

2-Circle Goniometer 422

This 2-Circle Goniometer 422 is a combination of two 1-Circle Goniometers 420. Both circular motions are independent of each other.

The lower circle is equipped with a 2-Theta arm with a prism guide and carriage.

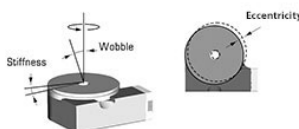
A further prism guide with carriage is mounted on the side of the housing of the upper circle.

- four precision configurations
- two load configurations

Application specific versions

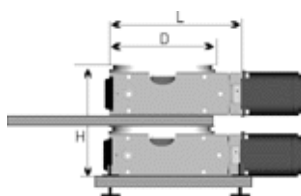
- vacuum suitable
- antimagnetic
- radiation resistant
- in black

Precision configurations:



	X1	X2	X3	XE
Accuracy ["]:	<=40	25	12	on request
Repeatability (unidir.) ["]:	<=4	2	2	on request
Reversal error ["]:	<=8	4	3	on request
Eccentricity [μm]:	<=5	3	2	2
Wobble ["]:	<=8	3	3	3

Dimensions [mm]:



D:	L:	H:
290	278	267

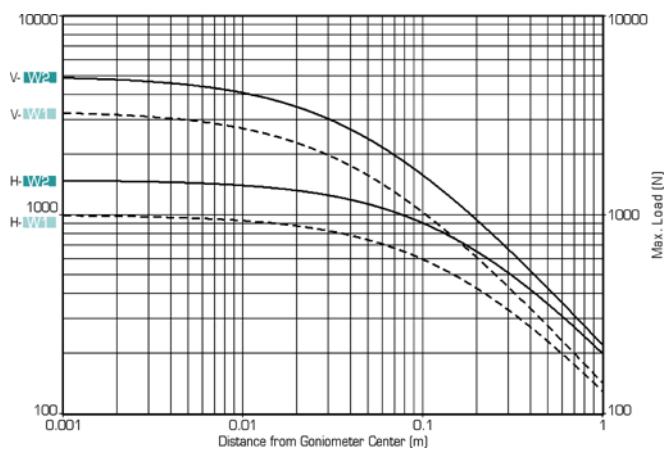
Accessories:

Motors:	2-/3-/5-Ph. Servo/DC
Hand wheels:	0083
Gear boxes:	2083.05 2083.10 2083.20
Limit switches:	included
Zero-point control:	9100
Encoder XE :	incremental absolut
Control system:	9300
Various adaptor plates:	optional
Arms:	analysator, counter weight
Counter weight:	optional
Base plate:	420.12 included

Maximum load Theta circle (vertical goniometer axis):

Max. load [N] W1 :	3300
Max. load [N] W2 :	5000

Maximum load 2-Theta circle:



- vertical goniometer axis (V- **W1** , V- **W2**)
- horizontal goniometer axis (H- **W1** , H- **W2**)
- The maximum load on the 2-Theta arm is depending on the

distance (momentum).

Specifications:

Travel range [°]:	360
Material (housing/worm gear):	Aluminium/Bronze
Gear ratio:	360:1
Resolution [°]:	0.001*
	0.00005 minimum
Stiffness [μ rad/Nm]:	0.2
Min. drive torque [Nm]:	1.0
Weight [kg]:	85
Flange size [mm]:	82

* step motor, 1000 steps/revolution

