COGNEX

DataMan 80 Series Fixed-mount Barcode Readers

DataMan 80 USB

DataMan 80 PoE

Ultra-Compact Size, Unmatched Code Reading

Boost throughput and operational efficiency with DataMan 80® series barcode readers. These flexible, image-based readers leverage advanced algorithms to track items throughout manufacturing and logistics facilities.

With Power over Ethernet (PoE) and USB connection options, DataMan 80 readers decode direct part marks (DPMs) as well as damaged and obscured 1D/2D label-based codes, across a range of industries, environments, and applications.

One-cable setup, endless benefits

Set up and start scanning products, components, and packages within minutes, even in confined machines and congested conveyor lines. The reader's ultra-compact form factor and multiple connection options facilitate deployment in challenging environments.

DPM reading

Increase traceability and operational efficiency by easily decoding direct-part marks.

High-speed barcode reading

Reliably read every barcode on high-speed lines.

Multiple barcode reading

Read multiple codes simultaneously in the field of view and offload images fast.

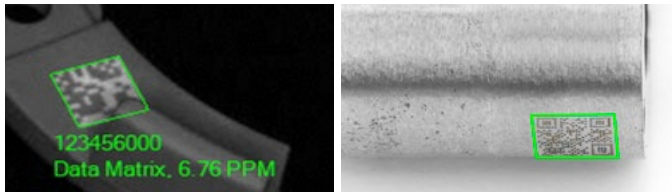
Hands-free barcode reading

Scan varied codes in one fluid motion with dynamic autofocus technology.

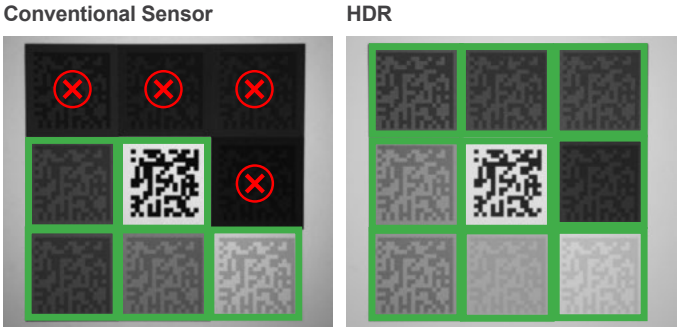
Elevate your operations with advanced reading and imaging technology

Achieve exceptional read rates, even in high-variability applications and challenging lighting conditions, with patented decoding algorithms and advanced imaging technology.

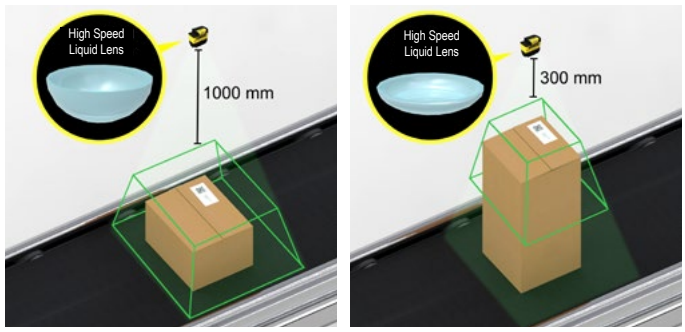
1DMax™ with Hotbars® is optimized for omnidirectional 1D barcode reading and decodes low-resolution codes up to 10X the speed of a conventional barcode reader.



2DMax® with PowerGrid® is designed to read 2D codes, including QR codes, that have significant damage or missing finding/clocking patterns and quiet zones.



High Dynamic Range (HDR) enables you to read codes in low-contrast conditions, using an advanced image sensor to reduce dark noise, improve saturation capacity, and interpret poorly lit codes.

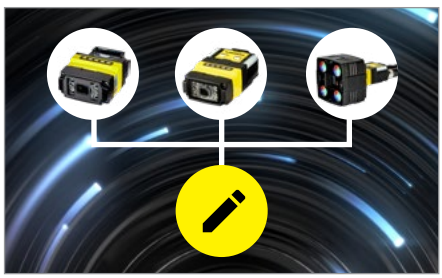


High-Speed Liquid Lens (HSLL) technology dynamically autofocuses without any mechanical parts, making it easy to solve high-speed, high-variability applications with fewer devices.

Gain insight into device performance with Edge Intelligence

DataMan 80 series readers combined with Cognex Edge Intelligence (EI) transform big data into smart data to improve overall equipment effectiveness and throughput. EI allows users to configure multiple devices and models simultaneously, facilitating immediate system performance monitoring and analysis. The technology informs users when issues occur, allowing operators to identify and resolve root causes faster using powerful analytics and image view tools.

