Voith Paper

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Voith LSC Sensor – Model 5215
Color and Whiteness Sensor

Brief description

The OnQ Model 5215 Color Sensor is an on-line scanning sensor for the pulp and paper industry. The sensor provides a contactless measurement of color, whiteness, opacity, OBA and other relevant colorimetric variables of the sheet.

The sensor is designed for a broad grade variety from light weight grades to board.

The sensor is based on a high resolution dual beam spectrometer for precise and stable colorimetric measurements. Two Xenon stroboscope lamps provide UV and UV free illumination at high measurement rates.

Highlights

- intelligent sensor with in-sensor digital processing and CAN bus technology
- high resolution dual beam spectrometer
- opacity compensated measurement for grade independent color readings
- dual Xenon stroboscope lamps provide highest measurement rates
- UV free and UV including illumination for each measurement
- integrated sheet stabilization to elliminate sheet flutter effects
- measurement geometry: 45°/0°
- Selectable standard illuminants: D65, A, C and others
- 2° or 10° observer
- integrated colorimetric standard for long term reproducibility
- air purged sensor windows for stable measurements in harsh environments
- factory precalibrated sensor for fast start up and excellent correlation with lab measurements

Voith Paper Automation
GmbH & Co. KG
St. Poeltener Strasse 43
89522 Heidenheim, Germany

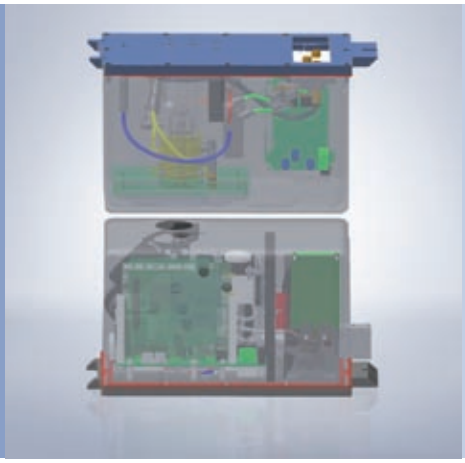
Tel. +49 7321 37 3000
Fax +49 7321 37 7733

voithpaper.automation@voith.com
www.voithpaper.com

Your contact person:
Thomas Ischdonat
St. Poeltener Strasse 43
89522 Heidenheim, Germany

Tel. +49 7321 37 3455
Fax +49 7321 37 6109

Thomas.Ischdonat@voith.com



Measurements
Whiteness with and without fluorescence
CIE L*a*b*, XYZ or Y dominant wavelength and % saturation
Brightness / Whiteness TAPPI or ISO
Fluorescence Index
Delta Whiteness
Delta E (L*a*b*)
Delta E (CMC)
Delta E (CIE94)
Delta (CIE DE2000)
Whiteness Ganz or CIE
Metamerism Index

Specifications

Measurement range
300 nm – 780 nm

Resolution
1 nm interpolated, 3,5 nm native

Reflexion range
0 % – 200 %, Resolution ≤ 0,01 %

Opacity range
60 % – 100 %

Standard illuminats
A, C, D65 and others

Measurement geometry
45° / 0°

Illumination
Xenon stroboscope lamp @100 Hz (max.)

Reproducibility
Color: 0,05 units CIE L*a*b* with D65 and 10° observer
Whiteness: 0,1 units
CIE OBA: 0,15 units
de < 0,3 on colored tiles
delta E: 0,087

Accuracy
Color: 0,5 units CIE L*a*b* with D65 and 10° observer
Whiteness: 1,0 units
CIE OBA: 1,5 units

Measurement rate
max 1,66 Hz for one complete measurement

Environmental temperature
max. 60 °C

Relative humidity
(max.) 98 % non condensing

VOITH
Engineered reliability.

vp aut 1093 en kaltenyldm 500 2010/03 Technical data and illustrations subject to change!