PROCESS SENSORS™ CORPORATION

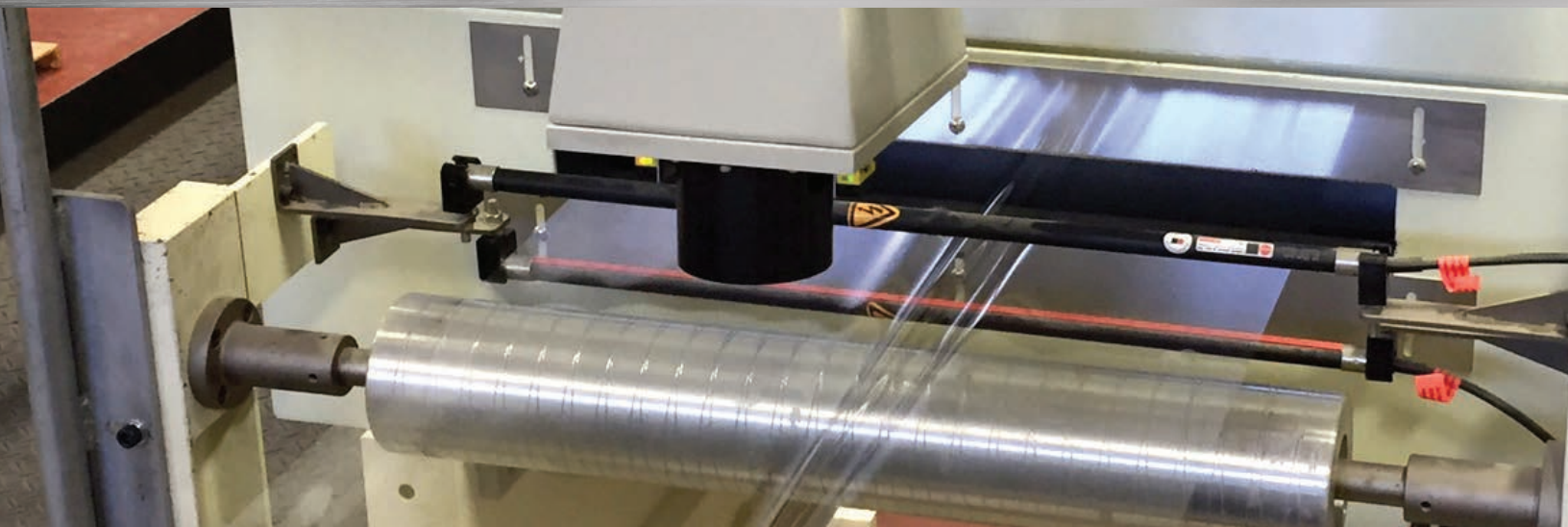# Guardian Web Profiling System

GUARDIAN WEB PROFILING SYSTEM

CONTINUOUS WEB PROFILING

Rugged and reliable moisture, coat weight, adhesive thickness and web temperature measurement

NEW RUGGED DESIGN FOR ALL CONVERTING PROCESSES

Rapid, continuous product analysis is critical for all paper, film and converting processes. The new Guardian Web Profiling System is designed specifically for reliable operation in the challenging conditions found in paper and converting processes with a sealed industrial frame and powerful linear actuator.

REDUCE WASTE AND IMPROVE QUALITY

The Guardian supports process optimization by accurately measuring moisture and coating thickness, providing a complete zoned web profile. Reduce start-up times and waste by visually identifying production inefficiencies using the PSC proprietary software. Guardian systems are accurate, fast, reliable & low maintenance. They provide a non-contact, non-destructive on-line measurement and are unaffected by relative humidity, changes in product temperature, ambient light and temperature. Guardian Near Infrared (NIR) Systems have many other benefits and advantages:

- Minimize edge curl and lay flat issues

- Easily connect to closed loop control systems or local alarms

- Decrease manual start-up times by up to 20% by eliminating the need for time consuming lab testing and adjustments

- Unlike nuclear and X-ray systems, NIR does not require costly regulation compliance and safety certification

