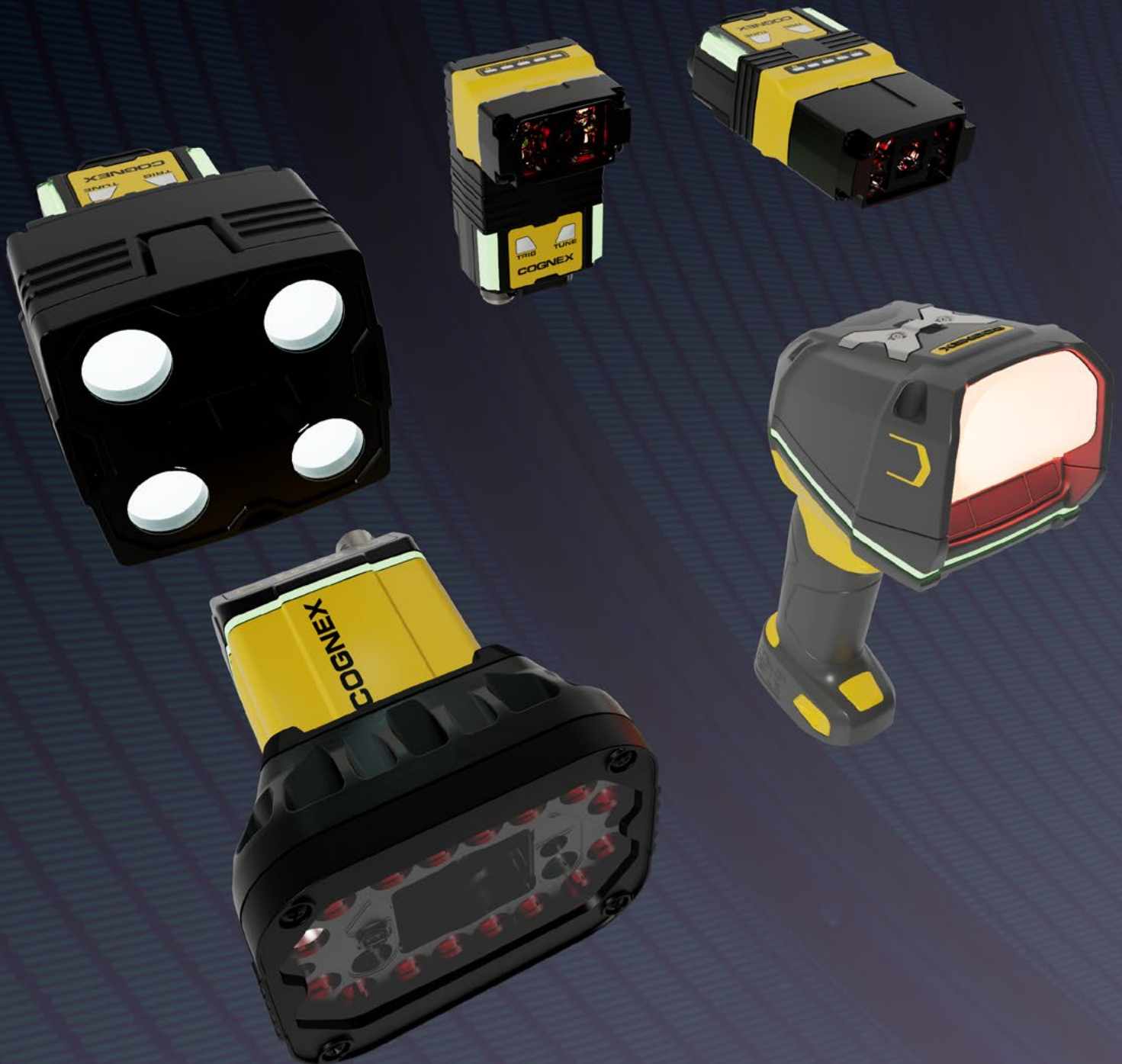


COGNEX

Build Your Vision

Vision Sensors and Barcode Readers



The Global Leader

in Machine Vision and Barcode Reading

For over 40 years, Cognex has helped the world's most innovative companies make their manufacturing and distribution faster, smarter, and more efficient.

