



### General

The motorised XYZ cryostat carrier is designed to hold and position a cryostat or a goniometer head support and can be mounted in a Huber model 410 goniometer.

It can be used in an Huber Eulerian Cradle, model 512.1. Its extremely compact design allows a rotation range of the Phi-axis of 180° and due to its stiff stainless steel design it keeps a small sphere of uncertainty during operation of the cradle.

### Technical details

The three translations are guided by miniature high precision linear bearings and are driven through stepper motors with high resolution gear boxes in order to minimise backlash.

The independent X- and Y-movements are obtained by cam shafts transferring the rotation into a translation achieving a sinusoidal movement. The Z-translation is achieved via a large toothed ring cam.

The XY-translations have a total travel of +/- 2.2mm and the Z-translation +/-3mm. The resolution is sub-micron on all three translations.

### Specification

#### Material:

Body: Stainless steel

#### Specification

Travel range X [mm]: +/- 2.2

Travel range Y [mm]: +/- 2.2

Travel range Z [mm]: +/- 3

Weight [kg]: 5

Resolution [ $\mu\text{m}$ ]: < 1

#### Technical Data Motor:

Number of phases: 2

Type of plug: SUB D15

Number of steps/rev.: 200/400

Current per phase [A]: 1,2

Gear reduction: 50:1

Insulation class: B

Length of cables [m]: 0,5