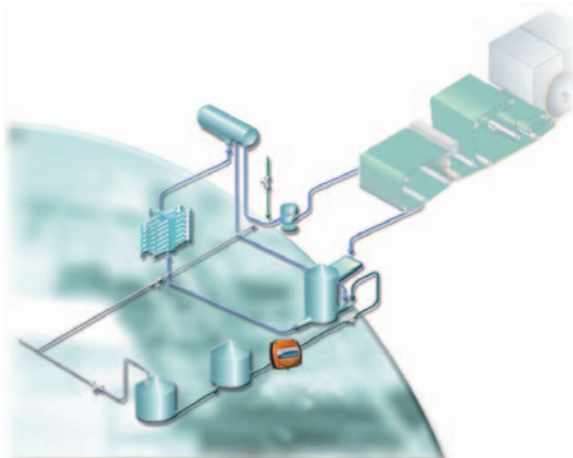


Metso Brightness Measurement

Cost-effective continuous brightness sensor for tissue

Grammage (basis weight) is very low in tissue products. This poses difficulties when measuring the optical properties of tissue papers online with conventional scanners. Metso's latest development in brightness sensors makes reliable, continuous brightness measurement available also in the tissue making environment.

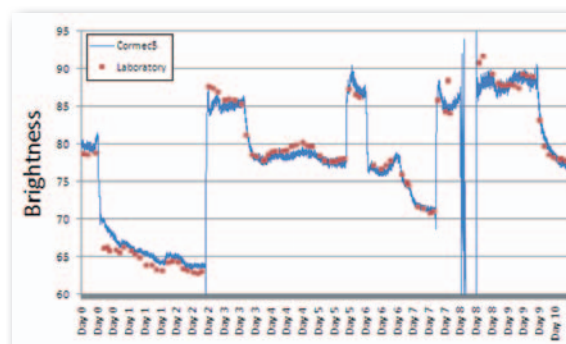
Metso Brightness Measurement (Metso Cormec5) is an inline brightness sensor which can also be tuned to measure CIELAB colors. Its installation location is selectable, in stock preparation or even in the short circulation, to provide continuous, real-time information of the optical properties most important for a tissue maker.



Metso Cormec5 measures optical properties from pulp flow, but its measurement results can also be tuned to show tissue brightness and color results from pope reeler. This ensures fast start-up, when information that previously required extra sampling and laboratory work is now available from the basic laboratory measurement results.



Field results of the new Metso Cormec5 show how well an inline sensor is able to predict the optical properties of tissue, even when the brightness target values of the produced grades differed greatly.



Sensor features

- Cost-effective installation with a standard ball valve
- Dimensions to enhance robustness and endurance for vibration
- Classified safety and secured installation
- New platform customer interfaces with efficient communication standards and diagnostics tools (DTM) matching the other Metso sensors and transmitters
- Five times faster measurement – unsurpassed accuracy
- Custom-made light source and detector assembly
- Optical signal stability ensured by several diagnostics controls

Benefits

- Real time continuous brightness data
- Less brightness related waste
- Lower production costs
- CIELAB color information

Sensor	
Brightness	20–95° SCAN
ERIC	0–1000 ppm
HW/SW detection	
L.a.b.	application specific
Process pressure, new installation	max. 25 bar (363 psi, 2500 kPa)
Process pressure, retrofit in older type coupling	max. 16 bar (232 psi, 1600 kPa)
Process temperature	+5–100°C (+41–212°F)
Environment temperature	0–60°C (+32–140°F)
Enclosure class	IP65 (NEMA 9)

Operating unit TCU	
Cable to sensor	10 m (33 ft)
Operating power	90–260 VAC / 25 W
Connections to mill system	
- analog outputs	2 current outputs, 4–20 mA
- HART®	4–20 mA, 18–35 VDC
- binary inputs	2 inputs, 12–35 VDC, isolated
Option: separate connection box	4 current signals, 4–20 mA
Option: Profibus PA	IEC 61158-2
Connections to PC (for start-up & service):	
- DTM for FieldCare™	HART®
- PC-connection (service)	RS-232
Environment temperature	5–50°C (+41–122°F)
Enclosure class	IP65 (NEMA 9)