

Two Dimensional Inclination Sensor for Noraxon cable and telemetry systems

- Measures range of motion in 1D or 2D
- Can be used for the spine & extremities
- Can be mounted on training machines
- Uses Standard Noraxon Plug-In Capability



Product Overview

The **inclination sensor** measures the angle relative to gravity and can simultaneously detect two motion directions, e.g. coupling patterns - combined saggital and frontal movements during cervical flexion.

Light Weight and User Friendly

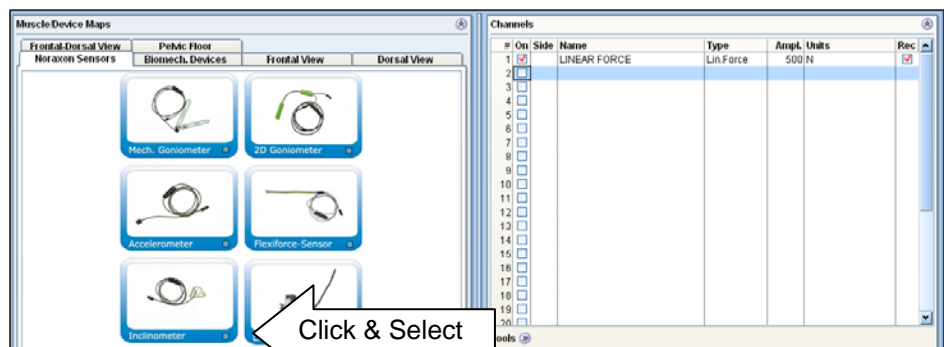
It is the **most compact inclination sensor available** on the market and has full “plug-in” functionality to all Noraxon’s latest systems. The inclinometer is a universal motion detector and may be used for all body segments and joints. Due to its **two dimensional capabilities**, it reduces evaluation times as it allows the user to measure joints in two directions without sensor repositioning. The inclinometer is **easily applied** with double sided adhesive tape (see picture right side) or Velcro straps (see applications)

If it is mounted on a lever arm of any training machine, it can be used as motion trigger signal. This is especially helpful for training in predefined motion ranges or if an accurate position signal is required for e.g. EMG and force measurements.

Free motion can be controlled by using the inclination sensor signals as a biofeedback signal.

The sensor measurement range is +/- 90 if both x and y axis are used simultaneously and +/- 180 if only one axis is used.

The sensor has a predefined measurement setup in all the Noraxon software packages and is operational in a few seconds:



MyoResearch XP sensor selection screen

Application Examples

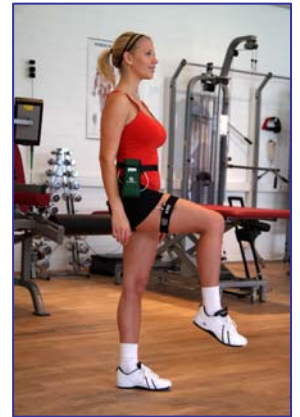
The sensor can be used to detect the joint motion of most major joint regions: Hand, arm, shoulder, head, trunk, thigh, shin, and foot.



Trunk flexion/extension and lateral flexion



Shoulder ab/adduction and extension/flexion



Hip (knee) extension/flexion, ab/adduction



Head flexion/extension and lateral flexion (rotation is measured in supine position)



Machine motion sensor - mounted to the lever arm

Specifications

Features:

- Measures two joint directions without sensor repositioning
- Small and lightweight

System:

- Nominal Output Range: +/- 180 degrees
- Max. Shock Survival: +/- 1000 G
- Max. Output Range: -4.5 to +4.5 volts
- Sensitivity: 25mV/degree
- Accuracy: +/- 2 degrees

Physical (sensor only):

- Length: 1.20" (3.05 cm)
- Width: 1.20" (3.05 cm)
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- Weight: 1.6 oz (45.4 gm)

Version

- Inline Inclinometer 2D (313)