

# COGNEX

PRODUCT GUIDE 2007

DataMan™ 100, the world's smallest high-performance ID reader, reads everything from simple bar codes to challenging DPM marks with ease!

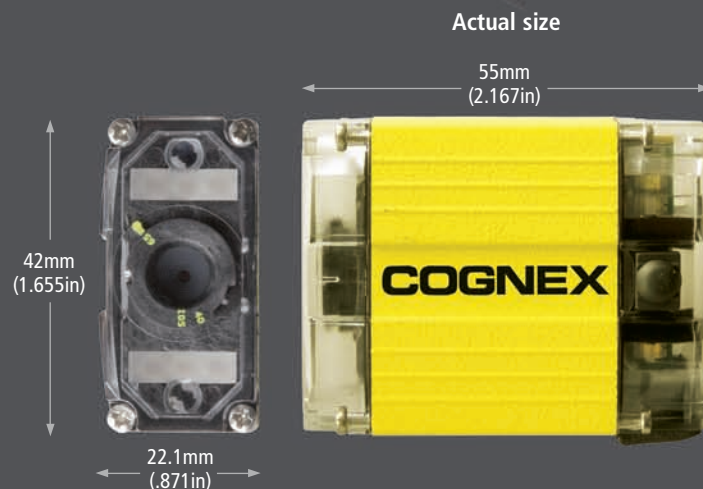


Shown actual size

**DataMan 100**  
Fixed-Mount ID Readers

# The Revolutionary Fixed-Mount ID Reader

Cognex DataMan image-based ID readers represent a breakthrough in combining unmatched code reading performance, ease of use, and an extremely small size. Lighting, camera, processor, and communications are all integrated into an exceptionally small industrial housing, making DataMan 100 ID readers ideal for the most challenging applications.

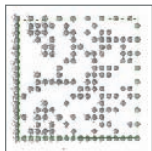


# Read All Codes With Speed and Accuracy

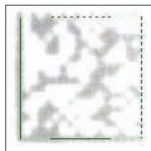
**DataMan 100 ID readers achieve an incredibly high performance level ... six sigma read rates at up to 45 parts per second. And, the DataMan 100 family provides 1D and 2D code reading, with models that read even the most challenging 2D codes!**

DataMan ID readers incorporate reading algorithms that are optimized to ensure continuously high read rates of 1D and 2D symbologies, in direct part mark and label-based identification applications, on the fastest production lines. This allows DataMan readers to deliver the industry's most reliable code reading. Models are available for all fixed-mount code reading applications

**The Power of IDMax™** ... breakthrough Data Matrix code reading software based upon the patented Cognex PatMax® technology. IDMax handles a wide range of degradations to code appearance that result from dramatic degradations in DPM code quality due to differences in material types and surfaces. IDMax is available with the Dataman 100X model.



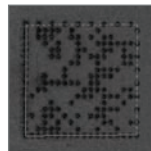
*Model Image*



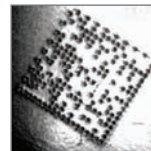
*Poor Focus*



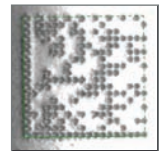
*Washed Out*



*Low Contrast*



*Finder Degradation*



*Background Problems*

**The Speed of IDQuick™** ... fast, high-performance reading of high-quality 1D and 2D codes, as well as low-contrast codes on uniform backgrounds. The DataMan 100Q and 100X models incorporate the IDQuick decoding software.



# Ease of Use Through Innovation

DataMan 100 series ID readers offer impressive ease of use through the integration of lighting, camera, aimer, and communications. And, a wide array of accessories facilitates DataMan integration into systems.

## Quick Setup

The DataMan 100 aimer, train and trigger button, beeper, and LED read indicator enable "out of the box" operation, without requiring a PC for setup or job changeovers. The intuitive setup tool is available for advanced reader setup.

*The DataMan 100 setup tool allows quick and easy customization of parameters.*



## Accessories that Complete an Installation

To simplify and speed up the system integration process, Cognex offers optional accessories specifically designed for use with DataMan 100 ID readers.

The accessories facilitate the integration of DataMan 100 readers into systems, and allows users to adapt to changing requirements.

