AEROEL
TABLE**GAUGE**XY

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 wire samples, optical fibers and magnet wire.

No matter what the operators' skill level!

Ultra-accurate and perfectly reproducible measurements, thanks to an outstanding Laser Technology offered at affordable conditions.

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THE TABLE-GAUGE.XY

The XLS gauges are programmed with a dedicated software and are completed with a display unit, a remote control, some fixturing to hold the part and a base-plate for bench-top use: using this "Table-Gauge" assembly you can rapidly check the diameter and the ovality of a number of different products, to an accuracy that previously could only be obtained in a metrology lab, using much more expensive equipment with specialized personnel.

EXCLUSIVE AEROEL FEATURES

- The scanning motor based on the **Fluid Dynamic Bearing technology**, without ball bearing [1] works perfectly, with no wear.
- **The NO-VAR option** allows you to automatically compensate for the expansion of the part when room temperature changes. The user only needs to program the proper coefficient of thermal expansion of the part.
- **The Web Server** allows you to connect the sensor through the Ethernet line to any Internet browser and "see it" as a website, where you can view the measures, set-up and program the gauge and even display the video signal (light pulse).

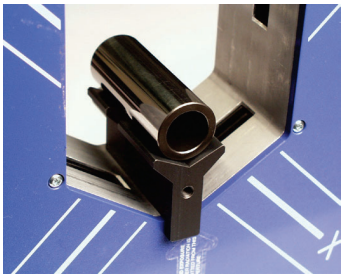
SYSTEM CONFIGURATION

The Table Gauge X system is composed by:

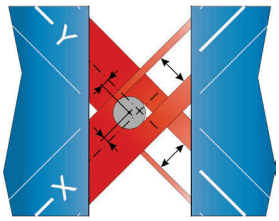
- a dual axis Xactum gauge, XLS13XY or XLS35XY type
- Table-Gauge.XY software pre loaded in the gauge
- DM-200 multi-colour LED display
- universal power supply
- I.R. Remote Control
- bracket to hold the display
- base plate for the gauge

Some optional accessories are available:

- V blocks to hold the sample
- hand driven rotating fixture (for the XLS13XY only)
- foot switch
- GageXcom software for PC communication.



TYPES OF MEASUREMENTS



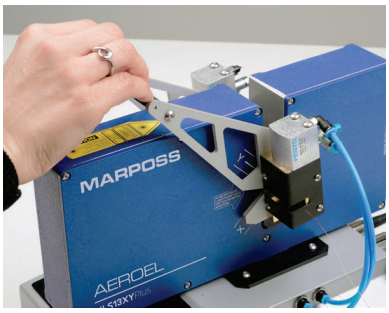
It measures the diameters Dx and Dy along two crossed axes and the position Cx and Cy of the Center of the section, from the Center of the mesuring field. The product can be **opaque or transparent.**

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. [2]

Single face scanning: in all measurement modes, you can use 1 mirror face only, to cancel the side dither of the scanning plane: when this option is selected, the scanning rate is reduced to 120 Hz or 125 Hz.

MEASURING MODES

Free-running diameter measurement along two axes at 90°: put the part on the fixture and you will display the diameters and the ovality.



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

On-command measurement: you will get the Average, Maximum and Minimum diameters and their difference (Dmax-Dmin): by rotating the sample during the measurement you will get the real value of the product ovality. The Start/Stop command can be remote (Ethernet/RS232) or local by using the remote control the display SET key or a digital input line. By connecting a foot switch you can have the hands free to handle the part.

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 programmable alarm output** lines to drive additional external devices.

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

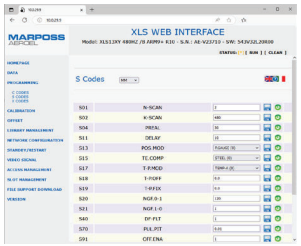
Offset function for user re-mastering.

Selectable Measuring Units inch/mm and Resolution (to 0.01µm / 1x10-6 inch). (3)

PC INTERFACE

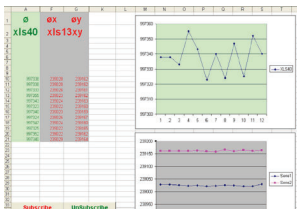
An **external/remote computer** can be connected to the system through the **Ethernet/RS232** interface, to **program the system or to get the measured data.**

The **Web Server** allows you to connect the sensor through the Ethernet line to any Internet browser and "see it" as a website



It is possible to use the RS232 port in VT100 emulation mode, which makes it possible the connection of the system to a PC using the **Windows** (4) **Hyperterminal** program.

