

COGNEX

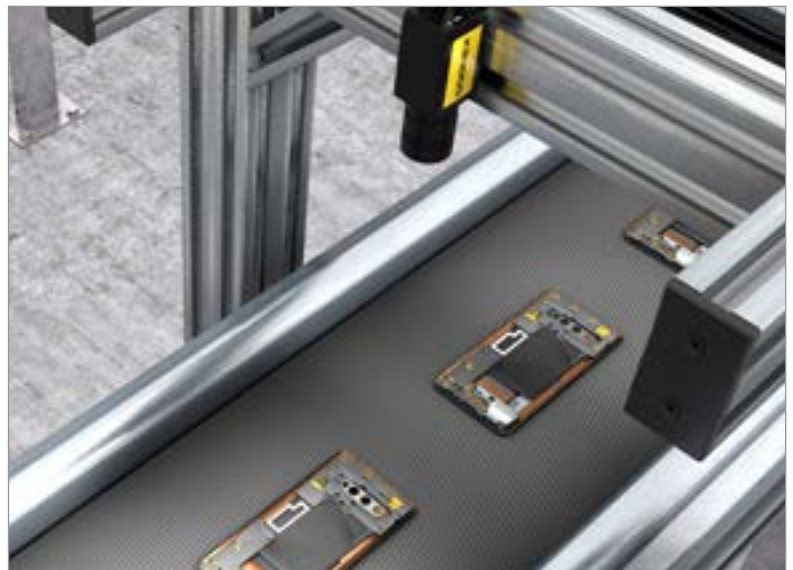
Advanced machine vision made easy

IN-SIGHT 8000 SERIES VISION SYSTEMS

The In-Sight® 8000 series, a family of ultra-compact, standalone smart camera vision systems, delivers industry-leading vision tool performance in the form factor of a traditional GigE Vision® camera.



- World's smallest standalone vision system, available 0.3MP up to 5MP
- Powerful vision tool library including new PatMax RedLine®, OCRMax™, PowerGrid®, Hotbars®, and IDMax®
- Step-by-step application setup using EasyBuilder®, with the added flexibility and control of a spreadsheet with scripting
- High-speed communication with Gigabit Ethernet



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.



Compact vision system fits just about anywhere

The In-Sight 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 In-Sight 8000 delivers the resolution and speed you need for your application, in a package the size of an image capture only camera.



High-performance vision tools

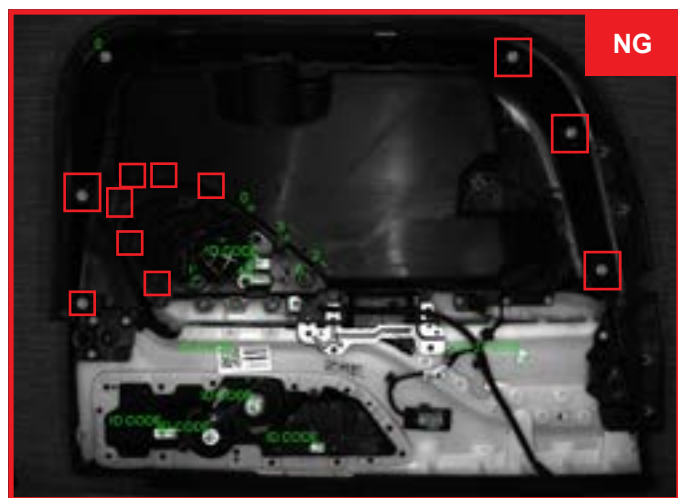
The In-Sight 8000 series offers vision tools that are optimized to run at high speed. This includes PatMax RedLine pattern matching, image processing, color extraction, advanced defect detection, PowerGrid and Hotbars for barcode reading, as well as the foundation tools like blob, edge, histogram and non-linear calibration.



