

Presenting

AttoIC

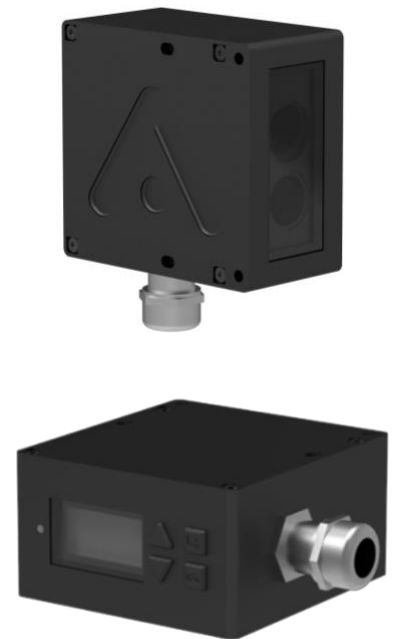
Inline Industrial Colour Sensor

AttoIC is a cutting-edge industrial colour (IC) sensor designed to deliver quality assurance in demanding colour-based industrial applications.

Using an advanced sensor technology coupled with high CRI white LEDs, AttoIC offers high precision inline colour measurement capabilities for accurate detection of minute colour variations.

The ultra-compact and ruggedised system measures the full spectrum of a sample illuminated by an internal white LED from a fixed working distance of 10 cm with a reflectance geometry of $10^{\circ}/0^{\circ}$ (illumination/reflectance).

AttoIC is a highly reliable system delivering consistent and accurate colour measurement data in a non-contact mode, even in the most challenging industrial environments.



Features

- Higher precision in colour measurement as compared to conventional RGB systems
- Precise colour variation measurement using Lab-based tolerancing against colour reference
- Onboard storage of 40 different reference colours
- Adjustable tolerance levels for different colour tolerancing requirements
- Working distance of 10 cm (customisable)
- Operational modes:
 - reflectance at $10^{\circ}/0^{\circ}$ with internal LED
- IP6x rated metallic housing for protection against dust and water splash
- PLC controllable
 - Trigger readout on/off
 - Switching output for GO/NG communication
 - Stored Reference Selection
- Ultra-compact ($61 \times 66 \times 34 \text{ mm}^3$)

AttoIC Specification Sheet

	Specification	Description
Optical	Light Source (LS)	Internal: High CRI white LED, 18 lm
	Optical Arrangement (Illumination/ Detection)	10°/0°
	Max Lifetime LS	estimated. 50,000 hrs
	Working Distance (WD)	Internal LS: fixed 10 cm ± 1 cm
	Spot Diameter ¹	5-12 mm
	Colour Tolerancing Method	dE L*a*b*
	Tolerancing Levels	0.3, 0.5, 1.0, 3.0,5.0
	Total Stored References	40
Control	Response time ²	1 s
	Number of switching outputs	1, pnp type
	Number of Digital Inputs	3
	Input 1	Trigger Input Signal
	Input 2	Reference Address Line 1
	Input 3	Reference Address Line 2
	Trigger	PLC/Internal
	Reference Mode Interface	Manual 8 Core Cable
Electrical	Supply Voltage	+24V
	Power Consumption	Approx. 0.6 W
	Short Circuit Protection	yes
	Reverse Polarity Protection	yes
	Overload Protection	yes
	Protection Class	Class III (SELV Safety Extra Low Voltage)
Mechanical	Housing	Aluminium (Anodized)
	Protection	IP64
	Size	61 x 66 x 34 mm ³
	Weight	<240 g
	Mounting	L-bracket attachment (M3x40)
	Cable Gland	M8 x 1
	Cable Length	1.5 m
Enviro	Ambient Light Immunity ³	Up to 20,000 lux (3)
	Temperature Range	15 – 50 °C
	Humidity Range (non-condensing)	40 – 85 %

1 Depends on aperture size
 2 Depends on integration time
 3 Influenced by ambient light

Features coming soon...

- External Light Accessory enabling
- Reflectance 45°/0° (for glossy surfaces)
- Transmission measurements (useful for transparent/ translucent samples)
- **RS485 based PLC communication**
- Remote referencing
- Remote change of chosen reference
- Colour storage of up to 256 colours