Cognex® is the world’s most trusted vision company, with over 1,000,000 systems installed in facilities around the world, and over thirty years of experience focused solely on machine vision and image-based industrial ID technology. Cognex products are used by many of the world’s top manufacturers, suppliers and machine builders to ensure that the products that are being made meet the stringent quality requirements for each industry.

Cognex vision technology helps companies improve their manufacturing quality and performance by eliminating defects, verifying assembly and tracking and capturing information at every stage of the production process. Smarter automation using Cognex vision and ID systems means fewer production errors, which equates to lower manufacturing costs and higher customer satisfaction. Cognex offers the widest range of solutions to meet every application.
Cognex Barcode Readers: Any Code, Every Time

You need reliable barcode readers and, simply put, we read more codes and deliver the highest read rates—that’s why people choose Cognex. When you can put a stop to no-reads by deploying the DataMan® family of image-based barcode readers, you can achieve your Automatic Identification (Auto ID) goals:

- Increase efficiencies—aid inventory management, quantify process bottlenecks and improvements, handle supplier printing variations, and reduce WIP (work in process)
- Achieve higher throughput—less manual resorting, faster read times, and reduced downtime
- Reduce costs—reduce scrap from rework of rejects
- Maintain customer satisfaction—avoid incorrect deliveries and recalls
- Control traceability—product quality information, improved asset tracking, allergen management, and part authentication deters counterfeiting

Regardless of the barcode symbology, size, quality, printing method or surface the codes are marked on, we can read it with the highest read rates!

- Print variations—(color, poor print, scratched, or washed out barcode print)
- Marking types—(ink jet, dot peen, laser etch, or direct part marking type)
- Surface types—(glass, metal, cardboard, ceramic, or plastic barcode surfaces)

Cognex has the product versatility and most advanced technology to help you meet your goals whether your application uses 1-D linear barcodes or higher density 2-D matrix codes:

1-D Low Speed
Slow moving or stationary 1-D barcodes printed on parts or packaging.

2-D Printed
Codes on labels and packaging. Moving or stationary, these can include a mix of 1-D and 2-D codes.

1-D High Speed
Fast moving 1-D barcodes printed on parts or packaging.

2-D Direct Part Mark
Dot peen, etched or laser marked 2-D Data Matrix codes marked directly on parts.

“Thanks to the comprehensive nature of the Cognex solution and to their partner network, we have a high performance, cost-effective solution at our disposal.”

Stephan Laval, Manager
Production Methods Borg Warner

Call North America Cognex Sales: 844-BARCODE (844-227-2633)
COGNEX DELIVERS THE HIGHEST READ RATES

Powerful Decoding Software Algorithms
DataMan barcode readers are optimized with patented algorithms for the highest read rates (99.9%) in the most challenging DPM (Direct Part Mark) and label-based identification applications.

Laser scanners cannot provide the high read rates you require for today’s manufacturing environments. Other advantages over laser scanner technology include:

- Omnidirectional code reading
- Multiple code reading
- Extreme perspective code reading
- Damaged, poorly printed or barcodes with quiet zone violations

The #1 Benchmark for Ranking ID Reader Performance
Read rate is the number of barcodes read divided by the number attempted. It’s usually expressed as a percentage and the closer to 100%, the better.

- Read rate is a measure of process reliability and robustness
- No-reads can cost money, time and effort to remedy
- The higher the read rate, the higher the throughput

For 1-D Linear Barcodes
1DMax+, the best-in-class 1-D barcode algorithm reads the most difficult-to-read barcodes. When paired with Hotbars® technology, 1DMax+ reads codes even faster.

