



## RS750 Sensor

### Overview

The RS750 is a USB 2.0-based, high-resolution profiling sensor that is used in on-line, robotic or remote applications. Stationary over a moving line, affixed to a linear slide or used as an end-effector for robotic inspections, the RS750 brings all of the scanning capabilities of the handheld sensors into the more demanding applications. Rugged construction keeps the sensor running in harsh industrial environments.



### Operating Features

**Design** - A compact design allows the RS750 to be used in applications with limited access. Mounting ports are located on the top of the sensor and provide flexible options for positioning the sensor.



**Standoffs** - Since standoffs are used only to bring the sensor into an optimal depth-of-focus position, these are not necessary for applications where the sensor is mounted to a fixture or robot. Positioning in those cases would be designed into the fixture or adjusted with feedback from the scan.

**Interface** - A single USB cable is used for power, data and communication, making it compatible with most any Windows-based PC (laptop, notebook or tablet). This makes it easy to replace the sensor or swap it for a different field-of-view.



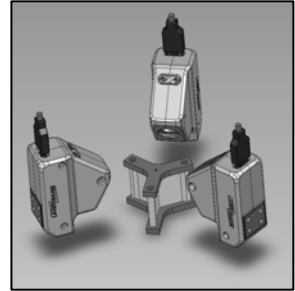
**Custom Applications** - With a wide range of field-of-views available, the RS750 sensor is perfect candidate for many custom applications. A uniquely designed adapter with two mirror faces enables the sensor to "see" and inspect the pressure face of a fan disk. Ordinarily, the underside of this surface would not be accessible for scanning.

## Advantages

**Versatile** - A fixed inspection station typically utilizes a PC running the LGCommander software with the RS750 sensor. The RS750 can also be used in portable applications using tablet or notebook PCs.

**Adaptive** - In some cases where access is limited or the feature to be measured cannot be seen from the top surface, special mirror adapters can be designed to provide a measurable image.

**Expandable** – The versatile USB interface allows multiple RS750 sensors to work in conjunction to scan complex parts. The sensors can be synchronized so that the multiple scans can be acquired simultaneously for time-critical measurements.



## Applications

<b>Profile</b>	Continuous monitoring of surface features and contours as parts pass on a moving line.
<b>Radius</b>	Continual measurement of radius of curvature to monitor tool degradation.
<b>Weld Inspection</b>	Concavity, convexity, undercut measurements. Inspection for missing welds and pinholes.
<b>Height and Width</b>	Height and width of product used with known line speed for volumetric calculation.
<b>Step/Distance</b>	Part feature variance from datum to identify production problems.
<b>Wear</b>	Wear identification and measurement with resolution to $\pm 0.0005$ " depth
<b>Fasteners</b>	Step height and fastener angle

## Sensor Specifications

<b>Type</b>	Mounted
<b>Size</b>	1.6" (w) x 2.5" (h) x 3.5" (l)
<b>Weight</b>	8 oz
<b>User Interface</b>	None
<b>Cable Length</b>	Up to 6' (2m) with passive cable, expandable with powered cable or hub
<b>FOV Options/Resolution</b>	0.5" (13mm) / 0.0004" (10 $\mu$ m) 1.2" (30mm) / 0.001" (25 $\mu$ m) 1.9" (50mm) / 0.0015" (38 $\mu$ m) 2.6" (65mm) / 0.002" (50 $\mu$ m)
<b>Environment</b>	0° – 70° C

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