# Reliable Code Reading for Many Industries

**DataMan 100** readers are ideal for item identification and process control in many industries. And, the size of the DataMan 100 — typically 90 percent smaller than other integrated readers in its performance class — allows it to be used in applications where space is limited. This is of particular value in systems such as label printers, clinical analyzers, marking equipment, and document handlers.



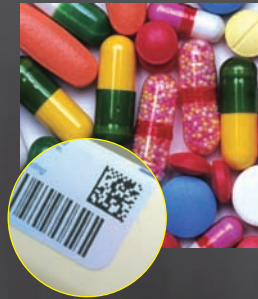
## Automotive Parts

In this application, a 2D code laser-etched onto a fuel injector is read.



## Packaging

DataMan 100 readers are ideally suited to a wide range of packaging applications.



## Pharmaceuticals

DataMan 100 ID readers provide accurate reading of multiple code formats in a single view.



## Document Handling and Sorting

The DataMan 100 is perfect for sorting documents, envelopes, and more.



## Electronic Components

Electronics manufacturers moving from bar code labels to Data Matrix codes (due to space constraints and the need to include more data on parts) use DataMan readers to identify boards and components.



# Specifications

## ID TOOLS

|                  |                                                                          |
|------------------|--------------------------------------------------------------------------|
| 1D Codes         | UPC/EAN/JAN, Codabar, Interleaved 2 of 5, Code 39, Code 128, and Code 93 |
| 2D Codes         |                                                                          |
| Model 100X       | Data Matrix ECC 0, 50, 80, 100, 140, and 200                             |
| Model 100Q       | Data Matrix ECC200                                                       |
| Models 100Q/100X | QR Code and microQR Code                                                 |

## IMAGE

|             |                                                                                               |
|-------------|-----------------------------------------------------------------------------------------------|
| Sensor      | 1/3-inch CMOS w/Global shutter (752 x 480 resolution)                                         |
| Acquisition | Max rate 60 fps                                                                               |
| Lens type   | 3 position adjustable lens (6.2 mm; F:5 aperture) with 40mm, 65mm and 105mm working distances |

## I/O

|                  |                                                 |
|------------------|-------------------------------------------------|
| Trigger          | High-speed trigger input, manual trigger button |
| Trigger voltage  | -25VDC to +25VDC                                |
| Trigger current  | 7.7mA @ 24VDC<br>3.7mA @ 12VDC<br>1.33mA @ 5VDC |
| Trigger delay    | 1ms (max)                                       |
| Discrete inputs  | 2 opto-isolated (one used as trigger)           |
| Discrete outputs | 2 opto-isolated                                 |
| Status LEDs      | 2 status LEDs (Read LED and communication LED)  |
| Beeper           | Programmable functions                          |

## LIGHTING

|                  |                                                        |
|------------------|--------------------------------------------------------|
| Lighting methods | Integrated bright field lighting with exposure control |
|------------------|--------------------------------------------------------|

## COMMUNICATIONS

|        |                               |
|--------|-------------------------------|
| Serial | RS-232                        |
| USB    | Supports USB 2.0 (12Mbps/sec) |

## POWER

|                   |                                            |
|-------------------|--------------------------------------------|
| Operating Voltage | 5VDC to 24VDC                              |
| Power consumption | 500mA @5VDC max (peak)<br>Avg: 300mA @5VDC |

## MECHANICAL

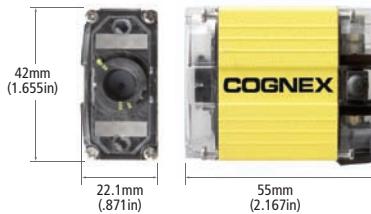
|            |                                                  |
|------------|--------------------------------------------------|
| Material   | Aluminum housing                                 |
| Mounting   | 2 M3 x 3.5 mounting holes                        |
| Dimensions | 55mm x 42mm x 22mm<br>(2.17in x 1.65in x .87in ) |
| Weight     | 125g (.28lb )                                    |