Cognex machine vision solutions combine hardware and software to capture and analyze visual information. The company's wide range of solutions automates manufacturing and distribution tasks for customers worldwide, improving efficiency and quality in applications like inspecting, identifying, locating, and measuring components, products, and packaging. Cognex products incorporate advanced technologies including artificial intelligence to simplify implementation, increase accuracy, and deliver a faster ROI.

>40 years in business

\$830M+ 2023 revenue

>60% revenue from EU & Asia

25K+ global customers

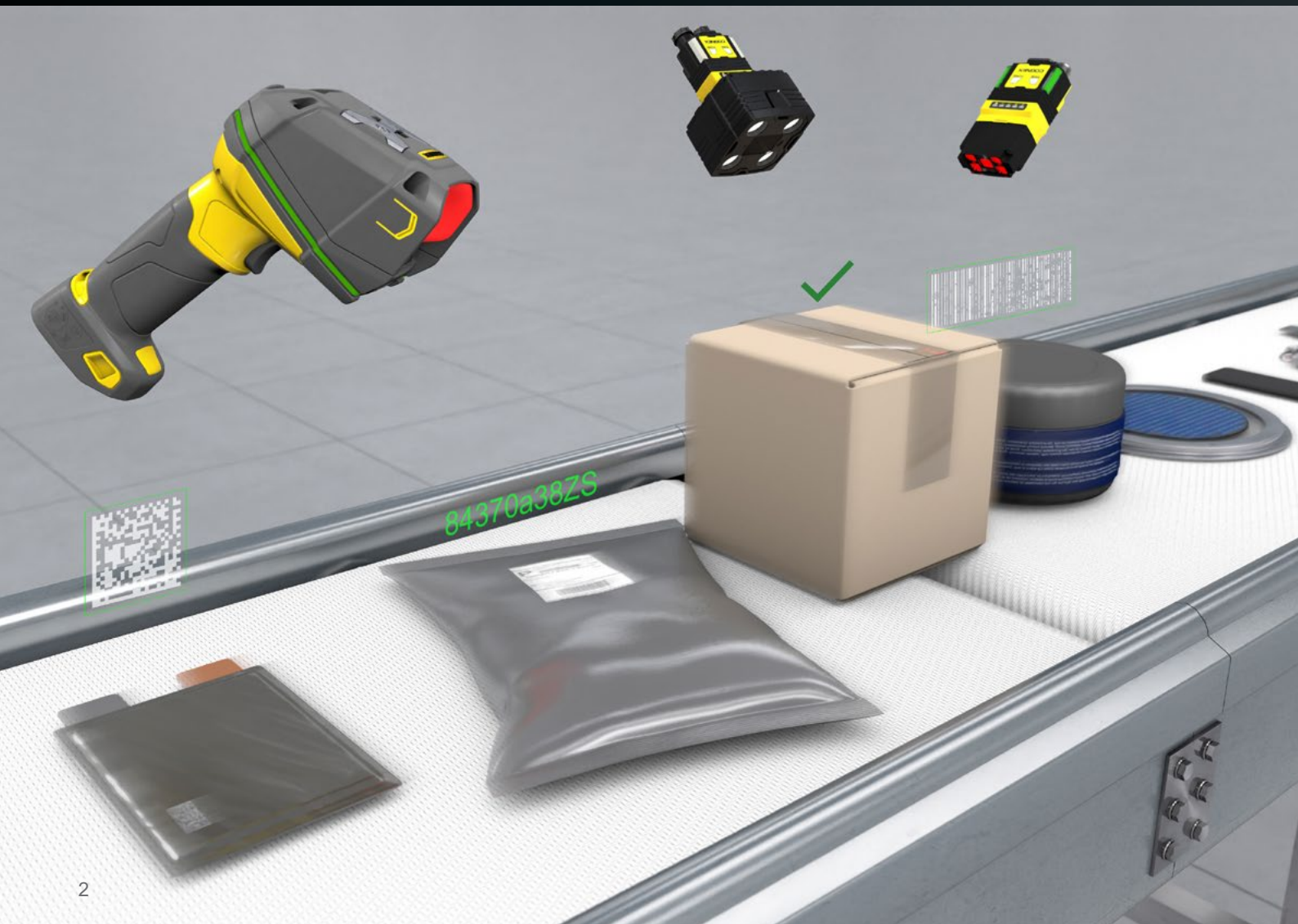
400+ channel partners

500+ global customer support resources

17% of revenue into R&D

>1,100 technology patents

>8 years developing AI for industrial machine vision





Vision Sensors

Tens of thousands of applications worldwide inspect billions of products each day, many products that simply could not be manufactured without machine vision technology. Whether verifying the fill levels of soda bottles traveling on a conveyor, reading oil-stained DPM codes on automotive parts, or positioning touch screens on smartphones to micron-level accuracy, machine vision technology performs highly-detailed tasks on high-speed production lines.

