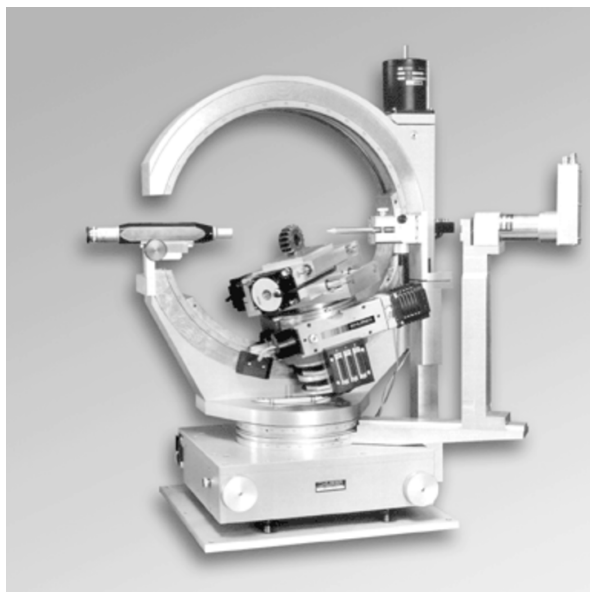




4-Circle Diffractometer 424-512.51

This 4-circle diffractometer, consisting of the components 424 and 512.51, offers a wide variety of possible applications ranging from residual stress and textural measurements to thin film analysis and wafer investigations.

Integrated in the Phi-circle is an XYZ-adjustment (150mm x 150mm x 25mm). The power supply is via jumper rings.

Specifications Phi-/Chi-circle:

	Phi-circle	Chi-circle
Travel range [°]:	360	360
Resolution [°]:	0.001* / 0.002* **	0.001*
Accuracy ["]:	30	30
Repeatability (unidir.) ["]:	<= 2	<= 3
Reversal error ["]:	<= 10	<= 15
Gear ratio:	360:1 / 180:1**	360:1

* with step motor, 1000 steps/revolution

** using Goniometer 410A

Specifications 2-Theta/Omega:

	2-Theta	Omega
Resolution [°]:	0.001	0.001*
Accuracy ["]:	<= 30	<= 30
Repeatability (unidir.) ["]:	<= 2	<= 2
Reversal error ["]:	<= 7	<= 7
Gear ratio:	360:1	360:1
Eccentricity [μm]:	<= 3	<= 3
Wobble ["]:	<= 4	<= 4

* with step motor, 1000 steps/revolution

Specifications X/Y:

	X	Y
Resolution [mm]:	0.002*	0.002*
Accuracy [μm]:	+/- 50	+/- 50
Repeatability (unidir.) [μm]:	+/- 5	+/- 5

Reversal error [μm]:	5	5
Spindelsteigung [mm/rev]:	2	2

* with step motor, 1000 steps/revolution

Specifications system:

Sphere of confusion [mm]:	≤ 0.03
Weight [kg]:	120

Accessories:

Collimator-arm XYZ-cryostat carrier:	8692
Detector:	optional
Slit screens:	Series 3000
Control system:	9300
CCD-camera:	MiniVID
Motors:	2-/3-/5-Ph.
Limit switches:	included
Zero-point control:	9100 included
Goniometer heads:	Series 1000
Encoder:	incremental absolute
Gear boxes (Phi, Omega, 2-Theta):	2056.05 2056.10 2056.20
Gear boxes (Chi):	2083.05 2083.10 2083.20

