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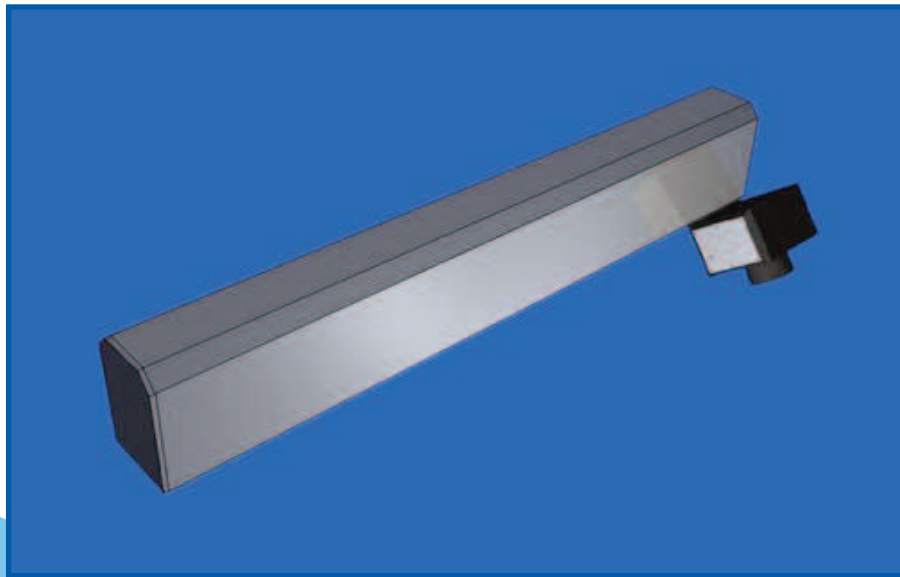
SCIENTA MOISTURE SENSOR

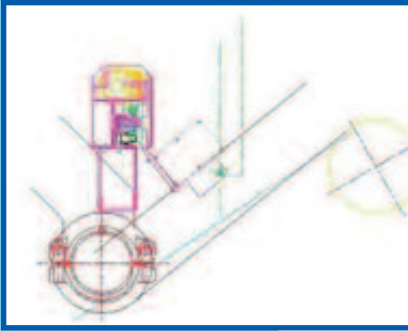
Scienta Moisture Meter for the Press and Dryer Section of the Paper or Board Machine

THE SCIENTA MODEL 9135 single sided scanner has been developed for the harsh environment found in Press sections in Paper Machines. The entire body of the scanner is made of stainless steel and it uses components specifically chosen to withstand high temperatures and high levels of humidity. The Moisture sensor is positioned either in a single point on the web or it moves across the web scanning the entire web width. A unique double casing with efficient cooling keeps the sensor electronics operational even under highly demanding conditions. The intelligent scanner responds to web breaks and other external commands and it monitors the temperature of the cooling system as well as the sensor electronics itself. The sensor window is kept clean by a constant air flow, which also keeps any humidity out of the sensor housing. A tooth belt driven stainless steel linear track guides the sensor movement on the web. Not only does this guarantee accuracy, but it is tough enough to ensure years of trouble free operation.



Temperature Tolerant High Performance Online Moisture Scanning for Advanced Moisture Profile Control





STANDARD FEATURES of the Scienta 91 35 scanner are an AC electrical motor with a sealed gearbox, end limit switches and a linear track with stainless steel parts. A standard frequency inverter enables a smooth and fast response and controls the sensor movement on the web. The scanner is controlled by a standard PLC. A large duct fan blows air into the frame keeping the scanner frame pressurized. This helps to keep the steam out of the frame although all parts are stainless. The unique box frame is rigid yet light in construction.



SUPER FAST IRMA7 MOISTURE SENSOR

The IRMA7 Moisture sensor for Paper and Paperboard is fast, compact and is highly reliable even in adverse conditions. It has been designed to work under tough conditions. Special cooling techniques like



refrigerated air and double casings are used to enable a trouble free operation even in demanding press section applications. Standard features include a fast response time (2.5ms), a very long service interval (about 20 years) and a wide moisture range (0-70%). The sensor operates with Near Infrared fixed filters and obtains its sensor reading simultaneously (same-spot measurement).



Moisture Range:	0.5 to 70%	Measurement spot:	30 x 40 mm true spot
Measuring distance:	200 to 300 mm	Interfaces:	Profibus DP
Basis weight penetration depth:	Up to 150 g/m ²	Lamp life expectancy MTBF:	175.000 h (20 yrs)
Repeatability (2 sigma):	0.1%	Web thermometer range:	20-250 °C
Accuracy (2 sigma):	0.25%	Physical dimensions:	85 x 125 x 180 mm
Resolution:	0.01%	Lens purge:	Clean, instrument air

- **Construction:** Stainless steel box frame on a 120 x 200 mm RHS Steel beam support.
- **Physical Dimensions:** Scanner width max 8000 mm(315")
- **Frame size:** 185 x 260 mm
- **Sensor enclosure dimensions:** 190 x 240 x 160 mm Frame Weight: 30 kg/m + RHS beam weight
- **Maximum Sheet Width:** 7000 mm(275")
- **Scanning Speed:** Electrical motor controlled by inverter. Normal scanning speed is 100 – 300 mm/s.
- **Head Positioning:** The head uses position encoder to reach a specific location on the track. Positioning accuracy is +/- 2 mm.
- **Maximum Ambient Temperature:** 130 °C(265°F) using cooling air for frame and refrigerated instrument air for sensor. Double casing for head.
- **Power Requirement:** 110-230 VAC, 50/60 Hz, 1 kW max.
- **Instrument Air:** 6 bars (90psi) oilfree (0.01 µm filter) 100 l/min.
- **Drive Belt:** Steel reinforced polyurethane timing belt (high temperature version).
- **Scanner Drive:** 60 W AC motor with heavy duty toothwheel gear box.
- **Guiding system:** 4 Stainless steel wheels on round stainless steel guides.

Manufacturer:

SCIENTA

Scienta Oy
www.scienta.fi
Jorvas, Finland

