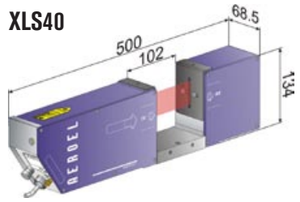
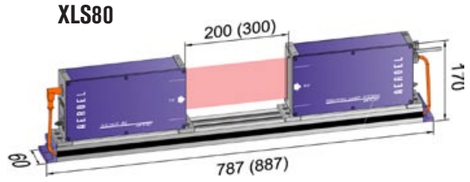
Technical characteristics

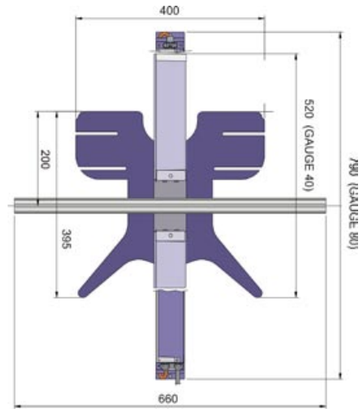
XLS40



XLS80



OPTIONAL BASE AND SLIDE



All dimensions are in mm.

DISPLAY AND ALARMS MODULE DM-100

Main Display LED 6 digits, 7 segments multicolour
Sub Display LED 2 digit
6 Warning lights for the Status of the Inputs and the Outputs
4 Outputs protected PNP, Imax: 100 mA
2 Inputs PNP, Ityp.: 15 mA
Analog output, optional +/- 10 V
Dimensions: 97 x 49 x 158 mm
Weight: 0.5 kg
Power supply: 24 VDC 150 mA

I.R. REMOTE CONTROL

Size: 198 x 59 x 25 mm
Weight: 91 g (without batteries)
Power supply: 4 AAA 1.5 V batteries

Available models

	TABLE-GAUGE.X40	TABLE-GAUGE.X80
Gauge Model	XLS40	XLS80
Beam height (mm)	40	80
Measurement range (mm)	From 0.06 to 38	From 0.75 to 78
Scanning rate (Hz)	200 / 1200	200 / 1200
Resolution (µm)	0.01 at best	0.1 at best
Repeatability (µm)	± 0.1 at best	± 0.3 at best
Linearity (µm)	± 0.5 at best	± 1 at best

Questo prodotto è conforme ai seguenti standard:
21 CFR 1040.10 (USA) • CEI EN-60825-1; 2003-4-1 (EU).

Specifications subject to change without notice. For additional details and complete specifications please see the gauge data sheet.

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ISO 9001:2000

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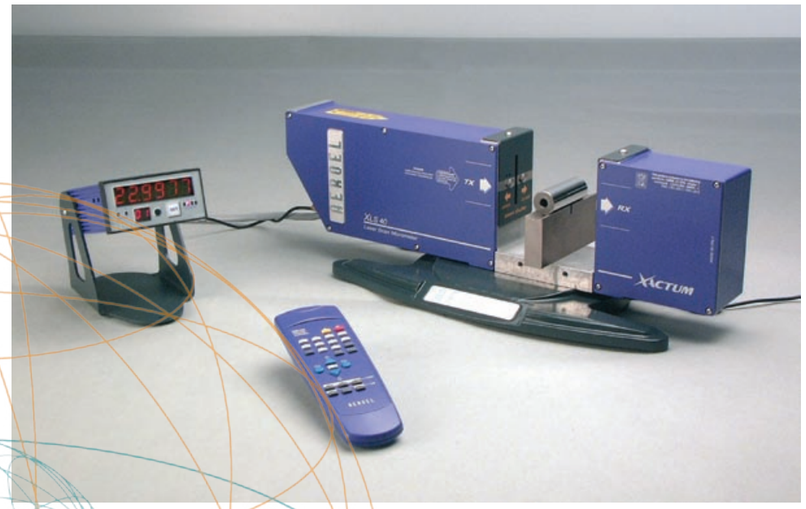
XACTUM Laser Systems

TABLE-GAUGE.X



Use the Xactum Intelligent Laser Gauges as bench-top micrometers, in the Table-Gauge configuration: with no other instrument can you measure diameters so quickly, so accurately and so easily.

It's the ideal instrument to check pins, ground or other turned parts.

No matter what the operators' skill level!

Ultra-accurate and perfectly reproducible measurements thanks to Aeroel's outstanding Laser Technology offered at affordable conditions.

AEROEL
PRECISION LASER SYSTEMS

The Table-Gauge.X

The XLS gauges are programmed with a dedicated software and are completed with a display unit, a remote control, fixturing to hold the part and a base-plate for bench-top use: using this “Table-Gauge” assembly you can, in a few seconds, check the diameter, roundness and the concentricity of ground or turned parts, to an accuracy that before only could be obtained in a metrology room, by using much more expensive equipment and specialized personnel.

System Configuration

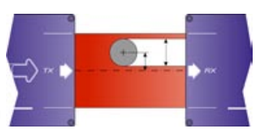
The Table Gauge X system is composed by:

- a single axis Xactum gauge, XLS40 or XLS80 type,
- Table-Gauge.X software pre loaded in the gauge,
- DM-100 multi-color LED display,
- universal power supply,
- I.R. Remote Control,
- bracket to hold the display,
- base plate for the gauge.

