LASER GAUGE

LASER-PRECISE MEASUREMENTS

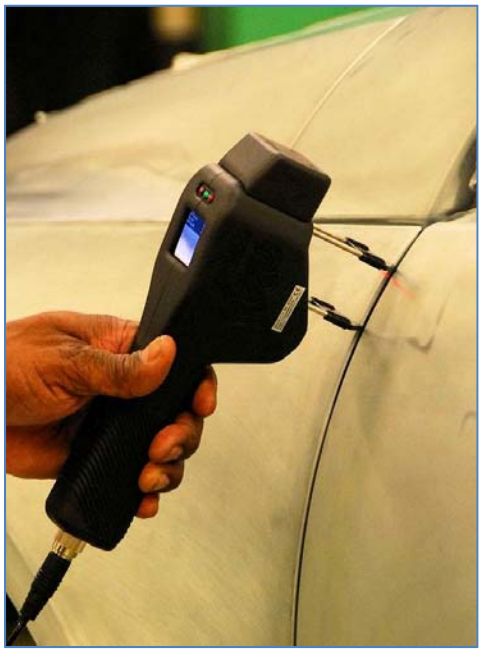
HS306 Sensor

Overview

The HS306 is a lightweight, versatile, controller-based sensor. It has all the features of the HS305 sensor plus a color graphical display for viewing real-time scans and measurement data. Plus it can be fitted with an optional barcode reader for the automatic entry of part numbers or VIN's.

With sturdy, cast urethane housing and rigid-mounted internal components, the HS306 is designed for years of rugged use.

Operating Features



Design - The contoured pistol-grip handle makes the HS306 easy to hold and intuitive to use. A simple pull of the finger trigger, which is located under the handle, starts the scanning process; and when the scan and measurements are complete, a green LED signals the operator to release the trigger.

Operator Feedback – The HS306 utilizes a full-color graphical display for presentation of measurement values, graphs of the current processed scan and text instructions to guide the operator to the next measurement location. Three LED's at the front and the rear of the sensor direct the operator to roll the sensor to the correct angle before the scan is completed.

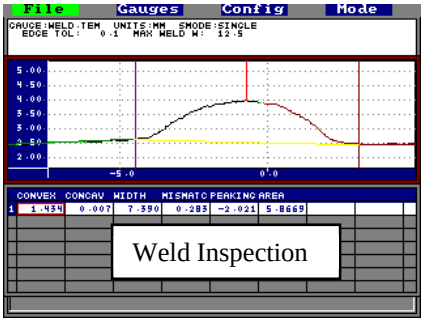
Barcode – An optional barcode scanner can be added to the HS306 sensor. This allows the operator to scan a barcode on the part or the assembly being inspected, and then the barcode will be recorded in the data file for automatic traceability to the inspection results. The operator no longer has to manually enter trace information, such as a serial number or VIN. The barcode reader supports practically all universal formats.

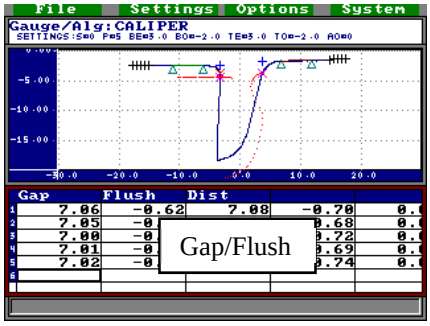
Removable Standoffs - Standoffs are used to position the sensor above the surface at an optimum distance and to guide the sensor to the center of the feature being measured. They are not a factor in the calculations made. Standoffs are designed to the requirements of the application and can be changed by the operator as the sensor is used to make different types of measurements.

Automatic Gain Adjustment - The sensor's microcontroller automatically adjusts the gain of the optics to optimize the sensor's performance on the various surface finishes, from raw metal to the full spectrum of painted colors.

Applications

Gap/Flush	Automotive, aerospace and other assembly closure fits and part alignment.
Step/Angle	Steps 0 to 1.0”, angles from -60° to +60°
Weld Inspection	Butt, lap and fillet welds, width from 0.125” to 2.0”
Radius	Radius of curvature measurements from 0.250” to 5.000”
Fasteners	Height and angle of the fastener head relative to adjacent surface
Wear	Wear down to 0.002” depth
Dents/Gouges	Dents, gouges and foreign object damage from 0.002” to 0.500”





Advantages

Versatile - The HS306 can be used for gap and flush on vehicles, gap and step between assembled panels on airplane bodies, step heights (thickness) of composite layers, radius measurements, inspecting dents, gouges, and other foreign object damage, and many other applications. The sensor’s standoff distance from the surface allows the sensor to “see” more surface points on complex contours around the feature being scanned.

Durable - A rugged, cast urethane housing protects the sensor's optics from damage during normal use. The internal optics are secured in a solid piece to maintain their critical positioning in the likely event of a drop.

Sensor Specifications

Type	Controller Based – Handheld
Size	2.25" (w) x 3.3" (h) x 7.0" (l)
Weight	14 oz.
User Interface	Color Graphical Display, 2 sets of 3 LED's
Cable Length	5’ (1.5m) extended
FOV Options / Horizontal Scanning Resolution / Depth Accuracy	0.5” (13mm) / 0.0010” (25µm) / ±0.0008” (20µm) 1.3” (33mm) / 0.0026” (66µm) / ±0.0010” (25µm)
Shock Protection	Cast urethane housing, coiled spring cable
Environment	0° – 70° C

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MAX Power: 10 mW
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Complies with IEC 60825-1 Am1:1997, Am2:2001