

## XFlash® 6T | 100

- The Largest Solid Angle SDD for TEM and STEM

The XFlash® 6T | 100 is part of the 6<sup>th</sup> generation of Bruker's exceptional XFlash® silicon drift detectors (SDD). The windowless XFlash® 6T | 100 features a 100 mm<sup>2</sup> oval detector area.



The XFlash® 6T | 100 offers good energy resolution values of typically < 129 eV at Mn K $\alpha$ , 67 eV at F K $\alpha$  and 57 eV at C K $\alpha$ . This also warrants the excellent light element and low energy range performance.



In combination with the specially adapted SVE 6 hybrid signal processing unit, this detector can provide an energy resolution < 140 eV at 100 kcps output count rate.



The slim-line technology detector finger of the XFlash® 6T | 100 provides shortest possible detector to sample distances at highest take-off angles ensuring excellent solid angle and minimized absorption and shadowing effects in TEM and STEM.



Optimized dimensions in combination with carefully selected construction materials and low noise electronics cause least possible impact on the performance of the electron microscope. The motorized high precision slider allows full control over the detector position at all times.

The combination with the ESPRIT software allows the use of powerful on- and offline data analysis and data presentation tools.



## Specifications

Available energy resolution:  
129 eV Mn K $\alpha$ , 67 eV F K $\alpha$ , 57 eV C K $\alpha$   
All resolutions are specified exceeding ISO 15632:2012 requirements.

Element detection range: beryllium (4) to californium (98)

100 mm<sup>2</sup> detector area

Windowless detector

Fanless Peltier cooling, no elaborate vibration-generating cooling systems required

Immediately ready for operation

Low operating cost

Maintenance-free

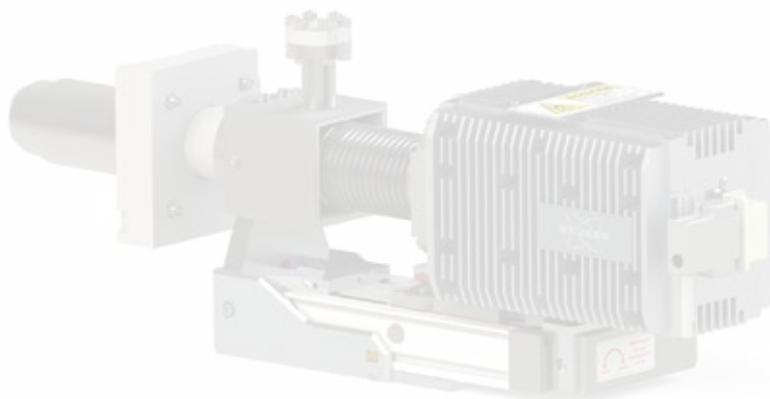
Dimensions optimized for TEM geometry, including slim-line detector finger

High precision motorized slider

Welded bellows standard

Compatible with all types of TEM and STEM, conventional and C<sub>s</sub> corrected

Adaption in collaboration with electron microscope manufacturer or standalone for specific TEM types



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