

G4 6DOF WIRELESS ELECTROMAGNETIC TRACKER

WIRELESS VERSATILITY

G4™ is the compact, tetherless tracker that allows for uninhibited movement. Harnessing the powerful performance of A/C electromagnetics, G4 delivers high-quality, real-time 6DOF data without the post analysis complications of hybrid technologies.



HOW IT WORKS

Sensor data calculations are transmitted directly to the PC via Radio Frequency (RF) links, providing a seamless stream of drift-free data. Sensors within the tracking range provide full position and orientation data.

EXPAND & EVOLVE

Each G4 hub can track up to three sensors, with an update rate of 120Hz each. Track additional objects or people by increasing the number of hubs; expand the tracking range by adding additional sources.

FEATURES

- ✓ Wireless RF Communication
- ✓ Set Up & Track in Minutes
- ✓ No Line-of-Sight Occlusions
- ✓ 10+ Hours of Battery Life
- ✓ Scalable
- ✓ Zero Drift
- ✓ Compact Size
- ✓ Ultra-Portable

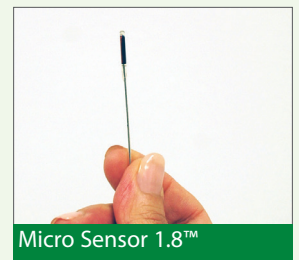


APPLICATIONS

G4 paves the way for cutting-edge solutions and advancement in the areas of training and simulation, rehabilitation, physical therapy, biomechanics, sports analysis, and virtual or augmented reality.

(left) Lightweight and portable G4 Hub

OPTIONS



Micro Sensor 1.8™



Micro Sensor 1.8™ Extra Flex



PowerTRAK 360™
3D pointing device for 3D mouse applications

COMPONENTS

The standard G4 system includes an SEU (System Electronics Unit), or hub, one standard sensor, one source and one RF/USB module. You can easily expand the system's capability by adding hardware components.

SYSTEM ELECTRONICS UNIT

Embedded hardware and software computes the position and orientation of each sensor and wirelessly transmits data.

WEIGHT: 4 oz (114 g)

DIMENSIONS: 4.2 in (10.6 cm) x 0.75 in (1.9 cm) x 2.6 in (6.6 cm)

STANDARD SENSOR

A small lightweight cube, the sensor's position and orientation is precisely measured as it is moved.

WEIGHT: 0.32 oz (9.1 g)

DIMENSIONS: .9 in (2.29 cm) x 1.1 in (2.82 cm) x .6 in (1.52 cm)

SOURCE

The source generates the magnetic field in which the sensor is tracked.

WEIGHT: 1.60 lb (726 g)

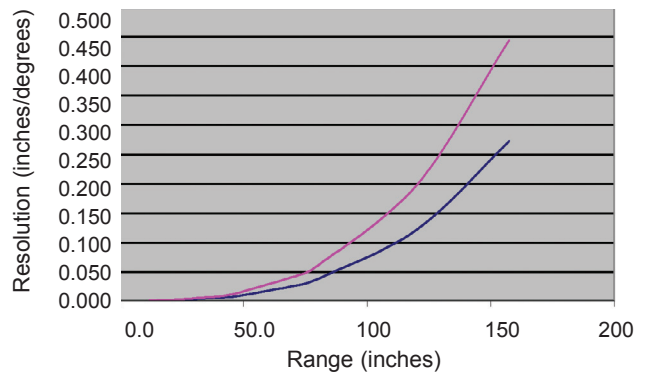
DIMENSIONS: 4.07 in (10.34 cm) x 4.05 in (10.29 cm) x 4.07 in (10.34 cm)

Dimensions and weight are approximate. Dimensional drawings available upon request.

SPECIFICATIONS

UPDATE RATE	120Hz per sensor, simultaneous sampling
INTERFACE	Proprietary RF link; 2.4 GHz frequency-hopping architecture ; USB
LATENCY	Less than 10 milliseconds in optimal RF communications conditions
STATIC ACCURACY	1 meter (3.3 ft): 0.50 degrees RMS - 0.08 inches/.20 cm RMS 2 meter (6.5 ft): 0.75 degrees RMS - 0.25 inches/.64 cm RMS 3 meter (9.8 ft): 1.00 degrees RMS - 0.50 inches/1.27 cm RMS
SOFTWARE TOOLS	PiMgr GUI for Microsoft Windows® Setup and Configuration Utilities for Microsoft Windows® and Linux® PDI SDK for Microsoft Windows® C Programming APIs for Microsoft Windows® and Linux®
SYNC INPUT	Up to 8 discrete digital inputs for event triggers
OPERATING TEMPERATURE	10°C to 40°C at a relative humidity of 10% to 95%, noncondensing
POWER REQUIREMENTS	Source: 5 volt, 1 amp/hub: 5 volt, 500 ma/RF dongle: 5 volt, 30 ma Internal battery, rechargeable via USB or included power supply
REGULATORY	FCC Part 15, Class B EN61326-1: 2013 Emissions EN61326-1: 2013 Immunity, Basic Environment 2.4 GHz Radio Approval: FCC Part 15 EN 301489-1 V1.9.2 2011 Emissions IC RSS 210 EN 301489-3 V1.6.1 2011 Immunity, Basic Environment

RANGE VS RESOLUTION (WITH RX2)



— ORIENTATION — POSITION

Range (inches)	Position Resolution (inches)	Orientation Resolution (degrees)
12.0	0.0003	0.0008
24.0	0.0010	0.0020
48.0	0.0080	0.013
96.0	0.0610	0.100

GET IN TOUCH

Our technology powers applications in a wide variety of markets, catering to healthcare, military, and in countless research areas. Talk with our Motion Tracking Experts today.

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*Large metallic objects, such as desks or cabinets, located near the source or sensor, may adversely affect the performance of the system.

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