Using the optional **GageXcom software** provided by Aeroel, you can use **Excel** (4) spread-sheets to set-up the system and to get all measured results: you can write your own applications by writing suitable Excel Macros and using standard Excel functions to process data.



(1) Available only on the 480 Hz scanners.

(2) The minimum averaging scan number is preset to 4 in the 480 Hz gauges and to 12 in the 1500 Hz gauges; the maximum measuring frequency is respectively 120 Hz or 125 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.

(3) Due to the display limitations, the 6 most significant digits only are shown; the full resolution is anyway available using the serial output ports.

(4) Windows and Excel are registered trademarks of Microsoft Corporation

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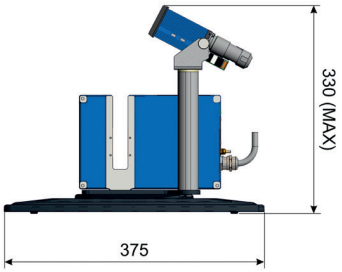
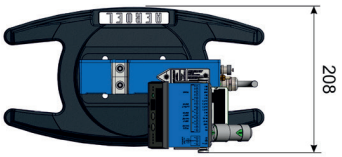
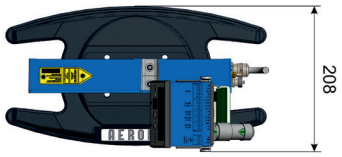
TECHNICAL CHARACTERISTICS

XLS13XY/480

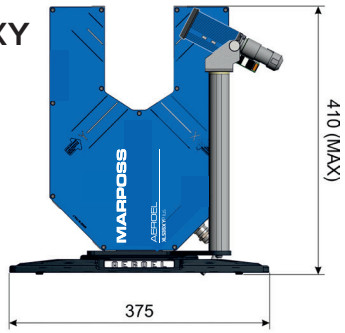


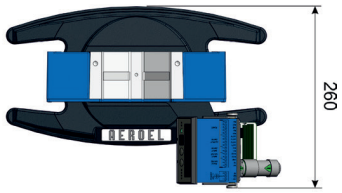


XLS13XY/1500



XLS35XY





All dimensions are in mm and do not consider cables and connectors.

DISPLAY AND ALARMS MODULE DM-200

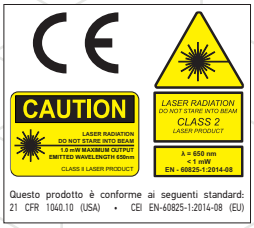
Main Display LED 6 digits, 7 segments multicolour
Sub Display LED 2 digit
6 Warning lights for the Status of the Inputs and the Outputs
4 Outputs protected PNP, Imax: 100 mA
2 Inputs PNP, Ityp.: 15 mA
Optional **analog output**: ± 10 V
Dimensions: 97 x 49 x 105 mm
Weight: 0.3 kg
Power supply: 24 VDC 150 mA

I.R. REMOTE CONTROL

Size: 180 x 50 x 26 mm
Weight: 80 g (without batteries)
Power supply: 2 AAA 1.5 V batteries

AVAILABLE MODELS

	TABLE-GAUGE.XY13		TABLE-GAUGE.XY35
Gauge Model	XLS13XY		XLS35XY
Beam height (mm)	13 x 13	4 x 4	35 x 35
Measurement range (mm)	From 0.1 a 10	From 0.03 a 3	From 0.2 a 32
Scanning rate (Hz)	2 x 480 / 2 x 1500		
Resolution (µm)	0.01at best		
Repeatability (µm)	± 0.02 at best		± 0.15 at best
Linearity (µm)	± 0.5 at best		± 1 at best



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

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IMQ CERTIFIED
QUALITY MANAGEMENT SYSTEM
ISO 9001:2015

IQNET
CERTIFIED MANAGEMENT SYSTEM

AEROEL SRL - Via Pier Paolo Pasolini, 35/3 - 33040 Pradamano (UD) ITALY - tel. +39 0432671301 - fax +39 0432671543 - aeroel@aeroel.marposs.com - https://www.aeroel.it

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