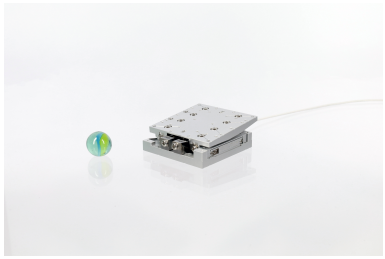

CGO-77.5 - Goniometer Stage

All piezoelectric goniometer stages are based on SmarAct's piezo drive technology. Goniometer stages are available with different radii. In addition to their compactness, these stages are very rigid and therefore ideally suited for micro- or nanopositioning tasks. Due to the usage of high precision crossed roller bearings, their angular accuracy is very high. The goniometer stages offer highest resolution of motion and are directly stackable. By combining two stages with appropriate radii it is possible to build a compact Euler goniometer with a common center of rotation. Their mechanical interface perfectly fits to the CLS-52 series stages. Thus, allowing the creation of multi-axis systems by direct combination of linear, rotation and goniometer stages. The SmarAct goniometer stages can be operated by any of our control units and are also available with integrated positioning sensors. Furthermore, the CGO series goniometer stages are available for different environmental conditions, such as high vacuum and ultra-high vacuum environments.

Since the CGO-77.5 is equipped with an exchangeable drive unit, easy access to the stage's core component for servicing is guaranteed.
The precise and compact goniometer stage CGO-77.5 can be directly mounted on top of CLS-52 linear stages or act as a base for an Eulerian cradle when combined with a CGO-60.5 stage.

	Mechanical
Travel [°]	± 5
Blocking Torque [Ncm]	38
Max. Normal Force [N]	5
Dimensions [mm]	50 x 50 x 17
Weight [g]	~ 140
Center of Rotation [mm]	77.5 (above working platform)
	Open-loop
Angular Velocity [°/s]	4

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Open-Loop Resolution [µ°]	<1
	Closed-Loop
Sensor Types	S, L
Sensor Resolution [µ°]	2 (S), 8 (L)
Uni-Directional Repeatability MCS2 [µ°]	± 100 (S,L)
	Options
Material Options	Aluminum as standard; Steel base (-ST); Titanium base (-TI)
Vacuum Options	HV (1E-6 mbar); UHV (1E-11 mbar)

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