Cognex machine vision products help companies:

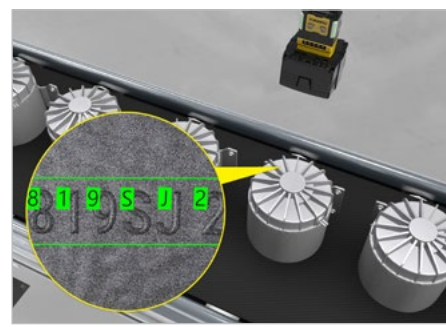
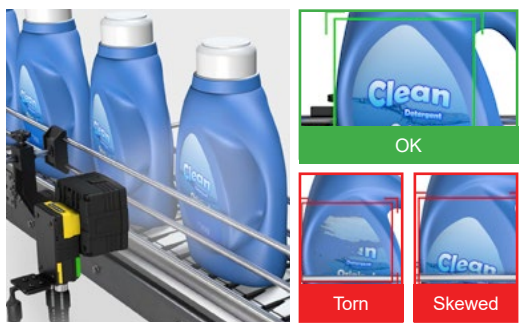
- Optimize quality
- Minimize waste
- Maximize throughput

In-Sight 2800 Series

The In-Sight® 2800 vision system combines edge learning technology with traditional rule-based vision to solve a range of error-proofing tasks. From presence/absence detection to sortation and character reading applications, this fully integrated vision system offers an easy-to-use solution for automating inspections.








TOOLSET	RESOLUTION	FEATURES
	Up to 2MP	Integrated Lighting Autofocus IP67

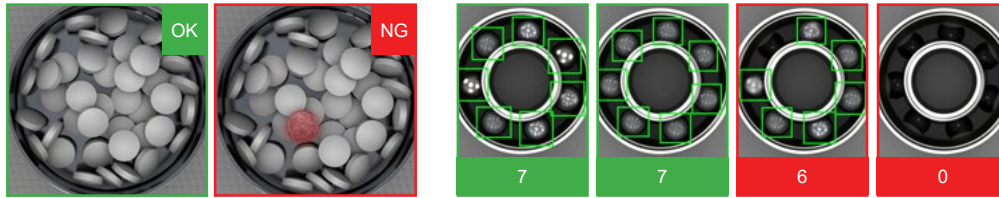


www.cognex.com/in-sight-2800

In-Sight SnAPP Series

In-Sight SnAPP vision sensors offer the performance of multiple laser sensors in a single device. Using pre-trained AI and vision-based detection, these sensors exceed the capabilities of conventional sensors to deliver more accurate inspections and more reliable machine performance. Designed for high ease of use, they allow users to quickly solve common quality and process control tasks, with no experience needed.

TOOLSET	RESOLUTION	FEATURES
 VDI EL	Up to 1.6MP	 Integrated Lighting  Autofocus  IP67  PoE

