

# WPS 221

---



Highly Accurate Sensors Can Also Be Adaptive

## Key Features

---

- **Zero recalibration** – sensor adapts automatically to any material (clear, opaque, metallic, nonwoven, mesh)
- **Wide sensing range** – 221 mm (8.7 in) for broader 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-related inaccuracies that plague ultrasonic sensors

*Note: WPS is a legacy product line. For new installations, consider the **ODC 192** or **ODC 288** with enhanced features.*

## Specifications

---

|                         |   |                            |                               |
|-------------------------|---|----------------------------|-------------------------------|
| <b>Sensor Type</b>      | Fiber Optic (diffuse-reflective)  | <b>Sensing Range</b>       | 221 mm (8.7 in)               |
| <b>Image Sensor</b>     | 1D image sensor   | <b>Resolution</b>          | 0.127 mm (0.005 in)           |
| <b>Repeatability</b>    | >99.9%  | <b>Working Distance</b>    | 15-25 mm (0.6-1.0 in)         |
| <b>Response Time</b>    | 20 ms standard  | <b>Operating Temp</b>      | -10°C to 65°C (14°F to 150°F) |
| <b>Protection Class</b> | IP54  | <b>Controller Required</b> | Yes (SCU5 only)               |
| <b>Status</b>           | Legacy Product – Consider <a href="#">ODC 192</a> for new installations |                            |                               |

## Applications

---

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

## Compatibility

---

### SUPPORTED LINE SPEEDS

0-100 fpm

### SUPPORTED MATERIAL TYPES

Mesh/Screen, Opaque Material

### SUPPORTED WEB WIDTHS

Wide (48"-72"), Medium (12"-48")

## Available Configurations

---

| Part Number | Configuration                               |
|-------------|---|
| 3-400014    | WPS 221-IR QD                               |
| 3-400024    | WPS 221-WL QD                               |
| 3-400114    | WPS 221-IR QD AS                            |
| 7-020001    | 1" Mounting Bracket for WPS and ODC Sensors |

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

## Supporting Documentation

---

### Manuals (5)

- ARIS Web Position Sensor Product Manual
- ODC and WPS Installation for Center Guiding and Web Width Measurement
- Sensor Installation Recommendations
- 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 and 1DC sensors - 1.5 in or 40 mm extrusion
- New Mounting Brackets for WPS, ODC and 1DC sensors - 1in or 25 mm extrusion
- WPS 221 xx-QD

### 3D Models (5)

- 1.5in Mounting Bracket for WPS and ODC Sensors
- 1in Mounting Bracket for WPS and ODC Sensors
- Mounting Bracket for 1.5in or 40mm Extrusion for WPS, ODC and 1DC Sensors
- Mounting Bracket for 1in or 25mm Extrusion for WPS, ODC and 1DC Sensors
- WPS 221-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/sensors/wps-221>

### Ready to Get Started?

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

**Phone:** +1 (888) 290-3215 | **Email:** [experts@r2r.tech](mailto:experts@r2r.tech) | **Web:** [r2r.tech](https://r2r.tech)