For 2-D Matrix Codes
2DMax®, a breakthrough in 2-D decoding software, handles a wide range of degradations to the appearance of 2-D DPM codes, no matter what the cause or surface.
Supported Symbologies

1-D: UPC/EAN/JAN, Codabar, Interleaved 2 of 5, Code 39, Code 128, Code 93, Pharmacode, GS1 DataBar
Postal Codes: POSTNET, PLANET Code, Australia 4-State, Japan 4-State, UPU 4-State, Intelligent Mail Barcode
2-D: Data Matrix, MaxiCode, Aztec, QR Code and MicroQR Code. Optional: VeriCode®
Composite: GS1 (CC-A, CC-B), PDF417, MicroPDF

Imaging Challenges:

- Scratched
- Small cells
- Badly printed
- Extreme perspective
- Poorly marked
- Specularity
- Warped
- Plastic wrapped
Advanced Algorithms and Patented Technologies

HotBars® Technology
In a pioneering new way of reading 1-D linear barcodes, Cognex has developed Hotbars image analysis technology. Hotbars combines superior signal fidelity with lightning speed, giving the next generation of Cognex DataMan readers unprecedented performance.

Flexible Optics
Each DataMan fixed-mount reader provides a variety of lensing options for maximum depth-of-field flexibility. The DataMan 8600 series of handheld readers offers integrated variable focus liquid lens technology as standard—a worldwide first!

• 3 different focal positions for optimum depth of field coverage
• S-Mount (M12) Lens: options for increased zoom range for high speed motion
• C and CS-Mount Lens: Field of View (FOV) flexibility or one reader to adjust to any distance
• Liquid Lens Variable Focus: a non-mechanical lens for greater focal range when part positions and sizes vary

Xpand™
With patent pending Xpand technology, the field-of-view for a single DataMan 300 or DataMan 503 can be increased by more than 50% enabling applications to be solved using fewer readers, which simplifies project installation and setup time and reduces overall cost.

Flexible Illumination
Modular lighting, custom accessories and integrated illumination technology provide optimal lighting for all mark types and surfaces.

• Dark field illumination for dot peen and laser DPM
• Diffuse off-axis illumination for curved surfaces and highly reflective surfaces
• Quadrant control for machined surfaces
• Diffuse bright field illumination for labels and marks with strong contrast
• Handheld UltraLight® technology for superior image formation on the widest variety of surfaces, and using the widest range of marking methods

2DMax®+
For 2-D codes, Cognex’s 2DMax+ technology is best-in-class for decoding 2-D matrix symbologies as adopted in many industries for direct part marking (DPM) as well as for high speed printed applications.
See What the Reader Sees
DataMan barcode readers allow you to see what the barcode reader sees. You can review images of the barcodes being read live or setup the reader to transfer no read images via FTP for later review. This visualization feature enables you to diagnose no reads and rejects for process improvement.

Common Setup Tool with Intelligent Tuning
Powerful software simplifies initial reader setup. DataMan software is a common platform across all models. The Setup Tool simplifies deployment by putting the most common controls in a single page, allowing the user to see how different options affect the reader in real time.

Industrial Ethernet and Modular Communications for Maximum Flexibility
The DataMan series of industrial barcode readers are the first handheld readers to offer Ethernet communication with Cognex Connect™ capability for easy integration into your factory network for real-time product and part traceability. Another first for the DataMan series of handheld readers is the modularity of the communication. The DataMan 8050 and 8600 series field interchangeable communication modules enable the additional benefit of standardization on one reader platform in corded or cordless models.

Cognex Connect provides the most flexibility for communicating via Industrial Protocols such as EtherNet/IP, PROFINET, SLMP (Seamless Message Protocol), Modbus TCP and more in addition to traditional support for USB and RS-232.

EASY DEPLOYMENT AND OPERATION

This unique utility provides a unified network view of all Cognex vision, ID and visualization systems, powerful yet simple maintenance tools, the ability to backup/restore or clone systems, upgrade firmware and much more. Designed for control and maintenance engineers, Cognex Explorer™ is very intuitive and requires no training to use.
DataMan 100 Series
The DataMan 100 series is a standard fixed-mount reader featuring:
- Three-position adjustable lens and C-Mount lens options
- Integrated lighting and LED aimer
- Train and trigger button for ease of setup
- USB and RS-232 communications

DataMan 300 Series
The DataMan 300 series is the most versatile Cognex fixed-mount barcode reader offering multiple integrated lighting and lens options, an intelligent auto-tune feature, and multiple models and resolutions to select from.