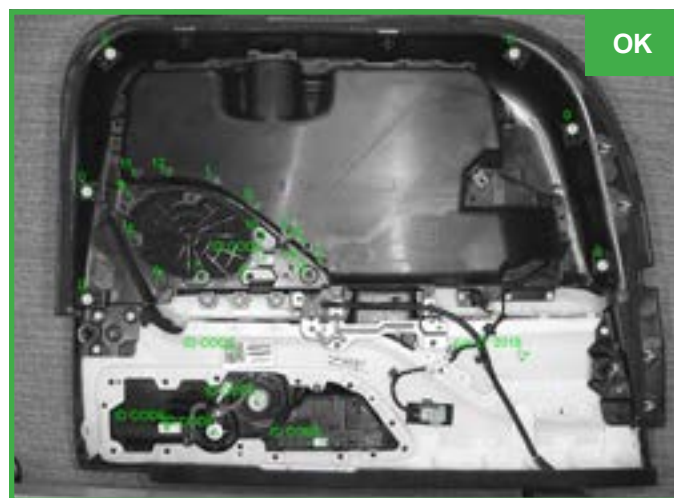
Advanced image formation technology

Low contrast environments present difficult challenges in multi-point assembly verification and fine detail inspection environments. Designed to solve these issues, the In-Sight 8505P model also features HDR+, which stretches the boundaries of high dynamic range (HDR) technology to enhance image contrast across the entire image with no reduction in acquisition speed. This creates a more uniform image in a single acquisition allowing greater depth-of-field, faster line speeds, and improved handling of difficult to read inspection targets and codes.

