

Superior read performance for the broadest range of applications

DataMan 370 Series



DataMan 370 Series Barcode Readers

Superior read performance for the broadest range of applications

DataMan® 370 series fixed-mount barcode readers solve challenging direct part mark (DPM) and label-based multi-code, multi-symbology applications using Cognex's latest decoding algorithms, a multi-core processor, and new integrated lighting. With twice the performance and power of conventional readers in the same class, DataMan 370 delivers superior read performance for the broadest range of applications, including:

- High-speed lines
- Difficult-to-read parts
- Small codes
- Multi-code, multi-symbology applications
- Multi-sided scan tunnels



Key features



Double read performance and power

Achieve superior read rate performance across a variety of applications using industry-leading 1D/2D algorithms, including HotBars and PowerGrid.



Unmatched lighting and autofocus technology

Eliminate the need for external lighting with the High-Powered Integrated Torch Light (HPIT)

- Multi-color LED lights provide operator feedback to indicate no-read, wrong part detected, or possible printing issues.



Best-in-class image formation

High Dynamic Range (HDR) imaging technology helps you acquire single images that are 16 times more detailed than conventional sensors.



Setup made simple

DataMan Setup Tool allows for easy installation and operation of your barcode reader

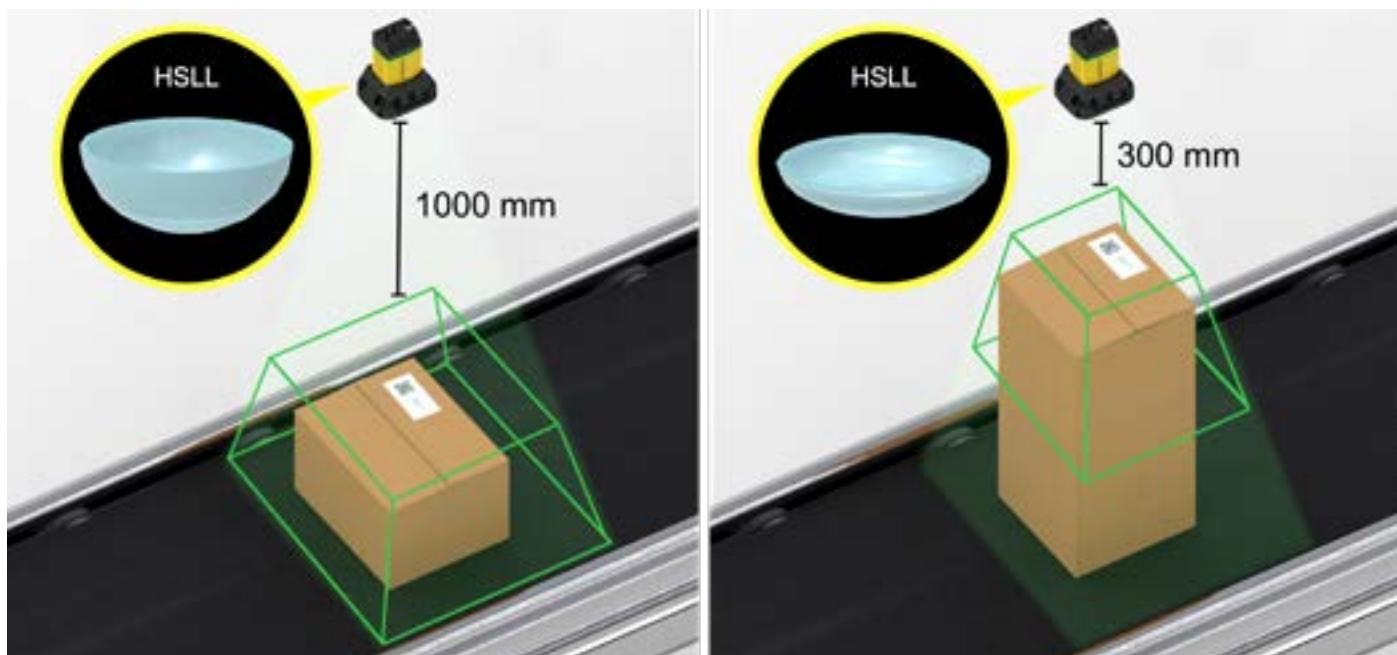
- Intelligent autofocus and auto-tune
- Multiple read setups
- Pre- and post-image optimization tools