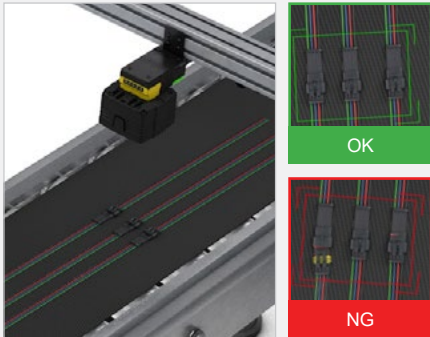


www.cognex.com/in-sight-snapp



Application Examples

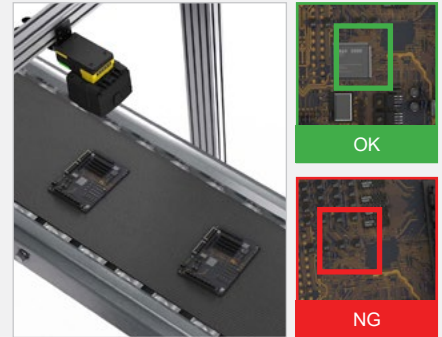
Automotive



Consumer products



Electronics



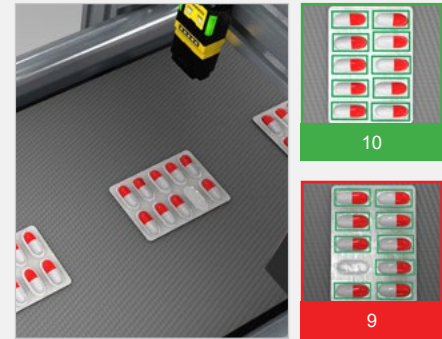
Food and beverage



Packaging



Pharmaceutical



Vision Sensor Specifications

	SnAPP Series	2800 Series
Image		
Imager Type	Monochrome/color area scan	Monochrome/color area scan
Resolution	Up to 1.6MP (1440 x 1080)	Up to 2MP (1920 x 1080)
Acquisition Speed (Max)	10 fps	45 fps
Options		
Lenses	Autofocus	Autofocus
Lighting	Integrated	Integrated
Networking		
Speed	Gigabit Ethernet (10/100/1000 Mbps)	
General Protocols	SFTP	TCP/IP, FTP
Industrial Protocols	Ethernet/IP, PROFINET, SLMP	PROFINET, EtherNet/IP, SLMP, OPC/UA
I/O		
Trigger input	1	1
General purpose input	1	1
General purpose output	4	2
Bi-Directional		2
Mechanical		
Length	In-line: 90.6 mm (3.6 in), Right-angle: 78.5 mm (3.1 in)	In-line: Up to 110 mm (4.3 in), Right-angle: Up to 68 mm (2.7 in)
Width	42.4 mm (1.7 in)	Up to 69 mm (2.7 in)
Depth	In-line: 23.6 (0.9 in), Right-angle: 37.8 mm (1.5 in)	Up to 104 mm (4.1 in)
Protection	IP67	IP67

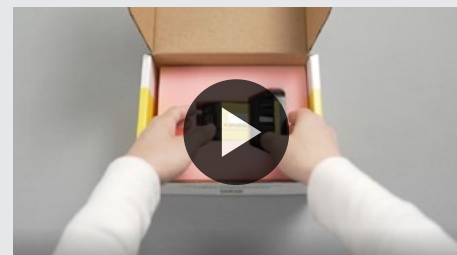
	SnAPP Series	2800 Series
Vision Tools		
Cognex AI	✓	✓
Pattern Matching		✓
Edge		✓
Measurement		✓
1D/2D Code Reading		✓ IDMax®, PowerGrid®, Hotbars®
OCR		✓
Histogram		✓
Brightness		✓
Pixel Counting		✓
Contrast		✓
Image Filters		✓

Getting started

Learn more about your Cognex product with how-to videos and online training and support materials.






www.cognex.com/getting-started





Components and accessories

Mounting Brackets

	Product ID	Description
	DM100-UBRK-000	Universal mounting bracket
	DM100-PIVOTM-01	Pivot mounting bracket
	DMBK-DMPIVOT-00	Tilted angle pivot bracket

Cables

	Product ID	Description
	CCB-84901-2001-XX	Ethernet cable, X-coded M12-8 to RJ-45, straight (2m, 5m, 10m, 15m, 30m)
	CCB-84901-2002-XX	Ethernet cable, X-coded M12-8 to RJ-45, right-angled (2m, 5m, 10m)
	CCB-84901-2RBT-XX	Ethernet cable, robotic X-coded M12-8 to RJ-45, straight (2m, 5m, 10m)
	CCB-M12X8MS-XCAC	X-coded to A-coded Ethernet cable adapter (5m, 10m, 15m)
	CCB-PWRIO-XX	Power and I/O breakout cable, M12-12 to flying lead
	CCB-PWRIO-XXR	Power and I/O breakout cable, M12-12 to flying lead, right-angled (5m, 10m, 15m)
	CCB-PWRIO-MOD-XX	I/O Module Cable M12-12 to DB15 (2m, 5m)
	CKR-200-CBL-EXT	I/O extension cable

Set up applications, directly on the factory floor, with VisionView

VisionView is a display panel that allows you to quickly train, update, and monitor jobs on the production line, without the need for a PC. Having this technology on the factory floor improves efficiency, facilitates easy device management, and provides real-time feedback for immediate process improvements.



www.cognex.com/VisionView



Barcode Readers

Nearly every product uses a 1D or 2D barcode to automate and simplify identification and data capture. The basic process in reading codes is to 1) illuminate the code, 2) locate the code, and 3) extract the data. Organizations must be able to read codes quickly and accurately for maximum efficiency and throughput.

