

Model CX-1020 AutoCal™ Film Thickness Gauge Profiler

Self-Calibrating Gauge Profiling for Film and Sheet Producers

Upgrade your model CX-1000 film thickness gauge to add the AutoCal™ feature of the model C-1020.



Model CX-1020 AutoCal™ Film Thickness Gauge Profiler. 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 off-line film thickness gauge with dual sensors for automatic calibration of the non-contact 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

The Oakland Instrument Advantage

Traceable to NIST

- Get the advantages of capacitance thickness measurement without the disadvantages.
- The first off-line capacitance-based film thickness gauge to be indirectly traceable to NIST standards in its automatic calibration mode.

Conforms to ASTM and TAPPI Standards

- ASTM D 8136 for Determining Plastic Film Thickness and Thickness Variability Using a Non-Contact Capacitance Thickness Gauge.
- Contact probe mode conforms to ASTM D374, ASTM D6988, TAPPI T-411, BS 2782-6, and DIN 53370, Standard Test Methods for Thickness Testing of Plastic Film and Paper.

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;
- Unique contact sensor does not require parallelism adjustment;
- 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.

Oakland Instrument Corp.

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

Significant Features

- Can calibrate itself automatically in AutoCal™ mode
- Portable, stand-alone or expandable with optional features
- Intuitive keypad data entry and easy-to-read digital display
- English or metric units 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
- Gauge profile can be displayed in linear or polar plot formats with position of die bolts for easy reference
- 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

Mode of operation:

Materials:

Measurement range:

Accuracy:

Repeatability:

Resolution: Thickness

Length of sample

Contact pressure (adjustable):

Sample Drive Speed

Distance between measurements:

Temperature stability:

Power requirements:

Dimensions (H x W x D)

Weight

Non-Contact Sensor

Off-line testing / lab use

Nonmetallic plastic film

0 – 300 microns (0-12 mils),
other ranges available

± 0.5% of material*

± 0.5% of material

0.025 micron (0.001 mil) or 0.1% of material

5 microns (0.2 mil)

Not Applicable

10 – 250 cm/min (4 – 98 in/min)

0.067 – 1.67 mm (depends of drive speed)

0.1% per °C ambient

115 VAC, 60 Hz, 230 VAC, 50 Hz, consult factory for special requirement

21 cm x 51 cm x 51 cm (8 in x 20 in x 20 in)

26 kg (60 lb)

Contact Sensor

Off-line testing / lab use

All sheet materials

0 – 300 microns (0 – 12 mils)
other ranges available

± 0.25 % of material**

± 0.25 micron (0.01 mil) additive

± 0.25 micron (0.01 mil)

0.25 micron (0.01 mil)

6.4 mm (0.25 in), other ranges available

10 – 100 gf / 0.001 – 0.01 N / 0.02 – 0.2 lbf

10 – 250 cm/min (4 – 98 in/min)

Not Applicable

0.1% per °C ambient

(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

- Chart recorder for display of thickness profile information
- Printer for tabulated data output
- Computer system and software for statistical and graphical analysis of thickness data
- Standard or custom system designed to meet specific customer needs
- Oakland CX-1200 Quality Control software displays measurements in linear or polar plots, statistics and Fourier series analysis to identify impact of equally spaced contributors to gauge variation.
- Process Mode allows recall of recipes and allows multiple profiles to be displayed



Ordering Information



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