

Model CX-1020 Autocal™ Film Thickness Gauge

Self-Calibrating Gauge Profiling for Film and Sheet Producers



The Model CX-1020 AutoCal™ Film Thickness Gauge. Patent Rights Reserved

In the past, film producers have had the choice of off-line film thickness gauges with either contact sensors (providing absolute gauge values and measurement of all material types) or non-contact sensors (providing continuous profiles and superior resolution). Now you can have both in a single instrument. Oakland Instrument introduces the model CX-1020, an offline film thickness gauge with dual sensors for automatic calibration of the noncontact sensor.

Improved Film Quality, Increased Profit Margins

The CX-1020 is a proven tool for more closely controlling nominal and uniform film thickness in your:

- Production-die setup and adjustments
- Research and development of new film products
- Inspection of incoming film products
- In-process checks to ensure on-spec product for secondary operations
- Quality-control reporting

**Upgrade your Model CX-1000
Film Thickness Gauge to Add
the AutoCal™ Feature of the
Model CX-1020**

Oakland Instrument

Oakland Instrument Corp. specializes in the design, manufacture and distribution of test, measurement and control systems for the plastics, packaging, and paper industries.

Customer-Driven

We team with our customers to help them solve their quality and process-control problems.

Technology-Based

Our applications knowledge and engineering depth allow us to offer both standard and custom systems based on industry-leading technology.

The Oakland Instrument Advantage

Oakland Instrument Corp.'s model CX-1020 offers numerous advantages:

Traceable to NIST: Get the Advantages of Capacitance Thickness Measurement Without the Disadvantages

- The first offline capacitance-based film thickness gauge to be indirectly traceable to NIST standards in its automatic calibration mode.

Advanced Technical Features in Each Sensor

- Adjustable foot pressure allows operator to run soft materials, embossed materials and non-compressible materials effectively.
- Proprietary capacitance sensor reduces to negligible levels gauge drift caused by temperature and humidity fluctuations.
- Proprietary film transport allows automatic calibration of the non-contact sensor by the contact sensor.

Easy, Error-Free Operation: Two Modes of Operation

- Operate as a non-contact continuous profile system or
- Operate in AutoCal™ mode using the contact sensor to *automatically* calibrate the non-contact sensor.

Expandable; Industry-Leading Software

- Portable and expandable with addition of computer system. Windows™ 7/10 advanced software for display and reporting of statistical and graphical analysis of thickness data.

Significant Features

- Can calibrate itself *automatically* in AutoCal™ mode
- Portable, standalone or expandable with optional features
- Intuitive keypad data entry and easy-to-read digital display
- English or metric capability
- Easy parameter setup including thickness units, film transport speed, length units and target
- Memory storage and recall of calibration/setup parameters
- Complete data display including average thickness, standard deviation, high/low measurement and position, range and sample length
- Data reports customizable with product or customer number, time and date information
- Fully adjustable film-transport and film-guide mechanisms
- Advanced setup parameters including crease suppression, upper/lower limits and data display significant figures
- Advanced data display including high and low measurement/range/average expressed as percent/deviation/percent-deviation from target and average
- Analog output for chart recorder for display of film thickness profiles
- Parallel output for printer-generated data tables
- Serial (RS-232) output for computer collection of thickness data

Specifications

	<u>Non-Contact Sensor</u>	<u>Contact Sensor</u>
Mode of Operation:	Off-line gauging/lab use	Off-line gauging /lab use
Materials:	Nonmetallic plastic film	All sheet materials
Measurement Range:	0-12 mils (0-300, microns), other ranges available	0-20 mils (0-550, microns), other ranges available
Accuracy:	+/-0.5% of material*	+/-0.25% of material* +/-0.02 mil (additive)
Repeatability:	+/-0.5% of material	+/-0.02 mil
Resolution:		
Thickness	.001 mil or 0.1% of material	.01 mil
Linear	0.2 mm	6.4 mm, Other ranges available
Contact Pressure:	N/A	10-100 grams, Adjustable
Temperature Stability:	0.1% per °C ambient	0.1% per °C ambient
Sample Rate:	20 msec	N/A
Power Requirements:	115 VAC, 60 Hz 230 VAC, 50 Hz, or consult factory for special requirements	
Dimensions (HxWxD):	8 in (21 cm) x 20 in (51 cm) x 20 in (51 cm)	
Weight:	60 lb (25 kg)	

(Due to continuous product improvement, all specifications are subject to change without notice).

* Since the capacitance principle is an indirect thickness measurement, it is only as accurate as the calibration method used, i.e. micrometer or weight per unit area.

* * Traceable to NIST Standards

Options and Accessories

- Computer system and software for statistical and graphical analysis of thickness data
- Standard or custom systems designed to meet specific customer needs
- Upgrade to Model CX-1025 to add automatic or manually adjustable parallelism on the contact sensor stand.

Ordering Information

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