No HDR



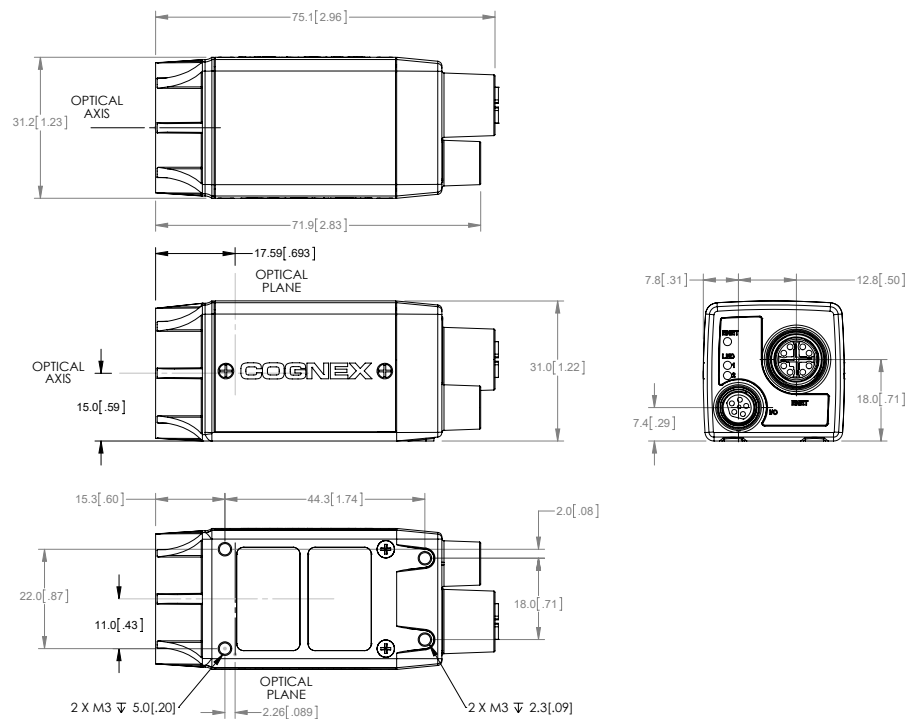
HDR+



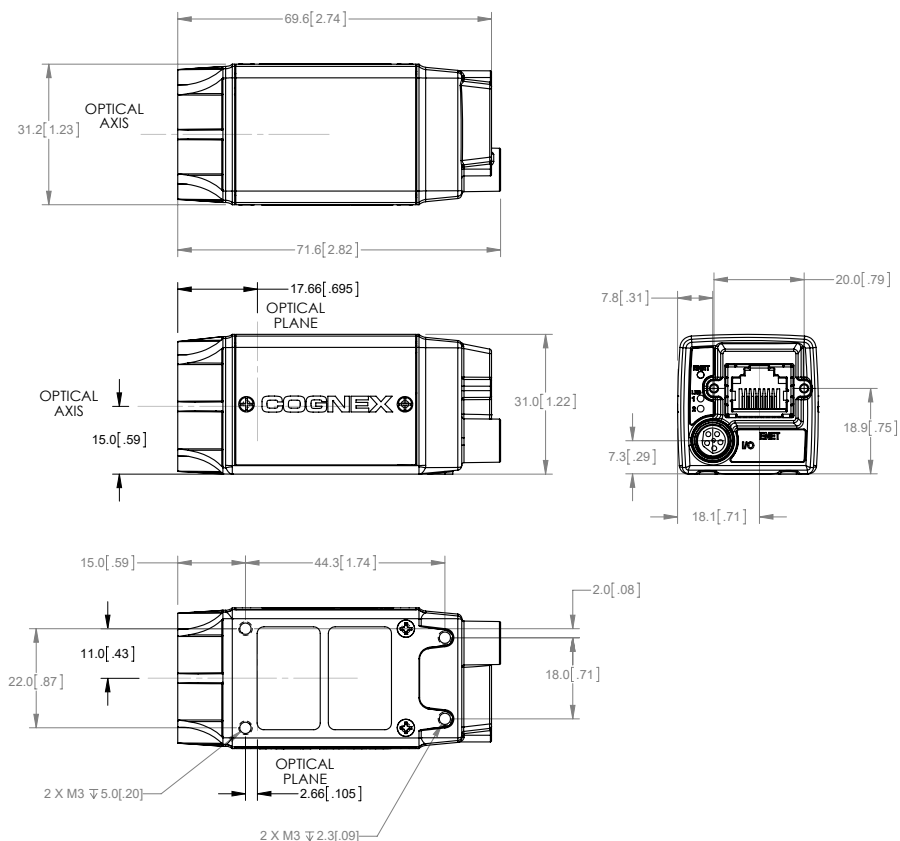
Like all In-Sight vision systems, the In-Sight 8000 series are conveniently setup with the In-Sight Explorer® software. In-Sight Explorer combines the guided step by step setup of EasyBuilder with the additional power and flexibility of the spreadsheet for greater control and customizing of application data.



In-Sight 8100, 8101, 8200, 8400, 8401, 8402



In-Sight 8405



SPECIFICATIONS

		In-Sight 8100	In-Sight 8101	In-Sight 8200	In-Sight 8400	In-Sight 8401	In-Sight 8402	In-Sight 8405	In-Sight 8500P	In-Sight 8501P	In-Sight 8502P	In-Sight 8505P
Performance Factor		1X		1.7X	3.9X				4.6X			
Image Type		Monochrome and Color						Monochrome		Monochrome and Color		
Job/Program Memory		512 MB						14.8 GB				
Image Processing Memory		512 MB										
Sensor Type		CMOS, global shutter						CMOS, rolling shutter	CMOS, global shutter			
Resolution		640 x 480	1280 x 1024	640 x 480	640 x 480	1280 x 1024	1600 x 1200	2592 x 1944	640 x 480 800 x 600	1280 x 1024	1920 x 1200	2448 x 2048
HDR+ Support ¹		No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Acquisition Rate (fps)	Monochrome	217	76	217	217	76	53	13	133 108	66	55	32
	Color	135	45	135	135	45	33	n/a	n/a	n/a	35	17
Lens Type		C-mount										
Indicator LEDs		Network status, 2 configurable LEDs										
Built-in I/O		1 dedicated trigger input, 2 high speed outputs (including strobe). Additional I/O available via CIO-MICRO ² external I/O module.										
Power		Class 2 Power over Ethernet (PoE)						Class 3 Power over Ethernet (PoE)				
Industrial Connectors		M12: Power/Ethernet, M8: I/O						RJ45: Power/Ethernet, M8: IO	M12: Power/Ethernet, M8: I/O			
Industrial Protocols		OPC UA, Ethernet/IP with AOP, PROFINET Class B, iQSS, Modbus TCP, SLMP/SLMP Scanner										
Size		31 mm x 31.2 mm x 75.1 mm						31 mm x 31.2 mm x 71.6 mm	35 mm x 32 mm x 75.55 mm			
Weight		132.2 g						78 g	192 g			
Network Speed		10/1000/1000 Mbps (Gigabit)										
Rockwell Add-on Profile		Yes										

¹ HDR+ supported on monochrome models only.

² The In-Sight 8505P/8500P/8501P/8502P vision systems must be connected to a Class 0, 3 or 4 PoE power source, rated for at least 12.95 Watts. The CIO-MICRO I/O module is a Class 2 PoE device and therefore cannot be used to supply power to the In-Sight 8505P/8500P/8501P/8502P vision system via the I/O module's PoE port.

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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