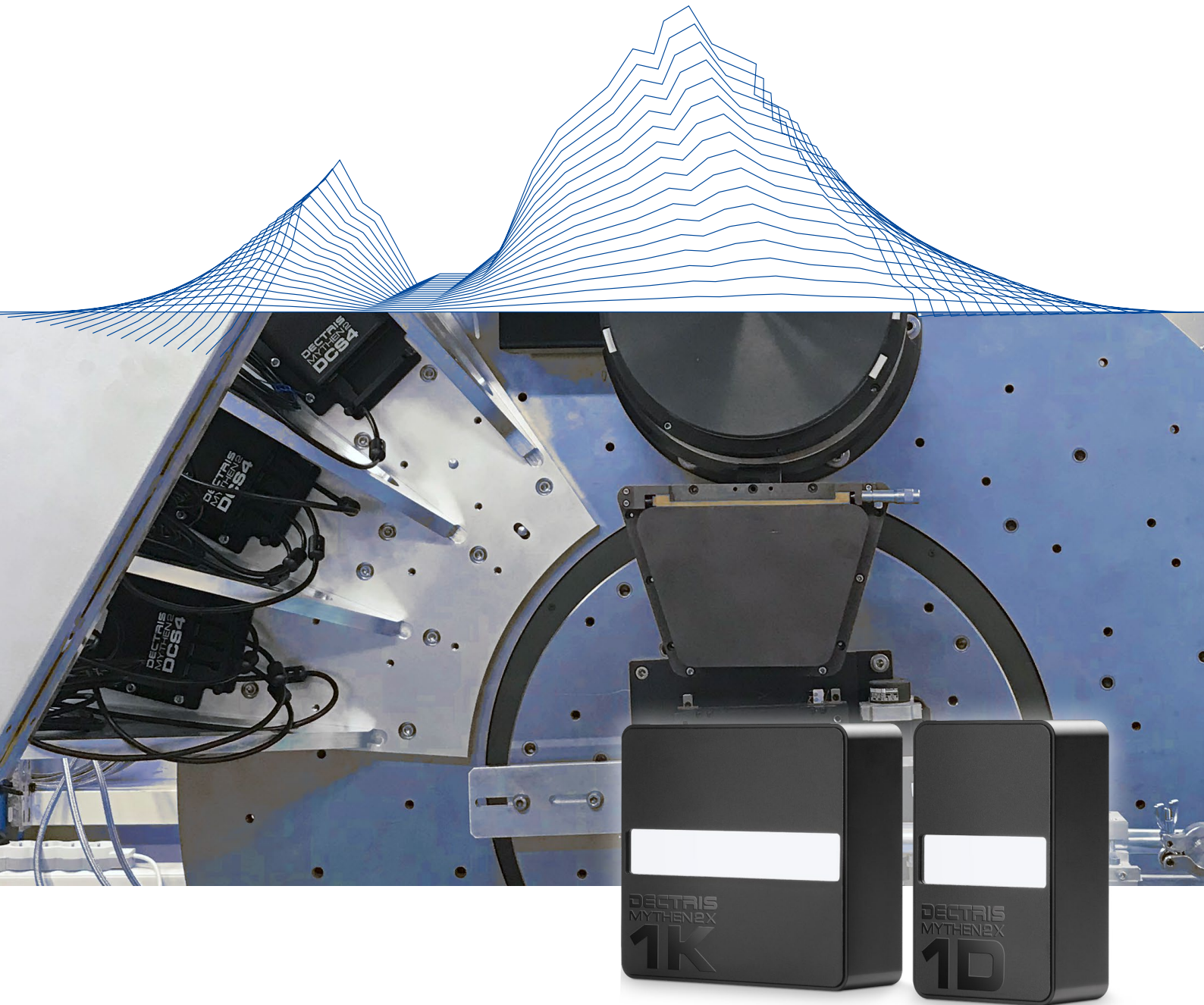


DECTRIS
detecting the future



MYTHEN2 X

*HPC microstrip X-ray detectors for synchrotron applications
offer resolution, speed and dynamic range without compromises*



MYTHEN2 X strip detectors achieve premium speed, high dynamic range and optimal resolution, without compromising on the detector size. Even the construction of multi-modular systems poses no limits: various types and number of modules can be arranged into any desired setup, and upgrades are possible at any time.

The MYTHEN2 X detector series is ideally suited for time-resolved, *in situ* and pump-and-probe applications: X-ray diffraction, scattering and spectroscopy. Electronic gating and triggering make the detectors easy to synchronize with other systems.

