

## Optical Consistency Sensor With Fibre / Ash Determination



### **AshCon** Product Description

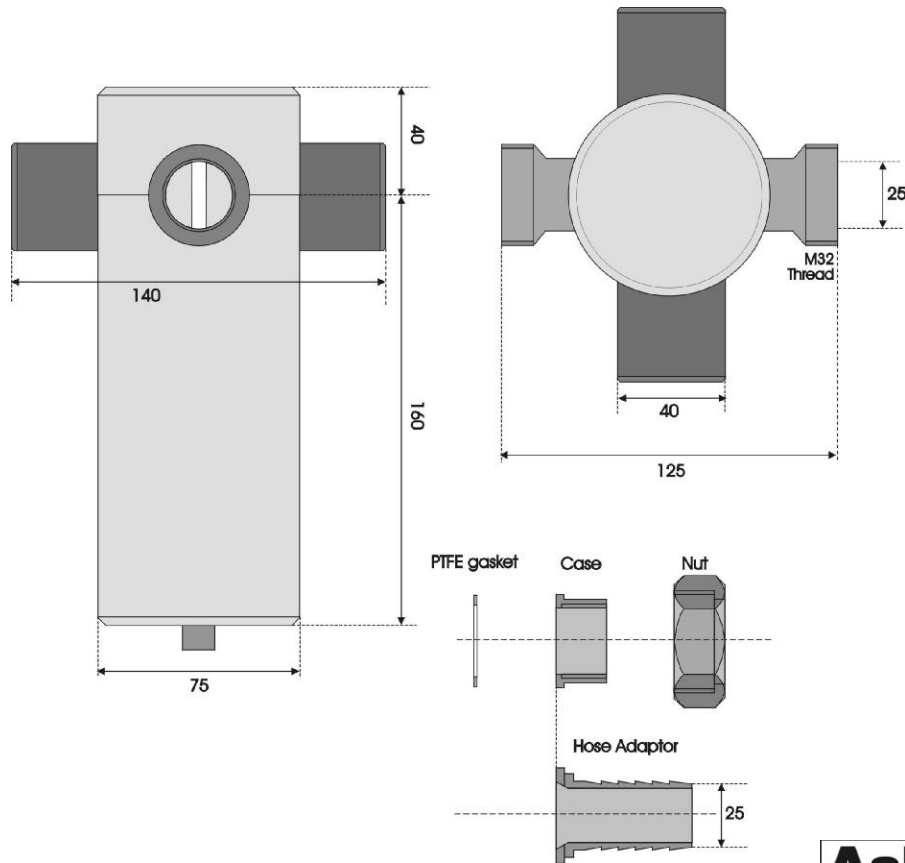
The Ashcon sensor measures the consistency of process streams containing a mixture of cellulose fibre and minerals. The sensor uses a high-energy nIR diode light source with polarised optics with multiple measurement channels. The light depolarising effect from fibre and the scattering effect from filler is modelled to provide a measurement of the fibre proportion and filler proportion.

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 Sensor Interface Unit (SIU) allows mill lab. to sensor calibration values to be entered as well as any grade-specific measurement compensation. The SIU also provides; on screen trending, data-logging and optional remote data communications.

### **Typical Applications**

The Ashcon sensor is normally used to measure the paper machine wet end Whitewater and Thinstock process streams. It can also be used on other low consistency fibre lines where fillers are present. It is normally installed within a Retention measurement system that includes; process sample handling, automated cleaning and signal processing.

## Product Drawing



**AshCon**

## Technical Specification

Measurement:	Optical transmission of depolarised near infra-red light.	Material :	Wetted parts 316 St.Steel
Optical Gap:	5mm with Venturi tube from 25mm bore	Weight:	3 Kgs
nIR source:	GaAs Diode, typically 880nm wavelength	Connection:	5 core plug (IP65)
Range:	0 – 100mg/L upto 2%Cs. / 20g/L (Total) 0 – 10g/L Total (typical) = 4-20ma signal 0 – 10g/L Filler (typical) = 4-20ma signal	Cable:	4 Metres (std.) upto 15 Mtrs
Accuracy:	Within 3% of range (lab. to sensor 2sigma)	Protection:	IP65 (NEMA 4X)
Flow rate:	10 L/min to 50 L/min (min. to max.)	Mount:	Clamp fitting (to mount plate) Or from pipeline
Pressure:	PN10 (146 psi.g. / 10 bar.g.)		
Temperature:	0 – 60 deg. C (max.)		

### Invista Limited

Unit 16, BVEC Ivy Road  
Aldershot  
Hampshire GU12 4QW  
United Kingdom  
Tel: +44 1252 345000  
Fax: +44 1276 691030  
[www.invista-sensors.com](http://www.invista-sensors.com)

### Contact :