## ENVIRONMENTAL

|                       |                                                                  |
|-----------------------|------------------------------------------------------------------|
| Operating temperature | 0°C to 40°C (32°F to 104°F)                                      |
| Operating humidity    | 95% (non-condensing)                                             |
| Storage temperature   | -10°C to 60°C (-14°F to 140°F)                                   |
| Storage humidity      | 95% (non-condensing)                                             |
| Protection            | IP-65                                                            |
| Vibration             | EN61373, including IEC 60068-2-6, 60068-2-64 6.4, and 60068-2-27 |

## CERTIFICATIONS

Approvals CE, UL, FCC, CTICK, VCCI, IC



## DATAMAN 100 ID READERS

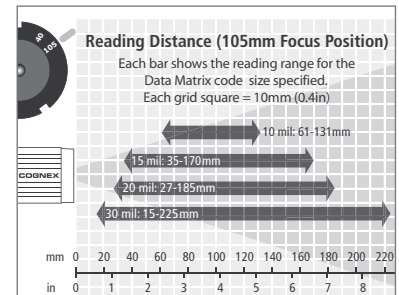
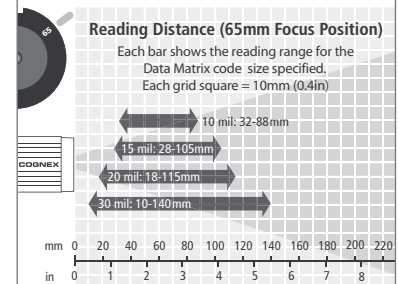
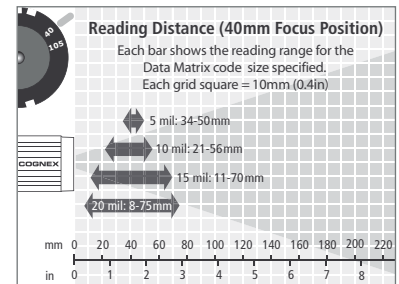
| Description  | Part Number |
|--------------|-------------|
| DataMan 100Q | DMR-100Q-00 |
| DataMan 100X | DMR-100X-00 |

## DATAMAN 100 ACCESSORIES

| Description                                                  | Part Number    |
|--------------------------------------------------------------|----------------|
| <b>Basic Accessory Kit</b><br>(Includes the following items) | DM100-BAK-000  |
| USB adapter cable with power tap                             | DM100-USB-000  |
| Universal mounting bracket                                   | DM100-UBRK-000 |
| Setup tool and drivers (CD)                                  | 206-6400-220   |
| Quick Reference Guide                                        | 590-7013       |

## Additional Accessories

|                                     |                  |
|-------------------------------------|------------------|
| I/O Module                          | DM100-IOBOX-000  |
| Extension cable, 5 meter (XXft)     | DM100-EXTCBL-000 |
| RS-232 adapter cable with power tap | DM100-RS232-000  |
| Power supply (USB and RS-232)       | DM100-PWR-000    |



Visit [www.cognex.com/dataman](http://www.cognex.com/dataman) for additional product information

## COGNEX

Corporate Headquarters  
Cognex Corporation  
One Vision Drive  
Natick  
MA 01760-2059  
USA  
Tel: 508-650-3000  
Fax: 508-650-3344  
[www.cognex.com](http://www.cognex.com)

### United States

Natick, Massachusetts  
Nashville, Tennessee  
Detroit, Michigan  
Chicago, Illinois  
Mountain View, California

### www.cognex.com

508-650-3000  
615-844-6158  
248-668-5100  
630-649-6300  
650-969-4812

### Europe

France  
Germany  
Ireland  
Italy  
Netherlands  
Spain  
Sweden  
Switzerland  
United Kingdom

### www.cognex.net

+33 1 4777 1550  
+49 721 6639 0  
+353 1 825 4420  
+39 02 6747 1200  
+31 402 668 565  
+34 93 445 67 78  
+46 21 14 55 88  
+41 71 313 06 05  
+44 1908 206 000

### Canada

### www.cognex.com

905-634-2726

### Japan

[www.cognex.co.jp](http://www.cognex.co.jp)  
+81 3 5977 5400

### Asia

### www.cognex.net

China  
Korea  
Singapore  
Taiwan

+86 21 6320 3821  
+82 2 539 9047  
+65 632 55 700  
+886 3 578 0060