PRODUCT DATASHEET

RS763 Sensor

OVERVIEW

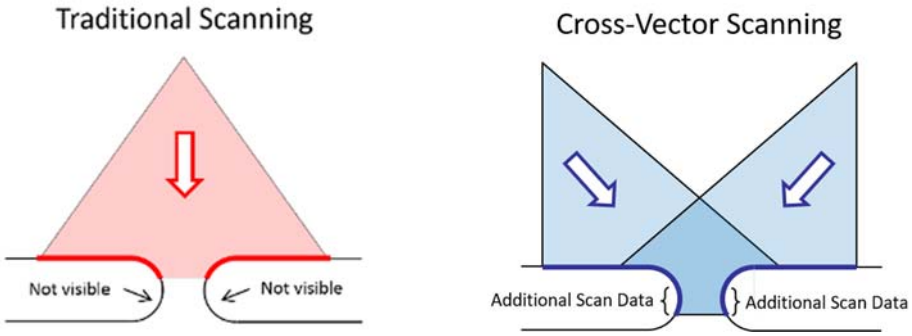
With unique **Cross-Vector** scanning technology, the RS763 provides more surface information around the edges of surfaces than any other end-of-arm laser profiler. It is used primarily for measuring the gap and flush between assembled panels.

The RS763 sensor is a complete measurement system. No external components are needed except an Ethernet interface to an external PC, robot controller or PLC. Utilizing a powerful 1GHz processor, measurements take less than one second.

OPERATING FEATURES

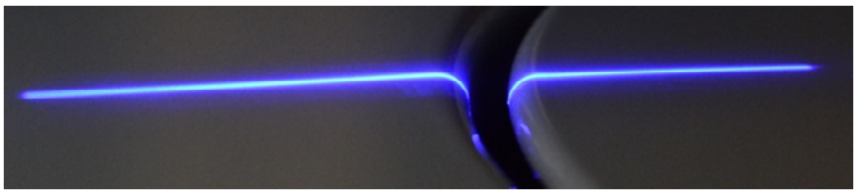
CROSS-VECTOR SCANNING

Traditional laser profilers utilize a single laser stripe coupled with a single imager to capture surface scans. But a single view cannot see surface points around the radius on the edge of the gap. The Cross-Vector sensor utilizes 2 blue lasers which yield multiple views at crossing angles. This allows the sensor to see around edges of the radius to the vertical tangent and beyond. The result is a complete surface profile and the most accurate gap measurements.



BLUE LASER TECHNOLOGY

LaserGauge® uses a blue laser to overcome a traditionally difficult limitation in red laser technology where the red laser penetrates transparent and translucent surfaces (including windshields, headlights, etc.). Since the red laser is not reflected by those surfaces, they cannot be measured. A blue laser light, however, is scattered 4x more than the red laser and allows us to measure these features without suffering any consequences to measuring more common opaque surfaces.



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ADVANTAGES

Speed – The scanning process is completed, measurements calculated, and values sent to controlling system, all in less than one second.

Flexibility – Compatible with all LaserGauge® products and measurement methods.

Powerful – All of the processing power to acquire measurements is contained in the sensor. There is no need for an external PC.

Communications – An Ethernet interface allows an extra device (robot controller, PLC or PC) to communicate to the sensor through the Anybus X-Gateway. The Anybus module allows the sensor to be interfaced to any existing robot controller.

Supporting Software – Includes Windows applications that provide feedback to the user for optimum measurement position and orientation, robot emulator and real-time monitoring and diagnostic feedback for sensor operation and functionality during use.

Power – Standard 24VDC @ 1 Amp power

SENSOR SPECIFICATIONS

Type	DSP – Robot-mounted
Size	5.7” (w) x 6.8” (l) x 3.7” (h) (144mm x 171mm x 94mm)
Weight	3.4 lbs (1.5 kg)
User Interface	None on sensor. Windows application is provided for virtual interface to the sensor.
Communications	Ethernet
Processor	1GHz Speed
Memory	8GB of data/scans/routines
Battery	None
FOV Options / Horizontal Scanning Resolution / Depth Accuracy	F24 = 2.0” (51mm) / 0.0015” (38µm) / ± 0.0015” (38µm)
Shock Protection	Cast urethane housing, crash detection protection available
Environment	0° – 70° C

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