Application Story

Automotive

Wireless bore gauging for machine centres
The Product

Solartron’s WiGauge™ and WiGauge™ Gen II are built for bore and depth gauging applications where wired instruments are unfeasible or undesirable. A calibrated, digital 10 mm spring probe is encased in high impact ABS handle with an optional new integrated colour LCD screen. The unit will mate to nearly any M10 or M6 threaded bore head (dyer thread also available). It will output to a computer via Class 1, 2 or 3 Bluetooth® connection.

The Challenge

In engine plants, machining centres are often used to mill out high precision bores into the engine block and head casting. Operators will typically make one pass, then stop the machine and check the diameters to ensure the bore is within spec. This is either done with stand-alone dial gauges or wired bore gauges. Both pose problems, as the operator must separately record the data for a dial gauge, and a wired bore gauge means a long, cumbersome cable with no reading directly at the machine centre or elsewhere in the assembly process. Also, if multiple gauges are used, the cables can become tangled. Recording of data is key, as more end customers require data tracking of all key dimensions.

The Solution

The Solartron WiGauge™ solves the problems encumbered by other bore solutions in an easy, cost effective product. With the WiGauge™, an operator can attach any bore plug (M10 or M6 thread), master it, and then enter the machine centre to take readings.

When a reading is taken, the lower button will flash red or green, giving a simple go/no reading, while the result is sent via Bluetooth® to a computer. If the operator wishes to see a localized reading, an LCD screen on the side of the handle is available on the Gen II model, which not only gives a real time result, but also any Peak+, Peak- or other programmed output. The customer will see cost savings from reduced measurement time and no need to manually record results.
The Solartron WiGauge™ kit includes the following:

WiGauge™ Handle
Removable Battery Pack with up to 10 hours of life (continuous data transmission)
Fast Battery Recharger
Bluetooth® Dongle and Drivers
WiGauge™ drivers and demo software

Specifications

Class 1, 2 or 3 Bluetooth®
IP65 Protection
<0.1 µm resolution
Audio signal when data is transmitted
Transmits data up to 15 metres
0 to 60ºC Operating Temperature

WiGauge™ Software

WiGauge™ software drivers are available, so the unit can be connected to any SPC or computer programme via Bluetooth®. Also available is a WiGauge™ Demo software, (shown below) which can display readings and output results to a spreadsheet. To download the free drivers, go to www.solartronmetrology.com.

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