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

Benefits of all In-Sight vision systems

**Intuitive software options**
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
## In-Sight 5000 Series

| Model | Speed Rating | Acquisition (fps) | Color Available in Stainless Steel | Resolution 640 x 480 | 1024 x 768 | 1600 x 1200 | 2448 x 2048 | 1K Line Scan | EasyBuilder | Spreadsheet | User Interface | Supported Tools | Part Number |
|-------|--------------|-------------------|-----------------------------------|-----------------------|------------|-------------|-------------|--------------|--------------|--------------|---------------|----------------|---------------|-------------|
| 5100  | 4x           | 60                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5100-01/C01  |
| 5110  | 4x           | 60                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5110-01     |
| 5400  | 12x          | 60                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5400-01/C01  |
| 5401  | 12x          | 20                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5401-01/C11  |
| 5403  | 12x          | 15                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5403-01/C11  |
| 5410  | 12x          | 60                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5410-01/C01  |
| 5411  | 12x          | 20                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5411-01     |
| 5413  | 12x          | 15                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5413-01     |
| 5600  | 20x          | 60                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5600-01/C01  |
| 5603  | 20x          | 14                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5603-01/C11  |
| 5604  | 20x          | 44k lines$^2$     | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5604-01/C11  |
| 5605  | 20x          | 16                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5605-01/C11  |
| 5610  | 20x          | 60                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5610-01     |
| 5613  | 20x          | 14                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5613-01     |
| 5614  | 20x          | 44k lines$^2$     | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | IS5614-01     |
| 5615  | 20x          | 16                | •                                 | •                     | •          | •           | •           | •            | •            | •            | EasyBuilder    | Essential Tools | 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:

- **E** Essential tool set includes blob, edge, curve and line finding, histogram and geometry tools, image filters, pattern matching, and standard calibration.

- **X** Extended tool set includes non-linear calibration, surface flaw, masking and caliper tools. PatMax option available.

- **I** ID tool set includes 1-D/2-D barcode reading and verification, text reading and verification (OCR/OCV) and image filters.

- **C** Color tool set includes MatchColor, ExtractColor, color histogram, color to greyscale filters and color to greyscale distance filter. Part numbers include "C."

- **P** Includes PatMax, Cognex patented geometric pattern matching technology.

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**In-Sight 5000 Series**

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

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