

FASTRAK

COMPONENTS

The FASTRAK system includes a System Electronics Unit (SEU), a power supply, one receiver, and one transmitter. You can easily expand the system's capabilities by adding up to three additional receivers.

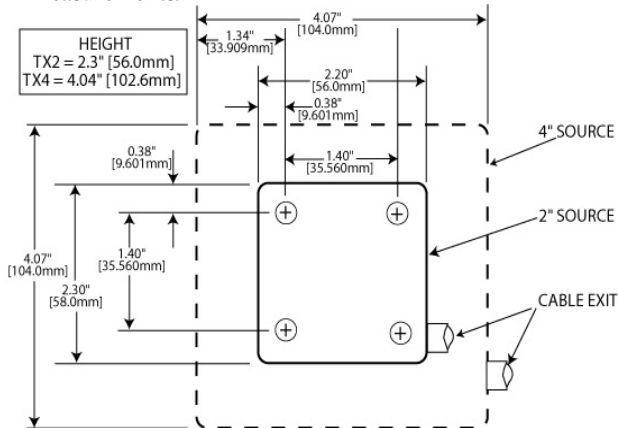
System Electronics Unit

Contains the hardware and software necessary to generate and sense the magnetic fields, compute position and orientation, and interface with the host computer via USB, RS-232 or optional RS-422.

10.3 in. (25.9 cm) L x 11.5 in. (29.2 cm) W x 2.2 in. (5.8 cm) H

Source

The source is the system's reference frame for sensor measurements.

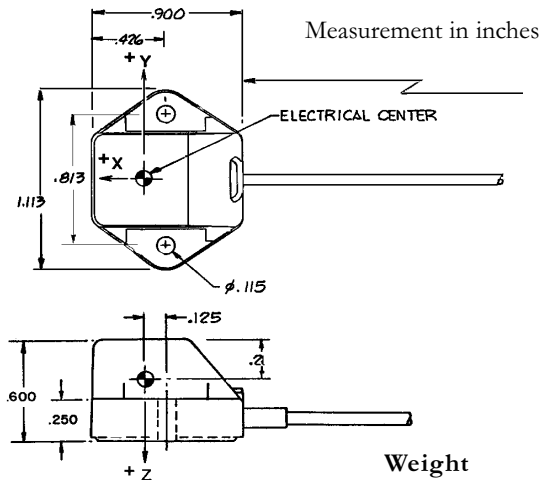


Weight

TX2: 8.8 oz. (250 gm) **Thread size** 1/4" x 20
TX4: 1.60 lbs. (726gm) **Thread size** 1/4" x 20

Sensor

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



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SPECIFICATIONS

Update Rate

120 updates/second divided by the number of receivers

Latency

4 milliseconds

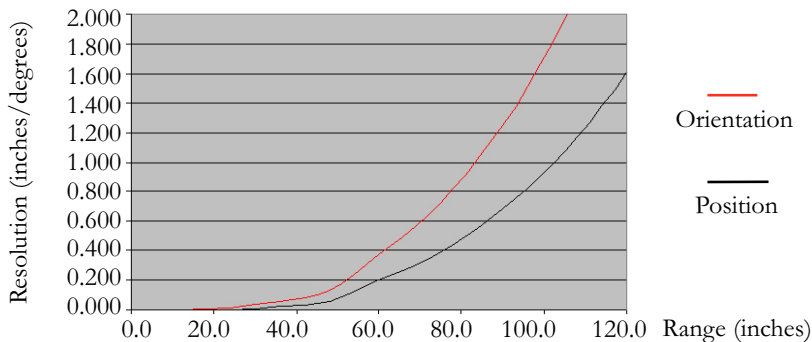
Static Accuracy

0.03 inches RMS for the X, Y, or Z position; 0.15° RMS for receiver orientation. The system will provide the specified performance when the receivers are within 30 inches of the transmitter. Operation over a range of up to 10 feet is possible with slightly reduced performance.

Interface

USB; RS-232 with selectable baud rates up to 115.2 K (optional RS-422)

Resolution vs. Range



| Range (inches) | Position Resolution (inches) | Orientation Resolution (degrees) |
|----------------|------------------------------|----------------------------------|
| 12.0 | 0.00023 | 0.0026 |
| 24.0 | 0.0030 | 0.0147 |
| 36.0 | 0.019 | 0.0558 |
| 48.0 | 0.055 | 0.1266 |
| 72.0 | 0.346 | 0.369 |
| 120.0 | 1.605 | 2.960 |

Sync Input

TTL and CRT

Software Tools

GUI included

USB drivers for Microsoft Windows® XP/Vista/Win7 included (32-bit and 64-bit). Linux®- open-source application available

Operating Temperature

10°C to 40°C at a relative humidity of 10% to 95%, noncondensing

Power Requirements

15 W, 100-240 VAC, 47-63 Hz

Regulatory

FCC Part 15, class A

CE: EN61326-1: 1997/A1:1998/A2:2001/A3:2003 emission

EN61326-1: 1997/A1:1998/A2:2001/A3:2003 Immunity

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

REGISTERED
ISO9001

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