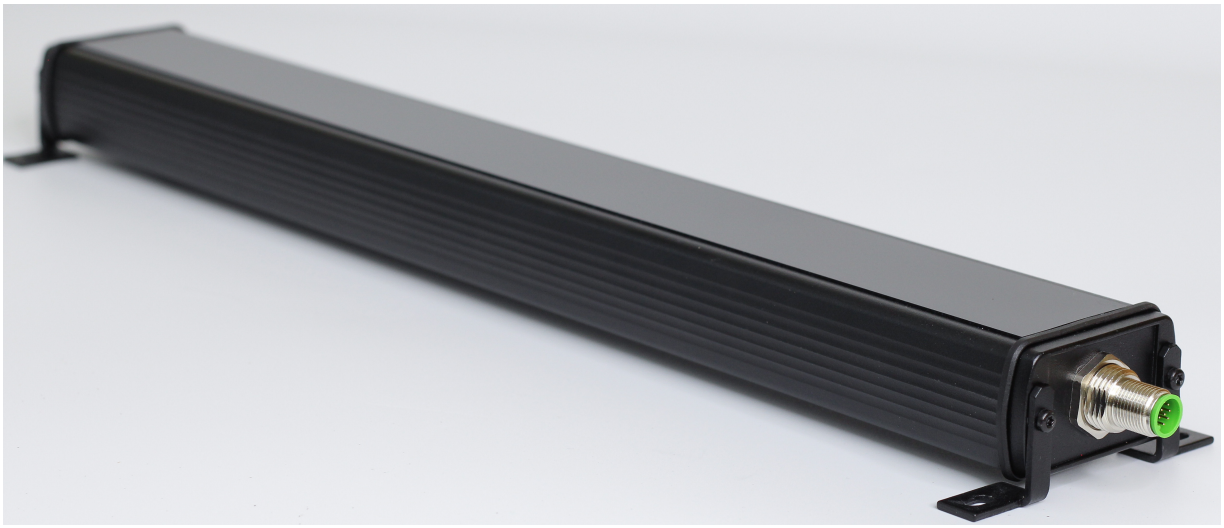
Roll-2-Roll Technologies

PRODUCT BROCHURE

ODC 384



Affordable Camera Technology to Replace Machine Vision

Key Features

- **Zero recalibration** – sensor adapts automatically to any material (clear, opaque, metallic, nonwoven, mesh)
- **High resolution** – hardware resolution independent of sensing range
- **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, and more

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

Specifications

Sensor Type	Fiber Optic (diffuse-reflective)	**Sensing Range**	384 mm (15.1 in)
Resolution	0.127 mm (0.005 in)	**Repeatability**	>99.9%
Linearity Error	<0.25%	**Response Time**	20 ms standard, 10 ms with special firmware
Camera Type	CMOS line scan camera	**Light Source**	Infrared (880 nm), UV (385 nm), White light
Working Distance	15-25 mm (0.6-1 in)	**Cable Length**	Up to 10 m (33 ft)
Connector	M12 12-pin male A Coded	**Housing**	Aluminum Extrusion
IP Rating	IP54 (IP64 on request)	**Operating Temp**	-10°C to 65°C (14°F to 150°F)
Controller Required	Yes (SCU5 or SCU6x)	**Vacuum Compatible**	Yes

Applications

- Edge sensing, measurement and guiding
- Centerline web position sensing, measurement and guiding
- Web width measurement and monitoring
- Thread/ribbon inspection
- Flag detection
- Registration mark detection
- Defect detection

Compatibility

SUPPORTED LINE SPEEDS

0-100 fpm

SUPPORTED MATERIAL TYPES

Opaque Material, Mesh/Screen

SUPPORTED WEB WIDTHS

Narrow (<12"), Narrow (<12")

Available Configurations

Part Number	Configuration
3-410015	ODC 384-IR QD
3-410025	ODC 384-WL QD
3-410035	ODC 384-UV QD
3-410115	ODC 384-IR QD AS
3-413015	ODC 384-IR QD IP65
7-020001	1" Mounting Bracket for WPS and ODC Sensors
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 (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 and 1DC sensors - 1.5 in or 40 mm extrusion
- New Mounting Brackets for WPS, ODC and 1DC sensors - 1in or 25 mm extrusion
- ODC 384 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
- ODC 384-xx QD

Wiring Diagrams (4)

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

Scan for datasheets, 3D models & full documentation
https://r2r.tech/products/sensors/odc-384

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