DATAMAN 8700 SERIES
HANDHELD BARCODE READERS

Cutting-edge performance for the toughest codes

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Cutting-edge performance for the toughest codes

The DataMan 8700® series are rugged handheld barcode readers designed to excel in harsh manufacturing environments. Reliably read imperfect direct part markings (DPMs) and label-based codes while withstanding oil, water, dirt and repeated collisions. Quickly setup, scan, and review feedback with the built-in OLED display and a range of industrial protocols and communication options.

> **Oil and water resistant**

> **High capacity battery**

> **Advanced integrated lighting**

> **Rapid code reading**

> **Versatile communication options**

> **Audio, visual, and haptic user feedback**

Robust Handheld Reader

DataMan 8700 series readers are built to endure relentless manufacturing environments, improving throughput and operational efficiency by thriving where other readers fail. With resilient IP67-rated housing, DataMan 8700 series readers adhere to ISO oil-resistance standards, can function in up to one meter of water, and can withstand multiple drops from 2.5 meters onto concrete.
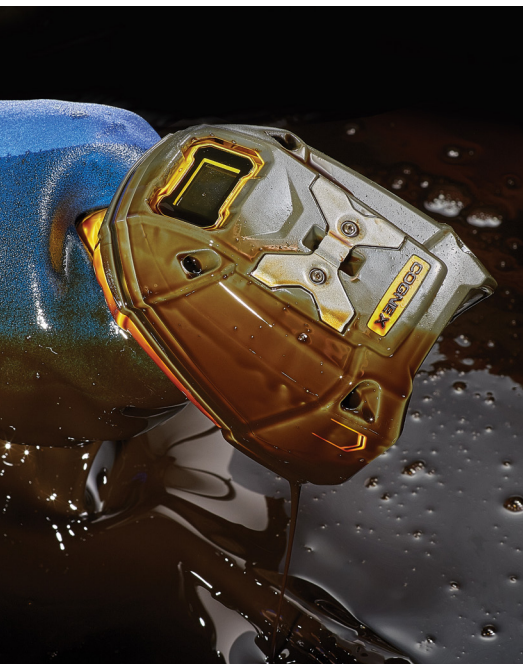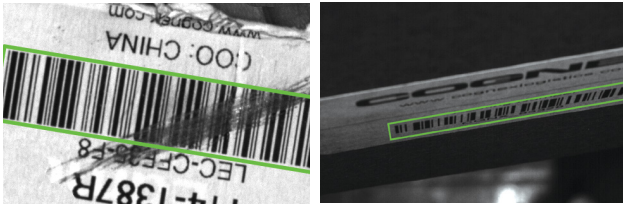
DataMan
8700DX

DataMan
8700DQ

DataMan
8700LX

DataMan
8700HD

# Premium read performance in milliseconds allows operators to reach higher throughput with less effort

DataMan 8700 series readers are equipped with the latest patented decoding algorithms and a multi-core processor to read codes in less than 150 milliseconds.

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.
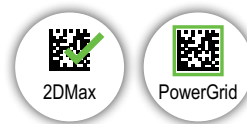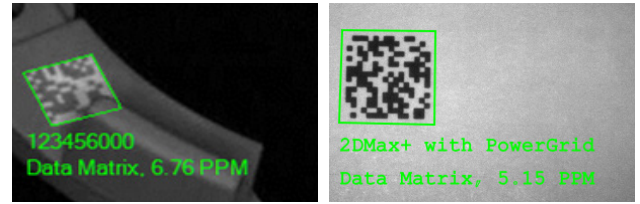
2DMax® with PowerGrid® is designed to read 2D codes with significant damage or complete elimination of finder and clocking pattern, or quiet zone.
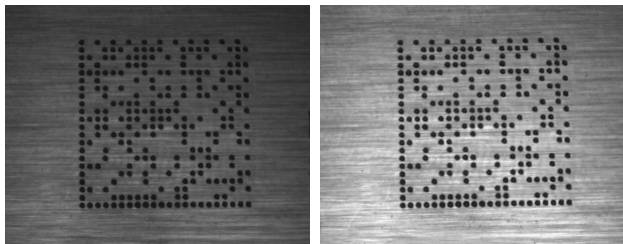
No HDR *With HDR*

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 low-light codes

High speed multi-core processor provides ultra-high speed decode response times, enabling operators to scan codes faster.

Intuitive design for optimal efficiency

- **Configure anywhere, anytime:** OLED display screen and on-device controls enable operators to setup and start scanning without connecting to a PC.

- **Integrated data dashboard:** View important information such wireless signal strength, battery life, and code information details from the OLED display on the device.

- **Clean, consistent information:** Naming your reader allows you to easily identify the corresponding base station.

- **Clear operator feedback:** Powerful audio tone, color-coded lights, and vibration alert.

Easy connectivity

On-board industrial protocols enable the DataMan 8700 to seamlessly connect to PLCs and networks.

DataMan 8700 supports multiple communication options including corded and wireless options:

- **Wi-Fi:** Roam any facility and reach any code in a secure environment by connecting a DataMan 8700 reader to a wireless router for ultimate mobility.

- **Bluetooth direct connect:** Pair your reader to a phone, PC, or tablet to review and populate codes to a smart device.

- **Bluetooth connection to intelligent base station:** The intelligent base station has the ability to communicate with a PLC or PC via Ethernet with industrial protocols, serial RS-232, or USB.

- **Corded:** Continuous communication to a device with USB, RS-232, and Ethernet with industrial protocols.

Key DataMan 8700DX features
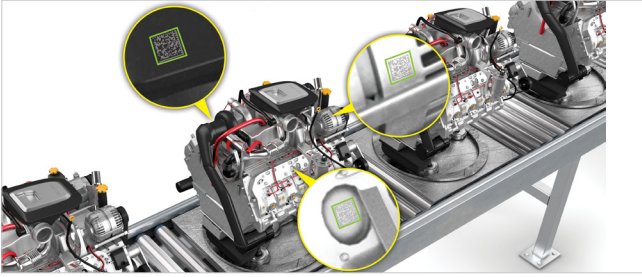
Integrated **diffuse, polarized, and direct lighting** enables superior image formation to read dot peen, laser-etched, and label-based codes on challenging (shiny, cylindrical, dark) surfaces without any hot spots.
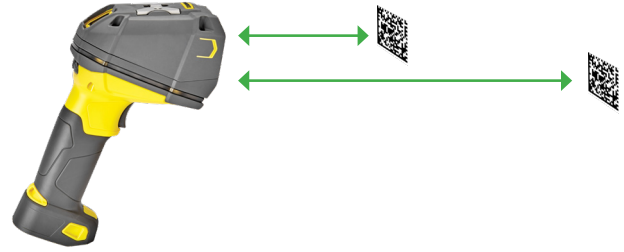
High Speed Liquid Lens (autofocus) technology automatically adapts to changes in working distances without any reconfiguration or wait time to focus. It enables greater depth of field range without compromising optical quality to read codes faster and easier at distances near and far.

Choosing the right model

	DX	DQ	LX	HD
Challenging DPM codes*	✓			
Well-marked DPM codes*	✓	✓		✓
Printed labels	✓		✓	✓
High Speed Liquid Lens (HSLL)	✓			
Minimum 1D/2D code size	3 mil / 5 mil	3 mil / 5 mil	4 mil / 5 mil	2 mil / 2 mil
Illumination	Integrated red diffuse, polarized, and direct	White diffuse	Red direct	Red diffuse
Connectivity				
Ethernet with industrial protocols	✓	✓	✓	✓
USB	✓	✓	✓	✓
RS-232	✓	✓	✓	✓
Bluetooth direct connect	✓	✓	✓	✓
Wi-Fi	✓	✓	✓	✓
Bluetooth to Base Station	✓	✓	✓	✓

*Well-marked DPM codes can come in a number of forms including dot peen, laser-etched, inkjet, etc. What separates a challenging versus a well-marked DPM code is damage or wear and tear on a code, shiny or textured backgrounds, or improper marking.