Unmatched lighting and autofocus technology

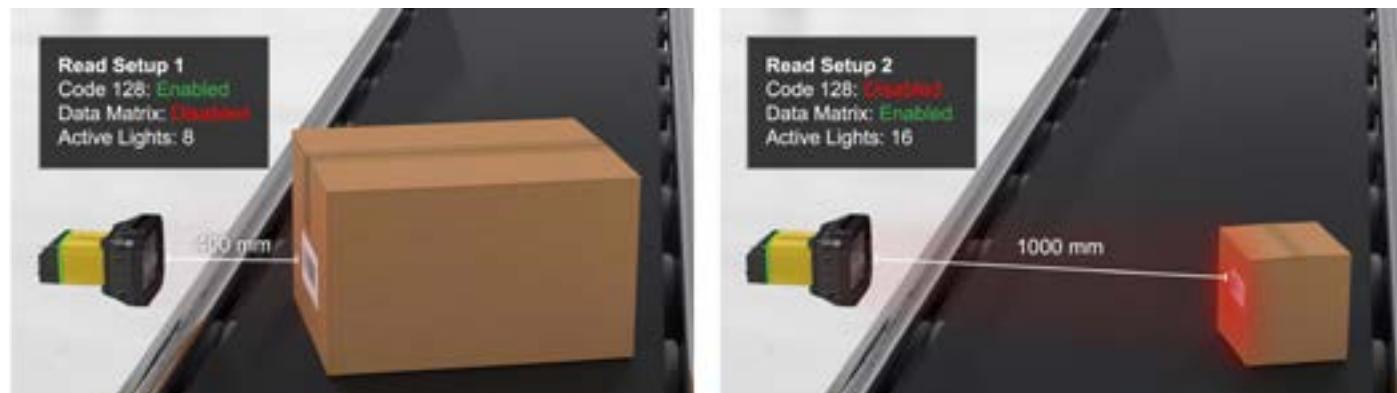
New high-powered integrated torch (HPIT) light provides unmatched illumination power, ideal for presentation scanning, difficult to read codes, and applications that are challenged by changes in working distances. It uses 16 programmable LED lights, high speed autofocus technology, and distance sensors to provide high quality 1D and 2D code image formation every time.



High speed liquid lenses can dynamically autofocus by detecting how far away the target object is and rapidly auto-adjusting focus before the next image is taken to ensure a crisp image.



When the distance to the target object changes, it is often useful to adjust more than just focus to achieve optimal decoding performance. For example, when an object is closer, a filter can be applied to reduce glare, lower light output, and shorten exposure. Previously, this was only possible by cycling through all read setups. Now HPIT can dynamically enable multiple read setups based on distance sensor measurements, saving a lot of time on variable applications.





Modularity provides unparalleled flexibility

DataMan 370's innovative design with modular lighting, lens, and communication options provides maximum flexibility and ease-of-use.



RS-232, Ethernet with industrial protocols, SD card, and other network connectivity options



Patented technology and advanced algorithms optimize performance

Same form factor as DataMan 360



High resolution sensors enable greater field-of-view and depth-of-field coverage

Distance sensor to dynamically focus the lens or trigger the reader



Interchangeable front cover polarization filters fully optimize image quality



New high-powered integrated torch (HPIT) provides unmatched illumination power, eliminating the need for external lighting



Guided laser aimer allows field-of-view to be clearly mapped to the desired target.



Multi-Reader Sync™ capability enables extended coverage



Multi-color LED indicators provide operator feedback

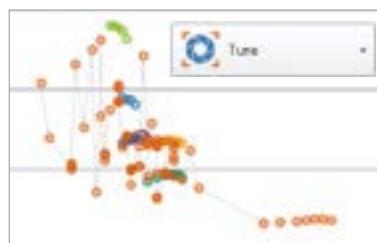


Easy setup and operation

The DataMan Setup Tool software simplifies installation and operation of DataMan 370. Intelligent auto-tuning and application assistants guide the user to quickly optimize complex parameters with ease.



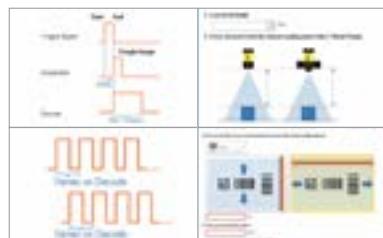
Step-by-step visual guidance



Auto-tune and autofocus



Pre- and post-image optimization tools



Application assistants



Independent lighting controls



Multiple read setups

Performance feedback helps optimize operations

The DataMan Setup Tool software also provides image offload and read result history, process control metrics, and real time monitoring. Process control metrics help identify print quality and readability issues. Real time monitoring provides performance feedback for process optimization, including no-read tracking, code quality metrics, heat mapping, and configuration audit trails.

