COGNEX

DATAMAN 150/260 SERIES BARCODE READERS

For 1-D linear barcodes, printed higher-density 2-D matrix codes, and direct part mark (DPM) codes, the DataMan® 150/260 series fixed-mount, image-based barcode readers deliver unprecedented performance, flexibility and ease-of-use.

Features at-a-glance

- High read rates
- Modular lighting, optics and configuration
- Easy to use
- No moving parts
- Performance feedback

Highest read rates

DataMan 150/260 series fixed-mount barcode readers achieve the highest possible read rates thanks to a high-speed, powerful platform that runs the latest Cognex algorithms.

1DMax with Hotbars technology decodes damaged or poorly printed 1-D barcodes as small as 0.8 pixels per module (PPM). 2DMax provides reliable 2-D code reading independent of code quality, printing method, or the surface that the codes are marked on, and with PowerGrid® technology, can locate and read 2-D codes that exhibit significant damage to or complete elimination of the finder pattern, clocking pattern, or quiet zone.

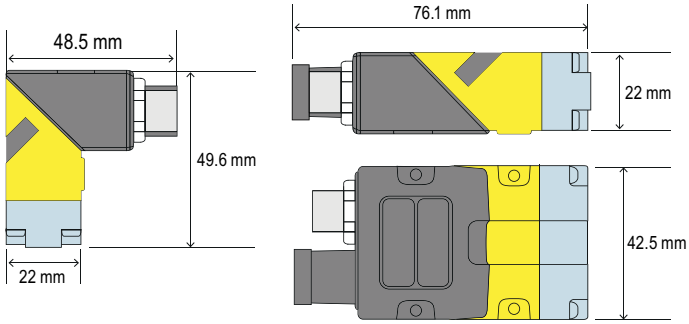
1DMax with Hotbars technology deliver high-speed reading of damaged or poorly printed 1-D barcodes as small as 0.8 pixels per module (ppm).

2DMax with PowerGrid technology provides reliable reading of challenging 2-D codes, including previously unreadable 2-D codes without visible perimeters, even when the codes exhibit significant damage to or complete elimination of the finder pattern, clocking pattern, and quiet zone.

The serial USB-based DataMan 150 series and Ethernet-based 260 series models deliver unprecedented performance, flexibility, and ease-of-use.

Simplify installation in tight spaces

DataMan 150/260 series models offer straight or right-angled configurations to fit into the tightest spaces. In-line and ninety degree configurations eliminate the need for equipment redesign, and complicated optical paths with mirrors.



Reduce installation time and cost of ownership

Modular lighting and optics make it easy to change DataMan 150 and 260 series reader lenses and lighting in the field. This not only reduces installation time and resources, but protects the barcode reader investment by making it easy to optimize performance for each application and accommodate future process changes.

For example, if the surface finish of the part or the background material warrants a new light wavelength to optimize image formation, just change the on-board lighting instead of buying a new barcode reader. Likewise, if the reader must be moved further away from the code, just change from a standard 6.2 mm lens to a 16 mm lens. There is also an option to have autofocus capability by installing a liquid lens for both 6.2 mm and 16 mm focal lengths.

Field exchangeable lighting and optics readily adapt to changing factory conditions and application requirements.

Auto-tune and trigger buttons make the readers easy to set up without a PC.

Easy to use tune and trigger buttons

The Tune and Trigger buttons allow for the setup of the application all without a PC or HMI. After mounting the reader, simply press the Tune button. Whether the code is label based or a DPM code, the tuning algorithm trains the code and automatically adjusts the optics and lighting to deliver an image optimized for your application.

Once the reader has been tuned, the trigger button makes it easy to confirm that the reader has been set up properly. Audible beep or visual LED feedback makes it easy to know when the code is correctly read.

Perfect for DataMan 100/200 series retrofits

The DataMan 150/260 series readers utilize the same mounting configuration and pin out as the DataMan 100/200 series barcode readers. This provides easy retrofits into existing DataMan 100/200 applications without adapter plates, or changes to mounting holes and wiring.

