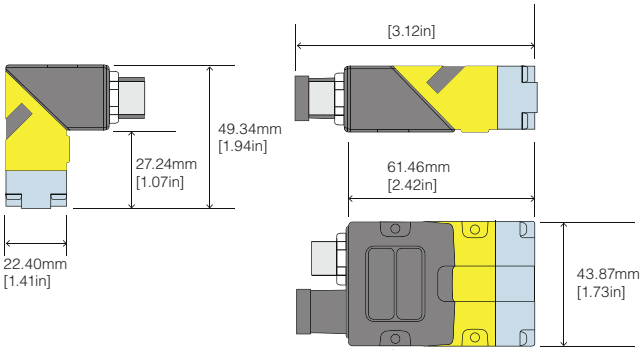
COGNEX

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 ID readers deliver unprecedented performance, flexibility and ease of use.

The serial USB-based DataMan 150 series and Ethernet-based 260 series models 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 II™ 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 patent-pending 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 II 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.

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 ID 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.

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.

Tune and Trigger Buttons

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

Field Exchangeable Illumination & Optics

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

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 ID 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.

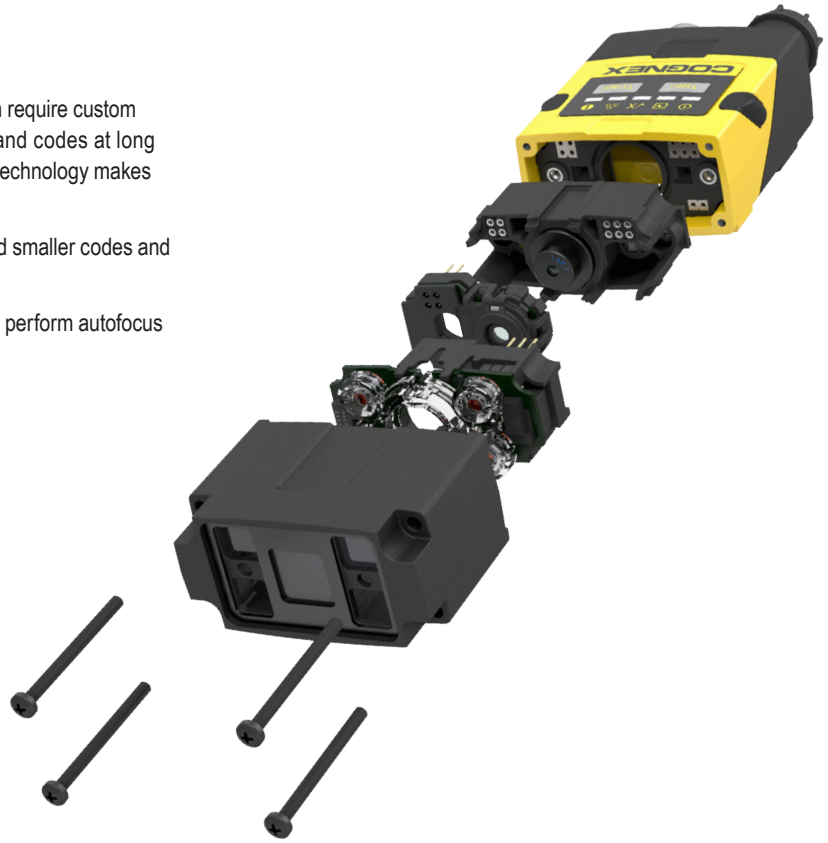
16 mm lens—compared to the standard 6.2 mm lens, this lens can read smaller codes and codes at further working distances.

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—2 polarized LEDs and 2 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	Omnidirectional	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™, which is optimized for omnidirectional barcode reading. QL models are field upgradeable to the Q model.

S Models

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

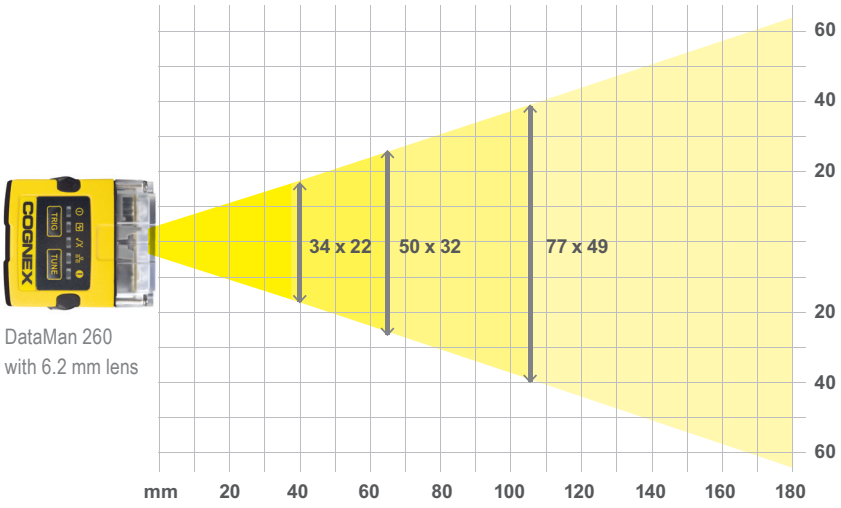
Q Models

High-performance code reading of 1-D and 2-D codes on fast-moving parts. Includes 1DMax and ID Quick™ technologies.

