PRODUCT DATASHEET

# HS703 Sensor | With Blue Laser Technology

## OVERVIEW

The HS703 with Blue Laser Technology is the fastest and most versatile of the LaserGauge® DSP sensors. It is perfect for measuring gap/flush measurements taken around split taillights, windshields, clear headlights, red and amber lenses, chrome and glass around transparent or translucent surfaces as well as gap/flush on solid metal or plastic body panels. A high-resolution imager and 1GHz processor produce accurate measurements in **less than one second**.

Since the sensor is totally self-contained, it does not depend on any external devices during use. All operations are performed on the sensor. The 3.5" color display provides detailed graphics of plotted profiles, and the touch screen allows for easy menu navigation and expanded graphic functions.

All of the LaserGauge® measurement gauges and algorithms run on the HS703 with Blue Laser Technology; and the powerful on-board processor provides the advanced functions of high contrast and multi-angle scanning effortlessly.

## OPERATING FEATURES

### COLOR DISPLAY

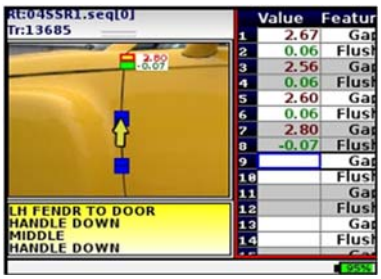
The 3.5" high resolution color LCD provides graphical and textual information before, during and after the scanning. The surface profile is plotted in real-time and the measurement results are instantly written to the data table.

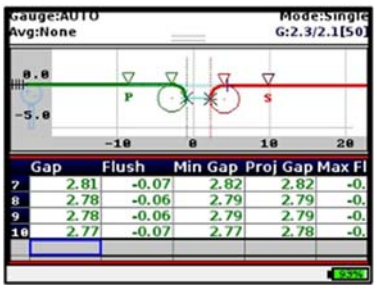
### USER INTERFACE

Operators can use the touch screen to navigate menus and access on-screen functions, or the 5-way joystick and two keypad buttons can be used to perform all the same operations without needing a second hand. Color LED's on the top and the bottom of the sensor provide roll angle and error feedback on each scan.

### ROUTINE & GAUGE MODES

Inspection routines developed using the LGWorks software run directly on the sensor in the Routine Mode. Detailed graphics and on-screen messages guide the inspector from one measurement to the next. Scans can automatically be saved, measurements can be retaken at any time, and calculations viewed as the routine progresses. In the Gauge Mode, measurements are taken using one algorithm, such as the countersink or fastener algorithm. Pan and Zoom functions on the graph allow for the detailed analysis of the scan. Data is written to a table and saved automatically.




### WIRELESS COMMUNICATIONS

Data files and scan files that have been saved on the sensor can be retrieved wirelessly using the integral 2.4GHz ZigBee module to a matching USB stick plugged into a local computer. A USB cable can also be used to send files to and retrieve files from a computer.

LASER GAUGE

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## BLUE LASER TECHNOLOGY

Because of the shorter wavelength of the blue laser, measurements are possible on transparent or translucent materials such as headlights and taillights. The blue light more readily reflects from these surfaces providing stable, precise measurements on features that are normally considered as critical.

## POWER

A rechargeable, lithium-ion battery provides power for up to 6 hours of constant operation. Power saving functions can be used to extend operating times even longer. Files are constantly saved, so data is never lost. The on-screen fuel gauge and a "low battery" message informs the operator when it is time for a fresh battery.

## OPTIONS

A barcode reader can be added to the sensor for automatic documentation of part numbers or identification numbers such as VIN's. An optional holster and belt can be used to secure and protect the sensor while the operator moves from part to part.

## *ADVANTAGES*

**Speed** – Measurements are completed in less than one second.

**High Resolution** – With a horizontal scanning resolution of 1280 surface points within the field-of-view, the sensor has 250% the resolution of most other handheld profilers.

**Complete System** – The HS703 with Blue Laser Technology is a complete inspection system. With its powerful processor, it can run complex inspection routines or be used as a GO/NO Gauge. The full range of aerospace applications: fasteners, countersinks, step heights, gaps, radii, and welds, and automotive applications: gap and flush, flange length and angle, radii, bead height, and welds, can all be handled using just one sensor.

## *SENSOR SPECIFICATIONS*

| | |
|---|---|
| Type | DSP – Handheld |
| Size | 3.6" (w) x 3.8" (h) x 10.1" (l) |
| Weight | 26 oz. (29 oz. with battery) |
| User Interface | 3.5" Color Display, 2 sets of 3 LED's, 5-Way Joystick and 2 Buttons |
| Communications | Wireless - 2.4GHz ZigBee module with ZigBee USB Stick for computer<br>Cable - USB 2.0A to Mini 5-Pin USB, 6' |
| Processor | 1GHz Speed |
| Memory | 8GB of data/scans/routines |
| Battery | High capacity, rechargeable lithium-ion Inspired Energy series NB2037 |
| FOV Options / Horizontal Scanning Resolution / Depth Accuracy | F20 = 1.2" (30mm) / 0.0010" (25µm) / ± 0.0008" (20µm)<br>F30 = 1.9" (48mm) / 0.0015" (38µm) / ± 0.0015" (38µm)<br>F44 = 2.5" (63mm) / 0.0020" (51µm) / ± 0.0020" (51µm) |
| Shock Protection | Cast urethane housing |
| Environment | 0° – 70° C |


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