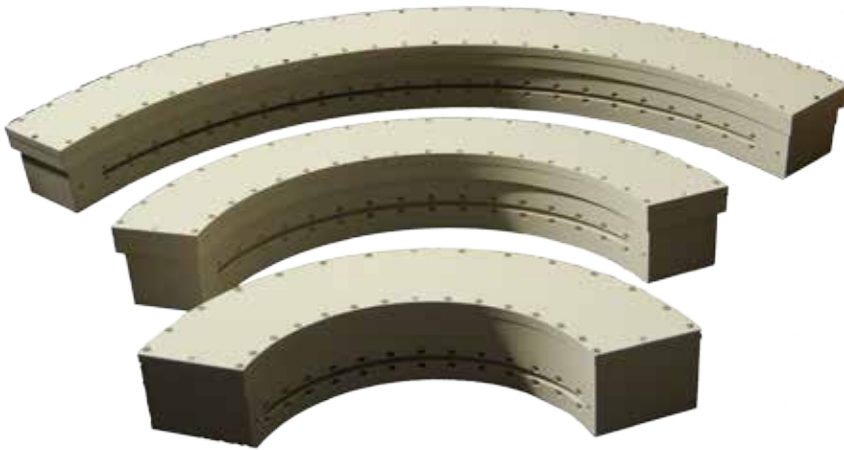


CPS 180/120/590 X-Ray Position Sensitive Detectors



- Unique curved design
- Real time analysis
- Asymmetric reflection mode
- Transmission mode
- Low maintenance
- Integrable to existing systems
- CE conformity

Integrable into any existing X-Ray diffraction equipment

CPS 180/120/590 Real Time Detectors

are unique acquisition tools allowing the collection of a maximum data in a short time.

They can be easily used for every X-ray diffraction applications and goniometric configurations.

They collect simultaneously X-rays on a wide angular range, and the measure precision depends only on the model spatial resolution that is used.



Focus on parts

Unique design for all your applications

EQUINOX CPS are curved detectors that allow you, for a fix sample θ incidence, to detect all diffraction peaks simultaneously within 2θ on the detector. This asymmetric detection mode gives a complete real time peaks picture on the whole angular range. You can then quickly see that the sample is wrongly positioned, or increase the acquisition time if the measured intensity seems to be a little weak with the initial time. This measuring principle also allows dynamic measurements on evolving samples.

General Specifications

Resolution	Measured on LaB6 powder with Ge monochromator
Gas mixture	Ethane / Argon (Other gas mixes also available)
Maximum count rate	100,000 cps
Quantum efficiency	75% CuKa
Mounting	Vertical or horizontal
Will it fit	Fits all existing X-ray diffractometers
Power	115 / 230V 50/60Hz

Analysis Speed & Resolution

EQUINOX CPS detectors are spatial detectors used in such a way that they intercept the Debye cones on a 2θ angular range. Different models are available to fit what is the most important for you : resolution or quick analysis.

The resolution of the detector depends on the detector distance to the sample, and so depends on detector's radius of curvature. However, there is a size restriction on the electronics inside the detector chamber that leads to a limitation of the angular range when resolution increases (120° to $90^\circ 2\theta$).

On the contrary the more the detector is close to the sample, the faster the acquisition will be. So a smaller radius of curvature would be the best for quick analysis, but resolution won't be as well.

As you understood, choosing a CPS detector is a matter of balancing analysis speed and resolution. To meet all applications needs of today's diffraction experiments Inel detectors range provides a choice three CPS models:

Cat Nos	Curvature Radius	Resolution FWHH	Degree 2θ
CPS180	180 mm	0,095	110°
CPS120	250 mm	0,069	120°
CPS590	500 mm	0,050	90°

Why choose INEL CPS detector?

All our detectors can be installed on INEL systems as well as on other suppliers X-ray diffractometers (with adaptation), that allows your laboratory to benefit from our technology. INEL CPS detectors can replace advantageously single point detectors on a scanning goniometer, or can be a true update of your system allowing new applications like dynamic analysis.

Equinox detectors do not require a scanning goniometer and can therefore be used to advantage in any Online applications like cement analysis, pharmaceutical raw material production, phase change monitoring and much more.

Your application needs simultaneous XRD and other technique analysis? Our detectors can be combined with other analytical systems, and our engineering service can help you figure out how. Contact us to learn more about this service.