COGNEX

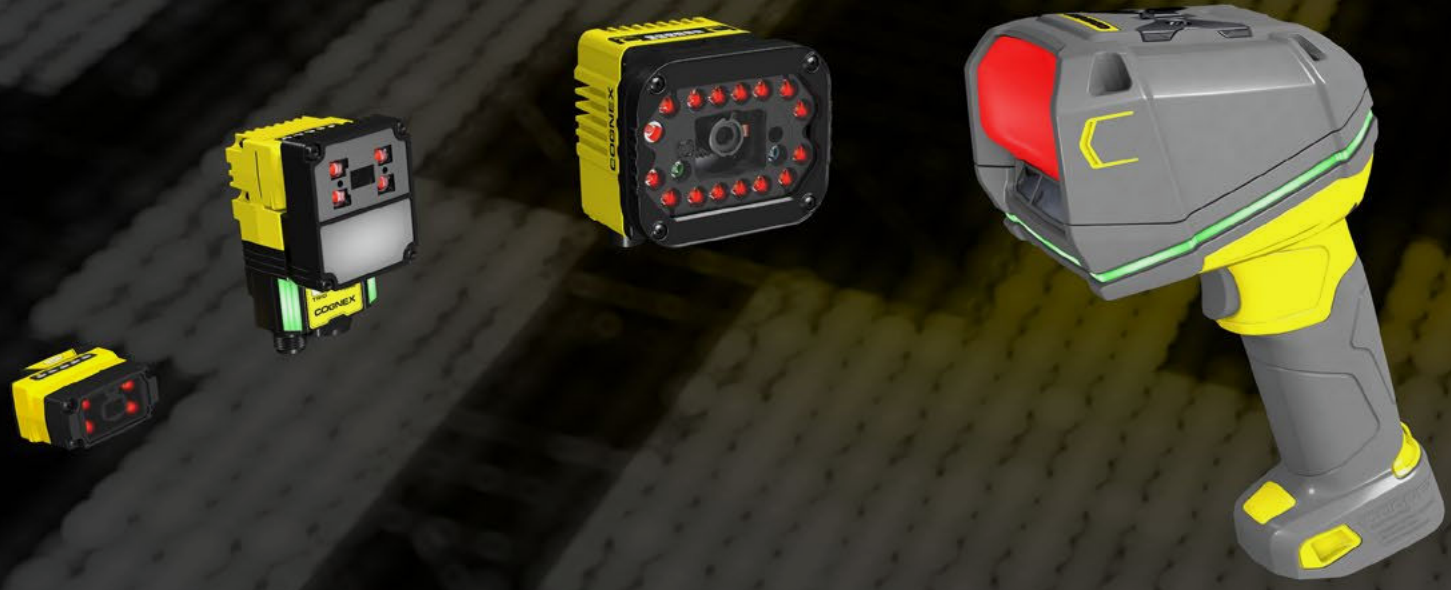
Advanced machine vision made easy

Barcode Readers Product Guide

AI-Powered Readers

Fixed-Mount and Handheld Readers

Barcode Verifiers



Advanced machine vision made easy

The world's leading provider of vision systems, sensors, and software for automation

Cognex brings the power of vision to factory and warehouse automation of all kinds: detecting defects, monitoring production lines, guiding assembly robots, and tracking, sorting, and identifying parts. Our innovative technologies and focus on support throughout the customer journey make vision-based projects easier to set up, more effective, and more reliable.

Cognex machine vision solutions improve product quality and reduce costs at leading manufacturers and logistics providers worldwide, and our mature AI technology makes them more capable and easier to install, maintain, and operate.

Advancing automation is complicated enough already. We make it easier by providing industry-leading support that works the way customers want, from self-service resources to a global network of experts.

>40 years in business

25K+ global customers

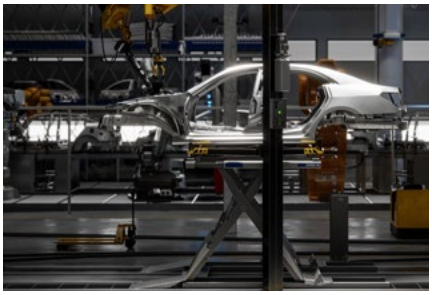
500+ global customer support resources

>1,100 technology patents

cognex.com

Automation for Every Industry

Cognex machine vision and barcode reading solutions enable companies worldwide to reliably automate production tasks and track and trace assets across a wide range of industries and applications.

