COGNEX

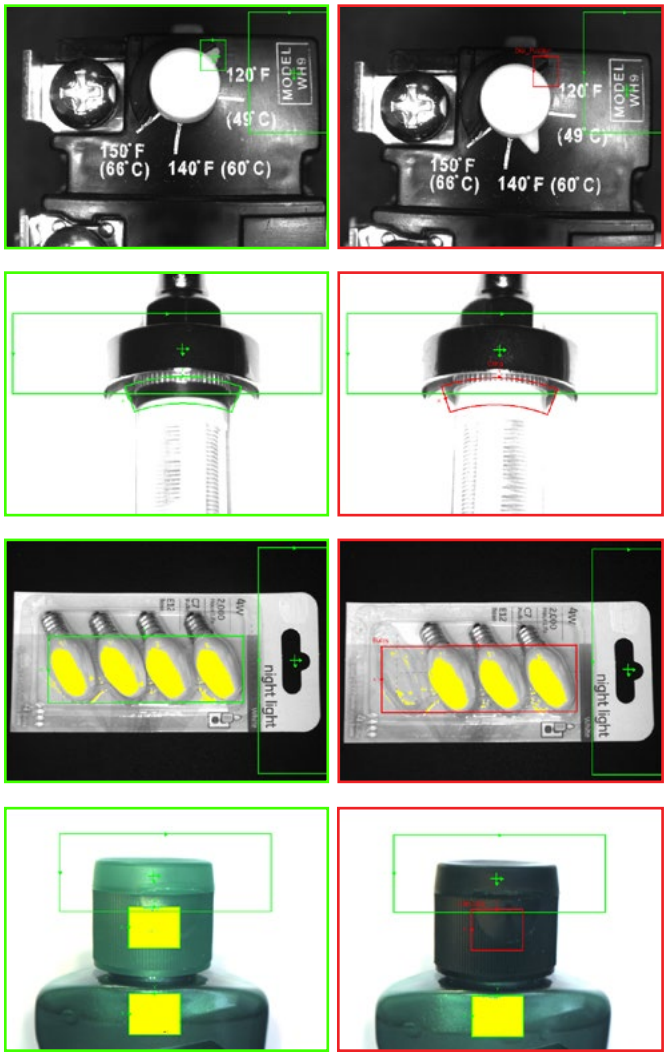
IN-SIGHT 2000 SERIES VISION SENSORS

In-Sight® 2000 series vision sensors combine the power of an In-Sight vision system with the simplicity and affordability of a vision sensor. Ideal for solving error-proofing applications, these vision sensors set new standards for value, ease of use and flexibility thanks to a powerful combination of proven In-Sight vision tools, simple setup, and a modular design featuring field changeable lighting and optics.

The In-Sight 2000 series includes an integrated, high-performance image formation system consisting of field interchangeable lenses and a patent-pending LED ring light that produces even, diffuse illumination across the entire image and eliminates the need for costly external lighting. Lenses and a variety of colored lights can be easily swapped out as needed to meet application requirements.

Together with the In-Sight Explorer EasyBuilder® interface, which provides fast, step-by-step application setup, the In-Sight 2000 series allows even novice users to achieve extremely reliable inspection performance in nearly any production environment.

In-Sight 2000 series vision sensors can also be configured for in-line and right-angle installation. This modular body design provides maximum flexibility to mount in tight spaces, simplifies wiring and optical paths, and minimizes the need to design new mechanical fixtures.



Features at-a-glance

- Affordable vision sensor powered by In-Sight Explorer software and EasyBuilder—the same interface used for all In-Sight vision systems
- Simple for both new and existing users to meet their automated inspection challenges
- Monochrome and color sensor models solve presence/absence applications, including color verification
- Proven, reliable Cognex In-Sight vision tools
- Compact, modular design with field-changeable, integrated optics and lighting
- Fully compatible with Cognex VisionView® PC software and VisionView 900 HMI touchscreen panel

Fast, intuitive setup with EasyBuilder

With its intuitive, point-and-click presence/absence tools, the EasyBuilder interface is ideal for setting up simple pass/fail inspections. When more complex inspections are required, users can build on their experience to create vision applications using more advanced In-Sight vision systems—in the same In-Sight Explorer interface.