Rugged design with innovative technology

Platform features

Patented algorithms optimize read performance

HDR imaging

360-degree LED indicator ring light

Built-in Ethernet/IP, PROFINET industrial protocols

High capacity 5000mAh battery

Corded, Bluetooth, Bluetooth direct connect, and Wi-Fi options available

IP67-rated housing for dirt, oil, and water resistance

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Multi-core processing power for fast decoding

MyDataMan

OLED display screen shows wireless signal, battery life, and reader name

Configuration buttons provide easy setup from the reader

IP65-rated intelligent base station

DataMan 8700DX

Integrated diffuse, polarized, and direct lighting

High speed liquid lens autofocus technology

DataMan 8700DQ

White diffuse lighting

DataMan 8700LX

Red direct lighting

DataMan 8700HD

Red diffuse lighting

8700 SERIES SPECIFICATIONS

Algorithms	1DMax, 2DMax, Hotbars, PowerGrid
Resolution	1.6MP
Status Outputs	OLED display, LED ring light, beeper, vibration
Communications	Serial: RS-232 and USB Ethernet: TCP/IP, FTP, industrial protocols: EtherNet/IP, PROFINET, MC protocol, Modbus TCP Intelligent base station: RS-232, USB, Ethernet, industrial protocols Bluetooth connectivity: smartphone, intelligent base station, Bluetooth enabled tablet or PC Wireless infrastructure mode connectivity: PC through Wi-Fi router
Symbologies	1D: UPC/EAN/JAN, Codabar, Interleaved 2 of 5, Code 39, Code 128, Code 93, POSTNET, PLANET Code, IMB, Postal 2D: Data Matrix, QR, MicroQR, PDF417, MaxiCode, Aztec
Operating Temperature	0°C–40°C (32°F–104°F)
Storage Temperature	-40°C–60°C (-40°F–140°F)
Maximum Humidity	95% (non-condensing)
Power Supply Requirements	DataMan 8700 with serial/USB: 5.5 V DC, 6.0 W maximum LPS or NEC Class 2 power supply DataMan 8700 with Ethernet: PoE Class 2 power supply DataMan 8700 with Bluetooth: 3.7 V, 5000 mAh Li-ion battery DataMan Intelligent Base Station: 5.5 V DC, 6 W maximum LPS or NEC Class 2 power supply or PoE Class 2 power supply
Wireless Unit Scans per Full Charge	125,000+
Protection	Handheld reader: IP67; Base station: IP65
Drop Test	Multiple drops from 2.5 meters
Tumble Test	5,000 tumbles from 1 meter
Environmental	Compliant with latest EU RoHS and China RoHS
Regulatory	EU: CE EMC & RED; USA/Canada: cTÜVus IEC 61010-1, part 15, ICES 03; Korea: KCC; India: BIS and WPC; China: SRRC; Brazil: ANATEL; Mexico: NOM and IFETEL; Japan: MIC
Data Validation	US DoD UID guidelines, GS-1, ISO15434 and ISO15418
Operating System	Windows 7 and Windows 10

MODEL SPECIFICATIONS

		8700DX	8700DQ	8700LX	8700HD
Lens		8 mm lens with liquid lens	6.2 mm fixed lens	8 mm fixed lens	12 mm fixed lens
Lighting		Red diffuse, polarized, direct	White diffuse	Red direct	Red diffuse
Aimer		On-axis green LED aimer		Dual off-axis green LED aimers	
Minimum 1D/2D code size		3 mil/5 mil	3 mil/5 mil	4 mil/5 mil	2 mil/2 mil
Dimensions	Wireless	221 mm (H) x 114.1 mm (L)	211.4 mm (H) x 113.1 mm (L)		
	Corded	233.2 mm (H) x 114.1 mm (L)	223.4 mm (H) x 113.1 mm (L)		
Weight	Wireless	548 g (battery included)	479 g (battery included)		489 g (battery included)
	Corded	450 g (+ approx. 130 g for cables)	395 g (+ approx. 130 g for cables)		405 g (+ approx. 130 g for cables)

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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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