COGNEX

IN-SIGHT MICRO 8000 SERIES VISION SYSTEMS

The In-Sight[®] Micro 8000 series, a new family of ultra-compact, standalone smart camera vision systems, delivers industry-leading vision tool performance at PC speeds, all in the form factor of a traditional GigE Vision[®] camera.



- > World's smallest, full line, standalone vision system available in VGA, 1MP, 2MP and 5MP resolutions
- Powerful vision tool library including new PatMax RedLine™
- Step by step application setup with EasyBuilder, and flexibility of added control with spreadsheet and scripting
- > High Speed communication with Gigabit Ethernet
- Fast acquisition VGA, 1MP and 2MP cameras



In-Sight Micro 8000 series compresses an entire stand-alone vision system into an amazingly small package. Its compact size, together with Power over Ethernet (PoE) to minimize cabling makes the In-Sight 8000 vision system family ideal for integrating into tight spaces on robots and hard-to-reach machinery anywhere on the production line. From high acquisition speed VGA to high resolution 5MP system, the 8000 delivers the resolution and speed you need for your application, in a package the size of an image capture only camera.

PatMax, completely reinvented

PatMax RedLine was designed with one goal in mind: blazing fast pattern matching. In typical applications, PatMax RedLine runs 4 to 7 times faster than PatMax – or faster! – with no loss of search accuracy or robustness. Together with PatMax RedLine, the 8000 series can reduce cycle times and increase throughput without compromising inspection accuracy.







High-performance vision tools

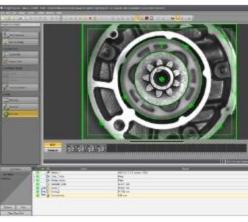
The In-Sight 8000 Series offers vision tools that are optimized to run at high speed. This includes PatMax RedLine pattern matching, image processing, advanced defect detection, ID (1-D, 2-D and OCR) as well as the foundation tools like blob, edge, histogram and non-linear calibration.

Flexible and easy Integration

Like all In-Sight vision systems, the In-Sight 8000 series are conveniently setup with the In-Sight Explorer software. In-Sight Explorer combines the guided step by step setup of EasyBuilder with the additional power and flexibility of the spreadsheet for greater control and customizing of application data. Also included is the new scripting function which uses standard JavaScript to simplify data-intensive tasks like geometric analysis of hundreds of points, parsing and comparison of text or ID code results, or complex final result logic.

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SPECIFICATIONS

Model	In-Sight 8400/8200	In-Sight 8401	In-Sight 8402	In-Sight 8405	
GUI Interface	Spreadsheet and EasyBuilder				
Firmware	In-Sight Explorer 5.1.1				
Job/Program Memory	512 MB non-volatile flash memory (unlimited storage via remote network device)				
Image Processing Memory	512 MB SDRAM				
Sensor Type	1/1.8 inch CMOS, global-shutter 1/2.5 inch CMOS, rolling-shut			1/2.5 inch CMOS, rolling-shutter	
Sensor Properties	9mm diagonal, 4.5 x 4.5 μm square			7.13 mm diagonal, 2.2 x 2.2 µm square	
Maximum Resolution (pixels) ¹	640 x 480	1280 x 1024	1600 x 1200	2592 x 1944	
Acquisition Rate ²	200/60	70	53	10	
Lens Type	C-Mount				
Trigger	1 opto-isolated, acquisition trigger input. Remote software commands via Ethernet.				
Discrete Inputs	Dedicated trigger input only				
Discrete Outputs	2 opto-isolated, NPN/PNP high-speed output lines				
Status LEDs	Network status, 2 user-configurable				
Network Communication	10/100/1000 BaseT				
Power	Class 2 Power over Ethernet (PoE) device				
Power Type	PoE Type A and Type B				
Power Consumption	6.49 W maximum per Class 2 PoE				
Material	Die-cast zinc housing				
Mounting	Four M3 threaded mounting holes (1/4-20 and M6 mounting holes available with moutning block accessory: BKT-IS8K-01)				
Dimensions ³	In-Sight 8400/8200/8401/8402 are: 31mm x 31mm x 75mm In-Sight 8405 is: 31mmx 31mm x 71mm				
Connector type	M12 for PoE/Communication; M8 for IO		0	RJ45 (Locking) for PoE/communication; M8 for IO	
IP Rating		IP40		IP30	

¹ The number of image sensor rows are configurable and can be set within the In-Sight Explorer software. Decreasing the number of rows will increase the number of frames per second acquired by the vision system. Refer to the AcquireImage topic in the In-Sight® Explorer Help file for more information.

² Maximum frames per second is job-dependent, based on the minimum exposure for a full image frame capture using the dedicated acquisition trigger, and assumes there is no user interface connection to the vision system.

³Including connector housing

Contact: