CG10 CONTACT MEASUREMENT GAUGE

OBSESSIVE SINCE 1965 PRECISION

Compact bluetooth enabled gauging instrument for linear dimensional measurement applications. CG10 offers a high degree of accuracy over a wide measuring range with low gauging forces.

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The new and improved Logitech CG-10 Precision Electronic Measurement System is a compact bluetooth enabled gauging instrument, suitable for most linear dimensional measurement applications. It offers a high degree of accuracy over a wide measuring range with low gauging forces. All measurements are read out on the digital read-out.

The graphical interface of the new CG10 digital display unit has been designed for easy and intuitive use.

The CG10 can be connected to a PC where data can be recorded for external analysis and the software provided allows for seamless integration between a PC and the contact gauge. Data can be transferred via a RS232 cable with software or transferred directly via Bluetooth. This allows the user to work without the hassle of cables connecting to laptop or lab PC.

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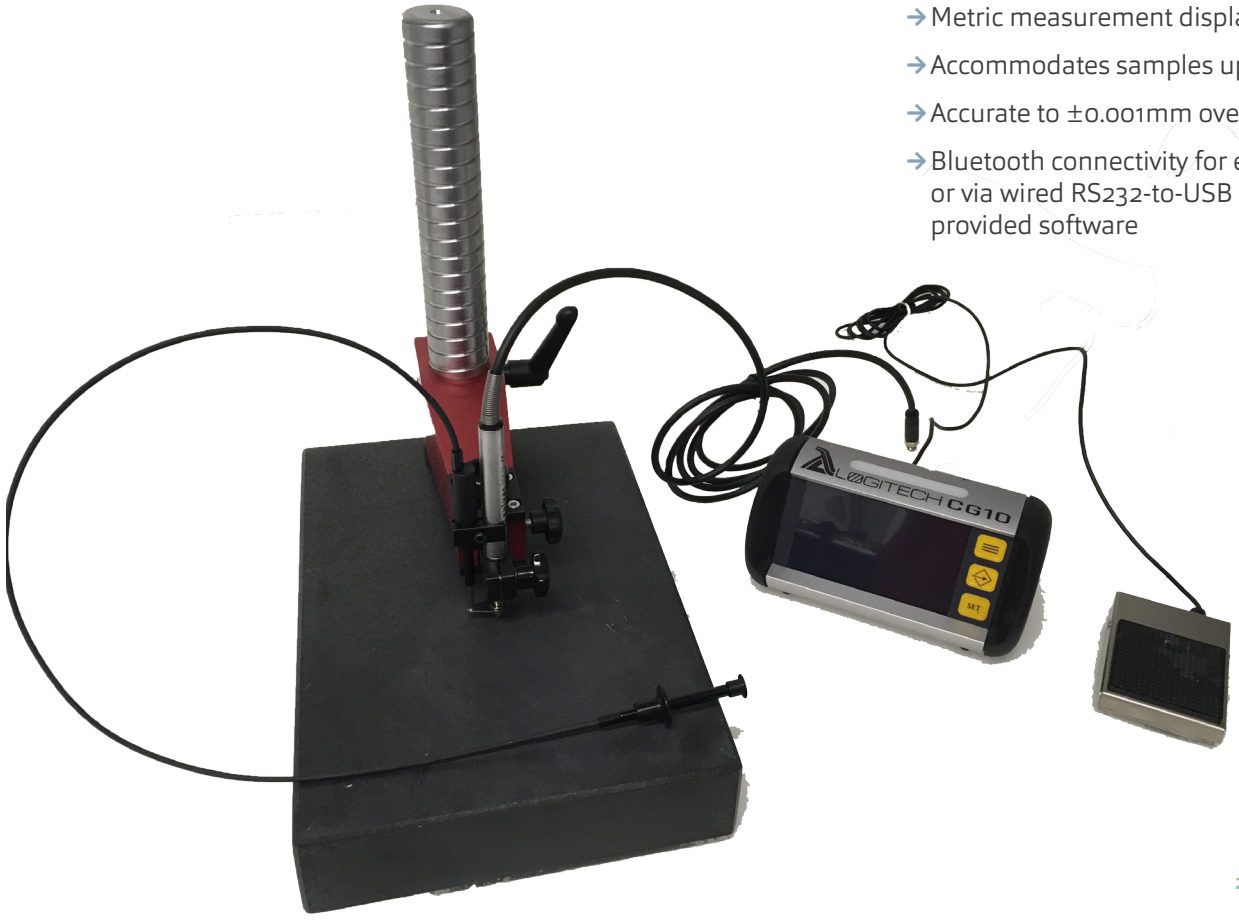
- Low gauging forces
- Hand or foot operated
- Metric measurement display
- Accommodates samples up to 150 x 150mm
- Accurate to ±0.001mm over 10mm
- Bluetooth connectivity for easy data transfer or via wired RS232-to-USB comms port and provided software



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KEY FEATURES & FUNCTIONALITY

CONFIGURATION:

→ This system is very simple to operate and gives an accuracy of 1 µm over its entire 10mm measuring range. When used over a range of 1mm, for example as a comparator in conjuction with gauge blocks, the measuring probe's excellent repeatability and linearity provides a measurement precision of 0.1 µm.

