

NOVA SERIES

GUARDIAN

Cross Direction Web Profile Scanning Frame System

Guard Your Quality Assurance! The Guardian NIR Scanning Frame System provides FAST, ACCURATE and RELIABLE on-line measurement! Know with every shipment that every order has been measured and recorded to meet your high quality standards.

Specifications: MCT Transmitter

Measured NIR Constituents: _____ 1, 2 or 3 simultaneously
Moisture Range: _____ Min. 0.1%, Max. 95%
Coatings Range: _____ Min. 0.1 gr./m, Max. 200 gr./m
Accuracy: (subject to application and product type)
Moisture: _____ +/- 0.1%
Coatings: _____ +/- 0.1 gr./m
Repeatability: _____ +/- 0.2%
Product Distance: _____ 8-18 inches (200-450mm)
Calibration Codes: _____ 100
Response Time: _____ 1-999 seconds. Three modes available
Damping, integration and gated.
Power: _____ 90-260VAC, 50/60 Hz, 40 watts
Outputs: _____ 4-20mA, 0-10V (isolated), RS-232 & RS485
Weight/Enclosure: _____ 19 lbs. (8.6kg)/IP67, Cast Aluminum
Ambient Temperature: _____ 0-50 °C (32-120°F) with water
or air cooling up to 80°C (160°F)
Window Purge: _____ Airpurge Diffuser

Specifications: Operator Interface

Display: _____ 5.7 inch Color Touchscreen LCD
Languages: _____ User Selectable
Power: _____ From MCT Transmitter or Local
Cable: _____ 10 ft (3 meters) standard
Enclosure: _____ Cast Aluminum

Maintenance:

Warranty: _____ 24 months Parts/Labor
Routine Cleaning: _____ None Required
Calibration Verification: _____ Calibration Check Standard
Cooling: _____ Vortex Air Cooler (optional)

CE Compliance:

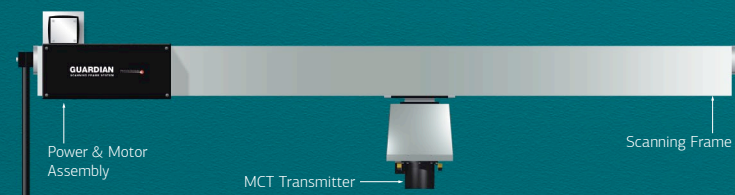
EMC Directives EN50081-1 & EN50081-2, EN61010-1
Low Voltage Directive

Databus & Software Interfaces:

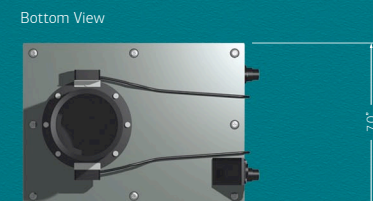
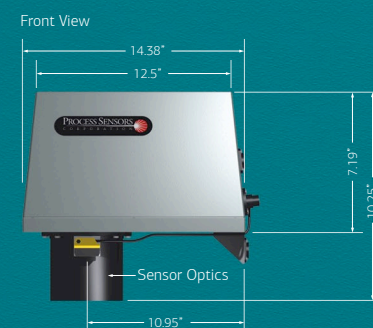
Optional Interfaces: _____ Ethernet TCP/IP
Devicenet, Modbus, Profibus
Software: _____ Window-based Stand-alone Program
or OPC-DDE Server

Scanning Frame Configuration:

Available Scanning Frame
Width - 36" to 84"



Dimensions: MCTTransmitter



All Power and Interface
Connections on Rear Panel

Dimensions: Operator Interface



All Power and Interface Connections on Bottom

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CROSS DIRECTION WEB PROFILE

Scanning Frame System

MOISTURE • COAT WEIGHT • THICKNESS • WEB TEMPERATURE

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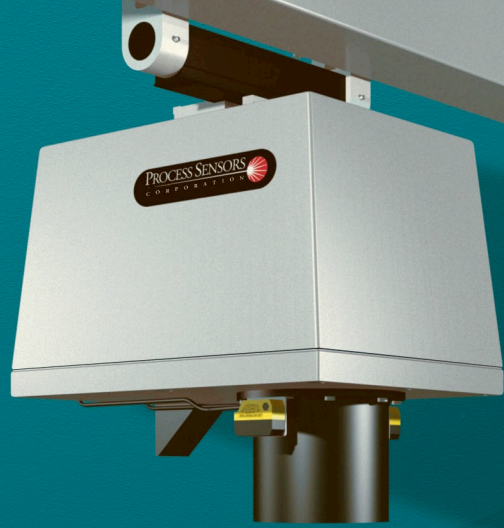
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Cross Direction Web Profile
Scanning Frame System