Cognex image-based barcode readers decode 1D and 2D codes, from printed labels to the hardest to read direct part mark (DPM) codes, and deliver industry-leading read rates. Advanced technology, modular options, and easy setup help to reduce costs, optimize performance, increase throughput, and control traceability.



*Including integrated light.
Base dimensions are 73 mm (L) x 54 mm (W) x 42 mm (H)

DataMan 370 Series

Delivers superior read performance for the broadest range of applications, including multi-code and multi-symbology applications.

POWER RESOLUTION CONNECTIVITY



5X

5MP



FEATURES



Hotbars



PowerGrid



High Speed Liquid Lens



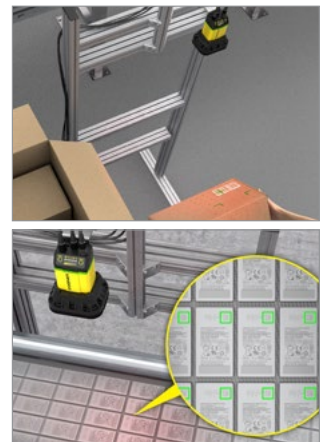
EI



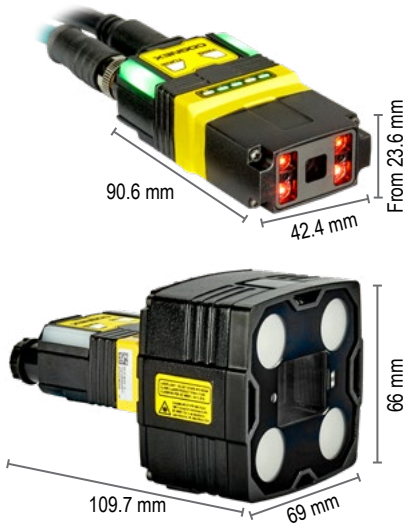
Laser Aimer



HDR



www.cognex.com/dataman-370



DataMan 280 Series

Premium decoding technology in a compact form factor.

POWER



4X

RESOLUTION

Up to 2MP

CONNECTIVITY



FEATURES



Hotbars



PowerGrid



High Speed Liquid Lens

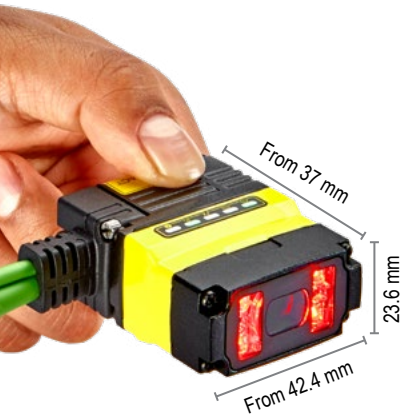
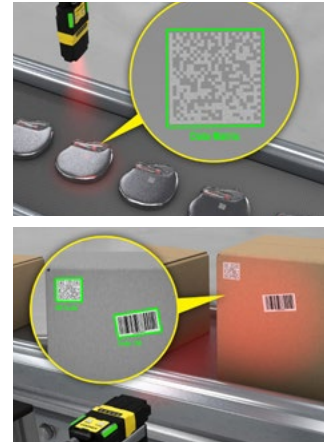


EI



HDR

www.cognex.com/dataman-280



DataMan 80 Series

Compact reader ideal for decoding 1D/2D label-based codes and direct part marks in confined spaces.

POWER



2.5X

RESOLUTION

1.6MP

CONNECTIVITY



FEATURES



Hotbars



PowerGrid



High Speed Liquid Lens



EI



HDR

www.cognex.com/dataman-80



DataMan 8700DX

Offers cutting-edge performance and operator feedback on the toughest DPM and label-based codes while withstanding harsh oils, dirt, and water.