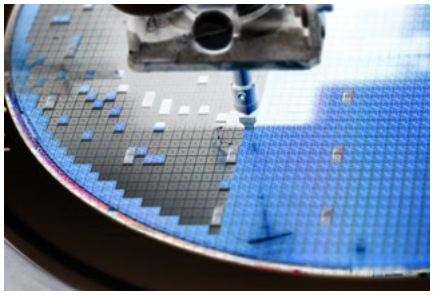


Automotive & EV

- Powertrain
- Tire and Wheel
- Safety Systems
- Chassis
- EV Battery
- Parts Traceability

Consumer Products

- Material Handling
- Automated Assembly
- Packaging Inspection
- Filling
- Labeling and Marketing
- Distribution

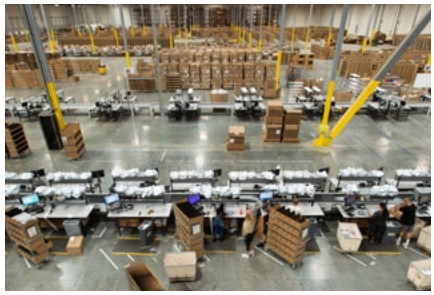


Electronics

- Semiconductors
- LED Manufacturing
- PCB Assembly
- Electronic Hardware
- Consumer Devices

Food & Beverage

- Product Quality Inspection
- Packaging Inspection
- Assembly Verification
- Allergen Management and Traceability
- Warehousing and Distribution



Logistics & Warehouse Operations

- Inbound Logistics
- Order Fulfillment
- Sortation
- Outbound Logistics

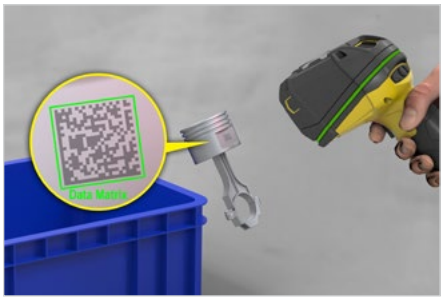
Pharmaceutical & Medical

- Medical Device Solutions
- Vials and Vaccines
- Tablet and Capsule Manufacturing
- Pharmaceuticals Protection
- Allergen Management and Traceability
- 21 CFR Part 11 Support

Barcode Readers and Verifiers

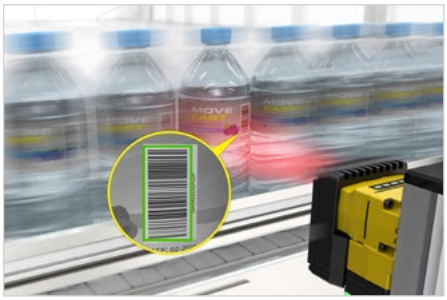
Barcodes are essential for automating identification and data capture, requiring fast and accurate reading for maximum efficiency. Cognex image-based barcode readers decode even the toughest codes with industry-leading read rates, advanced technology, and modular options to optimize performance, increase throughput, and improve traceability.

Application examples



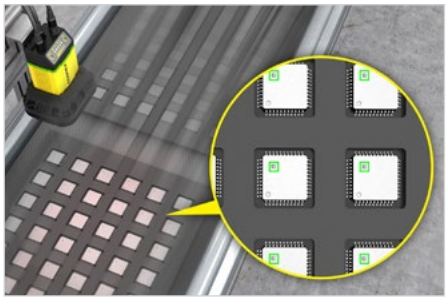
Automotive

Direct part mark (DPM) reading: Read DPM codes on automotive parts



Food and beverage

1D code reading: Scan 1D codes on product packaging



Electronics

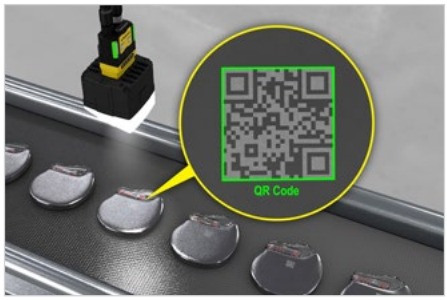
Multi-code reading: Decipher multiple codes at the same time

