AMS | ACTIVE MICROWAVE SENSORS

P1 | Microwave consistency meter in the forming section.

INCREASING QUALITY	1	IMPROVING EFFICIENCY	2	MAXIMIZING RUNNABILITY	3

Quality – Efficiency - Runnability

The P1 sensor has been optimised for use in the pulp & paper production process.

A number of factors affect drainage characteristics and knowing the consistency and the water content at several sections of the forming sheet can be a key factor in achieving the best trade off.

The AMS P1 sensor measures the water level at every point in the forming section, thanks to its exceptionally large range of measurement and its small dimensions.

Unique patented technology

The P1 uses a unique patented technology: the Planar Active Microwave Sensor.

This technology, based on a planar microwave resonator, allows the instrument to measure up to 48000 g/m2. Measurements are not affected by the type of fibre, the colour of the paper or vibrations.

The proprietary algorithm makes P1 independent from temperature, conductivity and oscillations in the sheet.

In addition, by using the specific software on the AMS HUB, and switching the sensor to "FFT" mode, the sample rate is increased to 1024 sample/s and relevant information can be extracted regarding the vibration and oscillation on the wire.

Main Features

- Wide range of measurement from 0 to 48000 g/m2
- Resolution of 1 g/m2
- High repeatability and reliability
- High rate of measurement up to 1024 samples/s in FFT mode
- Easy installation (single cable connection)
- Easy integration into complex AMS standard measuring systems.
- Simple DCS/QCS interfacing with analogue output
- Advanced data processing features with FFT analysis tools

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AME | REINVENTING PROTECTION
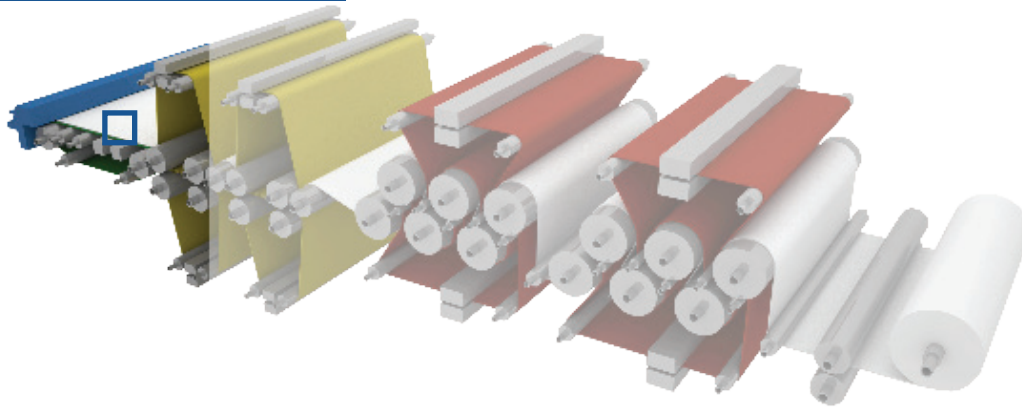
FORMIN BOARD

□ P1

Flexible positioning

The P1 can be used in every section under the forming board, in every kind of forming board from those used in the Pulp mills to that used in the fast newspaper mills, from close the head box to the couch roll.

The sensor has a stainless steel AISI 316 body, that protects it against chemical and mechanical stresses.

P1 uses a single industrial connector carrying all necessary signals and power supplies, directly connected to AMS HUB, with an UTP cable with length up to 100m.
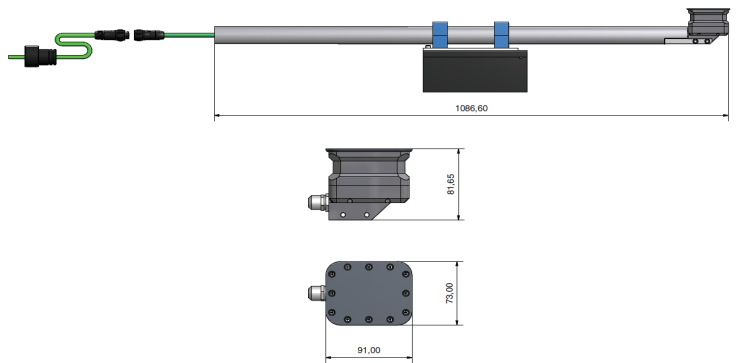

Data analysis with the AMS manager

The PAMS P1 sensor has been optimised for use in the pulp & paper production process. It is designed to measure the water content in the forming section, allowing real time control of consistency and other production parameters.

The sensor works in contact with the forming wire and produces digital data. The AMS P1 sensor needs to be connected to the AMS HUB by a digital data connection. It can be completely

integrated into any AMS measuring system. By using the HUB, analogue output can easily be connected to the DCS/QCS (using an analogue interface). In addition, if an internet connection is provided, the data generated can be analysed in real time by any authorised remote user.

Weight

Consistency
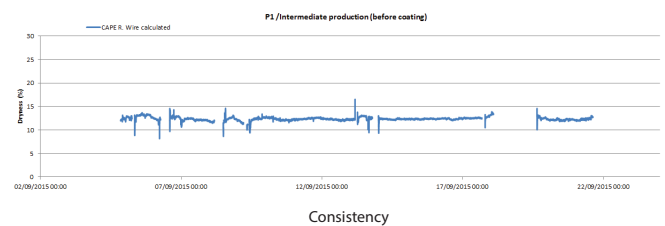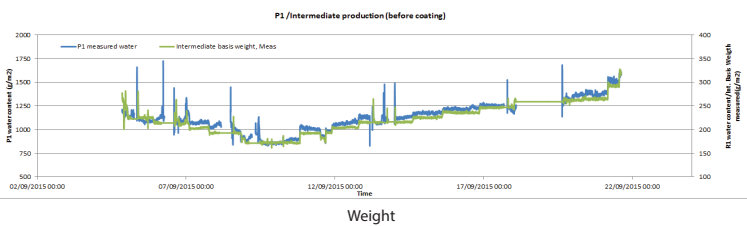
Technical specifications

Measurement specifications

Water content measurement range		g/m2 0 to 48.000
Resolution	g/m2 1	
Sample rate		Sample/sec4-1024FFTMODE

Enviromental

Operating temperature		°C 10-80
Protection grade	IP 67	

Mechanical Specificatio /R1 Sensor

Weight	Kg 1,8
Dimension (sensor head)	mm 91x 80 x 73
Dimension (body matirial)	mm 222x 85 x 150

Accessories

  7m male soriau pigtail

  AISI 316 inox steel body

  Brackets with 1m

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