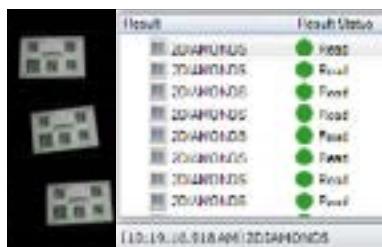
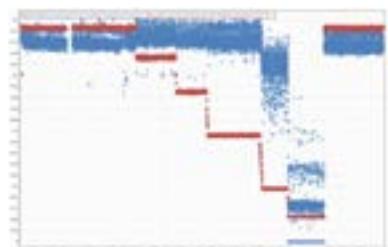


Image & read result history

Property	Value	Grade	Average
Cognex Readability Metrics (Code 128 KIXV3010001)			
Symbol Grade	F	X	C
Symbol Contrast	-0.443	Y	C
Post Growth	-0.195	Z	B-
Minimum Reflectance	-0.234	A	A
Edge Contrast Minima	-0.446	A	A
Single-Scan Integrity %	F	X	B-
Multi-Scan Integrity %	-0.800	A	A

Process control metric feedback



Real time monitoring

Solves the broadest range of applications

With its superior read performance and best-in-class image formation, DataMan 370 easily solves the broadest range of manufacturing and logistics applications with wide field-of-view and large depth-of-field coverage needs.



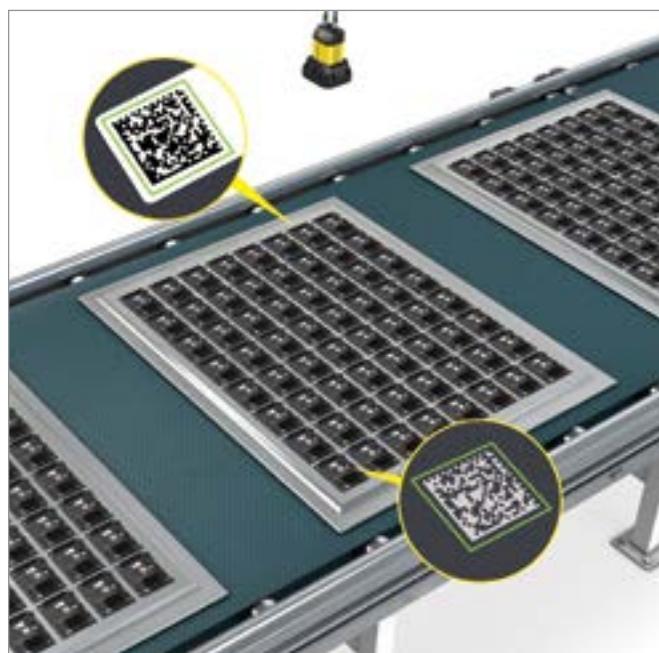
High-speed code reading



Tire identification



Difficult-to-read automotive parts



Electronic component traceability

DataMan 370 series barcode readers deliver unmatched overhead or desktop presentation scanning performance due to 1D/2D auto-discrimination, a guided laser aimer, and dynamic focusing technology.



Multi-code, multi-symbology presentation scanning

Single-, multi-, and full coverage scan tunnel options are available to help increase throughput in logistics applications. Multi-Reader Sync technology synchronizes several readers for increased field of view and multi-side scanning at high speeds.



Single-sided scan tunnel



Multi-sided scan tunnel



Full coverage scan tunnel

Product configurations and descriptions*

DataMan 370 Series					
	Part Number	Resolution	Light	Lens	Cover
	DMR-374X-0000	3.2MP	N/A	N/A	N/A
	DMR-374X-0181-P	Red HPIL	8mm HSLL	Polarized	
	DMR-374X-0111-P		10 mm HSLL		
	DMR-374X-TMAX		Red HPIT	24 mm HSLL	3/4 Polarized
	DMR-375X-0000	5MP	N/A	N/A	N/A
	DMR-375X-0244-M	White HPIT	16 mm HSLL	Clear	
	DMR-375X-0254-CLBT		24 mm HSLL		
	DM375-KNWMT-HF		35 mm C-mount		

*This table includes only the most common product models. To get information on other available models, including angled configurations, please contact Cognex Sales at cognex.com/contact-sales.

