

In-Sight 5000 Series

INDUSTRIAL VISION SYSTEM | SMART CAMERA



- Rugged Industrial hardware
- > Powerful Cognex vision tool library
- More than fifteen models to choose from
- Easy to deploy and maintain

The unprecedented vision power and unmatched ruggedness of the In-Sight® 5000 series of vision systems help manufacturers around the world improve productivity, ensure product quality and lower manufacturing costs.

The In-Sight 5000 series vision systems provide industrial-grade features as standard:

- Rugged die-cast aluminum (IP67) housing,
- · Stainless steel (IP68) case options,
- · Sealed M12 connectors, and
- · Protective lens covers.

In-Sight 5000 models at a glance

Standard resolution applications

The In-Sight 5000 series models offer a wide array of performance choices, all with IP67 (NEMA 6) rated protection. *Models: 5100, 5400, 5600*

High resolution applications

When large parts need to be inspected for small defects or precise measurements, turn to the high resolution models for greater accuracy. 5MP systems are available. *Models:* 5401, 5403, 5603, 5605

Color applications

If color is a factor, choose a model with the powerful color tools to inspect color features or recognize parts based on their color. *Models: 5100-C, 5400-C*

Line scan applications

The In-Sight line scan vision system builds an image line-by-line, as a product moves past the system. This method for acquiring images is suited to applications such as inspecting cylindrical objects and inspecting parts on a web. *Model:* 5604

Barcode reading and OCR (Optical Character Recognition) applications

These ID models offer unmatched identification software tools for reading and verifying 1-D and 2-D codes as well as human readable text. *Models: 5110, 5410, 5411, 5413, 5610, 5613, 5614, 5615*



The In-Sight Explorer spreadsheet view provides a robust, flexible and efficient way to configure the vision tools for your application. The flexible In-Sight Explorer EasyBuilder® user environment makes applications easy to set up and deploy for any user.

www.cognex.com/insightexplorer

Smart tools

Patented, industry-leading tools such as PatMax®, OCRMax™, color, ID, blob, calibration, edge, and flaw detection are just a click away.

www.cognex.com/visiontools

System validation

TestRun validation enables you to refine, test and verify inspection systems automatically.

www.cognex.com/testrun

Built-in communications

The Cognex Connect[™] suite offers the widest range of built-in communication protocols that interface to any PLC, robot or HMI on your factory network.

www.cognex.com/connect

Complete visualization

The VisionView® operator interface is ideal for monitoring and controlling systems on the factory floor—available on four platforms.

www.cognex.com/visionview

Expansive hardware portfolio

Depending on your environment, mounting options, performance speed requirements, image acquisition type or application specific needs, there is an In-Sight vision system model for you.

www.cognex.com/visionsystems

Ø :	Speed	2	Color	Available	Resolution					User Interface		Supported Tools ³					
Model	Rating ¹	Acquisition (fps)	Model	in Stainless Steel	640 x 480	1024 x 768	1600 x 1200	1K Line Scan	2448 x 2048	EasyBuilder	Spreadsheet	Essential Tools	Extended Tools	ID Tools	Color Tools	PatMax Available	Part Number
5100	4x	60			•				3	·	·	•		0	C	P	IS5100-01/C01 IS5100-11/C11 (PatMax)
5110	4x	60								•	•			0			IS5110-01
5400	12x	60										0		0	C	P	IS5400-01/001 IS5400-11/C11 (PattMax) IS5400-S01/CS01 (Stainless Steel) IS5400-S11/CS11 (Both)
5401	12x	20								•	•	0		0		P	IS5401-01 IS5401-11 (PatMax)
5403	12x	15					·			·	·	0	X	0		P	IS5403-01 IS5403-11 (PatMax) IS5403-S01 (Stainless Steel) IS5403-S11 (Both)
5410	12x	60		•						•	•						IS5410-01 IS5410-S01 (Stainless Steel)
5411	12x	20				• 7			, CC , CC	•				0			IS5411-01
5413	12x	15									•			•			IS5413-01
5600	20x	60								•	•	0		0		P	IS5600-01 IS5600-11 (PattMax)
5603	20x	14					٠			٠	•	0		0		P	IS5603-01 IS5603-11 (PattMax)
5604	20x	44k lines ²								•	•	0		0		P	IS5604-01 IS5604-11 (PattMax)
5605	20x	16							٠	•	•	0		0		P	IS5605-01 IS5605-11 (PattMax)
5610	20x	60			•					•	•			0			IS5610-01
5613	20x	14							**	•	•			0			IS5613-01
5614	20x	44k lines ²						•		•	•			0			IS5614-01
5615	20x	16							•	•	•			0			IS5615-01

NOTES:

- 1) Speed rating compared to In-Sight Micro 1020 model and does not include image acquisition rate. The 5604 and 5614 models have acquisition speed rated in lines per second.
- 2) Acquisition rate is based on minimum exposure, and a full image frame capture.
- 3) Supported tools:

All In-Sight 5000 models except those with ID only tools include the base tool set: brightness, contrast, pattern, edge, point-to-point geometry, distance, angle, plot and blob tools.

- E Essential tool set includes blob, edge, curve and line finding, histogram and geometry tools, image filters, pattern matching, and standard calibration.
- 🚺 Extended tool set includes non-linear calibration, surface flaw, masking and caliper tools. PatMax option available.
- ID tool set includes: 1-D/2-D barcode reading and verification, text reading and verification (OCR/OCV) and image filters.
- Color tool set includes MatchColor, ExtractColor, color historgram, color to greyscale filters and color to greyscale distance filter. Part numbers include "C."
- P Includes PatMax, Cognex patented geometric pattern matching technology.

Contact: