

**Datasheet**

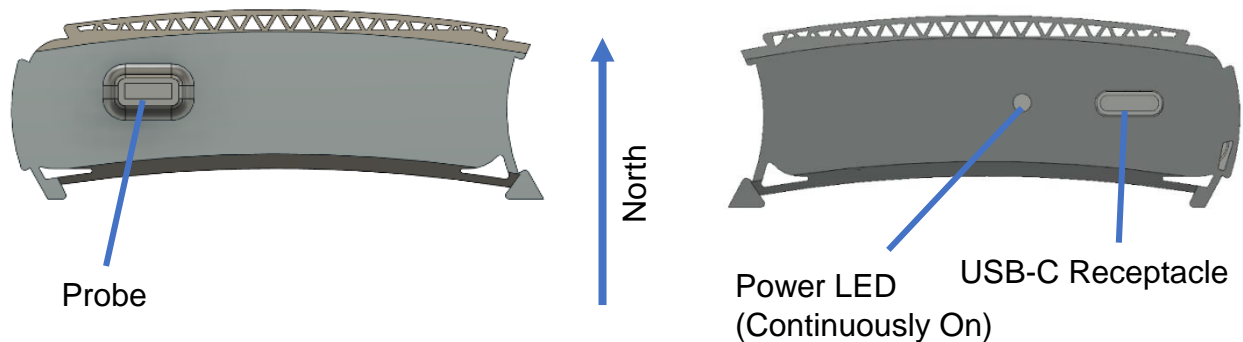
# Qosain Scientific PhysHall

**Introduction:**

PhysHall is an economical magnetic flux sensor equipped with a 3D printed axial probe. The device is a member of the PhysLogger's Analog PhysInstruments family. The device is built on top of a Sonnecy CYSJ902 GaAs Hall Effect Element which is an ion-implanted magnetic field sensor made of monocrystal gallium arsenide (GaAs) semiconductor material group III-V using ion-implanted technology.

**Specifications:**

- Based on: Sonnecy CYSJ902
- Range:  $\pm 1.0$  T
- Resolution
  - 50 G in range  $\pm 1.0$  T
  - 5 G in  $\pm 0.1$  T
- Mechanical
  - Weight:
  - Probe Material: PLA
  - Sensor orientation: Normal to face



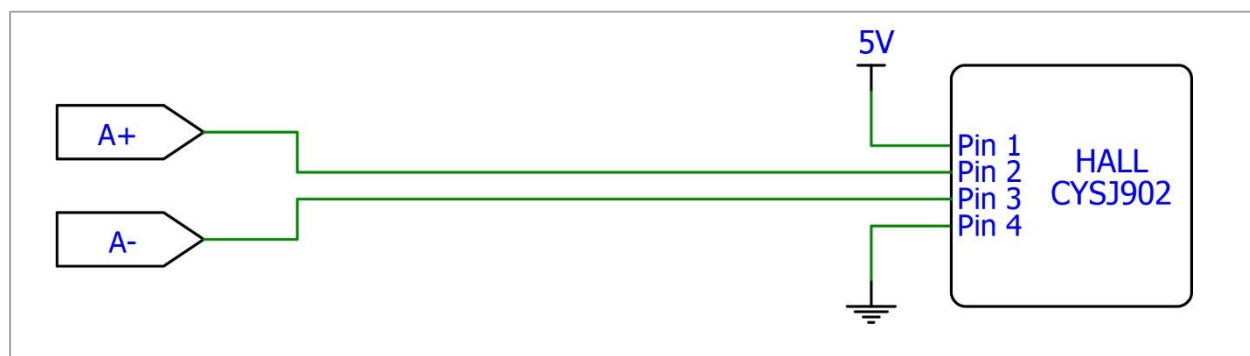
**Features:**

- Ready for measurement out-of-the-box
- Single step configuration
- High sensitivity GaAs sensor
- Connects with PhysLogger
- Compact and lightweight
- Hot pluggable

**Typical Applications**

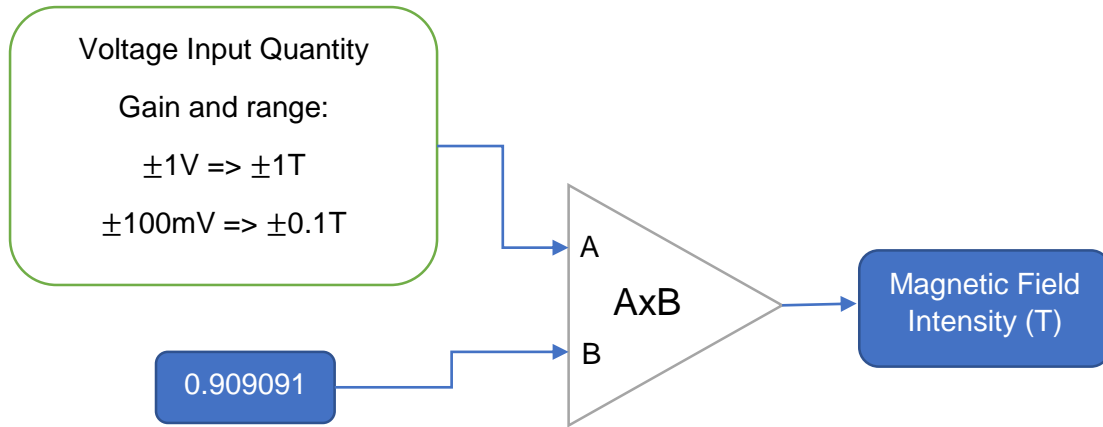
- Magnetic field of single or Helmholtz coils
- Dynamical investigation of the magnetic field mapping with angle of the field
- Pair with a V-Probe to investigate Faraday's Law
- Terrestrial magnetic fields

**Circuit Diagram:**



## Software Block Diagrams:

$$H \text{ (In Tesla)} = \frac{0.5}{0.55} \times \text{Voltage}$$



## Resources

- Instrument URL: [www.physlogger.com/PhysHall.html](http://www.physlogger.com/PhysHall.html)
- Sensor Datasheet: <https://www.sonnecy-shop.com/en/gaas-hall-effect-elements-cysj902-max.-sensitivity-1.44-2.16-mv/mt-measuring-range-2t.html>
- Discussion: [www.community.physlogger.com/c/physinstruments/physhall/17](http://www.community.physlogger.com/c/physinstruments/physhall/17)