→ Such high precision combined with a soft LVDT nylon probe tip and low gauging forces in the range 0.6-0.9N make the system ideally suited for many gauging applications involving the processing of semiconductor, optical and electro-optical materials.

→ The system comprises a probe, a probe stand/ surface plate and an electronic processing/ display unit. Measurements are displayed digitally in millimeters or inches by the electronic processing unit. The unit receives electronic signals proportional to probe position within its linear measuring range. Hand or foot operatation allows easy transfer of data to a laptop or external device / spreadsheet via RS232 comms port.

→ The upgraded CG10 unit now also includes Bluetooth connectivity to transfer data directly into a data spreadsheet without the use of any additional cables.

PROBE:

→ The Probe is the essential measuring element of the system. It is a differential capacitor arrangement compromising a cylindrical screen which moves between two cylindrical electrodes (one within the other) thereby altering the system capacitance relative to a fixed reference.

→ The differential output signal generated by changing capacitance is highly linear and repeatable with displacement of the cylindrical screen, which is fixed to the nylon probe contact anvil.

→ A high quality friction bearing/spring mechanism exerting a low gauging force facilities the anvil movement and ensures an extremely smooth and reliable measuring action capable of the exceptional accuracy.

→ Probes are supplied with a foot pedal and a hand operated retract/engage mechanism, where, for certain applications, the probe anvil tip can be fitted with a rubber boot to reduce the risk of damage to fragile surfaces.

ELECTRONIC PROCESSING/ DISPLAY UNIT:

→ The electronic processing/display unit is a high resolution digital module capable of processing signals from the nylon probe and clearly displaying the position of the probe tip, relative to a zero or a pre-set value, with a resolution of up to 1 µm.

THE PROBE STAND/ SURFACE PLATE:

→ The plate had a 280x160x40mm base of flat granite offering excellent stability and support for most gauging applications.

→ It features a rigid including comparative measurements with the aid of gauge blocks.

→ It features a rigid machined vertical column, fitted with a probe support arm and vertical adjustment to facilitate initial positioning.

→ Now available in two sizes. Our standard base (1CG10) which can handle wafers up to 4" and our XL base (1CG10L) which can handle wafers up to 8".

CG10 ACCESSORIES:

→ 1ACCS-9080 – Vacuum Chuck face for use with the CG10 and NCG measurement gauges for 83mm / 105mm and 112mm glass support substrates

→ 1ACCS-9090 – Vacuum Chuck face for use with the CG10L and NCGL measurement gauges for 83mm / 105mm / 112mm / 160mm and 207mm glass support substrates

→ 1CV31-TM - Vacuum system for use with the CG10 and NCG2 in conjunction with 1ACCS-9080 and 1ACCS-9090 vacuum chuckfaces (220-240v / 50Hz)

→ 1CV32-TM - Vacuum system for use with CG10 and NCG2 in conjunction with 1ACCS-9080 and 1ACCS-9090 vacuum chuckfaces (110v / 50-60Hz)

TEST AND MEASUREMENT SYSTEMS:

→ CG10 Contact Gauge

→ NCG2 Non Contact Gauge

→ GI Flatness Measurement system

→ LG2 Autocollimater

Image 1: CG10 digital display

Image 2:CG10 including probe, digital display, foot/hand pedal and the standard stand

TECHNICAL SPECIFICATIONS: CG10

PROBE:

Linear measuring range	10 mm
Accuracy over full range:	1 µm
Repeatability:	0.1 µm
Gauging force:	0.6-0.9N (0.135-0.203 lbf) Nylon probe tip
Zero drift:	0.1 µm/ °C

THE PROBE STAND:

Table area:	CG10: 280 x 160mm (11" x 6.3") CG10L: 450 x 300mm (17.7" x 11.8")
Vertical adjustment:	150mm (5.91")

THE ELECTRONIC PROCESS UNIT:

Range:	50 mm (1.97")
Resolution:	0.001mm
Display:	Vacuum fluorescent display with 8 characters of 7.8 x 3.5m and indication of working unit (mm)
Power:	220V/50Hz or 110/50-60Hz
Zero Facility:	Push "Favourite" button.
Dimensions:	280 x 160 x 250mm (with stand)
Data Transfer:	Data can be transferred via the Hand/foot pedal. Data can also be transferred via Bluetooth to a paired device.