

Overview

The HS305 is the most versatile of the controller-based sensors, offering the widest range of resolution and field-of-view options. Its universal design with foam handle and finger trigger makes it easy to operate.

The sensor is the approximate size of a barcode scanner and weighs less than a pound. With a sturdy, cast urethane housing and rigid-mounted components, the HS305 is designed for years of rugged use.



Operating Features

Design - The foam covered, pistol-grip handle makes the HS305 easy to hold and intuitive to use. A simple pull of the trigger with a finger starts the scanning process; and when the scan and measurements are complete, a green LED signals the operator to release the trigger. Lightweight and easy to use, this model sensor is the favorite of operators performing 100% inspections on vehicles moving down an assembly line.



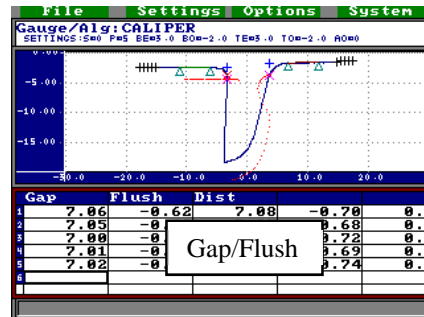
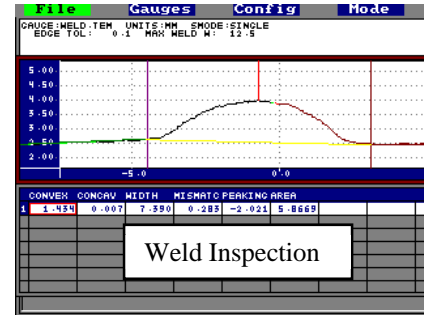
Operator Feedback - Three LED's at the front and the rear of the sensor direct the operator to roll the sensor to the correct angle before the scan is completed. A 2 x 16 LCD is used to display messages, alerting the operator of scanning errors, indicating when a good scan has been completed, showing the measurement value, and providing instructions on where the next measurement is to be taken.

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 HS305 has the most FOV options to choose from. It has a greater standoff distance from the surface than other handheld models, and this gives it the potential to capture more surface points on curving contours.

Durable - A rugged, cast urethane housing protects the sensor's optics from damage during normal use. An optional, 0.25" molded foam boot can be fitted over the sensor head if the usage environment is particularly dangerous and additional protection is warranted.

Sensor Specifications

Type	Controller Based – Handheld
Size	2.35" (w) x 3.75" (h) x 7.0" (l)
Weight	13 oz.
User Interface	2-row x 16-character LCD, 2 sets of 3 LED's
Cable Length	5' (1.5m) extended
FOV Options / Horizontal Scanning Resolution / Depth Accuracy	0.5" (13mm) / 0.0010" (25 μ m) / \pm 0.0008" (20 μ m) 1.0" (25mm) / 0.0020" (51 μ m) / \pm 0.0010" (25 μ m) 1.3" (33mm) / 0.0026" (66 μ m) / \pm 0.0010" (25 μ m) 2.0" (51mm) / 0.0040" (102 μ m) / \pm 0.0020" (51 μ m) 3.3" (83mm) / 0.0066" (168 μ m) / \pm 0.0040" (102 μ m)
Shock Protection	Cast urethane housing, coiled spring cable, optional ¼" foam boot
Environment	0° – 70° C

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