

mar1M

DECTRIS PILATUS3 R 1M
on **mar***dtb* goniostat



mar1M Fast Data Collection System

You love it at synchrotrons and now you can have it at home, too. The PILATUS3 R 1M hybrid photon counting detector mounted on a **mar_{dtb}** goniostat makes the perfect choice for a world class ultra fast data collection system highly suitable for in-house use. Combined with a **mar_{px}^{3G}** micro-focus X-ray generator or a Excillum MetalJet or a rotating anode generator you are looking at a state-of-the-art data collection system that can be used for many X-ray applications be it single crystal crystallography of proteins and small molecules, powder diffraction, texture analysis or small angle scattering. Thanks to the large detection surface of 169 x 180 mm the PILATUS3 R 1M detector is capable of collecting highly redundant data without 2-theta offsets up to a resolution of 1.4 Å. If you need an even larger solid angle, the built-in 2-theta arm of the **mar_{dtb}** goniostat with a range of 30° extends the solid angle to 100° in 2-theta at a minimum distance of 48 mm. If the 172 µm pixel size of the PILATUS3 detector is too coarse for your application, there is a choice of using the EIGER2 R series of detectors by Dectris with 75 µm pixels, either the small 1M detector with an active area of 77 x 80 mm or the large 4M detector with 155 x 162 mm.



SPECIFICATIONS

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| Detector: | Dectris PILATUS3 R 1M Hybrid Photon Counting detector, 7 msec read-out time, up to 5 frames/second, 168.7 x 179.4 mm active area, 172 µm pixel size, 2 x 5 modules, water-cooled |
| Goniostat: | mar_{dtb} 2-axis multi-purpose goniostat with automatic X-ray beam alignment and continuous monitoring of the primary beam intensity, distance translation stage from 48 to 390 mm, 2-theta stage from 0° to 30° |
| Options: | <ul style="list-style-type: none">• Dectris EIGER2 R 1M or EIGER2 R 4M instead of PILATUS3 R 1M detector• Built-in motorized goniometer head or easymount extension for mar_{dtb}• Complete mar_{px}^{3G} microfocus X-ray generator and data collection system with cryo-cooler, mar_{LiN₂} LN₂ refill system, experimental table and enclosure• Excillum MetalJet X-ray source instead of microfocus generator |