DataMan 503 Series
The DataMan 503 is the highest performing Cognex fixed-mount barcode reader for applications requiring high speed and large depth-of-field or field-of-view.

DataMan 50 Series
The DataMan 50 series is the smallest Cognex fixed-mount reader measuring just 23.5mm x 27mm x 43.5mm. DataMan 50 features:
- IP65-rated housing
- Three-position adjustable lens
- Integrated lighting and LED aimer
- USB and RS-232 communications

DataMan 100 Series
The DataMan 100 series is a standard fixed-mount reader featuring:
- Three-position adjustable lens and C-Mount lens options
- Integrated lighting and LED aimer
- Train and trigger button for ease of setup
- USB and RS-232 communications
DataMan 60 Series
The DataMan 60 series is a compact fixed-mount reader that features:

- Integrated lighting and LED aimer
- Three-position adjustable lens
- Ethernet, USB and RS-232 communications

DataMan 200 Series
The DataMan 200 series is a flexible fixed-mount reader featuring:

- IP65-rated housing
- Integrated lighting and laser aimer
- Optional variable focus liquid lens technology so there is no need to manually adjust the focus
- Ethernet and RS-232 connectivity

### Barcode Reading Features

<table>
<thead>
<tr>
<th></th>
<th>2-D Barcode Reading</th>
<th>2-D &amp; 1-D Barcode Reading</th>
<th>1-D Barcode Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct Part Mark (DPM)</td>
<td>High Speed</td>
<td>Slow Speed</td>
</tr>
<tr>
<td>DataMan 300/302/303 X</td>
<td>=</td>
<td>=</td>
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<tr>
<td>DataMan 300/302/303 L</td>
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<tr>
<td>DataMan 503 X</td>
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<td>=</td>
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<tr>
<td>DataMan 503 QL</td>
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<td>=</td>
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<tr>
<td>DataMan 50/60 L</td>
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<tr>
<td>DataMan 50/60 S</td>
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<td>DataMan 50/60 QL</td>
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<tr>
<td>DataMan 100/200 X</td>
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<td>=</td>
<td>=</td>
</tr>
<tr>
<td>DataMan 100/200 Q</td>
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<td>=</td>
<td>=</td>
</tr>
<tr>
<td>DataMan 100/200 QL</td>
<td>=</td>
<td>=</td>
<td>=</td>
</tr>
</tbody>
</table>
Cognex DataMan industrial handheld barcode readers provide unmatched performance for Direct Part Marks (DPM) and label-based applications, where integration, ruggedness and the ability to read challenging marks quickly are essential to your success.

DataMan industrial handheld readers are available with field interchangeable communication modules, both corded and wireless. One reader can be configured to meet specific communication needs.

Two Model Options

**DataMan 8050X** is designed to decode 2-D DPM codes and all 1-D and 2-D label-based codes.

**DataMan 8050** is designed to decode 1-D and 2-D label-based codes with the fastest speed.

**DataMan 8050 Series**

DataMan 8050 series of barcode readers are equipped with Cognex’s world-class barcode reading algorithms and designed to withstand harsh factory floor conditions. The best-in-class algorithms decode 2-D DPM codes and even difficult to read label-based 1-D and 2-D codes quickly and easily. And, the flexible design ensures the DataMan 8050 series of readers are ready to meet ever changing communication needs.

- **High speed barcode reader**: Reads 1-D and 2-D codes with incredible speed every time even if the code is damaged, smudged, scuffed or poorly marked. And, at an economical price point.

- **Easy to use modular design**: Field interchangeable communication modules allow one reader to be configured to meet specific communication needs to support corded RS-232, USB, Ethernet and Bluetooth communication requirements.

- **Rugged industrial design**: Constructed to handle tough environments, industrial features include: lanyard hook for easy retractor mounting, bright centralized aimer for clear targeting, loud beeper and indicator lights provide operator feedback.