- Easy calibration, operation & standardization
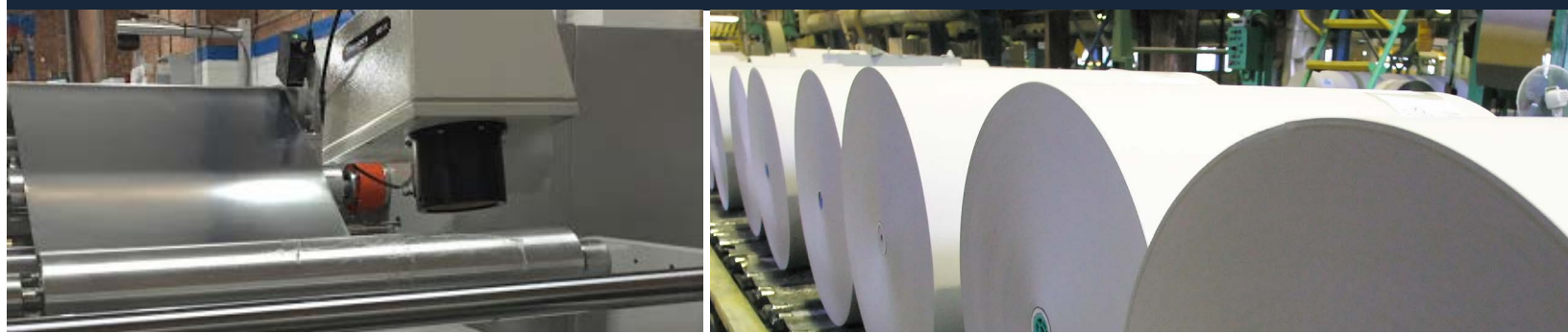
- Quick return on investment

RELIABLE PERFORMANCE

Moisture and coat weight measurements can be made on many substrates including paper, film, foil, textiles, release liners, tags, tapes and labels. The Guardian Web Profiling System is commonly used in the following applications:

- Hot Melt & Film Thickness

- Wet End Water Based Coat Weight

- Dry End Organic Coat Weight

- Exit and Inlet Dryer Moisture

- Re-Moisturizers (LAS, Steam Curtains and Water Decks)

Continuous profiling of web moisture, coat weight, adhesive thickness and web temperature

CHOOSE YOUR GUARDIAN - ELITE AND ESSENTIAL

All Guardian systems include an industrial scanning frame, an NIR smart sensor and local easy to read touchscreen display for cross direction web profiling and lane and machine direction measurements.

ELITE WEB PROFILING SYSTEM

Powerful features and the ability to monitor and control single or multiple Guardian systems simultaneously

The Elite Guardian Web Profiling System connects to a local display and a 19" Windows®-based PC at a central console. Larger displays are available for monitoring multiple line profiles at a single central console.
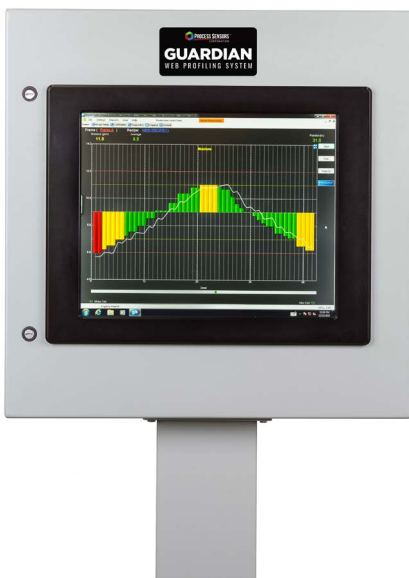
- Proprietary ViewerSuite software pre-installed for advanced roll reporting and raw data logging for full traceability and auditing:
    1. Complete roll recording including measurement value, date, time, length, product name, etc.
    2. Web scan average and individual zone measurements
    3. Automatic sync of roll reports to local network
- Storage of up to 100 product recipe codes
- Up to 100 individual zones across the web
- Designated lane and machine direction trends

ESSENTIAL WEB PROFILING SYSTEM

Standard features for single line monitoring and control

The Essential Guardian Web Profiling System connects to a 12" operator interface for simple profile display and controls.