RESOLUTION

1.6MP

CONNECTIVITY



FEATURES



Hotbars



PowerGrid



High Speed Liquid Lens



HDR

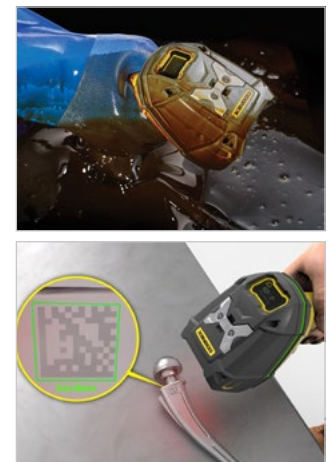


OLED Display



IP67

www.cognex.com/dataman-8700





DataMan 8700LX

Decodes well-marked 1D and 2D label-based codes, with an OLED display screen for easy setup and use.

RESOLUTION

1.6MP

CONNECTIVITY



FEATURES



Hotbars



PowerGrid



HDR



OLED Display



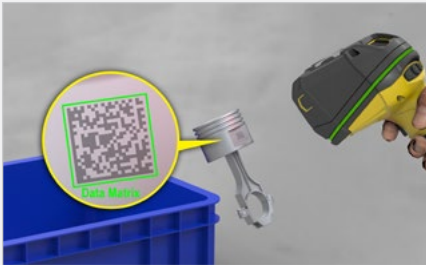
IP67



www.cognex.com/dataman-8700

Application Examples

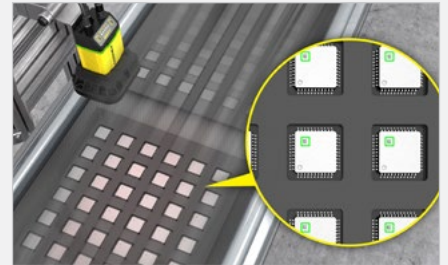
Automotive



Food and beverage



Electronics



Logistics



Packaging



Pharmaceutical



Barcode Reader Specifications

	80 Series	280 Series	370 Series	8700LX	8700DX
Resolution	1440 x 1080	1440 x 1080 1920 x 1080	2048 x 1536 2448 x 2048	1.6 MP	1.6 MP
Processing Power ¹	2.5X	4X	5X	N/A	N/A
Lenses					
Liquid Lens			✓		
High Speed Liquid Lens	✓	✓	✓		✓
C-mount	✓	✓	✓		
Symbologies					
1D	✓	✓	✓	✓	✓
2D	✓	✓	✓	✓	✓
Multi-code	✓	✓	✓	✓	✓
Decoding Algorithms					
1DMax™ with Hotbars	✓	✓	✓	✓	✓
2DMax®	✓	✓	✓	✓	✓
PowerGrid®	✓	✓	✓	✓	✓
Technologies					
Multi-Reader Sync	✓	✓	✓		
HDR	✓	✓	✓	✓	✓
Lighting Modularity					
Integrated Lighting	✓	✓	✓	Red direct lighting	Red diffuse, polarized, and direct lighting
External Lighting		✓	✓		
High Powered Integrated Torch (HPIT)		✓	✓		
Communications					
Discrete I/O	1/1	2/2, 2 user-configurable inputs/outputs	2/2, 2 user-configurable inputs/outputs	N/A	N/A
Serial	✓	✓	✓	✓	✓
Ethernet	✓	✓	✓	✓	✓
Gigabit Ethernet	✓	✓	✓		
USB	USB/USB-C	USB-C		✓	✓
Wi-Fi				✓	✓
Bluetooth				✓	✓

	80 Series	280 Series	370 Series	8700LX	8700DX
Additional Features					
Web HMI Capable	✓	✓	✓		
Edge Intelligence	✓	✓	✓		
Modular	✓	✓	✓	✓	✓
Laser Aimer		280: LED 282: Laser	✓		
IP Rating	IP67	IP67	IP67	Handheld reader: IP67; Base station: IP65	Handheld reader: IP67; Base station: IP65
ESD-Safe Housing ²	✓	✓	✓		
SD Card			✓		
OLED Display Screen				✓	✓
Drop Test				Drop tested to 2.5 meters	Drop tested to 2.5 meters

¹ Processing Power

The processing power of a reader is measured by how quickly it decodes a barcode and outputs the resulting data. A comparison test simulating a complex 1D/2D multi-code application (consisting of four varied 1D codes and seven varied 2D codes together) was used to determine the processing power of each DataMan[®] fixed-mount barcode reader.