Key advantages

- 1000 Hz at 24-bit for any number of modules
- 50 μm : the narrowest commercial strip
- 1280 and 640 strips per module
- 3 sensor thicknesses, 2 strip lengths

Applications

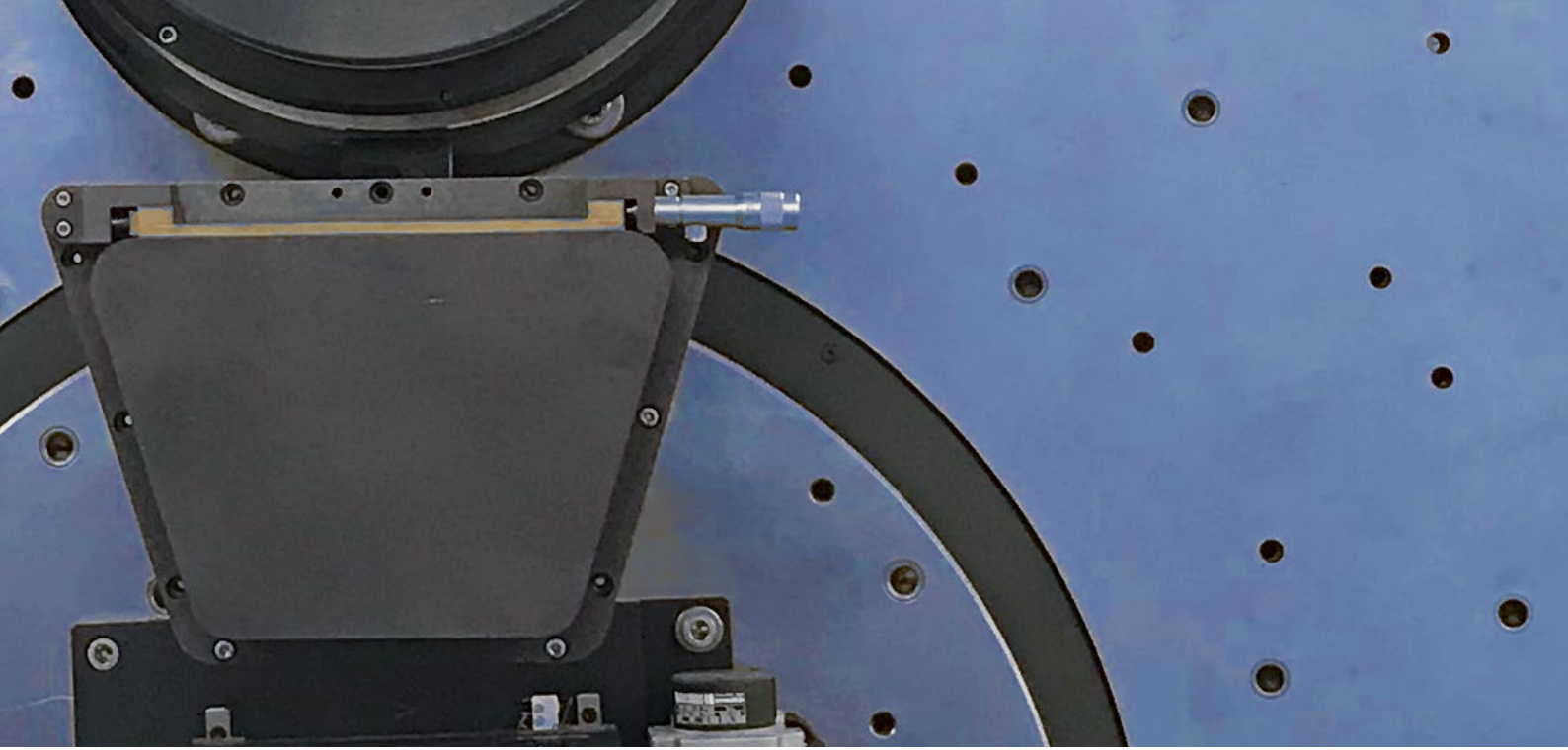
- PXRD, PDF, Thin film analysis
- SAXS, WAXS, GISAXS
- Residual stress mapping
- EXAFS, XANES
- WD-XRF
- RIXS

Flexibility of the modular design

The MYTHEN X portfolio features two module sizes and four sensor geometries. Four modules, regardless of their size and geometry, can be operated using one Detector Control System (DCS4). Larger multi-modular systems can be built using additional DCS4's.

Speed without compromises

All single- and multi-modular MYTHEN2 X systems achieve frame rates of 1000 Hz at the 24-bit dynamic range. The readout time is 89 μs .