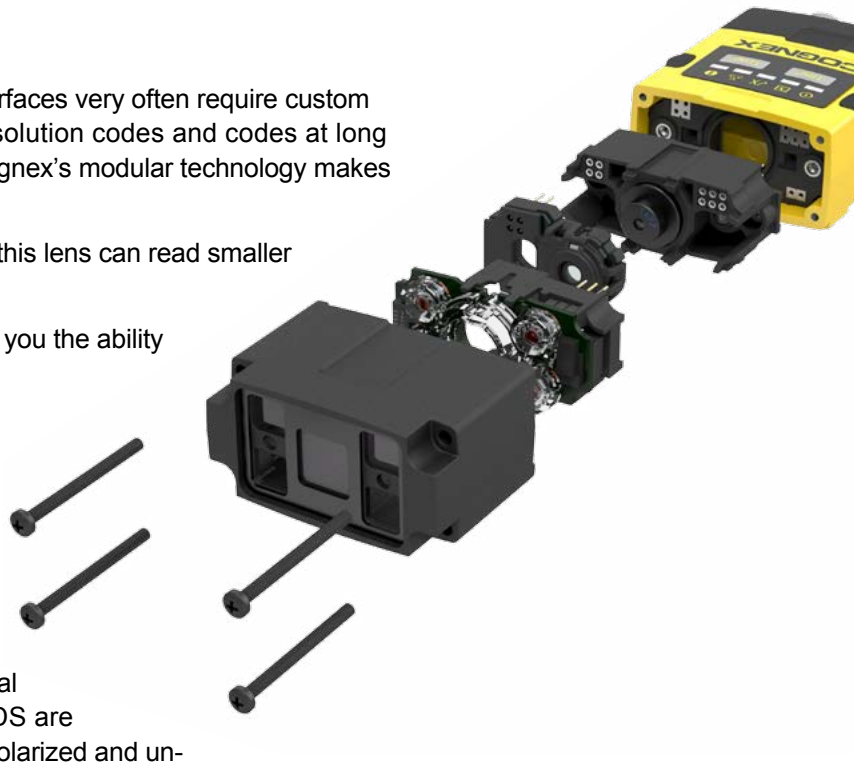
Because DataMan 150/260 and 100/200 models have equal standoff distances and fields of view, retrofits require no changes to the machine layout, hardware or application.

Compatibility for easy retrofits

DataMan 150/260 series communications, field of view, mounting holes and pin out are compatible with the DataMan 100/200 series readers.

Optimal image formation for any code

Codes on round, shiny, highly reflective, or specular surfaces very often require custom illumination to allow them to be read reliably. Low resolution codes and codes at long working distances also present reading challenges. Cognex's modular technology makes reading these codes simple.



16 mm lens—compared to the standard 6.2 mm lens, this lens can read smaller codes and codes at further working distances.

Liquid lens technology—the liquid lens module gives you the ability to perform autofocus with no moving parts.

High-powered Integrated Light (HPIL)—four high-powered red LEDs direct more light onto the code for better image formation. This feature is particularly useful for long distance code reading and high speed applications.

Half-polarized front cover—Two polarized LEDs and two unpolarized LEDs can be configured for custom lighting for any application. The polarized LEDs are ideal for shiny, specular surfaces, while the unpolarized LEDS are for long distance and high speed applications. Fully polarized and un-polarized front covers are also available, and can be easily interchanged.

By simply pressing the Tune button on the reader, the reader automatically optimizes the lighting levels, focus, and lighting scheme for best image formation.