**DataMan 750 Series**

The DataMan 750 series is compact with an ergonomic design, includes adjustable optics and easily reads well-marked 1-D and 2-D codes on a variety of surfaces. The DataMan 750 series is ESD safe, has a built-in laser aimer for quick alignment and supports RS-232, USB and PS/2 communications.
DataMan 8600 Series

DataMan 8600 series of image-based ID readers provide the world’s most advanced barcode reading technology for decoding DPM, 2-D and 1-D codes of varying sizes, quality and marking or printing methods. These handheld DPM barcode readers are designed for the harshest factory floor environments. Equipped with an advanced imaging system and patented flexible lighting technology, the DataMan 8600 series of barcode readers decode the most challenging Direct Part Mark (DPM) barcodes on the widest variety of surfaces. And, the modular communication design supports Ethernet with Industrial Protocols as well as cabled and wireless modules to ensure the DataMan 8600 series of readers are ready to meet extensive application communication requirements.

- **Industry-leading read performance:** Combines Cognex’s two most powerful patented algorithms to decode virtually every type of code, every time, with unsurpassed read rates.

- **Advanced image formation:** Integrated liquid lens technology maximizes application and depth of field flexibility. Patented UltraLight® technology provides superior image formation on any mark type and surface. UltraLight illumination provides dark field, bright field and diffuse lighting all in one electronically controlled light.

- **Easy to use modular design:** Field interchangeable communication modules allow one reader to be configured to meet specific communication needs to support cabled RS-232, USB, Ethernet and Bluetooth communication requirements.

The DataMan 8050 series and 8600 series wireless readers provide a long working range—up to 30m—with a large memory capacity for reading codes when offline or out of range. The base station is compatible with industry standard Ethernet, USB and RS-232 cables.

<table>
<thead>
<tr>
<th></th>
<th>Challenging 2-D DPM Codes</th>
<th>2-D DPM Codes</th>
<th>Challenging 1-D/2-D Codes</th>
<th>Well Printed 1-D/2-D Codes</th>
<th>Wireless Bluetooth</th>
<th>ESD</th>
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<tbody>
<tr>
<td>DataMan 8600</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>DataMan 8050X</td>
<td></td>
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<tr>
<td>DataMan 8050</td>
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<td>DataMan 750</td>
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<td>DataMan 750S</td>
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<tr>
<td>Feature</td>
<td>750 S</td>
<td>750</td>
<td>8050</td>
<td>8050X</td>
<td>8600</td>
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</tr>
<tr>
<td>---------------------------------------------</td>
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<td>--------------------------</td>
<td>-----------------------</td>
<td>------------------------</td>
<td>------------------------</td>
<td></td>
</tr>
<tr>
<td>1-D and Stacked Codes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-D Codes</td>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decoding Algorithm</td>
<td>IDQuick/1DMax</td>
<td>2DMax/1DMax</td>
<td>IDQuick/1DMax+Hotbars</td>
<td>2DMax/1DMax+Hotbars</td>
<td>2DMax+/1DMax+Hotbars</td>
<td></td>
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<tr>
<td>Image Resolution</td>
<td>752 x 480 global shutter</td>
<td>752 x 480 global shutter</td>
<td>1280 x 1024 global shutter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lens Type</td>
<td>3-position (40/65/105mm) Adjustable</td>
<td>Fixed focus</td>
<td>Variable focus liquid lens (0 to over 500mm depending on code element size)</td>
<td></td>
<td></td>
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<tr>
<td>Trigger</td>
<td></td>
<td>Handle trigger, presentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Aimer</td>
<td>Laser (CDRH/IEC Class II)</td>
<td>Centralized LED aimer</td>
<td>Laser Aimer, Class 1 and Class 2</td>
<td></td>
<td></td>
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<tr>
<td>Status Outputs</td>
<td>LED, beeper and vibration</td>
<td>LED, beeper</td>
<td>LED, beeper and vibration</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Lighting</td>
<td>Integrated bright field</td>
<td>Integrated LED with near/far optics</td>
<td>UltraLight integrated bright field, dark field, diffuse illumination</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Wireless Option</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>5VDC</td>
<td>Serial/USB: 5V – 6V DC, 2.5W power supply Ethernet: PoE Class 2 power supply Bluetooth: 3.7V, 3100 mAh Li-ion battery Intelligent Base Station: 24V, 13W maximum LPS or NEC Class 2 power supply</td>
<td>Serial/USB: 5V – 6V DC, 5.0W maximum LPS or NEC Class 2 power supply Ethernet: PoE Class 2 power supply Bluetooth: 3.7V, 3100 mAh Li-ion battery Intelligent Base Station: 24V, 13W maximum LPS or NEC Class 2 power supply</td>
<td></td>
<td></td>
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<tr>
<td>Material</td>
<td>Polycarbonate</td>
<td>Polycarbonate housing with overmold</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Weight</td>
<td>110g</td>
<td>279g</td>
<td>326g</td>
<td></td>
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<tr>
<td>Dimensions</td>
<td>151mm x 54mm x 49mm</td>
<td>210mm x 155mm x 85mm</td>
<td>220mm x 155mm x 85mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0°C to 50°C (32°F to 122°F)</td>
<td>0°C to 40°C (32°F to 104°F)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-10°C to 60°C (14°F to 140°F)</td>
<td>-40°C to 60°C (-40°F to 140°F)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating and Storage Humidity</td>
<td>0% to 95%, non-condensing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DoD UID Data Validation</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>RoHS Certified</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Approvals (CE, UL, FCC)</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating System</td>
<td>Microsoft® Windows® XP and Windows 7 and Windows 8 32 bit and 64 bit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Fixed-Mount Reader Specifications