² ESD-Safe Housing

Protects devices and flammable environments from electrostatic discharge (ESD), the sudden flow of static electricity between two objects.

Getting started

Learn more about your Cognex product with how-to videos and online training and support materials.



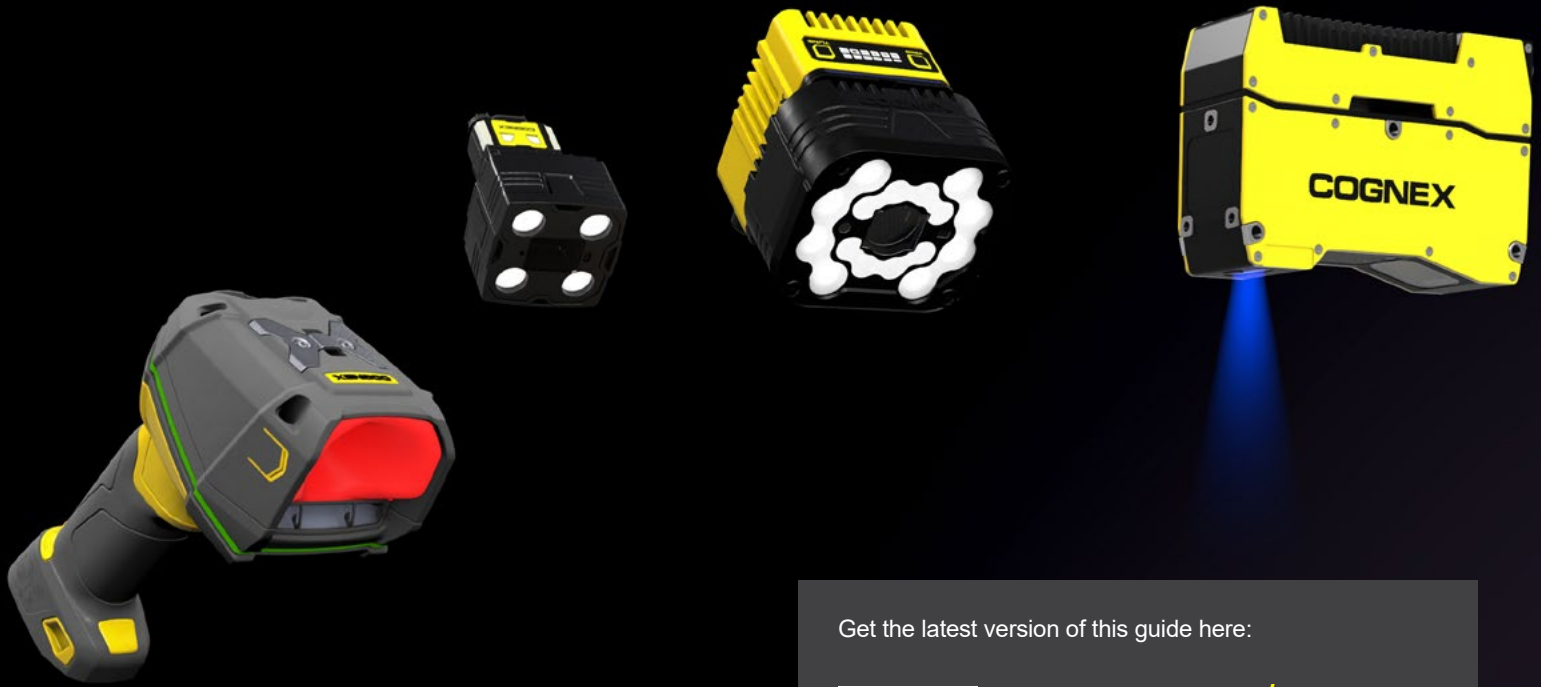
[www.cognex.com/
getting-started](http://www.cognex.com/getting-started)

A solution for every need

With a familiar user experience, easily transition to another product within the Cognex portfolio as your needs change. We have a wide range of solutions to support you as your business grows and your application requirements evolve.



www.cognex.com/products



Get the latest version of this guide here:



www.cognex.com/vision-sensors-guide

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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