Connect via web browser



Configure multiple devices simultaneously

Identify performance trends and issues

Out-of-the-box scanning and flexible kitting

Spend more time scanning and less time installing your device and fine-tuning configuration settings. The DataMan 80 series comes preconfigured out of the box so you can start tackling a variety of barcode reading applications within minutes. The 80 series incorporates AI tuning to ensure high read performance on difficult applications.

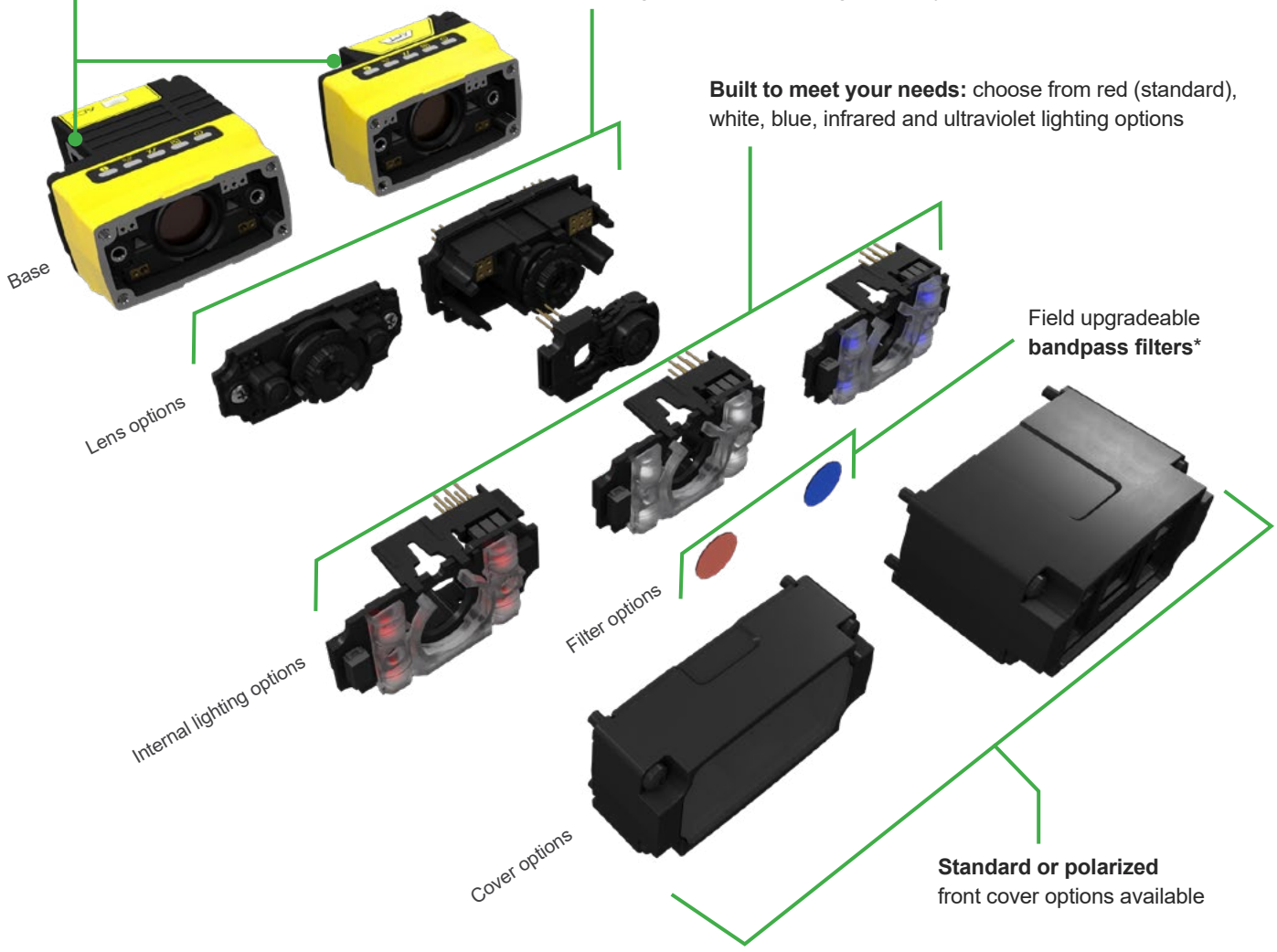
Whether it's standard decoding or applications that require specialized lighting or optics, there is a configuration to meet your needs.