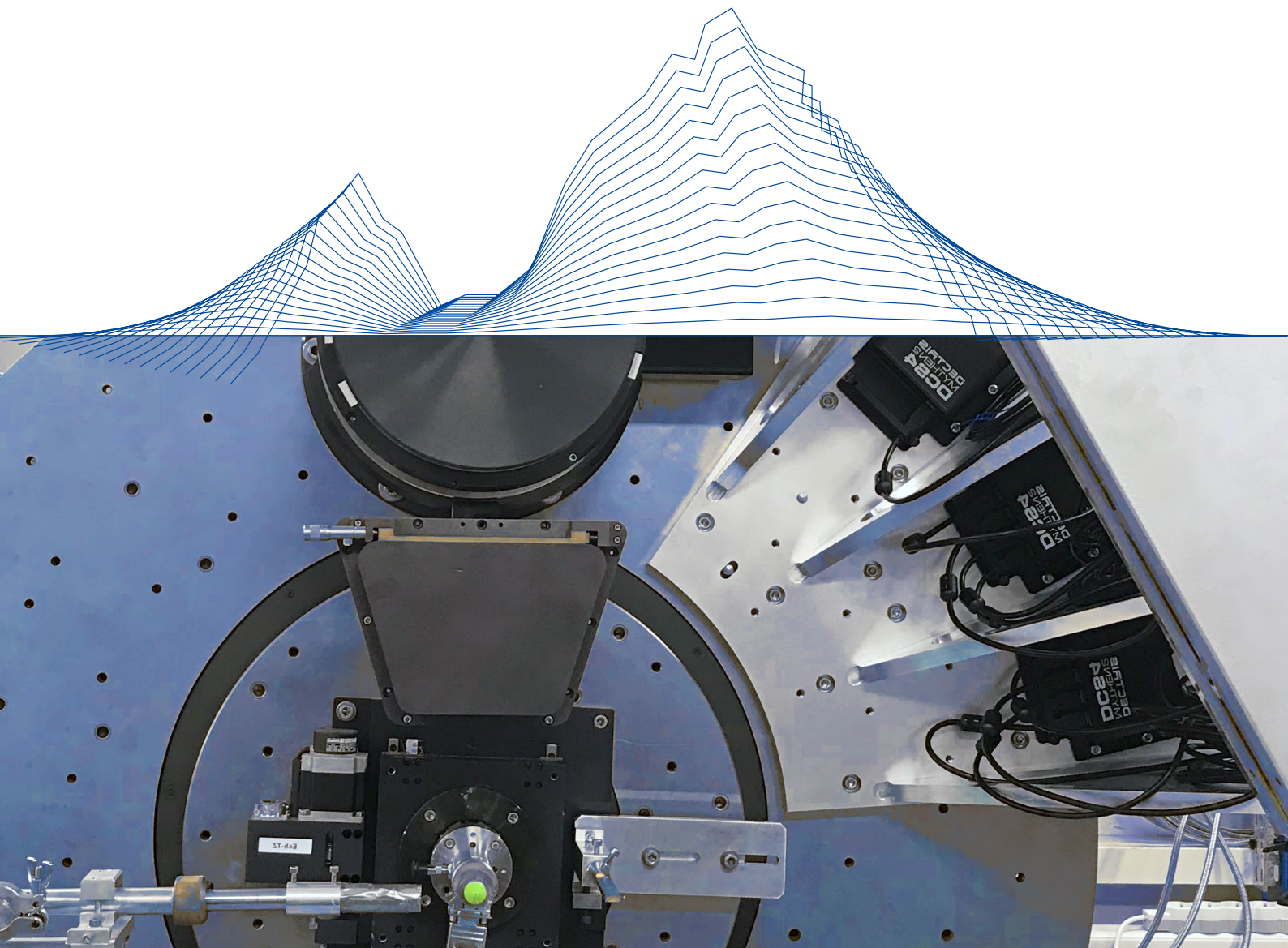
Energy range from 4-40 keV

Optimal quantum efficiency and signal-to-noise ratio for a wide range of energies are realized by means of various sensor geometries. Combining a 320 μm -thick sensor with a 4 mm-long strip allows detection of energies as low as 4 keV.

Technical specifications

MYTHEN2 X	1K	1D
Sensor thickness [μm]	320, 450, 1000	320, 450
Strip width [μm]		50
Strip length [mm]	8	8 (450 μm), 4 (320 μm)
Dynamic range [bit]		24
Energy range [keV]		4-40*
Readout time [μs]		89
Frame rate [Hz]		1000
Point-spread function [strip]		1
Energy resolution (rms) [eV]		687
Vacuum compatibility (optional)		yes
Cooling		Air
Module dimensions (WHD) [mm^3]	70x62x22	38x62x22
Module weight [g]	180	100
DCS4 dimension (WHD) [mm^3]		110x30x160
DCS4 weight [g]		400





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