Voith Paper

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Voith LSC Sensor – Model 5170
SST Ash Sensor

Brief description

The 5170 SST (solid-state technology) ash sensor facilitates contactless measurement of the running paper web's filler content. The measurement procedure uses the specific absorption behavior of ^{55}Fe gamma radiation for determining the filler content.

Compared to a conventional X-ray tube, the monochromatic ^{55}Fe source offers best stability and thus precise measurement of the filler content.

Features

- intelligent measurement with CAN bus technology
- integrated diagnostic functions
- a high-performance semiconductor detector with optimal signal-to-noise ratio for quick and exact profile measurement
- stable monochromatic ^{55}Fe (iron 55) source for the highest measurement accuracy
- measurement range up to 40 % ash
- highly developed measurement algorithms for grade-independent calibration
- DynaComp™ function dynamically compensates for any contamination or deposits on the measuring windows, thus continuously high measurement accuracy and less standardize frequencies to allow more time to measure the process
- elimination of high-voltage power supply, giving improved sensor stability and reliability
- modular sensor with long service life

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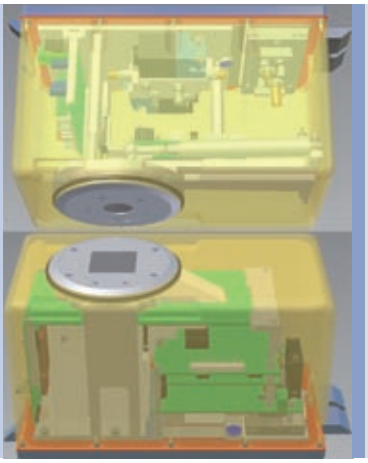

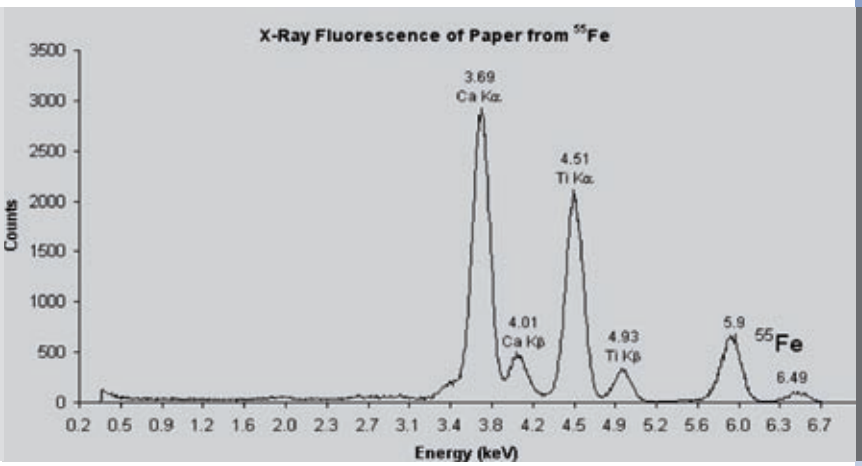

Specifications

Radioactive isotope
^{55}Fe; 3.7 GBq (100 mCi)

Measurement range
Up to 40 % ash, depending on filler composition and basis weight

Reproducibility
2-sigma value: 0.1 g/m^2 or 0.2 %; in each case, the higher value applies

Accuracy
2-sigma value: 0.15 g/m^2 or 0.4 %; in each case, the higher value applies

Measuring spot diameter
7.5 mm effectively

Response time
< 1 ms

Ambient temperature
Standard up to 70° C
Optionally up to 100° C

Maximum relative humidity
98 % non-condensing

Precondition
Basis weight measurement to calculate the percentage of the ash portion

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Engineered reliability.

aut 1075 en yldm 2009-09 1000 Technical data and illustrations subject to change!