

SCIENTA

Innovative Measurement Technology

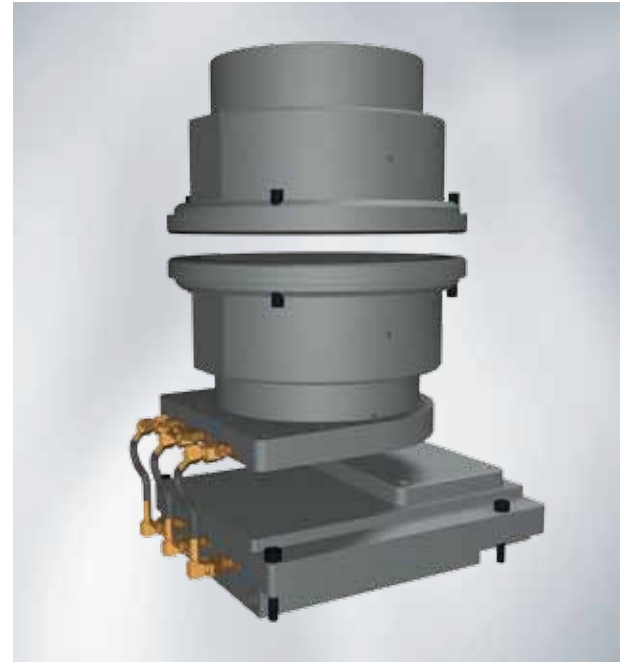
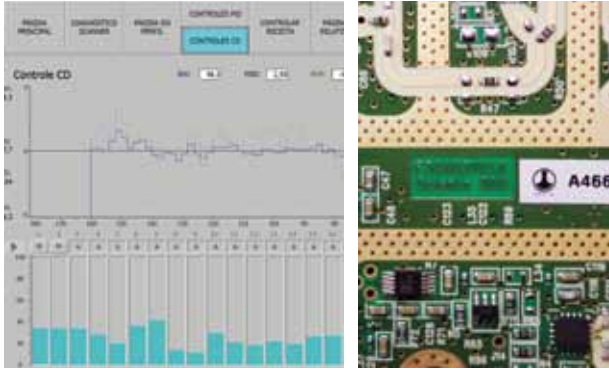


Universal online sensor
for Basis Weight & Moisture

IN ONE UNIT



Non-radioactive



Benefits to the pulp and paper and other process applications e.g. resin impregnation

- No radioactive source is required
- Ultra wide measuring range
- Service free construction
- Easy and convenient to install and operate
- Full range of scanners available
- Easy calibration and setup
- Only one sensor is required for both Moisture and Basis Weight measurements
- Insensitive to different types of additives, thickness and colour variations
- More accurate on-line measurements
- Faster on-spec quality and reduced start up waste
- Reduction in rejects due to high performing measurements
- Minimization of energy consumption by accurate and reliable Moisture and Basis Weight measurements and controls
- Machine speeds can be increased on drying limited pulp and paper machines
- New optimizing tool for pulp drying lines

Measuring method description

The microwave measurement method is based on the dielectric constant of materials. Water molecules have a much higher dielectric constant value than fibers and different type of fillers. This physical phenomenon is not used to measure only Moisture but also Basis Weight. Frequencies and other measured raw data are analyzed with very sophisticated algorithms. This is possible because of a new, digitally controlled high frequency technology.

Technical specifications

Sensor Type	7250S	7250C
Construction	Double sided, non-contact	Single sided, contact
Measurement	Moisture and Basis Weight	Moisture and Basis Weight
Measurement range		
a) Moisture	2...90 %	4...70 %
b) Basis Weight	15...2000 g/m ²	200...3000 g/m ²
Measuring frequency	100 Hz	100 Hz
Temperature compensation	Yes	Yes
Measuring gap	13 mm	-
X-Y-Z compensation	Yes	-
Power Consumption	12 W, 24 VDC	10 W, 24 VDC

Sensor Type	7250S	7250C
Interface options	Profibus Modbus Ethernet USB Bluetooth 2 Analog	Profibus Modbus Ethernet USB Bluetooth 2 Analog
Environmental conditions	Max. Temp 110 °C/230 °F 10-95 % RH, non-condensing	Max. Temp 110 °C/230 °F 10-100 % RH
Electronics cooling system	Yes	Yes (Sensor and electronics may be separated for very hot installation sites)
Installation	Scanning / Fixed position	Scanning / Fixed position