MODELS

	2-D Barcode Reading				2-D & 1-D Barcode Reading		1-D Barcode Reading				
	Direct Part Mark (DPM)	High Speed	Slow Speed	Multiple Codes	Mixed Codes	Challenging Codes	High Speed	Slow Speed	Multiple Codes	Omnidirec-tional	Oriented
DataMan 150/152 QL 260/262 QL							■	■	■	■	■
DataMan 150/152 S 260/262 S			■	■	■	■		■	■	■	■
DataMan 150/152 Q 260/262 Q	■	■	■	■	■	■	■	■	■	■	■
DataMan 150/152 X 260/262 X	■	■	■	■	■	■	■	■	■	■	■

QL Models

Best-in-class 1-D barcode reading with 1DMax and Hotbars technology that is optimized for omnidirectional barcode reading.

S Models

For slow-moving parts or index motion where parts have well-marked 1-D and 2-D codes.

Q Models

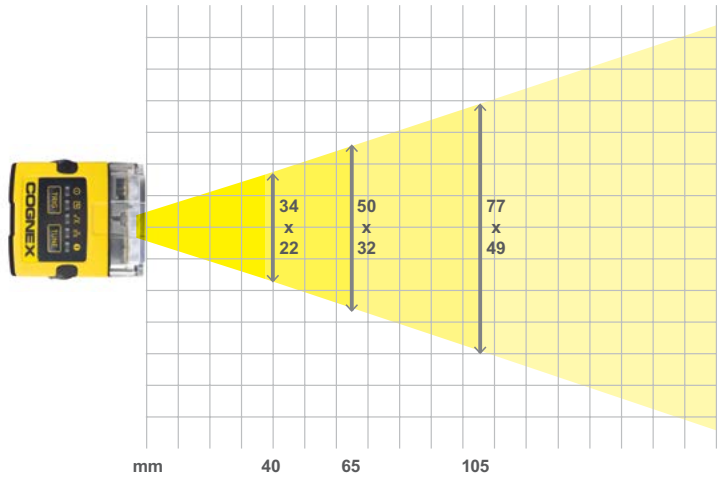
High-performance code reading of 1-D and 2-D codes on fast moving parts. Includes 1DMax and IDQuick algorithms, 2DMax available in some models.

X Models

High-performance code reading of challenging 1-D and 2-D codes, including DPM codes. Some X models also include PowerGrid technology.

Field of View and Reading Distances

DataMan 150/260 with 6.2 mm lens



Reading distances

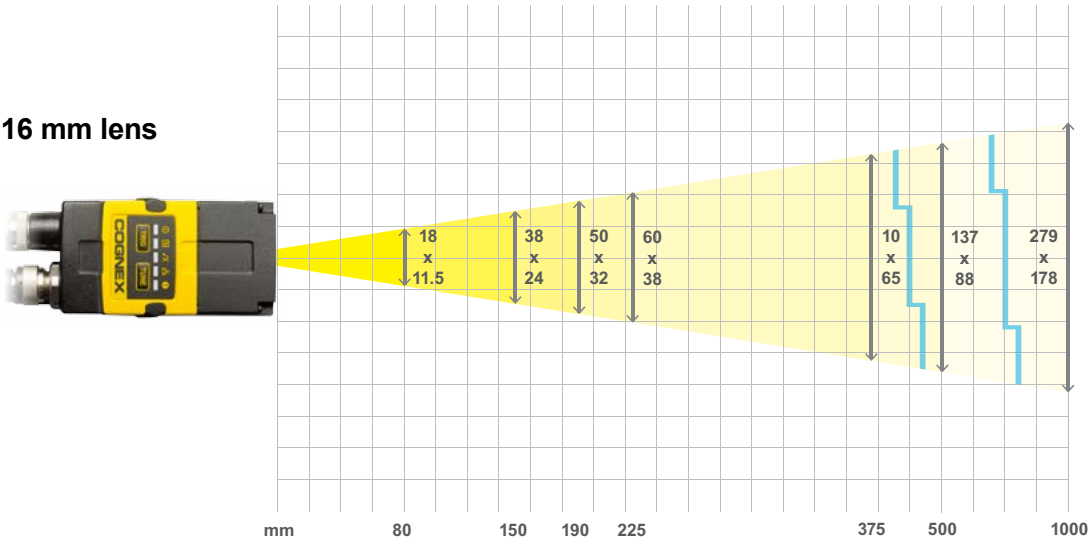
	@40	@65	@105
1D	30 mil 45–90 mm * 15 mil 45–70 mm 6 mil 28–51 mm	30 mil 45–170 mm * 15 mil 45–103 mm * 6 mil 45–82 mm	15 mil 45–170 mm * 6 mil 70–120 mm
2D	30 mil 25–95 mm 15 mil 20–70 mm 10 mil 25–60 mm 5 mil 40–50 mm	30 mil 25–160 mm 15 mil 35–120 mm 10 mil 45–100 mm	30 mil 25–265 mm 15 mil 55–200 mm 10 mil 75–160 mm

