution should be exercised when using the 4Qaud PSD above 3-6mW or the Lateral Effect PSD above 1-3mW.