**300 L**
- 1-D and Stacked Codes: Yes
- Algorithm: 1DMax+, Hotbars, IDQuick, 2DMax+
- Image Resolution: 800 x 600 global shutter
- Image Sensor: 1/1.8" CMOS
- Acquisition: Max 60 fps
- Decode Rate: Max 45/sec
- Lens Options: C-Mount, S-Mount, variable focus liquid lens
- Trigger: Manual; External: single, burst and continuous; Internal: self and presentation
- Aimer: Dual laser (CDRH/IEC Class II)
- Discrete Inputs: 2 opto-isolated
- Discrete Outputs: 4 opto-isolated
- Status Outputs: Beeper, 5 multifunctional LEDs, 10x LED bar array
- Lighting: Integrated segment-controlled bright field, external
- Communications: Ethernet and RS-232
- Power: 24VDC (±10%)
- Power Consumption: 5W (internal lights), 18W (internal and external lights)
- Material: Aluminum
- Weight: 165g
- Dimensions: 73mm x 54mm x 42mm, 92mm x 54mm x 42mm (w/cover and lights)
- Operating Temperature: 0°C to 45°C (32°F to 113°F)
- Storage Temperature: -10°C to 60°C
- Operating and Storage Humidity: 0% to 95%, non-condensing
- Protection: IP65
- RoHS Certified: Yes
- Approvals (CE, UL, FCC): Yes
- Operating System: Microsoft® Windows® XP and Windows 7 32 and 64 bit

**300 X**
- 1-D and Stacked Codes: Yes
- Algorithm: 1DMax+, Hotbars, IDQuick, 2DMax+
- Image Resolution: 1280 x 1024 global shutter
- Image Sensor: 2/3" CMOS
- Acquisition: Max 40 fps
- Decode Rate: Max 30/sec
- Lens Options: C-Mount
- Trigger: Manual; External: single, burst and continuous; Internal: self and presentation
- Aimer: None
- Discrete Inputs: None
- Discrete Outputs: 4 opto-isolated
- Status Outputs: None
- Lighting: None
- Communications: None
- Power: None
- Power Consumption: None
- Material: None
- Weight: None
- Dimensions: None
- Operating Temperature: None
- Storage Temperature: None
- Operating and Storage Humidity: None
- Protection: None
- RoHS Certified: None
- Approvals (CE, UL, FCC): None
- Operating System: None