Compact form factor for quick installation in confined spaces

Multiple power options and communication protocols enable fast, easy data transfers

High Speed Liquid Lens (HSLL) allows for fast image setup and focusing on-the-fly

Built to meet your needs: choose from red (standard), white, blue, infrared and ultraviolet lighting options



*Sold separately

DataMan 80 Series Specifications

	DataMan 80 USB	DataMan 80 PoE
Algorithms and Technologies	1DMax, 2DMax, Hotbars, PowerGrid	
Image Sensor	1/3” CMOS	
Image Sensor Properties	Diagonal 6.21 mm, 3.45 µm square pixels	
Image Resolution	1440 x 1080 pixels	
Weight	6.2 mm assembly: 64 g 16 mm assembly: 97 g	6.2 mm assembly: 99 g 16 mm assembly: 132 g
Power	USB powered: USB BC 1.2 port, USB 3.0 port with 4.5 W or higher, USB-C with USB-PD (5 V/3 A) External power supply: +5 – +24 V DC. Supplied by limited-energy circuit according to IEC/ UL/ CSA 61010-1 *	PoE Class 2
Power Consumption	Average: 3.3 W Maximum: 4.2 W	Average: 4.3 W Maximum: 6 W
Operating Temperature	0-40° C (32–104° F)	
Storage Temperature	-10–60° C (14–140° F)	
Humidity	<95% non-condensing	
Environmental	DataMan 80: IP67+B26 * DataMan 80 with Sound Amplifier: IP44 Altitude: 2000 m, indoor use only, pollution degree II	
Shock	IEC 60068-2-27 - 500 shocks in each polarity of each (X, Y, and Z) axis, 3000 shocks total, semi-sinusoidal,11 g, 10 ms	
Shock (Shipping & Storage)	ISTA-1A Standardized Testing - Packaged Products 150 lb or less	
Vibration	IEC 60068-2-6: vibration test in each of the three main axis for 2 hours @ 10Gs (10 to 500 Hz at 100m/s2/15 mm)	
Vibration (Shipping & Storage)	FedEx Vibration Testing for packaged products 150 lbs or less	
Codes	1D barcodes: Codabar, Code 39, Code 128, Code 93, Code 25, Interleaved 2 of 5, Postal Codes, UPC/EAN/JAN, MSI 2D barcodes: Data Matrix (IDMax and IDQuick: ECC 0, 50, 80, 100, 140, and 200), QR Code, microQR, PDF 417, AztecCode, DotCode, MaxiCode	
High-Speed Output 0	I_{MAX}: 50 mA ; V_{OL}: ≤ ±3 V @ 50 mA *	I_{MAX}: 50 mA ; V_{OL}: ≤ ±3 V @ 50 mA ***
Input 0	V_{IL}: ≤ ±6 V; V_{IH}: ≤ ±12 V; I_{TYP}: 4.2 mA @ 24 V *	V_{IL}: :5 ± 6 V; V_{IH}: ±12V; I_{TYP}: 4.2 mA @ 24 V ***
Ethernet	N/A	10/100/1000, Full duplex or half duplex
RS-232	RxD, TxD according to TIA/EIA-232-F *	N/A

* Only available when using approved Cognex serial cables.

** IP67 rating applies only if all blind plugs and cables are attached properly, or the provided connector plug is installed. Also make sure that the IP67-rated cover is installed properly.