* min. Distance limited by code size

DataMan barcode reader quick setup app

This convenient web-based app allows you to remotely set up and configure your networked Ethernet-based fixed-mount barcode readers on your phone or mobile device. Available from Google Play or iTunes App Store, this app allows you to see images in real-time, adjust and share configuration settings among multiple readers, save and send images, and much more. You can even troubleshoot issues and check read rates anywhere on your factory or distribution center floor without using a PC.

DataMan 150/260 with 16 mm lens

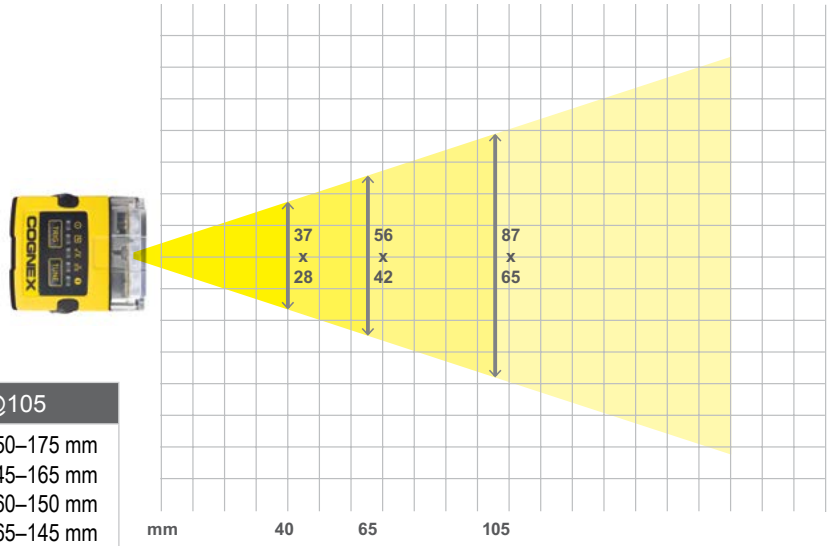


Reading distances

	@80	@150	@190	@225	@375	@500	@1000
1D	30 mil 60–100 mm 15 mil 70–90 mm 6 mil 78–82 mm	30 mil 110–190 mm 15 mil 130–165 mm 6 mil 145–155 mm	30 mil 130–245 mm 15 mil 165–215 mm 6 mil 185–200 mm	30 mil 155–290 mm 15 mil 190–260 mm 6 mil 215–235 mm	30 mil 255–490 mm 15 mil 325–430 mm 6 mil 373–377 mm	30 mil 340–650 mm 15 mil 425–575 mm	30 mil 700–1250 mm
2D	30 mil 60–100 mm 15 mil 75–85 mm 6 mil 78–82 mm	30 mil 115–185 mm 15 mil 140–160 mm 6 mil 148–152 mm	30 mil 140–235 mm 15 mil 170–210 mm 6 mil 185–195 mm	30 mil 170–275 mm 15 mil 200–250 mm 6 mil 223–227 mm	30 mil 280–470 mm 15 mil 335–415 mm	30 mil 370–625 mm 15 mil 450–515 mm	30 mil 800–1150 mm