Logistics

Label-based code reading: Scan and decode 1D barcodes on shipping labels

Packaging

Multi-symbology reading: Decipher multiple code types at once

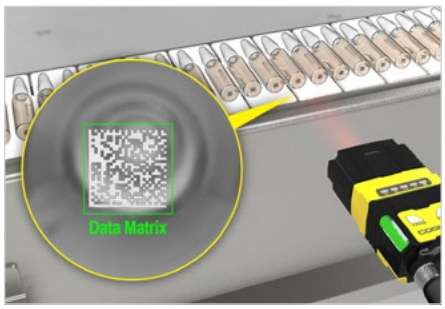


Pharmaceutical

DPM reading: Read DPM codes on medical devices

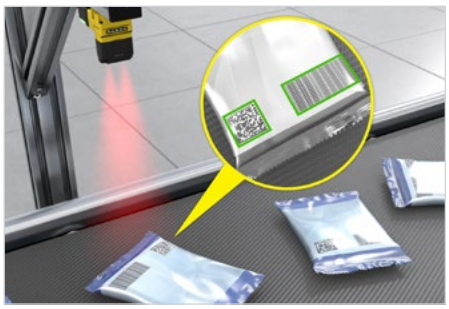
Electric vehicle

DPM reading: Scan DPM codes on curved surface of cylindrical batteries



Medical

DPM reading: Decipher codes on the specular surface of glass vials



Consumer product

Label-based code reading: Read codes on final product packaging

AI-Powered Readers

All-purpose reader

DataMan® 290

Handle any code, application, or environment to solve a range of barcode scanning challenges.

cognex.com/dataman290

High-resolution reader

DataMan 390 Series

Tackle the most demanding decoding applications including multi-code and multi-symbology scanning.

cognex.com/dataman390

Optimize your read rates with AI at every step

1 Find

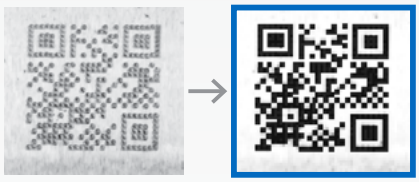
AI-enabled setup

Position the code and find the right settings for easy setup, and quickly locate barcodes for faster processing.

2 Enhance

AI-enhanced decoding

Increase image quality and detect clocking patterns in damaged or low-quality codes for more reliable code reading.



3 Read

AI-powered analysis

Read all code types, including occluded, distorted, or challenging codes with industry-proven decoding algorithms.

Fixed-Mount and Handheld Readers

Robust handheld reader

DataMan 8700 Series

Read the toughest DPM and label-based codes even in harsh environments.

cognex.com/dataman8700

Ultra-compact reader

DataMan 80

Automate traceability in confined spaces with a compact form factor designed for seamless factory integration.

Flexible reader

DataMan 280

Scan a variety of codes with flexible performance for standard to customized needs.

High-speed reader

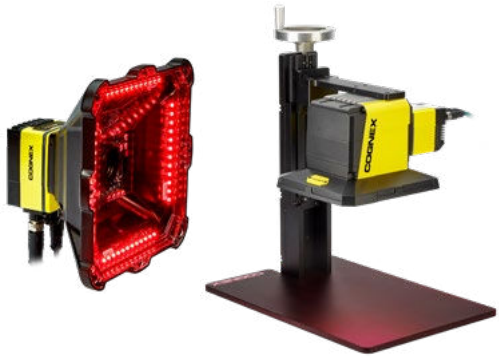
DataMan 380

Automate scanning applications on high-speed lines, including multi-code and multi-symbology reading.

