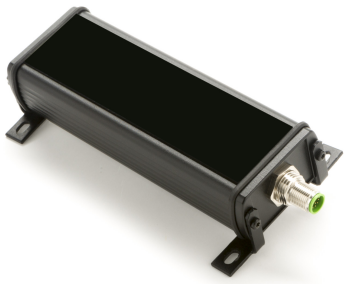
Roll-2-Roll Technologies

PRODUCT BROCHURE

WPS 112



High-Resolution Sensors Can Also Be Adaptive

Key Features

- **Zero recalibration** – sensor adapts automatically to any material (clear, opaque, metallic, nonwoven, mesh)
- **Medium sensing range** – 112 mm (4.4 in) for versatile applications
- **Material-agnostic detection** – fiber-optic technology based on light scattering and spatial filtering
- **Temperature immune** – unlike ultrasonic sensors, performance unaffected by temperature changes
- **One sensor, multiple applications** – edge guiding, width measurement, centerline detection

Benefits

- **Stop losing hours** to sensor recalibration when switching between materials
- **Eliminate changeover delays** – no manual sensor adjustments between product runs
- **End quality escapes** caused by undetected sensor drift between changeovers
- **Remove safety risks** from operators accessing sensors in awkward positions
- **Prevent hidden scrap** from temperature drift that plagues ultrasonic sensors

Note: WPS is a legacy product line. For new installations, consider the ODC 96 or ODC 192 with enhanced features.

Specifications

Sensor Type	Fiber-optic (diffuse-reflective)	**Sensing Range**	112 mm (4.4 in)
Image Sensor	1D image sensor	**Resolution**	0.127 mm (0.005 in)
Repeatability	±0.127 mm (±0.005 in)	**Working Distance**	15-25 mm (0.6-1.0 in)
Response Time	20 ms standard	**Operating Temp**	-10°C to 65°C (14°F to 150°F)
Protection Class	IP54	**Controller Required**	Yes (SCU5 only)
Status	Legacy Product – Consider ODC 96 for new installations		

Applications

- Edge position sensing on medium web applications
- Web guiding for converting and packaging lines
- Width measurement
- Centerline detection

Compatibility

SUPPORTED LINE SPEEDS

1000+ fpm

SUPPORTED MATERIAL TYPES

Opaque Material, Nonwoven

SUPPORTED WEB WIDTHS

Narrow (<12"), Medium (12"-48")

Available Configurations

Part Number	Configuration
3-400013	WPS 112-IR QD
3-400023	WPS 112-WL QD
3-400113	WPS 112-IR QD AS
7-020001	1" Mounting Bracket for WPS and ODC Family

Part Number	Configuration
7-020004	1.5" Mounting Bracket for WPS and ODC Family
7-020005	Mounting Bracket for 1" or 25 mm Extrusion for WPS, ODC Family and 1DC Series
7-020006	Mounting Bracket for 1.5" or 40 mm Extrusion for WPS, ODC Family and 1DC Series

Supporting Documentation

Manuals (3)

- ODC and WPS Installation for Center Guiding and Web Width Measurement
- Sensor Installation Recommendations: Inspection Applications
- WPS 112/221/440/900 or ODC 96/192/288/384/480/768/960 Sensor Installation for to Reduce the Effect of Twist

2D Drawings (3)

- New Mounting Brackets for WPS, ODC Family and 1DC Series - 1.5 in or 40 mm extrusion
- New Mounting Brackets for WPS, ODC Family and 1DC Series - 1in or 25 mm extrusion
- WPS 112 with Standard Mounting Brackets: 2D Drawing (pdf)

3D Models (5)

- 1.5in Mounting Bracket for WPS and ODC Family
- 1in Mounting Bracket for WPS and ODC Family
- Mounting Bracket for 1.5in or 40mm Extrusion for WPS, ODC Family and 1DC Series
- Mounting Bracket for 1in or 25mm Extrusion for WPS, ODC Family and 1DC Series
- WPS 112-xx QD

Wiring Diagrams (4)

- SCU5 C(x)D Wiring with WPS Sensor (Industrial Ethernet)
- SCU5 D Wiring with WPS Sensor (Analog Output)
- SCU5 DD Wiring with WPS Sensor (Digital Output)
- SCU5 DI Wiring with WPS Sensor (Digital Input and Output)

Scan for datasheets, 3D models & full documentation
https://r2r.tech/products/sensors/wps-112

Ready to Get Started?

Contact our experts to discuss how this product fits your application.

Phone: +1 (888) 290-3215 | **Email:** experts@r2r.tech | **Web:** r2r.tech