

Optical Consistency Sensor “PirCon”

AshCon Product Description



Based upon the proven PirCon (AC100) sensor, the Ashcon AC500 sensor measures the consistency of process streams containing a uniform pulp mix (0-60g/L / 0-6%Cs.) The sensor uses a high-energy nIR diode light source with focused optics and dual measurement channels. The sensor is factory pre-calibrated on a custom material mix to simplify on-site calibration. The sensor automatically compensates for process temperature changes as well as any component drift with a reference correction of the light source. The AC500 sensor is normally used on furnishes which do not contain fillers.

Measurement Applications

The Ashcon sensor is used to measure pure pulp or very low filler content recycled fibre process streams. The Sensor Interface Unit provides up to four grade calibrations to allow the sensor to measure a wide range of furnish types. It is normally installed into the process piping in locations that are evenly mixed (>1.5m/sec flow velocity). Positioned towards the centre line of the piping and in-line with the pulp flow the sensor will give a precise and repeatable measurement.

Typical applications include ; pulper discharge, machine/blend chests and screening consistency. The sensor can measure down to low consistencies and it can be used reliably on an Under-machine pulper or broke handling system.

Sensor Interface Unit

The Sensor Interface Unit (SIU) provides real-time signal processing for each sensor in the Ashcon range of products. A simple operator interface gives ; on screen trending (1hr to 24hr), history data-logging (MS excel format for analysis) with microSD transflash card and optional remote data communications (Serial Modbus, Ethernet or 3G /GPRS modem).

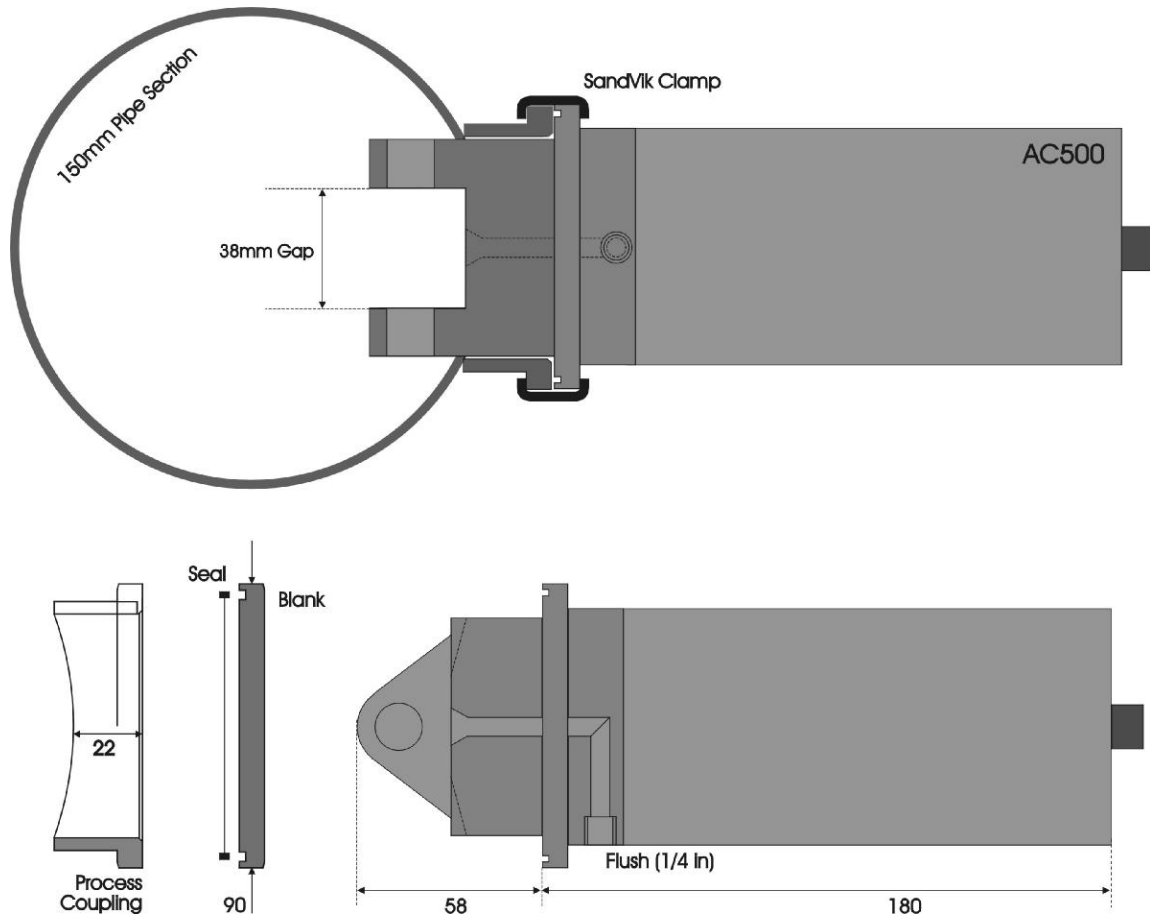
The SIU allows mill laboratory to sensor calibration values to be entered. Upto four grade-specific measurement calibrations can be selected for different furnish types.

Full diagnostic functions are also provided for real-time analysis of sensor performance.

The SIU provides analogue signal outputs for the mill control system interface as well as digital input signals for grade selection and an alarm contact output.



Product Drawing



AshCon

Technical Specification

Measurement: Optical transmission of near infra-red light.

Material : Wetted parts 316 St.Steel

Optical Gap: 38mm with in-line mount (Sandvik clamp)

Weight: 3 Kgs

nIR source: GaAs Diode, typically 880nm wavelength

Connection: 5 core plug (IP65)

Range: 10 – 60g/L up to 6%Cs. (Total)

Cable: 4 Metres (std.) upto 15 Mtrs

Accuracy: Within 3% of range (lab. to sensor 2sigma)

Protection: IP65 (NEMA 4X)

Flow rate: 1.5 m/sec (stock velocity)

Mount: Clamp fitting (to process)
Onto pipeline

Pressure: PN10 (146 psi.g. / 10 bar.g.)

Temperature: 0 – 60 deg. C (max.)

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