- Raw data logging capabilities with export to .csv, .xml or .txt
- Storage of up to 100 product recipe codes
- Up to 50 individual zones across the web

Request a Demo Today!

Call us at (508) 473-9901 or visit www.ProcessSensors.com.

Our experienced team is eager to answer your application questions and demonstrate how our technology to can solve the challenges you face every day.

Guardian Specifications

SCANNING FRAME

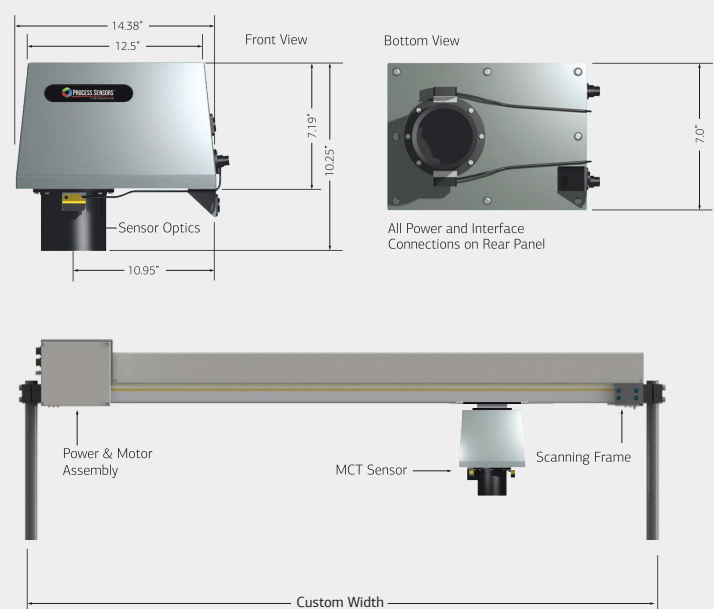|	
Outputs:	• 3x 4-20mA Selectable sources • Live NIR Value • Scan NIR Average Values • Live Temperature & Scan Temperature Average Value
Inputs	• Web Break • Web Length • Cooling Air • Sensor Window Purge
Ambient Temperature:	0-50°C (32-120°F) with air cooling up to 80°C (160°F)
Options:	• Data Bus Interfaces • Simultaneous Temperature Measurement • 4x Alarm Relays • Stack Light Alarm

OPERATOR INTERFACES

ELITE Touch Screen PC: Windows-based, Cross Web Profile Displays, Machine Direction Trends, Scan Average Trends	
Profiles:	3
Constituents:	Up to three (2 NIR plus product temperature)
Communication to Frame:	Ethernet
Power:	90-260VA
Multi Frame Operation:	19" Screen – Larger Optional
ESSENTIAL 12" Touch Screen: Non-PC based, Single Frame Operation, Cross Web Profile, Machine Direction Trends	
Profiles:	2
Constituents:	Up to two (2 NIR, or 1 NIR and product temperature)
Communication to Frame:	RS485
Power:	24VDC from Frame

NIR MEASUREMENTS

Moisture Range:	Min 0.1%, Max 95%
Coatings Range:	Min 0.1 GSM, Max 250 GSM
Moisture Accuracy:	±0.1%
Coatings Accuracy:	±0.1 gr/m
Repeatability:	±0.1%

GUARDIAN DIMENSIONS

14.38"
12.5"
Front View
Bottom View
7.19"
10.25"
Sensor Optics
All Power and Interface Connections on Rear Panel
7.0"
10.95"

Power & Motor Assembly
MCT Sensor
Scanning Frame
Custom Width

THE PSC ADVANTAGE

Process Sensors Corporation, a KPM Analytics company, is a leading supplier of NIR and IR sensors and systems to Fortune 500 manufacturing companies and small, privately held organizations in industries worldwide.

With sales and application support offices around the world, Process Sensors Corporation's dedicated experts are committed to the long-term success of our customers from initial installation and training to on-site support and product enhancements. We pride ourselves on technical competence and customer satisfaction.

To speak with an NIR or IR expert about your application, visit our website or call us today.

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KPM ANALYTICS