Components and accessories

Power and I/O Cables			
	Product ID	Length	Description
	CCB-PWRIO-05	5M	
	CCB-PWRIO-10	10M	M12-12 to flying lead, straight
	CCB-PWRIO-15	15M	
	CCB-PWRIO-05R	5M	
	CCB-PWRIO-10R	10M	M12-12 to flying lead, right-angled
	CCB-PWRIO-15R	15M	

Mounting Brackets		
	Product ID	Description
	DM100-UBRK-000	Universal mounting bracket
	DM100-PIVOTM-01	Pivot mounting bracket

Front Covers	
Product ID	Description
DMLA-HPIT-CLCOV	HPIT clear, non-polarized cover
DMLA-HPIT-DLCOV	HPIT diffuse, non-polarized cover
DMLA-HPIT-PLCOV	HPIT 3/4 polarized cover
DMLA-HPIT-PLCOV-F	HPIT full polarized cover

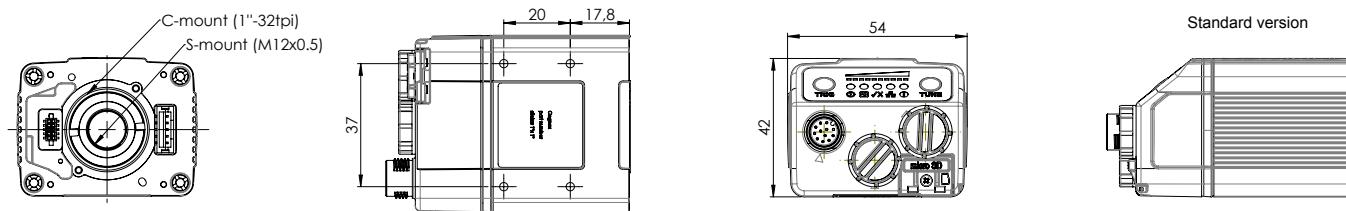
Ethernet Cables			
	Product ID	Length	Description
	CCB-84901-2001-02	2M	X-coded M12-8 to RJ-45, straight
	CCB-84901-2001-05	5M	
	CCB-84901-2001-10	10M	
	CCB-84901-2001-15	15M	
	CCB-84901-2001-30	30M	
	CCB-84901-2002-02	2M	X-coded M12-8 to RJ-45, right-angled
	CCB-84901-2002-05	5M	
	CCB-84901-2002-10	10M	
	CCB-84901-2RBT-02	2M	Robotic X-coded M12-8 to RJ-45, straight
	CCB-84901-2RBT-05	5M	
	CCB-84901-2RBT-10	10M	
	CCB-M12X8MS-XCAC	0.5M	X-coded to A-coded Ethernet cable adapter

DataMan 370 Dimensions

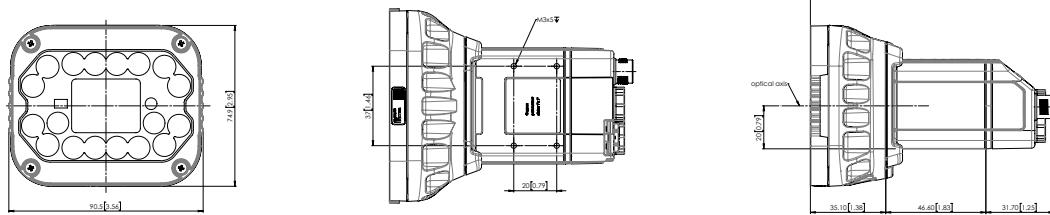
Units: mm, [in]

[Download CAD files](#)