*** The DataMan 80-PoE uses one shared line for input and output.

Field of view diagrams

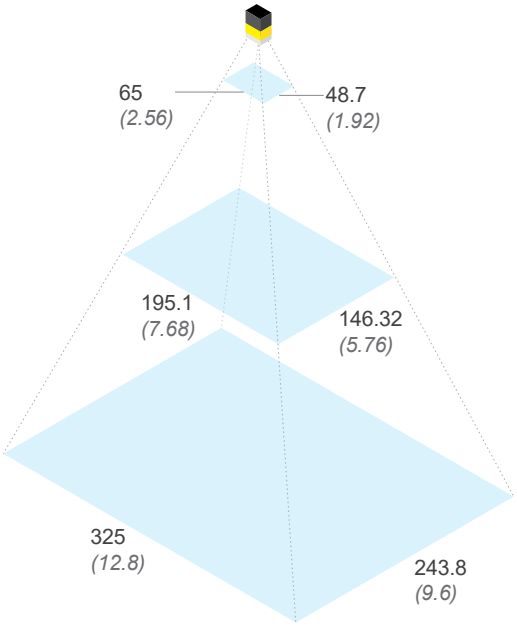
Working distances
Units: mm *(in)*

Minimum
50 *(1.97)*

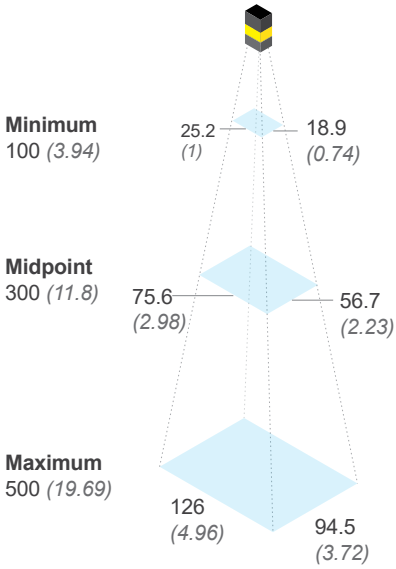
Midpoint
300 *(11.8)*

Maximum
500 *(19.69)*

DataMan 80 with 6.2 mm lens



DataMan 80 with 16 mm lens



*Applications with working distances beyond 500 mm may result in an in-focus image but light uniformity/intensity will be significantly lower. External lighting is recommended for these scenarios.

Product IDs and descriptions*

DataMan 80 series

	Product ID	Resolution	Power & Communications	Light	Lens	Cover
	DMR-80X-112E	1.6 MP	PoE	Red Standard	6.2 mm HSLL	Clear
	DMR-80X-154E-P			Red HPIL	16 mm HSLL	Half Polarized
	DMR-80X-112U		USB-C	Red Standard	6.2 mm HSLL	Clear
	DMR-80X-154U-P			Red HPIL	16 mm HSLL	Half Polarized
	DMR-80X-126U			White Standard	6.2 mm HSLL	Clear

*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

Cables

For DataMan 80 PoE only		
	Product ID	Description
	CCB-PIO-RJ50-2ST	Locked IP67 RJ50 to RJ45 PoE with flying leads, straight (2 m)
	CCB-PIO-RJ50-2RA	Locked IP67 RJ50 to RJ45 PoE with flying leads, right angle (2 m)
For DataMan 80 USB only		
	DMA-STCBLE-IP65-XX	Locked IP67 USB-C to USB-A, straight (2.5 m, 3.6 m)
	DMA-RTCBLE-IP65-XX	Locked IP67 USB-C to USB-A, right angle (2.5 m, 3.6 m)
	CCB-PIO-DB15-05ST	Locked IP67 USB-C to DB15, straight (0.5 m)
	CCB-PIO-DB15-05RA	Locked IP67 USB-C to DB15, right angle (0.5 m)

Mounting Brackets

	Product ID	Description
	DM100-UBRK-000	Universal mounting bracket
	DM100-PIVOTM-01	Pivot mounting bracket
	DMBK-DMPIVOT-00	Tilted angle pivot bracket
	DMA-BKT-LGS	Logistics mounting bracket and plate kit

Bandpass Filters

	Product ID	Description
	DM150-BP470	Blue bandpass filter (6.2 mm lens only)
	DM150-BP635	Red bandpass filter (6.2 mm lens only)

