
GONIOMETER SPECIFICATIONS AND CALIBRATION

SINGLE-AXIS GONIOMETER

This is a simple one-axis goniometer that consists of two HDPE shafts, tied to a three-lead B10k Ω potentiometer which converts the angle between the two shafts into a voltage reading. The potentiometer is wired to a BSL output, which inserts into a channel on the Biopac MP35.



SPECIFICATIONS

Nominal Angle Range:	0° to 300°
Attachment:	Velcro, 2 Bands – One per Shaft.
Dimensions:	293.2 mm x 25.2 mm
Cable Length:	~1 m

CALIBRATION:

The goniometer does not intrinsically know how to convert a voltage reading to an angle; calibration of the device is therefore necessary each time it is used. Ensure that the goniometer is inserted into a channel on the MP35 before calibration. In the Biopac software:

- i. Click “MP35” on the top menu bar.
- ii. Click “Setup Channels” for the goniometer input channel.
- iii. Click “Scaling.”
- iv. Set the goniometer to 90°, and type that value into the scale value box.
- v. Click “Cal 1” to read and store the voltage reading.
- vi. Set the goniometer to 180°, type that value into the scale value box.
- vii. Click “Cal 2” to read and store the voltage reading.
- viii. Click the OK’s to return to the main interface.

NOTES:

If the shafts are rotated past the nominal angle range, the potentiometer will reach its limit and will begin to slip in its threads. This means that the shaft will continue to rotate, but the potentiometer will give the same readout. Recalibration will be necessary.