

QS-DS- PhysCompass -22-A

Datasheet

Qosain Scientific PhysCompass

Introduction:

PhysCompass is a contact-based, very lowfriction, angular position and speed sensor that promises to be accurate, reliable, and extremely easy to use. Based on Vernier interpolation, PhysCompass can measure the angle of any rotating object with a resolution as fine as 0.6° and a range that has no limits!



Features:

- Adaptable for rods, pendulums, rotors, etc.
- PhysInstrument Class: Digital
- Connects with PhysLogger
- Direction sensitive
- Hardware tare
- Automatic calibration
- Notification LED:
 - Slow Blinking (0.5 blinks per second): Not configured
 - Medium (4 blinks per second): Calibrating
 - Fast (20 blinks per second): In Use

Specifications:

- Range: Unlimited
- Accuracy: $\leq 0.5^{\circ}$
- Resolution: ≤ 0.5°
- Mechanical

- o Weight:
- o Probe Diameter: 4mm
- Probe Material: Steel
- o Probe Length: 3cm
- Contact Type: 2x ball bearings



Notification LED

USB-C Receptacle

Measurement Technique

- Method: Analog Vernier Interpolation
- Main scale resolution: 63/rev
- Vernier scale resolution: 8/rev
- Analog resolution: 96

Typical Applications

- Investigate nonlinear and chaotic motion with a magnetically controlled pendulum
- Discover the principles of rotational mechanics
- Explore the profound physics of pendulums and oscillators
- Track the rotation of a motor, shaft or any pivoted component
- Biomechanical and clinical measurements
- Robots and vehicles





Resources

- Instrument URL: <u>www.physlogger.com/PhysCompass.html</u>
- Discussion: www.community.physlogger.com/c/physinstruments/physcompass/24

