

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





"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 to provide accurate and repeatable control point measurements.

Also suitable for measurements of pressure acid leach (PAL) blow off in Nickel Refining.

SENSOR TYPES



For Liquor Applications



For Slurry Applications

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Submersible Type

Why AL-CARK® Installed on the main pipeline, AL-CARK[®] provides real-time data on Slurry Liquor-phase Density, enabling Operators to control Dissolved Liquor Components & reduce Acid Usage.

PRECISION LIGHT & AIR PTY LTD

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Precise in-line real-time monitoring of slurry liquor-phase density

Drift-free measurement corresponding typically to within 0.5 grams per litre soda

Install the sensor directly in the main process pipe

Flow rate-independent measurements allow installation in any pipe size.

No calibration required

Rugged probe designed specifically for the Alumina Industry

RUGGED DESIGN



Transmitter

Liquor Application Sensor

SAF2205 Wetted Parts with a PSZ Ceramic Tip





Slurry 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: 3/4" 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.

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