Field of View and Reading Distances

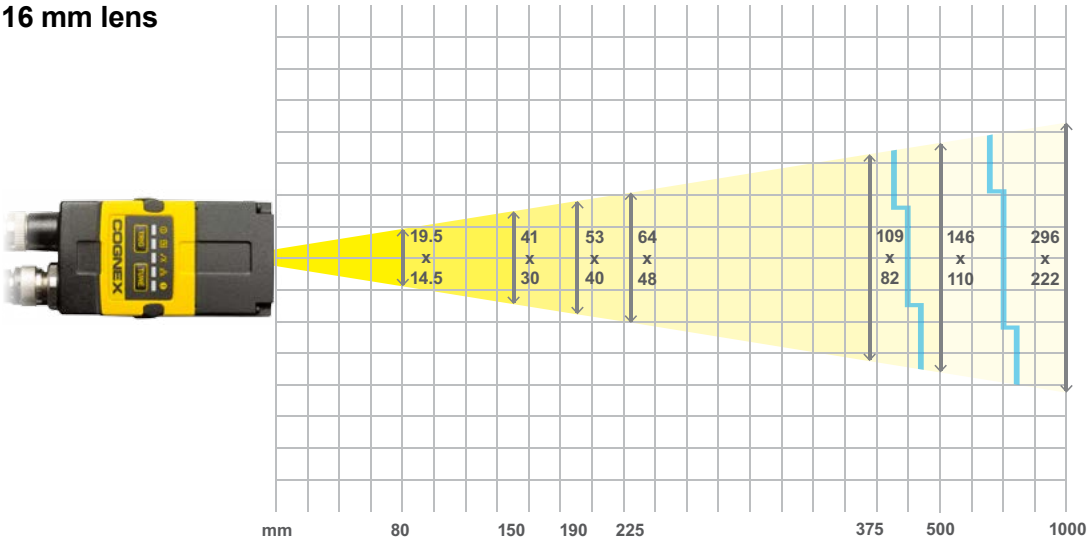
DataMan 152/262 with 6.2 mm lens



Reading distances

	@40	@65	@105
1D	30 mil 45–90 mm 15 mil 45–65 mm 12 mil 20–60 mm 10 mil 25–55 mm 8 mil 30–50 mm 6 mil 35–45 mm	30 mil 45–110 mm 15 mil 45–105 mm 12 mil 35–95 mm 10 mil 40–90 mm 8 mil 45–85 mm 6 mil 50–75 mm	30 mil 50–175 mm 15 mil 45–165 mm 12 mil 60–150 mm 10 mil 65–145 mm 8 mil 75–135 mm 6 mil 85–125 mm
2D	30 mil 25–95 mm 15 mil 25–53 mm 12 mil 28–50 mm 10 mil 30–48 mm 8 mil 32–45 mm 6 mil 35–42 mm	30 mil 50–100 mm 15 mil 45–85 mm 12 mil 50–80 mm 10 mil 55–75 mm 8 mil 58–72 mm 6 mil 60–70 mm	30 mil 50–175 mm 15 mil 75–135 mm 12 mil 80–130 mm 10 mil 85–125 mm 8 mil 90–120 mm 6 mil 95–115 mm

DataMan 152/262 with 16 mm lens



Reading distances

	@80	@150	@190	@225	@375	@500	@1000
1D	30 mil 55–105 mm 15 mil 70–90 mm 6 mil 78–85 mm	30 mil 105–195 mm 15 mil 130–170 mm 6 mil 142–158 mm	30 mil 130–250 mm 15 mil 160–218 mm 6 mil 180–198 mm	30 mil 152–295 mm 15 mil 190–260 mm 6 mil 212–235 mm	30 mil 250–490 mm 15 mil 320–435 mm 6 mil 355–395 mm	30 mil 335–660 mm 15 mil 420–580 mm 6 mil 475–525 mm	30 mil 670–1300 mm 15 mil 900–1100 mm
2D	30 mil 60–100 mm 15 mil 75–87 mm 6 mil 78–82 mm	30 mil 112–188 mm 15 mil 135–165 mm 6 mil 145–155 mm	30 mil 140–238 mm 15 mil 168–210 mm 6 mil 182–198 mm	30 mil 165–280 mm 15 mil 198–252 mm 6 mil 215–230 mm	30 mil 275–475 mm 15 mil 330–420 mm	30 mil 370–630 mm 15 mil 440–560 mm	30 mil 775–1200 mm

