

## Experion MX Drainage Measurement



Experion MX will help improve your business performance in today's challenging economic environment. This fully integrated quality control and process knowledge system provides superior visibility into the papermaking process while it simplifies your operational efforts and is easy and cost effective to maintain and service. Improve paper quality, reduce raw material, energy, services and maintenance costs, and increase production efficiency with a package of solutions that provides the lowest total lifecycle cost available.

### Drainage Measurement

Drainage Measurement provides continuous visibility of the water weight in a paper machine's forming section. An array of sensors, positioned under the wire and aligned in the machine direction, provides operators with a real-time view of drainage from the forming board to the dry line. As part of a wet end multivariable control strategy, these measurements provide the feedback which allows overall sheet quality to be improved through the optimization of wet end chemistry, vacuum levels, refining and foil position. Increased sheet quality in turn provides increased production due to improved runnability. For multi-ply machines, sensors can be installed on each ply to measure their individual drainage rates.

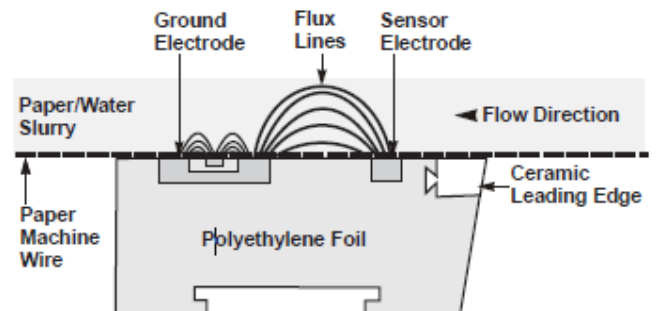


### Features and Benefits

- Online, real-time drainage measurement, visualization and control
- Non-nuclear, static sensor with all electronics off machine
- Improved sheet quality through consistent formation
- Consistent quality due to repeatable drainage profiles
- Reduce production costs through fiber substitution or reduced chemical / additives usage

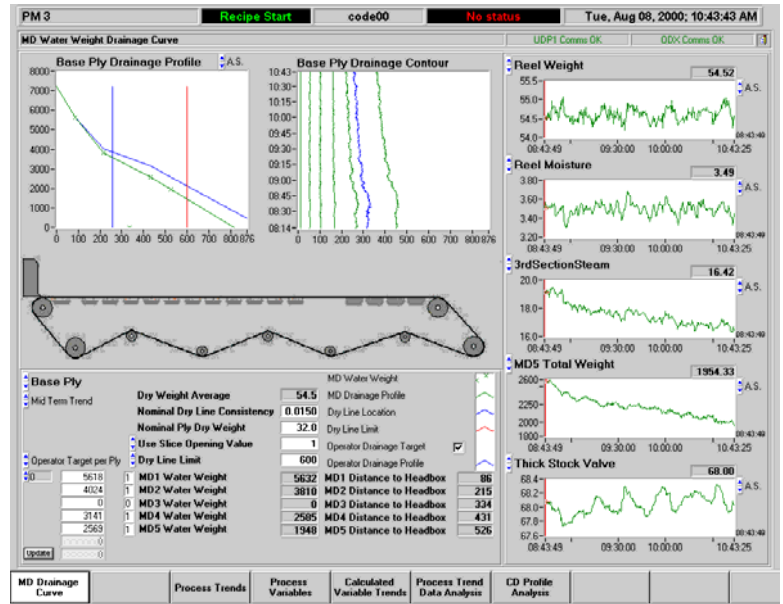
### Measurement Technology

The non-nuclear, resistive field technology sensor is embedded into drainage foils so that the sensor is permanently mounted under the wire. The sensor's top surface is flush with the foil, so there is no effect on dewatering or marking of the sheet. Sensors may be installed into polyethylene or ceramic foils on fourdrinier or gap formers. The water weight is derived from the electrical resistance of the stock slurry between the sensor and ground electrodes. The first sensor installed after the headbox is used as a reference to compensate for changes in the slurry's conductivity.



Experion MX plots the water weight measurement from each sensor as both a drainage profile and a drainage contour. The drainage profile plots water weight against distance from the headbox and estimates the current dry line position, providing a picture of how fast the sheet is dewatering. The drainage contour shows how the water weight varies over time at each sensor position. These displays provide a real-time view of how drainage is affected by process changes.

For paper machines with a non-Experion MX quality control system, a standalone drainage measurement system is available which can be configured to provide measurements only, or a full machine direction multivariable control solution.



**Specifications**

Range	Approximately 1,500 to 30,000 gsm water weight (equates to typical dry weight applications from 15 to 300 gsm)
Sampling Rate	Standard: 1Hz, Burst Mode; 600 Hz
Sensor Materials	Noryl EN265 & T316L Stainless Steel or Conductive Ceramic
Noryl Sensor Size	31 mm MD (1.22 in) x 96.4 mm CD (3.793 in)
Ceramic Sensor Size	Varies with foil dimensions
Cable Length	Max 30 meters (100 feet) to electrical interface cabinet
Maximum Number of Sensors	30

**More Information**

For more information on Experion MX, visit [www.experionmx.com](http://www.experionmx.com) or contact your Honeywell account manager or field service leader.

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