X Models

High-performance code reading for applications that require reading challenging 1-D and 2-D codes, including Direct Part Mark (DPM) codes. X Models can also include patent pending PowerGrid™ technology to read codes without visible perimeters.

Field of View and Reading Distances



DataMan 260
with 6.2 mm lens

Reading distances @ 40

1D	30 mil	45–90 mm *
	15 mil	45–70 mm
	6 mil	28–51 mm
2D	30 mil	25–95 mm
	15 mil	20–70 mm
	10 mil	25–60 mm
	5 mil	40–50 mm

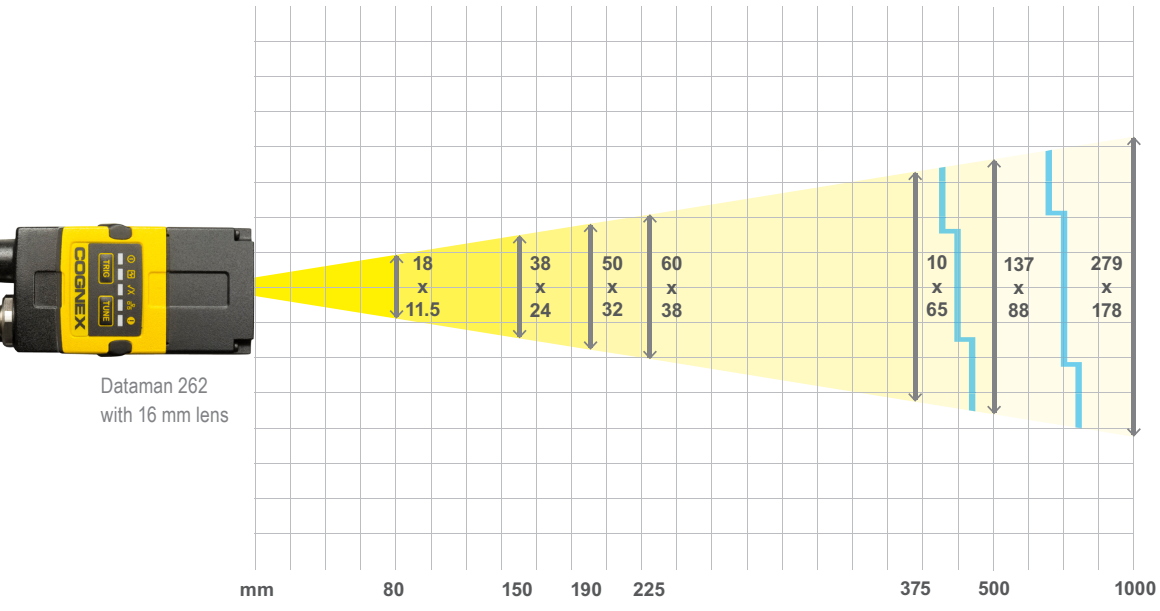
Reading distances @ 65

1D	30 mil	45–170 mm *
	15 mil	45–103 mm *
	6 mil	45–82 mm
2D	30 mil	25–160 mm
	15 mil	35–120 mm
	10 mil	45–100 mm

Reading distances @ 105

1D	30 mil	45–225 mm *
	15 mil	45–170mm *
	6 mil	70–120 mm
2D	30 mil	25–265 mm
	15 mil	55–200mm
	10 mil	75–160 mm

* min. Distance limited by code size



Dataman 262
with 16 mm lens

Reading distances @ 80

1D	4 mil	100–300 mm
	3 mil	80–190 mm
	2 mil	80–150 mm
2D	8 mil	100–375 mm
	4 mil	80–190 mm
	3 mil	80–150 mm

Reading distances @ 375

1D	20 mil	275–600 mm
	15 mil	300–550 mm
	6 mil	375–500 mm
2D	20 mil	275–600 mm
	15 mil	300–550 mm
	10 mil	375–500 mm

Reading distances @ 1000

1D	45 mil	500–1000 mm
	30 mil	600–1000 mm
	15 mil	750–1000 mm
2D	45 mil	500–1000 mm
	30 mil	600–1000 mm
	25 mil	750–1000 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 IDQuick	1DMax	1DMax IDQuick	1DMax 2DMax*	1DMax IDQuick	1DMax	1DMax IDQuick	1DMax 2DMax*	1DMax IDQuick	1DMax	1DMax IDQuick	1DMax 2DMax*	1DMax IDQuick	1DMax	IDQuick	1DMax 2DMax*
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	60 fps				45 fps				60 fps				45 fps			
Max Decode Rate	2/ Second	45 Decodes/Second			2/ Second	45 Decodes/Second			2/ Second	45 Decodes/Second			2/ Second	45 Decodes/Second		
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, 2.5W (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 - 43.1 mm x 22.4mm x 55(63) mm Right-Angle - 43.1 mm x 28.8(35.8) x 49.3 mm								Straight - 43.1 mm x 22.4 mm x 64 mm Right-Angle - 43.1 x 35.8 mm x 49.3 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 Equipmen t Japan J55022, Class A KCC Safety: IEC 60950-1:2005 (2nd Edition); Am 1:2009							
Operating System	Windows 7 (32/64-bit) or Windows XP (32/64-bit)															

*PowerGrid Available

COGNEX Companies around the world rely on Cognex vision and ID to optimize quality, drive down costs and control traceability.

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