**302 L**
- 1-D and Stacked Codes: Yes
- Algorithm: 1DMax+, Hotbars, IDQuick, 2DMax+
- Image Resolution: 1600 x 1200 global shutter
- Image Sensor: None
- Acquisition: None
- Decode Rate: None
- Lens Options: None
- Trigger: None
- Aimer: None
- Discrete Inputs: None
- Discrete Outputs: None
- Status Outputs: None
- Lighting: None
- Communications: None
- Power: None
- Power Consumption: None
- Material: None
- Weight: None
- Dimensions: None
- Operating Temperature: None
- Storage Temperature: None
- Operating and Storage Humidity: None
- Protection: None
- RoHS Certified: None
- Approvals (CE, UL, FCC): None
- Operating System: None

**302 X**
- 1-D and Stacked Codes: Yes
- Algorithm: 1DMax+, Hotbars, IDQuick, 2DMax+
- Image Resolution: 2048 x 1088 global shutter
- Image Sensor: None
- Acquisition: None
- Decode Rate: None
- Lens Options: None
- Trigger: None
- Aimer: None
- Discrete Inputs: None
- Discrete Outputs: None
- Status Outputs: None
- Lighting: None
- Communications: None
- Power: None
- Power Consumption: None
- Material: None
- Weight: None
- Dimensions: None
- Operating Temperature: None
- Storage Temperature: None
- Operating and Storage Humidity: None
- Protection: None
- RoHS Certified: None
- Approvals (CE, UL, FCC): None
- Operating System: None

**303 L**
- 1-D and Stacked Codes: No
- Algorithm: None
- Image Resolution: None
- Image Sensor: None
- Acquisition: None
- Decode Rate: None
- Lens Options: None
- Trigger: None
- Aimer: None
- Discrete Inputs: None
- Discrete Outputs: None
- Status Outputs: None
- Lighting: None
- Communications: None
- Power: None
- Power Consumption: None
- Material: None
- Weight: None
- Dimensions: None
- Operating Temperature: None
- Storage Temperature: None
- Operating and Storage Humidity: None
- Protection: None
- RoHS Certified: None
- Approvals (CE, UL, FCC): None
- Operating System: None

**303 X**
- 1-D and Stacked Codes: No
- Algorithm: None
- Image Resolution: None
- Image Sensor: None
- Acquisition: None
- Decode Rate: None
- Lens Options: None
- Trigger: None
- Aimer: None
- Discrete Inputs: None
- Discrete Outputs: None
- Status Outputs: None
- Lighting: None
- Communications: None
- Power: None
- Power Consumption: None
- Material: None
- Weight: None
- Dimensions: None
- Operating Temperature: None
- Storage Temperature: None
- Operating and Storage Humidity: None
- Protection: None
- RoHS Certified: None
- Approvals (CE, UL, FCC): None
- Operating System: None

**503 QL**
- 1-D and Stacked Codes: No
- Algorithm: None
- Image Resolution: None
- Image Sensor: None
- Acquisition: None
- Decode Rate: None
- Lens Options: None
- Trigger: None
- Aimer: None
- Discrete Inputs: None
- Discrete Outputs: None
- Status Outputs: None
- Lighting: None
- Communications: None
- Power: None
- Power Consumption: None
- Material: None
- Weight: None
- Dimensions: None
- Operating Temperature: None
- Storage Temperature: None
- Operating and Storage Humidity: None
- Protection: None
- RoHS Certified: Yes
- Approvals (CE, UL, FCC): None
- Operating System: None

**503 X**
- 1-D and Stacked Codes: No
- Algorithm: None
- Image Resolution: None
- Image Sensor: None
- Acquisition: None
- Decode Rate: None
- Lens Options: None
- Trigger: None
- Aimer: None
- Discrete Inputs: None
- Discrete Outputs: None
- Status Outputs: None
- Lighting: None
- Communications: None
- Power: None
- Power Consumption: None
- Material: None
- Weight: None
- Dimensions: None
- Operating Temperature: None
- Storage Temperature: None
- Operating and Storage Humidity: None
- Protection: None
- RoHS Certified: Yes
- Approvals (CE, UL, FCC): None
- Operating System: None

**L Models**
- 1DMax+ algorithm with Hotbars technology for reading the most challenging, high speed 1-D barcodes presented in fixed position, either horizontally or vertically.