Front Covers

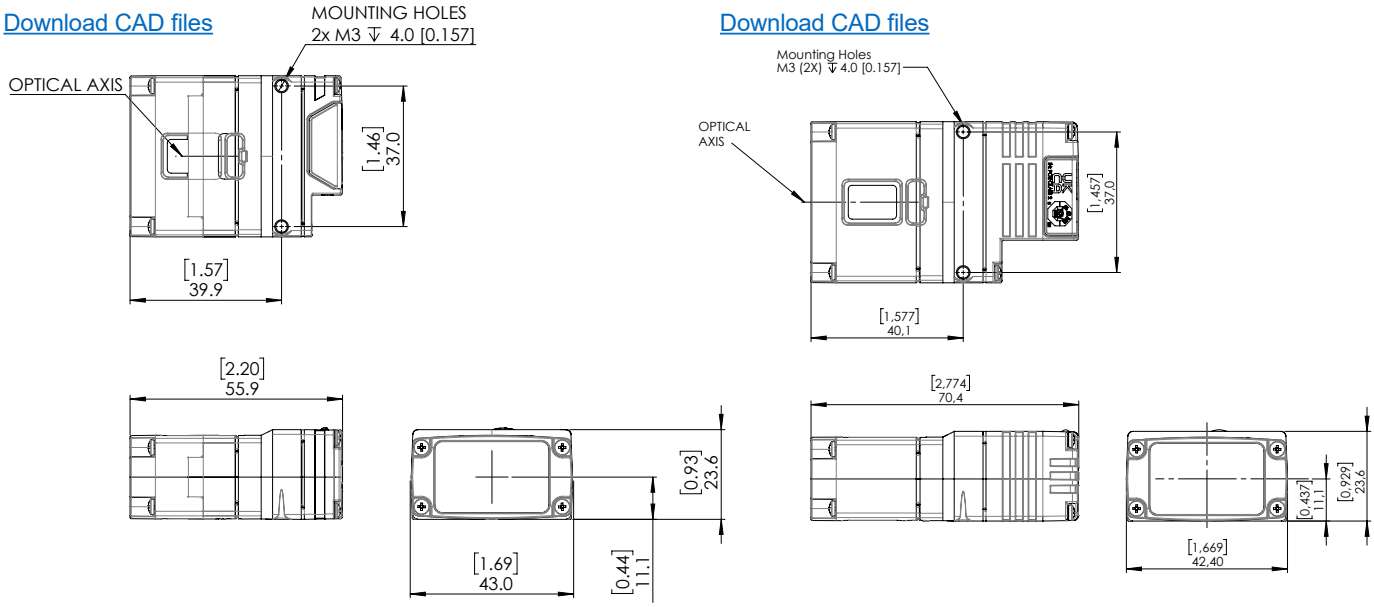
	Product ID	Description
	DM280-CVR-62	Front cover (6.2 mm lens)—clear
	DM280-LENS-62CVR-P	Front cover (6.2 mm lens)—half polarized
	DM280-LENS-62CVR-F	Front cover (6.2 mm lens)—polarized
	DM260-LENS-16CVR	HPIL front cover (16 mm lens)—clear
	DM260-LENS-16CVR-P	HPIL front cover (16 mm lens)—half polarized
	DM260-LENS-16CVR-F	HPIL front cover (16 mm lens)—fully polarized

Dimensions

Units: mm, [in]

DataMan 80 USB, 16 mm lens

Download CAD files



DataMan 80 PoE, 16 mm lens

Download CAD files

DataMan 80 USB, 6.2 mm lens

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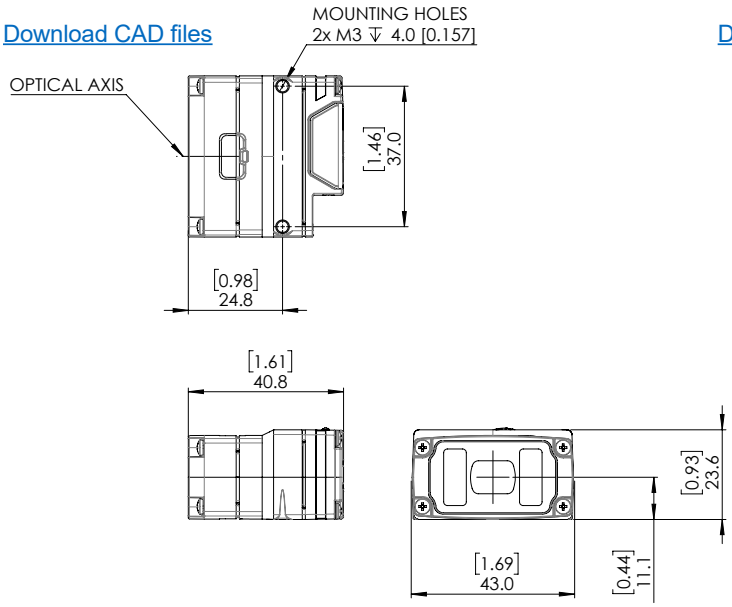
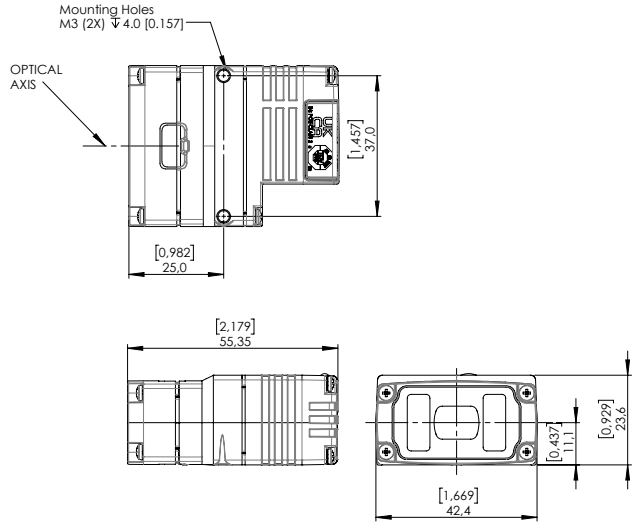


DataMan 80 PoE, 6.2 mm lens

Download CAD files



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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