Leading 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)

Measure Coatings and Moisture on:

- Paper
- Film
- Foil
- Metal
- Textiles
- Non-Woven
- Extrusions
- Foam
- Tags
- Tapes
- Labels
- Release Liners
- Packaging Materials
- Narrow Webs
- Coatings
- Laminations
- Other Substrates

- **Maintain Uniform Web Profile**
- **Reduce Edge Curl and Lay Flat Issues**
- **Improve Quality Assurance and Control**

Edge curl and lay flat issues are a problem in the label and converting industry. Uneven moisture stratification can cause shrinkage or expansion of cellulose fibers. Curled stock is a problem for printing and packaging. Coatings can also get thinner or thicker at the edges. A NIR transmitter cross directional web profile greatly helps to reduce curl or coating issues and improve process control operation.

Benefits of Near Infrared Technology

- Accurate, Fast, Reliable & Low Maintenance
- No Government Regulations
- Easy Calibration, Operation & Standardization
- Best Return On Investment

The Near Infrared (NIR) Operating Principle

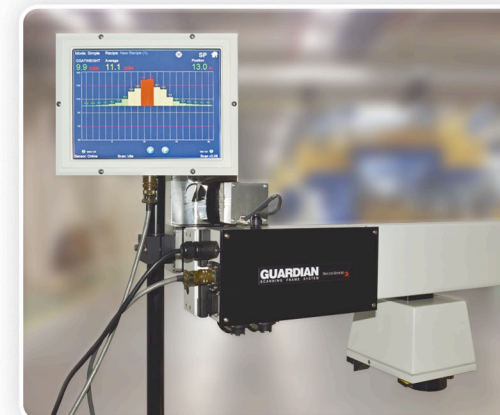
The MCT transmitter shines NIR light wavelengths, selected specifically by PSC, for the measurement and application being performed, typically 1.94μ for moisture or water based coatings and 2.34μ for hydrocarbon depositions or film thickness. The NIR light is then directed onto the product being measured, normally a moving web and measures the returned energy to provide a calibrated display of percent moisture, GSM, #/ream or other engineering units. Additionally, IR web temperature can also be built into the MCT Nova Series Transmitter.

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Choose Your Nova Series Guardian

Guardian CD Web Profile System Industry Standard

The **Guardian Profile System** can connect to a 19" Display at the Central Console or a 55" or larger display for multiple scanners and measurements integrated into a single distributed system. The Guardian System can be operated manually or via a Human Machine Interface (HMI).



Entry Level Profile System

Process Sensors Guardian Cross Direction Web Profile System can be as simple and inexpensive as an automatic scanning frame with 12" Operator Interface (OI) for profile display and controls mounted on frame end.

Simple Cross Direction Scanning System with Digital Display

This system allows for automatic scanning across web or jogging to fixed position for machine direction measurement and display on a 5.7" touch screen with alarms, alerts and analog and digital outputs.

Guardian System Features:

- Cross Direction Zoned Web Profile
- Zone, Profile and Roll Averages
- Roll Reports and Data Archiving
- Designated Lane and Machine Direction Measurements

Guardian System Components

- MCT Nova Series Near Infrared Transmitter
- Automatic Industrial Scanning Frame
- Automatic Web Edge Detection Option
- Operator Interface and PC Based Software Systems
- Alarms, Alerts, Scan Speed, Product Recipes, Diagnostics
- Wall, Console, Arm Bracket and Pedestal Housing Options
- Ethernet Communication and Analog Outputs
- Central and Local Display Options

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