

NCG-2

Non-Contact Thickness Measurement Gauge

The NCG-2 Non-Contact Thickness Measurement Gauge is a compact and highly sensitive instrument, developed to facilitate precise dimensional measurement of fragile, soft or highly polished. materials.

Simple operation

The system is simple to operate based on a non-contact pneumatic gauge head, consisting of a linear voltage differential transducer (LVDT) and a pneumatic servo. This maintains a fixed air gap between the probe and any surface to be gauged. At no time during the measurement does the probe contact the sample surface.

After signal conditioning and calibration the LED shows the probe displacement (equivalent to surface relief, step heights or material thickness etc.) in microns.

The readout and all controls are conveniently packaged in a compact single unit with easy access for maintenance.

Applications

The NCG-2 is ideal for production and research environments in semiconductor, optics and electro-optics application areas, where the requirement is to measure materials such as ultra-thin semiconductor wafers, soft organic crystals or high quality optical components, for which surface quality.

Air supply

A 0.5 micron-in-line filter on the control box minimises contamination of the surfaces to be gauged. External pre-filters and drying elements for insertion into the customer's air supply can be provided (these are not required if a supply of clean, dry instrument air is available).

Air flow at 2 bar (recommended operating pressure) is 0.2 cfm and is adjusted from the built-in pressure gauge. This is for economical use as cylinders of high purity inert gases provide the optimum in contamination elimination.

Stable Probe Stand

The base stand provides stable vertical support for the gauge head and a flat 280x160x40mm granite surface work space. Sensitive adjustment of the probe height enables the probe relative to within +20 microns set of the surface.



- Direct digital readout
- Hand or foot operated
- High purity filtered air flow
- Alternative measuring ranges
- Conveniently packaged and simple to operate

Operation

The probe lift drop mechanism is easy to use and hand operated. Once the wafer is in position, the plunger mechanism on the hand held drop control is pressed downward and the probe tip will lower toward the wafer. This simple mechanism ensures that multiple measurements can be made over a wafer surface both quickly and easily.

Colour coded LEDs are used to signify whether the sample being measured is of the 'mean' size or not.

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Technical Specifications

Measurement Range: Air Supply:	+/-1.25mm (0.05") Clean instrument air or other inert gas @ 2bar (Consumption is 0.2cfm)	Gauging Force: Weight: Dimensions: (Module)	15-20 grams (0.03-0.04lbs) of pneumatic force spread over approx. 1.5mm (0.02") 15kg (33lbs) 250x190x186mm (9.8x7.5x7.3") 280x160x140mm (11x6.3x1.57") Dual voltage - 110v or 220v
Display Resolution: Probe Resolution: Linearity:	0.1 micron 2.5 micron 0.25%	(Stand) Power:	
Digital Display:	4.5 digit LED Units - Microns		
Final Filtration:	0.5 microns (0.00002") particle size in built filter	Logitech Limited	
Air Gap:	75 microns (approx.) Readout can be electronically zeroed anywhere in the range +/-20% of full scale from the mechanical zero	Erskine Ferry Road, Old Kilpatrick, Glasgow G60 5EU, Scotland, U.K. Tel: +44 (0) 1389 875444 Fax: +44 (0) 1389 890956 e-mail: info@logitech.uk.com	



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Due to a continuous programme of development, Logitech reserves the right to change specifications without prior notice.