



ELECTRON MACHINE CORPORATION

www.electronmachine.com

MPR E-Scan | Starch/Sizing Liquid



CONTROL • SAFETY • VALUE

- ▶ Data logging output for dilution and temperature
- ▶ Multiple product ranges and configurable set points.
- ▶ Sapphire Prism
- ▶ Daylight visible color display
- ▶ NEMA 4X
- ▶ Stainless-steel CNC machined sensing head
- ▶ 4-20mA & RS-232 outputs
- ▶ In-house manufactured in USA
- ▶ 24 Hour Service Support
- ▶ (2) Input & (6) Configurable output relays
- ▶ Configurable alarm points: high/low, setpoint/ deviation, etc.

Cooked starch or sizing liquid is used in paper sizing to reduce the paper's tendency to absorb liquid when dried. The reduction in liquid allows inks and paints to better remain on the surface and helps create stabilized sizing conditions. This allows a consistent paper quality across the different paper grades.

The MPR E-Scan gives paper companies the ability to accurately control the sizing/cooked starch, by detecting changes in the concentration of the cooked starch. This precise measurement allows effective control of the fresh water flow to the size press/starch circulation system, reducing excessive water usage. Combining the measurement with data-analysis tools, a company can monitor inefficiencies in the starch/sizing line and evaluate the dilution levels. Allowing improvements in starch/sizing operation's efficiency and overall reduction in water with a reduction in the overall time needed to meet target dilution. By providing a near instant reading of starch concentration and temperature, the instrument removes the reliance on offline testing. Automatic prism wash using heated high pressure water is recommended in this application. The prism wash is controlled by matching the wash water temperature to the process reducing any thermal shock to the process and sensor.

The MPR E-Scan is constructed of various alloys to ensure a long service life in a harsh chemical environment. With our custom pipeline adapters, the instruments can be implemented into any process. Due to the unique measurement principle, the instrument's readings are unaffected by bubbles, particles, fibers, color, flow, pressure or vibration. By utilizing the instrument to control and monitor the starch liquid concentration, paper companies can guarantee that proper dilution was met and maintained.

KEY BENEFITS

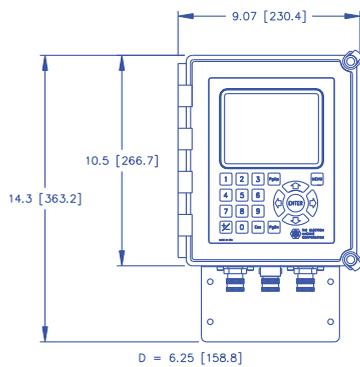
- Increased paper quality
- Continuous accurate control of dilution factor
- Consistent cooked starch quality
- Increased paper grade production
- Reduced water and steam use for the cooking process
- Error and Warning light indications
- Reduced time for correct sizing/ starch concentration
- Continuous temperature readings

Model MPR E-Scan : Standard Features

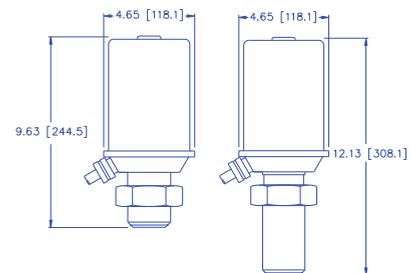
Accuracy/ Repeatability	±0.0002 RI (corresponds typically to ± 0.1% by weight)
Response Time	0.25 seconds to 3 minutes
Span	Configured for specific application for max. resolution
Display	Color TFT-LCD with LED backlighting 640 X 480 Pixel, daylight-readable
Process Temperature	Up to 150°C (300°F) without air purge
Sensing Head Wetted Materials	2205 Full Duplex S/S, Sapphire, Peek® or VITON®
Service/Support	24HR Technical hotline and fast response for repairs/parts
Standard Outputs	4-20mA non-isolated, 0-10 Vdc non-isolated, RS-232 (6) configurable output relays & (2) configurable input relays
Interconnecting Cable	6M (20FT) standard 300M (1000FT) maximum

Model MPR E-Scan : Optional Features

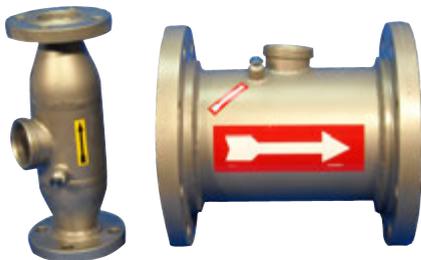
Sensing Head Wetted Materials	Alloy-20, Hastelloy C, Tantalum
Outputs	RS-422/484 & Isolated 4-20mA for (temperature, measurement or control)
Vortex cooled electronics console, Intrinsically safe & Severe duty for extreme vibration/heat	



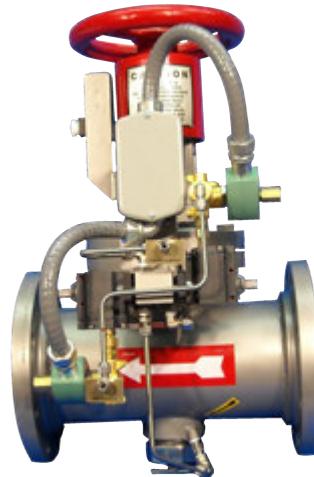
Standard Extended



Spool Adapters



Isolation Valve Adapter



Flanged In-Line



NPT In-Line