For high throughput logistics applications

Modular Vision Tunnels

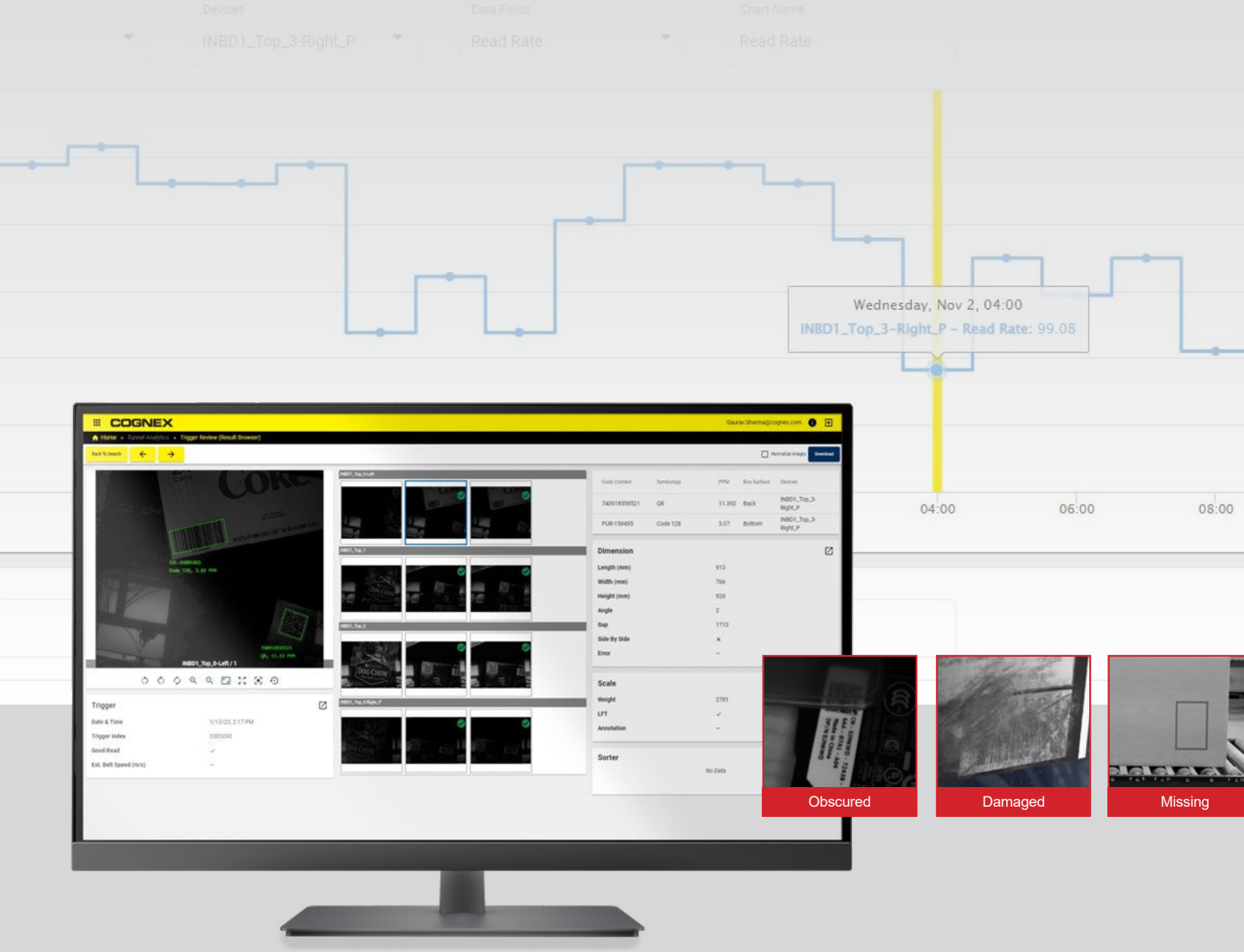
Cognex Modular Vision Tunnels (MVT) optimize sortation, inbound receiving, and outbound logistics with up to 99.9% read rates and flexible options to support different requirements.



Barcode verifiers

Barcode verification grades the quality of barcodes to global standards. Cognex barcode verifiers ensure compliance and readability and provide detailed reports to address code quality issues.

cognex.com/barcode-verifiers



Data intelligence for optimized performance

Edge Intelligence

The Cognex Edge Intelligence platform provides real-time visibility into production lines, with easy access to visualization and diagnostics tools to quickly identify and resolve issues. Fully integrated with select Cognex products and logistics tunnels, it streamlines device management and site-wide deployments.

cognex.com/edge-intelligence

Empowering your success with end-to-end customer support

Cognex Customer Success

From personalized setup and training to expand your capabilities to continual learning and performance optimization, Cognex guides you at every step of your automation journey.

With Cognex Customer Success, you can focus on what matters most – delivering quality, innovation, and efficiency in your manufacturing process.

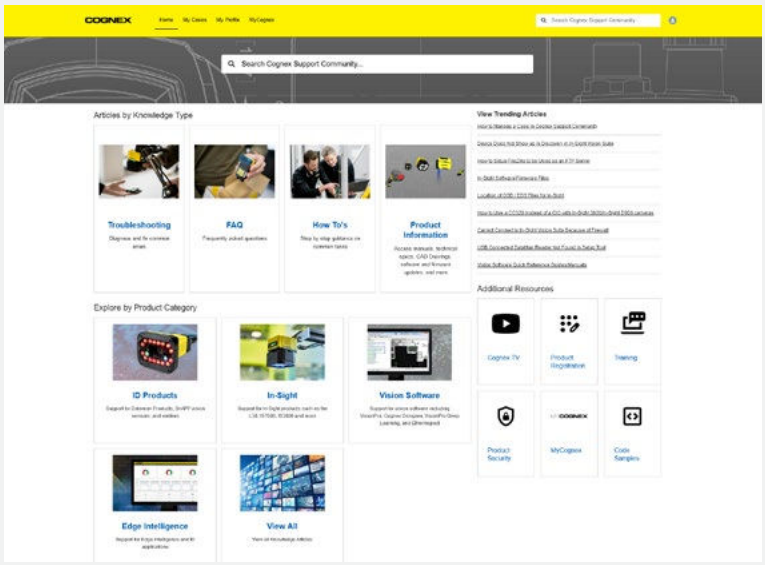
- **Plan & Deploy**
- **Run & Support**
- **Expand & Optimize**

