

Manual, Large-Platform Goniometers

A goniometer or goniometric stage is a device used to rotate an object precisely, within a small angular range, about a fixed point in space. Goniometers are similar to linear stages, but, rather than providing linear movement, the stage partially rotates about a fixed point above the mounting surface of the stage.

Thorlabs offers large 1.5" x 1.5" goniometer stages with rotation about a virtual point that is either 1.00" (GNL10) or 1.75" (GNL18) above the top surface. In addition, these goniometers are designed such that the two models may be stacked in an XY configuration (GNL10 above the GNL18) with one common rotation point located 1" above the top platform of the XY configuration (Item # GNL20, which comes with a single base plate). All of these goniometers offer unobstructed, pure rotational motion about a point of rotation for the entire specified angle of rotation.

The precision dovetail design, accompanied by a backlash-free micrometer and a vernier scale, provides accurate and repeatable positioning. A side-mounted setscrew can be used to lock the platform in position.

The GNL series of large goniometers provide a generous array of tapped holes including 4-40 (M2.5) and 6-32 (M3) for mounting (see the schematic on the previous page for details). This series can be either post mounted via an 8-32 (M4) tap or mounted to a mini series breadboard (see page 74) via the slotted mounting holes.

Large (GNL Series) Goniometer Specifications

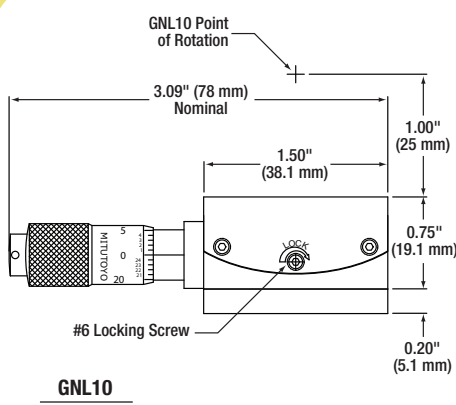
- **Distance to Point of Rotation from Top Surface**
 - GNL10: 1.00" (25.4 mm)
 - GNL20: 1.00" (25.4 mm)
 - GNL18: 1.75" (44.5 mm)
- **Rotation**
 - GNL10: $\pm 10^\circ$
 - GNL20: $\pm 5^\circ/\pm 10^\circ$
 - GNL18: $\pm 5^\circ$
- **Accuracy:** 10 arcmin (0.167°)
- **Load Capacity:** 1.0 lbs (0.45 kg)
- **Stackable Design:** Easily Assembles into 2-Axis System



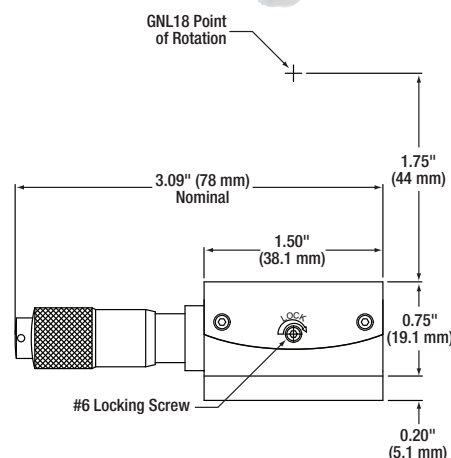
GNL18



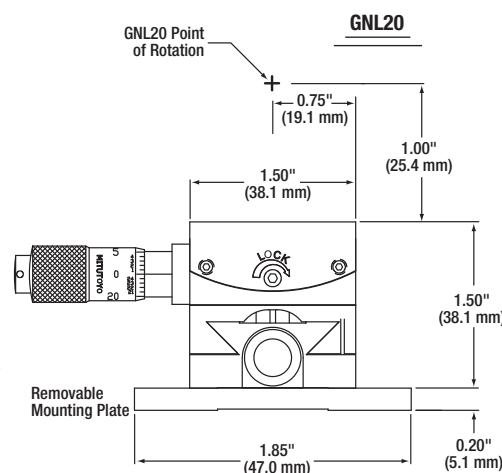
GNL20



GNL10



GNL18



GNL20

Please refer to our website for complete models and drawings.

ITEM #*	METRIC ITEM #*	\$	£	€	RMB	DESCRIPTION
GNL10	GNL10/M	\$ 234.00	£ 168.48	€ 203,58	¥ 1,864.98	Large Goniometer with 1" Virtual Point
GNL18	GNL18/M	\$ 241.00	£ 173.52	€ 209,67	¥ 1,920.77	Large Goniometer with 1.75" Virtual Point
GNL20	GNL20/M	\$ 475.00	£ 342.00	€ 413,25	¥ 3,785.75	Large Goniometer 2-Axis Stage, 1" Virtual Point

*Each unit ships complete with mounting base plate