**QL Models**
- Best-in-class 1-D barcode reading supported by 1DMax+ with Hotbars technology, which is optimized for ultra fast omnidirectional barcode reading.

**S Models**
- For slow-moving parts or index motion where parts have well-marked 1-D/2-D codes.

**X Models**
- In addition to 1DMax+ with Hotbars technology, X models also provide the highest-performance for applications that require reading 2-D codes.
# Fixed-Mount Reader Specifications

<table>
<thead>
<tr>
<th></th>
<th>100 QL</th>
<th>100 Q</th>
<th>100 X</th>
<th>200 QL</th>
<th>200 Q</th>
<th>200 X</th>
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<tbody>
<tr>
<td>1-D and Stacked Codes</td>
<td>Yes</td>
<td></td>
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<tr>
<td>2-D Codes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Decoding Algorithm</td>
<td>1DMax</td>
<td>1DMax, IDQuick</td>
<td>1DMax, IDQuick, 2DMax+</td>
<td>1DMax</td>
<td>1DMax, IDQuick</td>
<td>1DMax, IDQuick, 2DMax+</td>
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<tr>
<td>Image Resolution</td>
<td>752 x 480 global shutter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquisition</td>
<td>Max 60 fps</td>
<td></td>
<td></td>
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<tr>
<td>Decode Rate</td>
<td>Max 45/sec</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Lens Options</td>
<td>3-position (40/65/105mm) adjustable, large aperture, SHD (super high density), C-Mount</td>
<td>3-position (40/65/105mm) adjustable, variable focus liquid lens, large aperture, C-Mount</td>
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<td>Trigger</td>
<td>Manual; External: single, burst and continuous; Internal: self and presentation</td>
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<tr>
<td>Aimer</td>
<td>LED</td>
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</tr>
<tr>
<td>Discrete Inputs</td>
<td>2 opto-isolated</td>
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<tr>
<td>Discrete Outputs</td>
<td>2 opto-isolated</td>
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<tr>
<td>Status Outputs</td>
<td>Beeper and 1 multi-functional LEDs</td>
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<tr>
<td>Lighting</td>
<td>Integrated bright field</td>
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<td></td>
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<tr>
<td>Communications</td>
<td>RS-232 and USB</td>
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<td>Ethernet and RS-232</td>
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<tr>
<td>Power</td>
<td>5VDC to 24VDC</td>
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<td></td>
<td>36VDC to 57VDC (PoE)</td>
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<td>55mm x 42mm x 22mm</td>
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<td>Operating Temperature</td>
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<tr>
<td>Storage Temperature</td>
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<td>Operating and Storage Humidity</td>
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<td>IP65</td>
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<td>DoD UID Data Validation</td>
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<td>RoHS Certified</td>
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<td>Approvals (CE, UL, FCC)</td>
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<tr>
<td>Operating System</td>
<td>Microsoft® Windows® XP and Windows 7 32 and 64 bit</td>
<td></td>
<td></td>
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</tbody>
</table>

## QL Models
Best-in-class 1-D barcode reading with 1DMax, which is optimized for omnidirectional barcode reading. QL models are field upgradable to the Q model.

## Q Models
High-performance code reading of 1-D/2-D codes on fast-moving parts. Includes 1DMax and IDQuick technologies.

## X Models
Highest-performance code reading for applications that require reading the most challenging DPM codes or 1-D/2-D codes.
**Fixed-Mount Reader Specifications**