Powerfully simple and affordable vision sensors

Unmatched flexibility

Field interchangeable lighting and optics make it easy to adapt to virtually any production line environment.

Powerful integrated light

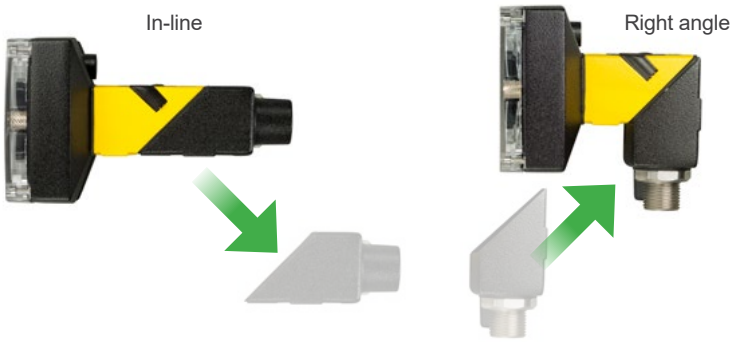
Diffuse illumination technology enables robust vision inspection in the most challenging environments—without the need for costly external lighting.

An In-Sight 2000 model for any application

Available in both monochrome and color image models, and with three different combinations of vision tools, the In-Sight 2000 series lets you choose the level of capability you need. Many applications require only the simple pattern matching of the 2000-110 model. The 2000-120 and 2000-130 models offer larger tool sets for solving a wider range of applications, including a 2x magnification mode that delivers greater image detail for inspecting smaller features on parts. Whatever your inspection application, there's an In-Sight 2000 series vision sensor model that's right for the job.

