



## Specifications for the PHANTOM® Desktop™ haptic device

The SensAble Technologies PHANTOM® product line of haptic devices makes it possible for users to touch and manipulate virtual objects. Different PHANTOM devices meet varying needs. The Premium models are high-precision instruments and, within the PHANTOM product line, provide the largest workspaces and highest forces, and some offer 6DOF (6 degrees of freedom) output capabilities. The PHANTOM Desktop provides precision positioning input and high fidelity force-feedback output. Portable design and compact footprint ensure workplace flexibility.



Model	<u>The PHANTOM Desktop Device</u>
<b>Force feedback workspace</b>	~6.4 W x 4.8 H x 4.8 D in > 160 W x 120 H x 120 D mm
<b>Footprint</b> Physical area the base of device occupies on the desk	5 5/8 W x 7 1/4 D in ~143 W x 184 D mm
<b>Weight (device only)</b>	6 lb 5oz
<b>Range of motion</b>	Hand movement pivoting at wrist
<b>Nominal position resolution</b>	> 1100 dpi ~ 0.023 mm
<b>Backdrive friction</b>	< 0.23 oz (0.06 N)
<b>Maximum exertable force at nominal (orthogonal arms) position</b>	1.8 lbf. (7.9 N)
<b>Continuous exertable force (24 hrs.)</b>	0.4 lbf. (1.75 N)
<b>Stiffness</b>	X axis > 10.8 lb/in (1.86 N/mm) Y axis > 13.6 lb/in (2.35 N/mm) Z axis > 8.6 lb/in (1.48 N/mm)
<b>Inertia (apparent mass at tip)</b>	~0.101 lbm. (45 g)
<b>Force feedback</b>	x, y, z
<b>Position sensing</b> ..... [Stylus gimbal]	x, y, z (digital encoders) ..... [Pitch, roll, yaw ( $\pm 3\%$ linearity potentiometers)]
<b>Interface</b>	Parallel port and FireWire® option*
<b>Supported platforms</b>	Intel or AMD-based PCs
<b>OpenHaptics® SDK compatibility</b>	Yes

\*Please visit the Support and Resources section of our website for more information [www.sensable.com/support-overview.htm](http://www.sensable.com/support-overview.htm).

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