

Highly accurate sensors...

...Can Also be Adaptive

Web Position Sensors



ARIS Web Position Sensors by Roll-2-Roll Technologies can measure edge position, contrast position, position of a line on the web, web width, count and monitor threads of any material, or guide of a contrast without the need for any setup or calibration. The sensing principle relies on light scattering and spatial filtering properties of fiber optics to accurately determine the web position. Paired with the SCU5 Controller, ARIS WPS is essentially an affordable vision based sensing system.



The sensor technology adjusts automatically to the physical characteristics of the material and provides an accurate position measurement.

ARIS WPS 48 - A simple solution for running multiple applications, the ARIS WPS 48 is the perfect fit. A versatile sensor with a 48 mm sensing window for edge sensing, contrast position sensing, and line sensing. Plug and play technology with the SCU5 controller, so you can reduce downtime and increase productivity with no setup or calibration after product changeover. Light sources infrared, white light or UV light. Contrast sensing mode provides multiple applications that allow handling the most difficult contrast sensing applications, such as gradients in labels, labels with an irregular feature, and multiple color contrasts. Even with small changes in contrast, such as a white line on a white background, this sensor is the perfect solution. In general, if you can see the contrast with your naked eye our sensor can detect it,

ARIS WPS 221 - A wide sensing window of 221 mm, a sensor ideal for width measurement, thread counting, thread measurement, and center guiding applications. All these applications available with the SCU5 controller.

ARIS WPS 440 - A unique sensor solution with a sensing window of 440 mm and built-in controller. WPS 440 is used for applications such as edge guiding, center guiding, web width measurement, thread counting and simple inspection applications.

The smartest controllers...

...Should be Easy to Operate

SCU 5 Controller



Roll-2-Roll Technologies SCU5 controller is the brain of the Web Position Sensors and the Web Guiding Systems. The controller serves as a stand alone sensing/measurement system or as a closed-loop control system, with an appropriate actuator. Our sensor(s) capture the raw images and the SCU5 controller processes the information and sends appropriate measurement or feedback to the actuator. The controller also processes all the operator interface interaction as well as the interaction with external controllers through the industrial Ethernet communication options. SCU5 can be used with both the Web Position Sensors and Web Guiding Systems.



The most intelligent web guides...

...Should be Easy to Use

Web Guiding Systems

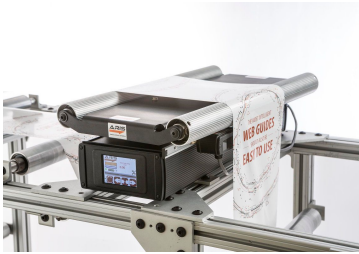
Roll-2-Roll Technologies LLC offers Retrofit Guiding Systems, Rewind and Unwind Guides, Displacement Guides or OPGs (Offset Pivot Guides), and Steering Guides with the most advanced web guiding technology. All web guides operate with our plug and play sensors, so they're simple to install and easy to operate. These guides are capable of accurately aligning porous, non-porous, opaque and clear materials without the need to calibrate the sensors. The operator interface display has language independent icons for quick selection between edge, centerline, contrast or line guiding. These controllers can be operated remotely through industrial Ethernet or locally with the touch screen display.

Retrofit Web Guiding Kits



Roll-2-Roll Technologies Web Guide Retrofit Kit enables easy upgrade of any existing pneumatic, hydraulic or electromechanical web guiding system with the next generation sensing and control technology. Keep the existing web guide mechanical assembly and replace the sensor, controller and actuator with this retrofit kit solution. Properly size the actuator and upgrade displacement guides, steering guides, unwind stands and rewind stands. OEMs also benefit from this upgrade kit when they pair it with their inhouse built web guide mechanical structure, rollers and mounting brackets. It allows them to provide their customers with the latest in sensor and control technology at an affordable cost.

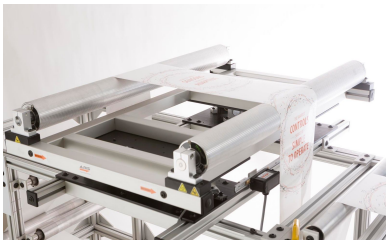




Compact Displacement Guides or OPGs in two models: compact or low-profile. Its compact design allows for installation close to a critical process in a converting line. Simple design, easy installation and operation.



Steering Guides are necessary for converting processes where guiding is required after a long entry span, for example, a converting process right after an oven.



Wide Web Guide Systems for wider material widths. It's robust frame provides accurate and precise web guiding for the general converting industry.



Unwind/Rewind Guides

Our web guide systems for unwind and rewind applications use the same control and sensor technology available in the rest of web guiding applications. We offer heavy duty actuators capable of shifting large and heavy stands with full rolls. These actuators are coupled with a sensor technology that works with any material without the need of calibration. Eliminating sensor adjustments and downtime result in a more productive converting line. Edge, center and contrast guiding is available for this application. Great application for OEMs, rebuilders, or operations that want to upgrade their unwind/rewind system.

Powerful data analytics...

...Can Bring Clarity to Web Handling

KOIOS Data Analytics - “KOIOS: foresight, intellect and knowledge” for web processing



Our KOIOS system is an intelligent data analytics and fault prediction package that offers the ability to detect process, material and machine issues through the Web Guiding System. KOIOS Data Analytics uses data from the sensor measurement to detect poor edge quality, flutter, edge disturbance, high frequency disturbance, upstream roller misalignments. Apart from indicating the health of the process, the system also provides status and fault information indicating the root cause for the lower health index. The high level fault and status information as well as low level raw data can be accessed via a built-in web server within the Web Guiding System. Additionally, industrial Ethernet protocols such as Ethernet/IP and PROFINET IO can be used to access the information through a PLC in real-time.

Roll-2-Roll Technologies

...Highly Responsive and Easy to Work With

We are here to provide our customers solutions to their most complicated web guiding and web detection problems. Three graduates from the Oklahoma State University Web Handling Research Center started Roll-2-Roll Technologies LLC in 2014 with the introduction of the ARIS product line. ARIS was an innovative technology that departed from the traditional methods of web edge detection. Today, the company has evolved to become the supplier of modern patented and proprietary sensor solutions for the most difficult and challenging problems in web guiding and web positioning for the web processing industry.

Visit our website at r2r.tech for more information on our products and services.