

DATAMAN 475V SERIES INLINE BARCODE VERIFIER

Automate code quality assurance without slowing down production

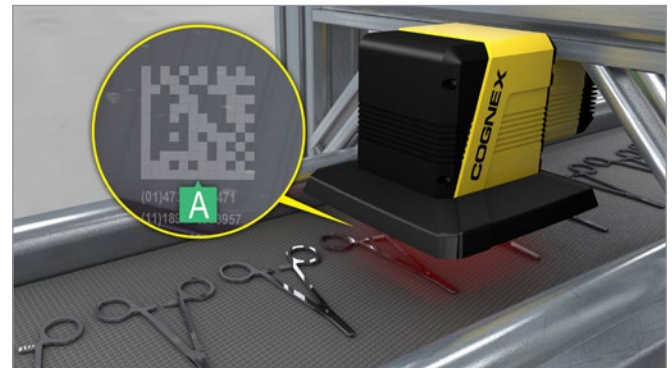
Barcode verification is the process of grading the quality of barcodes according to globally accepted ISO standards. Cognex barcode verification technology ensures the readability and compliance of 1D and 2D barcodes. Today most companies spot check codes one at a time using an offline, operator-based verifier which can be slow and prone to errors.

The DataMan® 475V series inline barcode verifier can grade up to 20 codes per second. High-speed 100% verification and quality reporting can be done directly on your production line, preventing product waste and costly chargebacks. Immediate feedback and intuitive visual diagnostics provide operators with the ability to identify and correct printing and process control issues as they happen. For every code verified, detailed reports can be archived to ensure traceability, statistical process control, and compliance.



Label-based barcode quality compliance

The DataMan 475V-label uses a four-quadrant, 45-degree lighting attachment for grading 1D and 2D label-based barcodes. This model is compliant with the International Organization for Standardization (ISO) 15416 and 15415 standards.



Direct part mark (DPM) code quality compliance

DM 475V-DPM illuminates codes on textured, curved, and highly reflective surfaces using a multi-quadrant lighting attachment with 30S, 30Q, 30T, 45, and 90-degree lighting options. This model is compliant with ISO/IEC TR 29158.



The included calibration card and robust grading algorithms ensure that the DataMan 475V conforms to ISO and application standards while providing accurate and repeatable results.

ISO Quality Standards:

- ISO 15416
- ISO 15415
- ISO/IEC TR 29158 (AIM DPM)

Verify on high speed lines without sacrificing analytics

The DataMan 475V barcode verification software provides intuitive visual diagnostic information to identify one-off or trending code quality issues. It assigns an overall grade to a code based on measurements of ISO-defined quality parameters. These parameters measure several factors that affect a barcode reader's ability to identify and decode a code, maximizing read rates down-process.

Whether using for real-time diagnostics, archiving results for traceability and compliance, or aggregating for statistical process analysis, the Dataman 475V provides the flexibility and wealth of data to meet your code quality assurance needs.

The screenshot shows the DataMan 475V software interface. At the top, it displays the overall grade: **D (1.8)** with a sub-grade of **1.0/20/640/45**. Below this, a list of **Grade Parameters** is shown with color-coded status indicators: Unread Error Correction (ERC) is 33% B (red), Symbol Contrast (SC) is 60% B (orange), Modulation (MOD) is A (green), Reference Margin (RM) is C (yellow), Axial Nonuniformity (ANU) is 0.7% A (green), Grid Nonuniformity (GNU) is 1.1% A (green), Fixed Return Damage (FRD) is 4.0 A (green), Left 1/2 Side (LS) is A (green), Bottom 1/2 Side (BS) is A (green), Left Quiet Zone (LQZ) is A (green), Bottom Quiet Zone (BQZ) is A (green), Top Quiet Zone (TQZ) is A (green), Right Quiet Zone (RQZ) is A (green), Top Transition Ratio (TR) is 0% A (green), Right Transition Ratio (RR) is 0% A (green), Top Clock Tracks (CT) is A (green), Right Clock Tracks (CR) is A (green), and Average Grade (AG) is 4.0 A (green). The interface also includes a **Generic Acceptance Criteria** section with a **Pass** status and a **Data** field set to **IN1000**. A **Go Live** button is visible. At the bottom, there is a **Real time trend analysis** graph and an **Adjustable grade trend threshold alerts** section.

Diagnose code quality issues quickly and easily with color-coded, data-rich visual diagnostic tools.

The first screenshot shows a detailed diagnostic data table with columns for various parameters and a color-coded grid. The second screenshot shows a barcode with the number **0 70207 02112 2** and a quality score of **45 A**.

Automatically save data-rich PDF or HTML reports for every verification or only for problem codes.

The screenshots show two examples of generated reports: a PDF report and an HTML report, both containing detailed verification data and a barcode image.

Archive the full data from each ISO verification result to an FTP server or the cloud.

The screenshot shows a data archive table with columns for ISO standard, grade, and other metrics. The data is color-coded by grade, with red indicating failure and green indicating pass.

SPECIFICATIONS

	DataMan 475V-label	DataMan 475V-DPM
Lighting Types	660 nm, 45°, 4-quadrant	660 nm, 45°, 4-quadrant 660 nm, 30°, 1-quadrant, 2 quadrant, 4-quadrant 660 nm, 90°
Symbologies	1D: UPC/EAN, Code 128, ITF-14, I25, Code 39, Code 93, Codabar 2D: Data Matrix (ECC 200), QR Code, Micro QR Code, PDF417	2D: Data Matrix (ECC 200), QR Code, Micro QR Code, UPC/EAN, Code 128, Code 39
Field of View	80 x 60 mm	35 x 29 mm
Working Distance	60 mm	41 mm
Depth of Field (WD Tolerance)	+/- 3 mm	5 mil symbols: +/- 1.5 mm 15 mil symbols: +/- 2.5 mm
Minimum X-Dimension	6 mil (0.15 mm)	3.75 mil (0.095 mm)
Image Sensor	Sony IMX264LLR 5 MP (2448 x 2048 pixels) 2/3 inch CMOS, global shutter 8.8 mm x 6.6 mm (H x V); 3.45 µm square pixels	
Lens Type	12 mm fixed focal length, f/4 fixed aperture, 2/3 inch sensor format, C-mount lens (users cannot alter lens)	35 mm fixed focal length, f/4 fixed aperture, 2/3 inch sensor format, C-mount lens (users cannot alter lens)
Communications	Ethernet	
Power Consumption	24 VDC±10%, 1.5 A max (36 W peak)	
Weight	945 g	1002.7 g
Dimensions	185 x 185 x 175 mm	286 x 144 x 190 mm
Environmental Protection	IP65	IP65 with cables and appropriate lens cover attached
Approvals	CE, TUV, FCC, KC	
Industry Standards Compliance	ISO/IEC 15415, ISO/IEC 15416, ISO/IEC TR 29158, ISO/IEC 15426-1, ISO/IEC 15426-2	
Application Standards	GS1, MIL-STD 130 UID, UDI, HIBCC, ISO 15434, Russian Crypto-Code, Custom Application Standards	
Maximum Codes per Second	1D: 20 codes/second* 2D: 10 codes/second*	2D: 10 codes/second*
Maximum Linear Line Speed	3.6 ft/second (1.1 m/second)	4.6 ft/sec (1.4 m/sec)
Coplanarity Tolerance	+/- 3° of coplanar	+/- 2° of coplanar

* Maximum symbols per second is dependent upon symbol size, mil size, substrate, symbology, and other application factors.

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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