<table>
<thead>
<tr>
<th></th>
<th>50 L</th>
<th>50 QL</th>
<th>50 S</th>
<th>60 L</th>
<th>60 QL</th>
<th>60 S</th>
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</thead>
<tbody>
<tr>
<td>1-D and Stacked Codes</td>
<td>Yes, oriented</td>
<td>Yes, omnidirectional</td>
<td>Yes</td>
<td>Yes, oriented</td>
<td>Yes, omnidirectional</td>
<td>Yes</td>
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<td>Omnidirectional 1-D Codes</td>
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<td>No</td>
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<tr>
<td>Postal Codes</td>
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<td></td>
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<tr>
<td>2-D Codes</td>
<td>No</td>
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<td></td>
<td></td>
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<tr>
<td>Algorithm</td>
<td>1DMax+, Hotbars</td>
<td>1DMax+, Hotbars, IDQuick</td>
<td>1DMax+, Hotbars</td>
<td>1DMax+, Hotbars, IDQuick</td>
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<tr>
<td>Image Resolution</td>
<td>752 x 480 global shutter</td>
<td></td>
<td></td>
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<tr>
<td>Image Sensor</td>
<td>1/3&quot; CMOS</td>
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<tr>
<td>Acquisition</td>
<td>Max 60 fps</td>
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</tr>
<tr>
<td>Decode Rate</td>
<td>Max 45/sec</td>
<td>Max 5/sec</td>
<td>Max 45/sec</td>
<td>Max 5/sec</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aimer</td>
<td>LED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrete Inputs</td>
<td>2, non-isolated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrete Outputs</td>
<td>3, non-isolated</td>
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<td></td>
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<tr>
<td>Status Outputs</td>
<td>3 multifunctional LEDs, (external control box with beeper and two buttons available)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Lighting</td>
<td>Integrated bright field, external</td>
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</tr>
<tr>
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<td>USB and RS-232</td>
<td></td>
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<td>Ethernet, USB and RS-232</td>
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<td>Power</td>
<td>5VDC to 24VDC or USB Bus powered</td>
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<td>5VDC to 24VDC</td>
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<td>Dimensions</td>
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<td>55mm x 44.5mm x 23.5mm</td>
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<tr>
<td>Operating Temperature</td>
<td>0°C to 40°C (32°F to 104°F)</td>
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For slow-moving parts or index motion where parts have well-marked 1-D/2-D codes.

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1DMax+ algorithm with Hotbars technology for reading the most challenging, high speed 1-D barcodes presented in fixed position, either horizontally or vertically.

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Best-in-class 1-D barcode reading supported by 1DMax+ with Hotbars technology, which is optimized for ultra fast omnidirectional barcode reading.

**X Models**
In addition to 1DMax+ with Hotbars technology, X models also provide the highest-performance for applications that require reading 2-D codes.
Netflix
One of the most expensive processes at Netflix was the handling of DVD returns. Huge resources were tied up in manually opening mailers, taking out the sleeved discs, checking the titles on the DVDs against the sleeves, checking the discs for physical defects, cleaning them and scanning them into the system.

To improve production quality and reduce labor costs, Netflix implemented a system using DataMan barcode readers to read barcodes on the envelope, sleeve, and DVD disc. Since go-live, the project has exceeded expectations in all areas.

Axel-Springer
Barcodes are used to pack the newspapers into bundles to make sure they not only arrived quickly but also at the right address. For three decades the barcodes were read using a laser scanner with a tilting mirror, but recently this mature technology was replaced by the next generation of barcode readers: DataMan.

The high performance DataMan readers made it possible to achieve 100 percent reliability in reading the barcodes after a test phase of just four weeks. And that was for newspaper bundles ranging in height from 0.5 to 10 inches and variations in the position of the code over a range of 15 inches plus.

Borg Warner uses DataMan readers for turbocharger traceability
Borg Warner Turbo Systems implemented a project to mark each component to create seamless traceability through the production process and beyond. Even at high temperatures and at high volumes, DataMan readers were up to the task. Parts were scanned at each station with such ease and speed that the traceability project was able to achieve its goals as well as lower costs by increasing efficiencies and reducing rework and scrap.

Beyonics moved to 2-D codes to save space and increase throughput
As electronics shrink in size, smaller printed circuit boards (PCBs) mean less space for labels, while the increasing demand for product traceability requires more information. Beyonics had to migrate to 2-D Data Matrix codes.

Beyonics' existing readers were in poor condition and could not read 2-D codes. The direct replacement was implemented without altering any existing software programming or hardware wiring configurations while achieving higher read rates and increasing production throughput by about 10%.