



# Datashet

7D Kinematic Metrology



## i6 LONG REACH PROBE G6 KIT

The i6 Long Reach Probe (i6LRP) is a wireless long reach measurement device that provides 6DOF measurements within an iSpace or iGPS system. Equipped with two probe extensions and a variety of interchangeable probe tips, the i6LRP enables accurate large volume inspection in the most flexible way. The i6LRP can also be configured as a 6DOF localizer for third party instruments and its sensor spacing makes it effective for bundling an iSpace system. The ergonomic design and wireless operation make the i6LRP suitable for long periods of use.

## KEY FEATURES & BENEFITS

- True 6DOF measurement device
- Four fixed iGPS sensors ensure reliable measurement with built-in redundancy
- Full measurement flexibility due to wireless operation
- Integrated trigger button for remote data collection
- Interchangeable long reach probe extensions to measure hard to reach features of interest
- Interchangeable ball and point tips to suit the measurement task at hand
- iSpace bundling tool

## APPLICATIONS

The i6LRP is an inspection device for large volume applications such as:

- Shipbuilding
- Aerospace and aerospace components
- Cars, buses, trucks, excavators
- Surveying and archeology
- Large moulds, castings (such as steam turbine housings)

The i6LRP can also be configured as a 6DOF localizer for third party instruments such as:

- Marking attachments for layouts and final matching
- NDT probes for flaw detection and coating thickness

The i6LRP detector locations are precisely measured allowing it to be used as a bundling tool for highly portable and minimal iSpace systems.

## TECHNICAL SPECIFICATIONS

### ACCURACIES<sup>1,2</sup>

Point Repeatability (Single Orientation <sup>3</sup> )	75µm (0.0030")
Point Repeatability (Multiple Orientations <sup>4</sup> )	200µm (0.0079")
Tip Reattachment <sup>5</sup>	100µm (0.0039")
Bundle Scale Uncertainty <sup>6</sup>	20ppm

<sup>1</sup> Accuracies stated are  $2\sigma$ .

<sup>2</sup> i6LRP performance testing completed using a 4x iSpace system. When used in iGPS configuration, the accuracy is subject to iGPS network accuracy.

<sup>3</sup> Measurements were taken with consistent orientation and inclination of instrument.

<sup>4</sup> Measurements were taken with 360° coverage in orientation and up to 20° inclination from normal.

<sup>5</sup> Identical procedure to Point Repeatability test with the tip removed and reattached after each measurement.

<sup>6</sup> Refers to the scale uncertainty of an iSpace system bundled with the i6 LRP. Uncertainty determined by comparing lengths measurements with a certified instrument according to B89 standard.

### ENVIRONMENTAL REQUIREMENTS

Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Relative Humidity	10% to 75% (non-condensing)

### HARDWARE SPECIFICATIONS

i6LRP Weight (including 1.0m extension)	3.0kg (7lb)
i6LRP Kit Weight	22.0kg (49lb)
Communication	802.11 a/b/g WLAN
Security	WPA2 IEEE 802.11i

Power	High Density Li Ion Battery
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## CONFIGURATIONS & OPTIONS



### CONFIGURATIONS

Part No.	Description
0129189	i6 Long Reach Probe G6 Kit includes: <ul style="list-style-type: none"> <li>• i6LRP body</li> <li>• 2 x i6LRP probe extensions (0.4m, 1.0m)</li> <li>• Probe tip set with               <ul style="list-style-type: none"> <li>– 2 x 0.5" ball</li> <li>– 2 x point tip</li> </ul> </li> <li>• Probe calibration block</li> <li>• 2 Batteries &amp; charger</li> </ul>

i6 LRP kits also include a rugged flight case and calibration certificate.

### OPTIONS

Part No.	Description
0063474	Spare i6 Probe Battery
SVCE-600-313	i6 Long Reach Probe Re-Calibration



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