

NOVA SERIES

GUARDIAN

Cross Direction Web Profile Scanning Frame System

Specifications: Scanning Frame

Power: _____ 90-260VAC 15A
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)

Specifications: Operator Interfaces

Touch Screen PC – Windows based

Cross Web Profile Displays, Machine Direction Trends,
Scan Average Trends

NIR Constituents: _____ 1 or 2
Product Temperature: _____ 80°C (160°F)
Recipe Codes: _____ Unlimited
Communication to Frame: _____ Ethernet
Power: _____ 90-260VA
Multi Frame Operation: _____ 19" Screen – Larger Optional

12" Touch Screen

Non-PC based, Cross Web Profile,
Single Frame Operation, Machine Direction Trend

NIR Constituent: _____ 1
Product Temperature: _____ 80°C (160°F)
Recipe Codes: _____ 100
Communication to Frame: _____ RS485
Power: _____ 24VDC from Frame

5.7" Touch Screen

Non PC based, Single Frame Operation, Digital Displays Only
NIR Constituents: _____ 1, 2 or 3
Product Temperature: _____ 80°C (160°F)
Recipe Codes: _____ 100
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: _____ ±0.2%

Maintenance:

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

CE Compliance

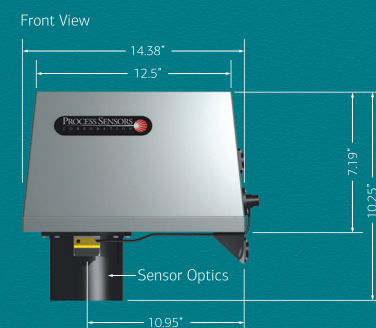
EMC Directives
EN50081-1 & EN50081-2,
EN61010-1
Low Voltage Directive

Fieldbus Interfaces

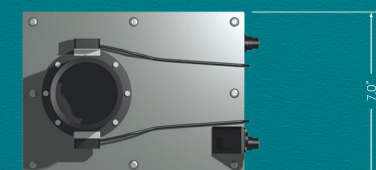
(for non-profile data)

Ethernet IP, Devicenet, Profibus, Profinet,
OPC-DDE Server

Dimensions: MCTTransmitter



Bottom View



All Power and Interface
Connections on Rear Panel

Dimensions: Operator Interface

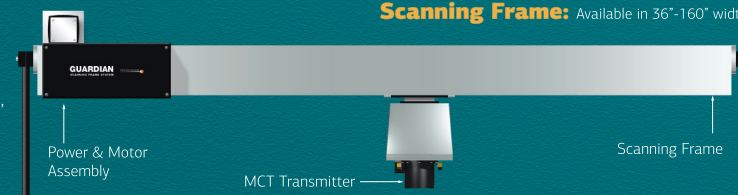


Bottom View



Single Cable to Scan Controller

Scanning Frame: Available in 36"-160" widths



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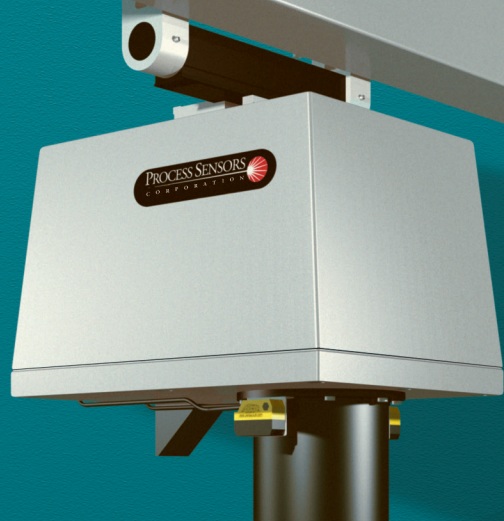
CROSS DIRECTION WEB PROFILE

Scanning Frame System

MOISTURE • COAT WEIGHT • THICKNESS • WEB TEMPERATURE

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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

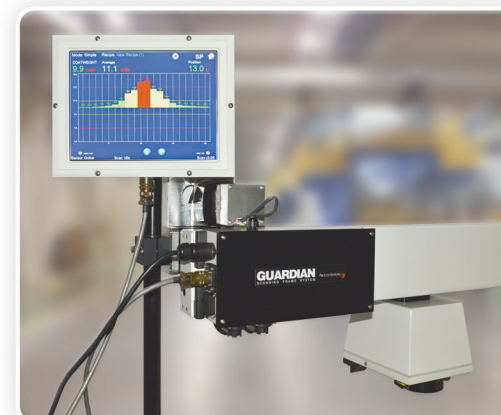
The MCT transmitter shines NIR light wavelengths, selected specifically by PSC, for the measurement and application being performed, typically 1.94μ for moisture or water based coatings and 2.34μ for hydrocarbon depositions or film thickness. The NIR light is then directed onto the product being measured, 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** connects to a PC with a 19" Display at a Central Console. Larger displays, up to 65", for multiple scanners and measurements, can be integrated into a single distributed system. The Guardian System can also 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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