

Moisture Monitor™

INDICATING CONTROLLER MODEL 1610e



ON-LINE WET PICKUP/ MOISTURE PROFILE MEASUREMENT



Moisture Sensor Type 9900

Noncontact moisture sensing across the web width. For use after padders, extractors, coating applicators & more.

The Moisture Sensor Type 9900 utilizes the latest microwave technology to provide accurate and reproducible wet pickup measurements.

Three Type 9900 sensors provide left, center, right and average wet pickup values displayed in big figures on the Model 1610e Controller.

The 9900 sensor can also be used for residual moisture measurements... all the way to ZERO percent!



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-GENERAL INFORMATION-

Consistent dye and finish application at the padder means consistent color and shade and consistent fabric quality, not just across the web but also along its length, lot after lot, day after day.

Just three Strandberg non-contact microwave moisture sensors after the padder provide real-time display of the lateral takeup across the width. The Moisture Monitor, Model 1610e, Indicating Controller uses wet process derived control strategies to implement automatic control where applicable.

Vacuum extractors require monitoring to assure adequate and even extraction to avoid color migration, another source of serious problems in wet finishing, for which the Moisture Monitor, Model 1610e, is made to order.

On thermosol ranges, three sensors located after the padder are combined with a fourth sensor located after the pre dryer to ensure that the fabric moisture level entering final drying is low enough to avoid migration.

The Model 1610e is also a great guard against lot to lot and day to day wet pickup variations due to changes in roll hardness, so this week's production is just like last week's.

While the 1610e is busy displaying and controlling wet pickup to your set point, it is also busy keeping the distribution even from side to side.

Calibration is easy. Linear wet pickup signals are provided by the Type 9900 non-contact moisture sensors. Style-based scaling to actual wet pickup percentages only requires the entry of a single digital calibration factor. Store the factor in the Model 1610e memory for easy operator call-up by style or construction number.

Report generation is a great feature of the Model 1610e. Add a Type R-90-200 Length encoder and generate detail and summary reports for each piece processed. The Model 1610e can also be connected to a higher level PC for further display, reporting and data archiving.

Need more sensing measurement on your range? The Model 1610e is expandable and can incorporate additional sensors for residual moisture, stretch/shrinkage/overfeed, density, width, pick/course counts, surface temperatures, pressures and more.

Need more control loops? The Model 1610e includes control strategies optimized for the wetting/drying, stretching/shrinking applications found in web and fabric dyeing and finishing.

The power of the Moisture Monitor, Model 1610e, combined with state-of-the-art sensing technology utilized in the Type 9900 microwave moisture sensor, provides practical solutions for many wet pickup applications. Call us about your application today.

-SPECIFICATIONS-

Power Requirements	85-265 volts a-c, 50/60 Hz
Weights and Dimensions	12.0 lb (5.5 kg), 12.5" (318mm high), 10.9" (277mm) wide, and 6.25" (159mm) deep
Housing	Fiber-glass NEMA-4X
Sensor	Moisture Sensor, Type 9900, including Moisture Sensor Inter- face, Type MSI-140 (requires 85-265 volts a-c, 50/60 Hz) including 4-20 ma and 0-10 volts d-c analog outputs
Control Devices	Control Motors, Motorized Water Spray Valves, and Pneumatic Controller (I/P) with integral feedback pressure sensor
Display	Liquid Crystal, 4.9" x 3.7" (125 x 93mm) four banks of alternating measurements, as required
Outputs	Analog, 0-10 volts and 4-20 mA d-c, for connection to control devices, chart recorders and higher-level systems, relay closures for connec- tion to control motors and external alarms, RS-232 printer output for alarms and reports, and RS-485 network port for connection to Series 2700 Operator Console
Wet Pickup Range	Zero to saturation
Measurement Precision	0.1 percent
Wet Pickup Repeatability	Within 2 percent
Additional Sensors:	
Residual Moisture	Moisture-to-Computer Interface Type 1035G
Pick/Course Count	Laser Pick/Course Count Monitor Model 7762A
Density	Web Density Sensor Type MT-140
Width	Width Sensor Type WM-240
Stretch/Shrinkage/Overfeed	Surface-Driven Length Encoder Type R-90-200 or Shaft-Drive Length Encoder Type FM-90-200
Surface Temperature	Temperature Sensor, Infrared Type 6962



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