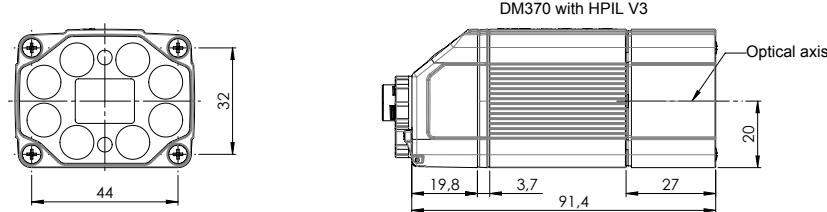
Dataman 370 Reader



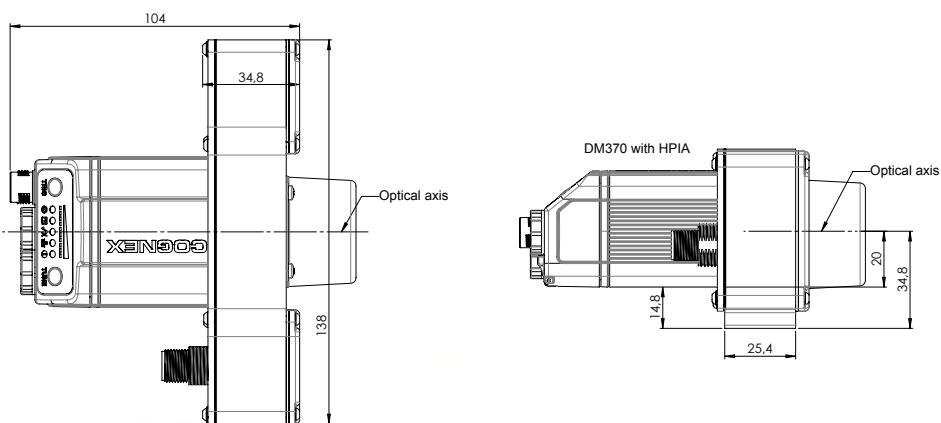
Dataman 370 with HPIT



Dataman 370 with HPIL



Dataman 370 with HPIA



DataMan 370 Series Specifications

	DataMan 374	DataMan 375
Algorithms	1DMax, 2DMax, Hotbars, PowerGrid	
Image Sensor	1/1.8" CMOS	2/3" CMOS
Image Sensor Properties	Diagonal 8.9 mm; 3.45 μ m square pixels	Diagonal 11.1 mm; 3.45 μ m square pixels
Image Sensor Resolution	2048 x 1536	2448 x 2048
Electronic Shutter Speed	Min. exposure: 15 μ s Max. exposure: 1000 μ s with internal illumination/10000 μ s with external illumination	
Max Acquisition	Up to 80 Hz	Up to 55 Hz
Lens Options	Liquid lens 8 mm, 10 mm, 16 mm, 24 mm, 35 mm; C-mount 12 mm, 16 mm, 25 mm, 35 mm, 40 mm	
Trigger and Tune Buttons	Yes; Quick Setup Intelligent Tuning	
Aimer	Optional	
Discrete Inputs	2 fixed + (*) opto-isolated	
Discrete Outputs	2 fixed + (*) opto-isolated	
*Other I/O Points	2 user-configurable	
Status Outputs	Beeper, 5 multifunctional LEDs, 10 LED bar array, 360-degree indicator	
Lighting	Integrated LEDs, red, blue or IR; diffuse, polarized, high powered integrated light (HPIL), high powered integrated torch (HPIT), various controllable external light options	Integrated LEDs, red, blue or IR; diffuse, polarized, high powered integrated torch (HPIT), various controllable external light options
Communications	Ethernet and serial	
Protocols	RS-232, TCP/IP, PROFINET, EtherNet/IP™, SLMP, Modbus TCP, NTP, SFTP, FTP, MRS, Java Scripting enabled for custom protocols	
Power Consumption	24 VDC \pm 10%, 1.5 A maximum (HPIL/HPIT ¹) 24 VDC, 250 mA maximum (reader) Supplied by LPS or NEC class 2 only	
Weight	165 g	
Dimensions	73 x 54 x 42 mm; 113 x 91 x 75 mm (with HPIT)	
Operating Temperature	0 °C–57 °C (32 °F–134.6 °F) ²	
Storage Temperature	-20 °C–80 °C (-4 °F–176 °F)	
Operating and Storage Humidity	< 95% non-condensing	
Protection	IP67 with cables and appropriate lens cover attached	
RoHS Certified	Yes	
Approvals (CE, UL, FCC)	Yes	

¹ HPIL denotes one of the DM360-HPIL-RE, DM360-HPIL-RE-P, DMLT-HPIL-RE or DMLT-HPIL-RE-P accessories. HPIT denotes one of the DMLT-HPIT-RE-W, DMLT-HPIT-RE-S, DMLT-HPIT-RE-N, DMLT-HPIT-WHI-W, DMLT-HPIT-WHI-S, DMLT-HPIT-WHI-N accessories.

² In situations where the operating temperature exceeds 40 °C, an external heat sink is required.



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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Lit. No. DSDM370-02-2025

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