Plan & Deploy

- **Targeted guidance** to choose the right products and validate your deployment
- **Tuning and positioning guidance** built in
- **Curated documentation and videos** for configuration and setup
- **Image-based AI tools** for easy model training
- **Global partner network** when you need expert help

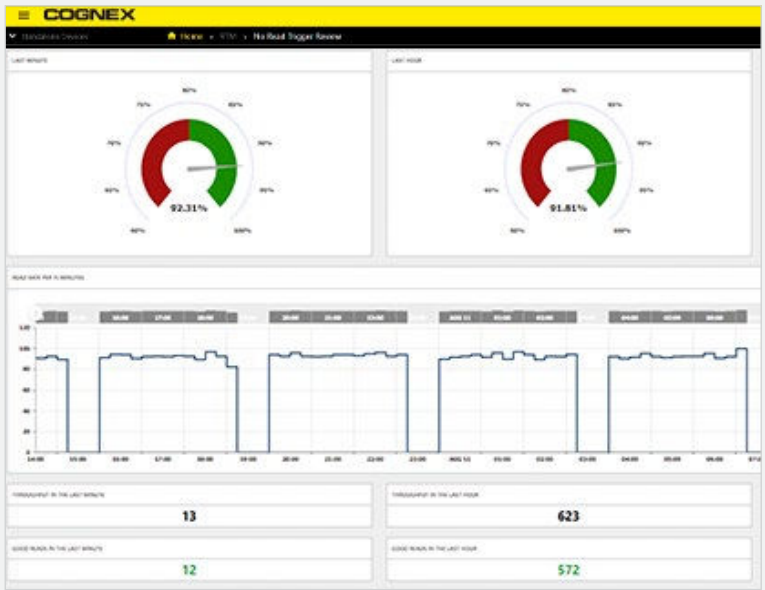
Run & Support

- **Connected tech support** flows seamlessly across email, text, WhatsApp, phone, and chat
- **Expert help and guidance** via visual remote assistant and easy online scheduling
- **Self-service training** to take you from beginner to expert, in multiple languages
- **Cognex support community** provides answers, real-time status updates, and transparent case tracking
- **Reliable, resilient products** made to stay running consistently, tolerate harsh environments, and be easy to adjust if needed



Expand & Optimize

- **Broad portfolio of products** with common tools and software, plus easy upgrade paths
- **Pre-built dashboards** that help you find performance insights across your entire operation
- **Management tools** to control settings across devices, lines, and plants
- **Out-of-the-box data sharing** makes it easy to connect to enterprise systems
- **Coaching from experts** with decades of experience to help you grow quickly and smoothly



Cognex Product Portfolio

Vision Systems and Software

Optimize inspection processes with advanced AI, ensuring accurate defect detection, assembly verification, text reading, and more.

www.cognex.com/machine-vision

Barcode Readers

Achieve end-to-end traceability across production and distribution, with flexible readers and verifiers designed for ease of use and reliability.

www.cognex.com/barcodereaders

Industry Solutions

Tackle applications across a wide range of industries with powerful machine vision solutions that simplify manufacturing and logistics challenges.

www.cognex.com/solutions

COGNEX **Advanced machine vision made easy**

Corporate Headquarters
One Vision Drive
Natick, MA 01760 USA

Contact us or find your regional sales office:
www.cognex.com/sales

Americas

North America	+1 855 426 4639
Brazil	+1 855 426 4639
Mexico	+52 552 789 5444

Europe

Austria	+49 721 958 8052
Belgium (FR)	+33 176 549 318
France	+33 176 549 318
Germany	+49 721 958 8052
Ireland	+353 21 601 9005
Italy	+39 02 9475 4345
Spain	+34 93 220 6237
Switzerland (DE)	+49 721 958 8052
Switzerland (FR)	+33 176 549 318
United Kingdom	+353 21 601 9005
Other Europe	+353 21 601 9005

Asia-Pacific

China	+86 021 8036 5424
India	+91 7305 040397
Japan	+81 345 790 266
Korea	+82 070 4784 4038
Singapore	+65 3158 2511
Taiwan	+886 801 492 017
Other Asia-Pacific	+65 3158 2511

© Copyright 2025, Cognex Corporation.
All information in this document is subject to change without notice. All Rights Reserved. Cognex and DataMan are registered trademarks of Cognex Corporation. All other trademarks are property of their respective owners. Lit. No. BRPG-EN-04-2025

www.cognex.com