Choose your lighting, lens and filter

Choose your mounting configuration

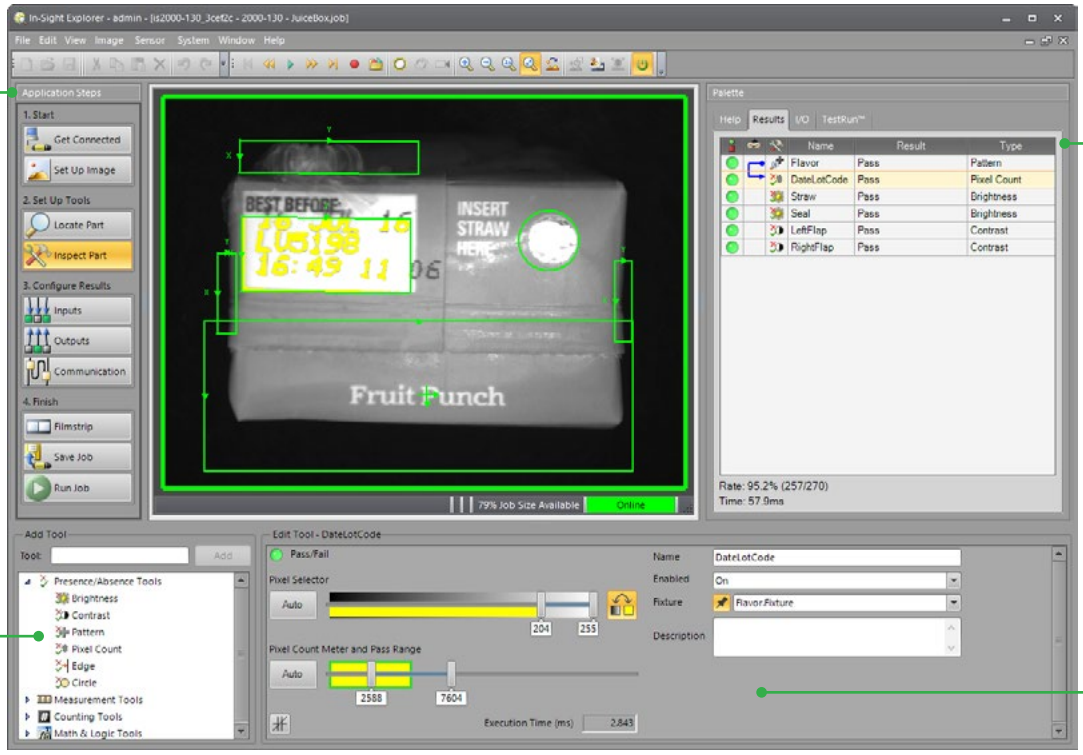


The simple set up of EasyBuilder

Ease-of-use is built into the heart of the In-Sight 2000 series starting with powerful vision tools and an In-Sight Explorer software interface that makes set up simple and assures a seamlessly reliable communications link to other factory automation equipment.

Simple steps guide you through configuring and deploying your application

Choose tools from the list to add them to your inspection



See inspection results at a glance

Point and click controls make it quick and easy to set up any tool to achieve reliable results

		IN-SIGHT 2000 MODELS				
		2000-110	**2000-120**	**2000-130**	**2000-120C**	**2000-130C**
User Interface		In-Sight Explorer EasyBuilder, Cognex VisionView PC Software and VisionView 900 HMI touchscreen panel				
1/3" CMOS Imager		Monochrome	Monochrome	Monochrome	**Color**	**Color**
S-Mount/M12 Lenses		8 mm (standard), optional 3.6 mm, 6 mm, 12 mm, 16 mm, 25 mm				
Image Modes	640 x 480 (standard)	✓	✓	✓	✓	✓
	640 x 480 (2x magnification)	×	✓	✓	✓	✓
	800 x 600 (2x magnification)	×	×	✓	×	✓
Lighting	Standard	Diffuse white LED ring light				
	Options	Red, blue and IR LED ring lights and lens filters, and polarized light cover			Polarized light cover	
Maximum Acquisition Speed[1]		40 fps	75 fps	75 fps	55 fps	55 fps
Relative Processing Speed		1x	2x	2x	2x	2x
Location Tools	Pattern	✓	✓	✓	✓	✓
	Edge, Circle	×	×	✓	×	✓
Inspection Tools	Pattern	✓	✓	✓	✓	✓
	Pixel Count	×	Grayscale	Grayscale	Color	Color
	Brightness & Contrast	×	✓	✓	✓	✓
	Edges	×	×	✓	×	✓
Measurement & Counting Tools	Distance, Angle & Diameter	×	×	✓	×	✓
	Patterns & Edges	×	×	✓	×	✓
Communications & I/O	Protocols	EtherNet/IP, PROFINET, SLMP, SLMP Scanner, Modbus TCP, TCP/IP, UDP, FTP, Telnet (Native Mode), RS-232				
	Connectors	(1) Industrial M12 Ethernet, (1) M12 Power & I/O				
	Inputs & Outputs	(1) Acquisition trigger, (1) General purpose input[2], (4) General purpose outputs[2]				
Mechanical	Dimensions	In-line configuration: 92 mm (3.61 in) x 60 mm (2.38 in) x 52 mm (2.05 in) Right-angle configuration: 61 mm (2.42 in) x 60 mm (2.38 in) x 52 mm (2.05 in)				
	Weight	200 g (7.05 oz)				
	Material and Protection	Painted aluminum, IP65-rated housing				
Operating	Power	24 VDC ±10%, 48 W (2.0 A) maximum when the illumination is on				
	Temperature	0°C to 40°C (32°F to 104°F)				

[1] Maximum framerate with minimum exposure; no vision tools; and 640 x 480 image with 2x Image Magnification enabled (for 2000-120/130 models)

[2] (7) general purpose inputs and (8) general purpose outputs when using optional CIO-1400 I/O Expansion Module.

COGNEX

Companies around the world rely on Cognex vision and barcode reading solutions to optimize quality, drive down costs and control traceability.

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