SPECIFICATIONS

	150 S	150 QL	150 Q	150 X	152 S	152 QL	152 Q	152 X	260 S	260 QL	260 Q	260 X	262 S	262 QL	262 Q	262 X
1-D and Stacked Codes	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Omnidirectional 1-D Codes	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2-D Codes	■		■	■	■		■	■	■		■	■	■		■	■
Algorithms	1DMax, 2DCode	1DMax, Hotbars	1DMax, 2DMax	1DMax, 2DMax, PowerGrid	1DMax, 2DCode	1DMax, Hotbars	1DMax, 2DMax	1DMax, 2DMax, PowerGrid	1DMax, 2DCode	1DMax, Hotbars	1DMax, 2DMax	1DMax, 2DMax, PowerGrid	1DMax, 2DCode	1DMax, Hotbars	1DMax, 2DMax, Hotbars	1DMax, 2DMax, PowerGrid
Image Resolution	752 x 480 Global shutter				1280 x 960 Global shutter				752 x 480 Global shutter				1280 x 960 Global shutter			
Image Sensor	1/3" CMOS				1/3" CMOS				1/3" CMOS				1/3" CMOS			
Acquisition	2 fps	60 fps			2 fps	45 fps			2 fps	60 fps			2 fps	45 fps		
Max Decode Rate	2/sec.	45/sec.			2/sec.	45/sec.			2/sec.	45/sec.			2/sec.	45/sec.		
Lens Options	6.2 mm (3 position or liquid lens, 50..250 mm), 16 mm (manual focus or liquid lens, 80 mm .. 1 m)															
Trigger and Tune Buttons	Yes. Quick Setup Intelligent Tuning															
Aimer	2 Green Aimer LEDs															
Discrete Inputs	2 opto-isolated								2 opto-isolated							
Discrete Outputs	2 opto-isolated								4 opto-isolated							
Status Outputs	5 Status LEDs and Beeper															
Lighting	Modular/Field Configurable Lighting: Four Independently Controled, High-power LEDs (Red, White, Blue, IR) Band-Pass Filters & Polarizing Filter Available															
Power	5–26 VDC, 2.5 W (USB bus power option) DB-15 pig tail cable, pin compatible to DM100								Two models with 24V +/- 10% or PoE (Power over Ethernet)							
Power Consumption	<2.5 W (USB)								<3.0 W (PoE or external power)							
Communication	RS-232 and USB Interface								RS-232 and Ethernet Interface							
Material	Aluminum															
Weight	128 g								142 g							
Dimensions	Straight: 42.5 mm x 22 mm x 55(63) mm Right-Angle: 42.5 mm x 28(36) x 49.6 mm								Straight: 42.5 mm x 22 mm x 76.1 mm Right-Angle: 42.5 mm x 48.5 mm x 49.6 mm							
Operating Temperature	Temperature (operating) 0 °C–40 °C															
Storage Temperature	Temperature (storage) -10 °C–60 °C															
Operating and Storage Humidity	Humidity < 95% non-condensing															
Protection	IP-65															
RoHS Certified	Yes															
Approvals (CE, UL, FCC)	USA FCC Part 15, Class A; Canada ICES-003; European Community EN55022:2006 +A1:2007, Class A, EN55024:1998 +A1:2001 +A2: 2003, EN60950								Australia C-TICK, AS/NZS CISPR 22 / EN 55022 for Class A Equipment; Japan J55022, Class A; KCC; Safety: IEC 60950-1:2005 (2nd Edition); Am 1:2009							
Operating System	Microsoft Windows XP, 7 and 10															

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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