Some optional accessories are available

- V blocks to hold the part,
- linear slide and the gauge-base to translate the part,
- fixed V blocks to be mounted on the slide,
- centers and cones to hold the part,
- foot switch,
- GageXcom software for PC communication.

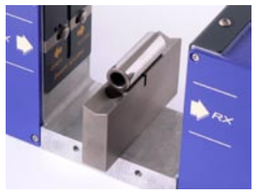
Types of measurements



It measures the diameter D and the position C of the Center of the part, from the Center of the measuring field. The part can be **opaque or transparent**.

The measuring time (or the measuring frequency) can be set by programming the number of scans being averaged, to get the required repeatability and resolution(*).

Measuring modes



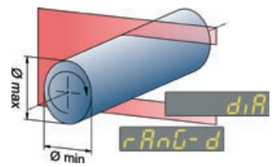
Free-running diameter measurement: put the part on the fixture and you will get the continuous reading of the diameter on the display.

Selecting the **Auto-sync mode**, you will get one measurement only, triggered just after having positioned the part and after a programmable delay. The display will hold the measurement after you have removed the part.

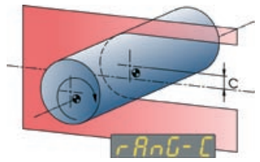
On-command measurement: you will get the Average, Maximum and Minimum readings and the Range Values = Max-Min. By using a foot switch to Start / Stop the measurement, you can have the hands free to handle the part.

(*) The minimum averaging scan number is preset to 4 in the 200Hz gauges and to 16 in the 1200 Hz gauges; the maximum measuring frequency is respectively 50 Hz or 75 Hz. The measuring repeatability can be computed by dividing the single shot repeatability (see the gauge data sheet) by the square root of the averaging scan number.

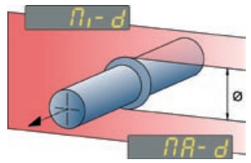
Measurement examples



Diameter and roundness: rotate the part by 180° and measure the diameter, display the average diameter and the value of the Diameter Range = Dmax-Dmin.



Run-out: measure of the center position during a 180° rotation, with the part held between centers, and display the value of the Center Position Range = Cmax-Cmin. You will get the run out of the measured section referred to the center axis.



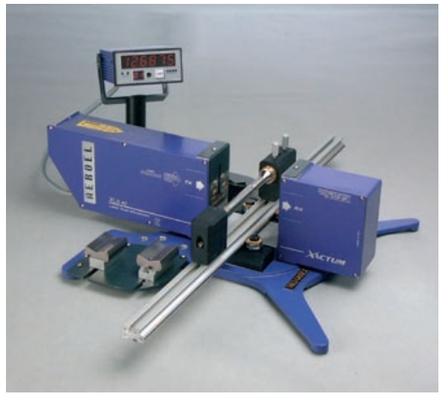
Sphere er Groove diameter: move the part along its axis and measure the diameter, display the Maximum or Minimum Diameter value.

Display and remote control

Multicolor LED display to show the measured values and to allow system programming through the IR remote control.

The measured and programmed data can be scrolled on the display by using the remote control or the SET key on the display panel.

It is possible to save in memory, in a Product Library, up to 1000 different sets of programmed parameters, for each specific part to be checked.



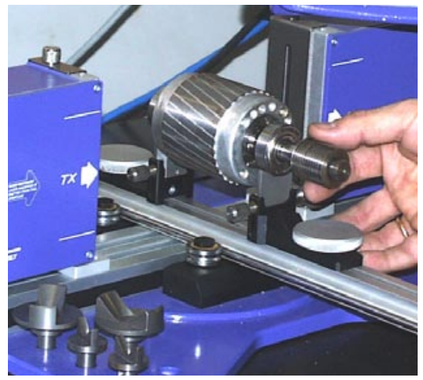
The display color will change corresponding to the tolerance status of the shown variable (green, orange or red).

The display unit includes 4 alarm output lines to drive additional external devices.

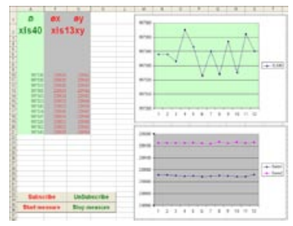
Simple and quick programming using the remote control keys and the messages on the display.

Offset function for user re-mastering.

Selectable Measuring Units (inch/mm) and Resolution (to 0.01µm / 1x10-6 inch).



PC interface



An external / remote computer can be connected to the system through the Ethernet interface to program the system or to get the measured data. Using the optional GageXcom software provided by Aeroel, you can use Excel spread-sheets to set-up the system and to get all measured results: you can write your own applications by processing data with the standard Excel functions.
The RS232 interface can be used only one-way, just to download the measurement results; the protocol is compatible with the Aeroel’s GageX software to download measured data into Excel.

AEROEL XACTUM