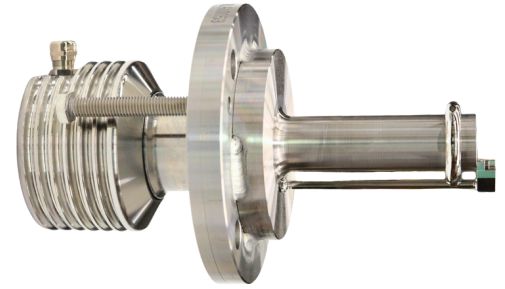




AL-CARK®

PLA
PROCESS
ANALYSERS

SLURRY LIQUOR PHASE DENSITY ANALYSER



**AN IN-LINE SENSOR THAT PROVIDES CONTINUOUS REAL-TIME
SLURRY LIQUOR PHASE DENSITY USING REFRACTIVE INDEX.**

APPLICATION



**“ENGINEERED FOR RED AND WHITE SIDE
ALUMINA PROCESSES.”**

Can be used to monitor liquor-phase density in areas such as the Digestion Blow Off (DBO)/Last Flash Tank and precipitation feed.

Install the sensor directly in the main process pipe (no need for traditional recirculation lines).

Ideal for low flow velocities of 1.8m/sec.

**GET REAL-TIME, IN-LINE DENSITY
MONITORING FOR BOTH LIQUOR
& SLURRY APPLICATIONS.**

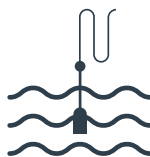
SENSOR TYPES



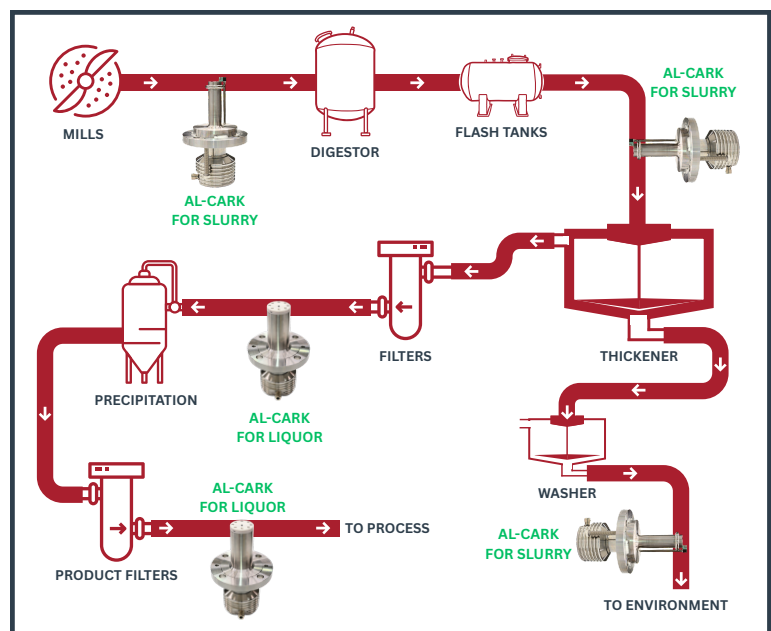
For Liquor
Applications




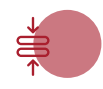



For Slurry
Applications



Submersible Type



The AL-CARK® Advantage

-  Reduces Caustic Soda consumption by maintaining optimal NaOH concentration.
-  Stable Precipitation Feed Density improves yield & minimises fines.
-  Cuts Lab Sampling Costs – Eliminates frequent offline density checks.
-  Drift-free measurement corresponding typically to within 0.5 g/l Soda.
-  No Calibration required.

RUGGED DESIGN



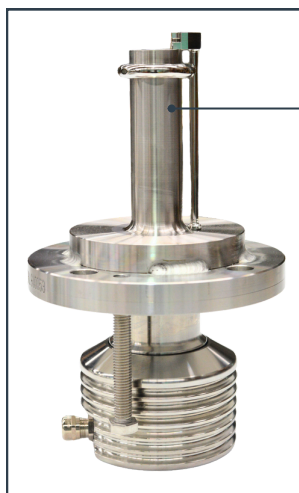
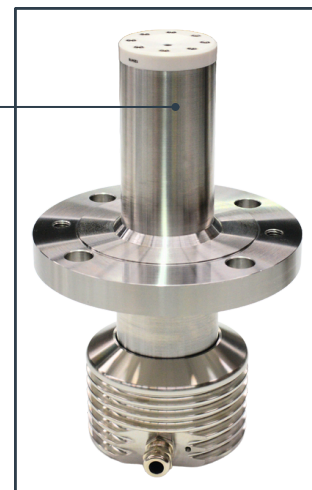
**Submersible
Sensor**



Transmitter

Slurry Application Sensor

SAF2205 Wetted
Parts with a PSZ
Ceramic Tip



Liquor Application Sensor

SAF2205 Wetted Parts
with a Prism Wash
System

SPECIFICATIONS

- **Refractive Index ranges:** 1.31 to 1.54 RI capable range 0 to 1000 gpl soda
- **Accuracy:** Better than ± 0.0002 R/I corresponds to 0.5 gpl soda repeatability and stability corresponds to accuracy.
- **Speed of response:** 0.8 seconds.
- **Process temperature:** Up to 150 deg C or higher. Consult PLA.
- **Ambient temperature:** -30 to +55 deg C
- **Process pressure:** Up to 200 psi
- **Recommended flow velocity:** 1.8 to 2.7 Meters per second.
- **Wetted part sensor body:** SAF2205 / PSZ Ceramic
- **External sensor and transmitter:** SS316
- **Process connection:** 3" ANSI 150# or 300#RF (DIN also available)
- **Complete with:** 1/2" UNC Jacking bolts to facilitate removal
- **Output signals:** 4-20 mA / 0-20 mA max load 1000-ohm, serial output RS485 / RS232, ethernet IP.
- **Power:** 24Vdc / 110Vac / 240Vac
- **Interconnecting cable:** Standard 10 meters. Maximum 100 meters.
- **IP rating:** IP65 / NEMA 4X for sensor and transmitter.
- **Options:** Various exotic sensor body materials.