DATAMAN 470 SERIES
BARCODE READERS

Premium fixed-mount barcode readers
for the most challenging applications

COGNEX

DATAMAN 470 SERIES BARCODE READERS

Premium fixed-mount barcode readers for the most challenging applications

DataMan 470 series fixed-mount barcode readers solve complex, high-throughput manufacturing and logistics applications with ease. DataMan 470's multi-core processing power, new HDR+ imaging technology, high-resolution sensor, advanced algorithms, and simple setup delivers maximum coverage, speed, and ease-of-use.

DataMan 470 excels at reading a wide range of codes including:

- Challenging 1D, 2D, and direct part mark (DPM) codes
- Multiple 1D and 2D codes with mixed symbologies
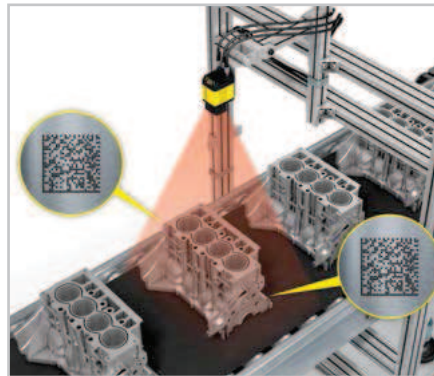- Small Data Matrix codes
- Severely damaged 1D codes

Fast, powerful performance solves challenging applications

The DataMan 470 barcode reader has seven powerful processing cores, enabling it to run multiple algorithms and processes in parallel at astonishing speeds. It reads challenging 1D and 2D codes in varied locations, as well as multiple mixed symbologies simultaneously while maintaining the highest decode rates.

High-Speed Code Reading   **Varied Location Code Reading**   **Mixed Symbology, Multi-Code Reading**

New imaging technology for advanced image formation

 High Dynamic Range (HDR) imaging uses the latest CMOS image sensor technology which is 16x more detailed than conventional sensors. HDR takes advantage of the extra available image data to globally enhance image quality and contrast.
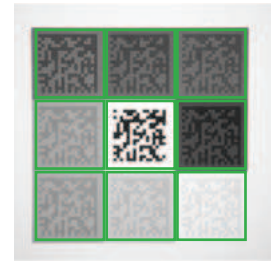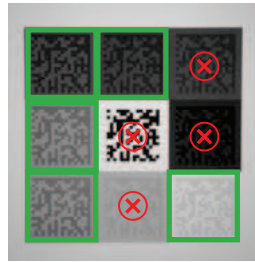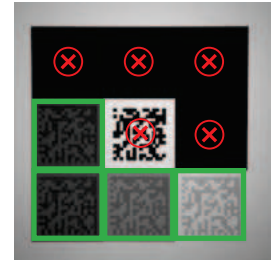
 HDR+ is an advanced, patent-pending algorithm that stretches the boundaries of HDR technology by further increasing localized contrast changes automatically. This creates a more uniformed image in a single acquisition allowing greater depth-of-field, faster line speeds, and improved handling of difficult codes.
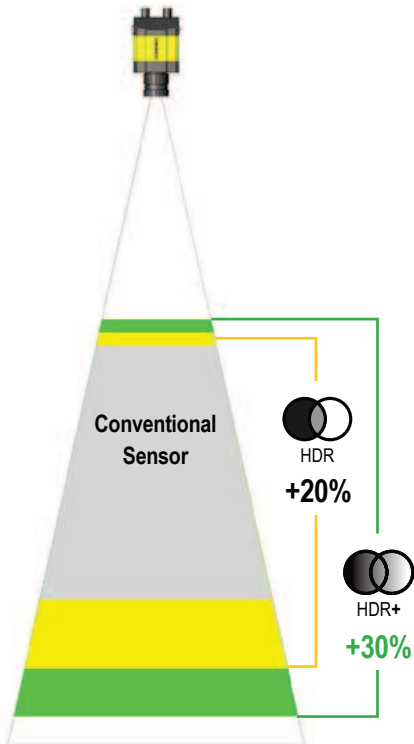
Target Source

Conventional Sensor

HDR+ technology enables DataMan 470 to read an increased range of codes than is possible with conventional or other HDR technologies.
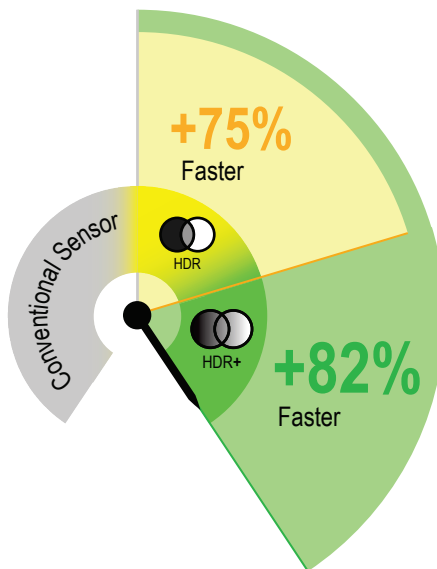
Greater Depth-of-Field

HDR+ reduces over- and under-exposure, providing greater depth-of-field, above and beyond HDR technology and conventional imaging sensors.
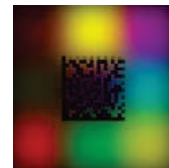

Conventional Sensor

HDR **+20%**

HDR+ **+30%**

Faster Line Speeds

HDR+ significantly reduces exposure times, increasing line speed possibilities by more than 80%.

+75% Faster

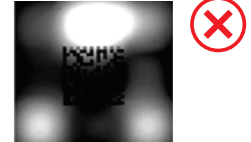Conventional Sensor

HDR

HDR+

+82% Faster

Improved Code Handling

HDR+ allows DataMan 470 to adjust contrast ranges to read difficult codes with variant backgrounds that cannot be read with conventional technology.

Target Source

Conventional Sensor

HDR

HDR+

DATAMAN 470 SERIES SPECIFICATIONS

Algorithms and Technologies	1DMax, 2DMax, Hotbars, PowerGrid
Image Sensor	1/1.8" CMOS
Image Sensor Properties	Diagonal 8.9 mm; 3.45 μm square pixels
Image Sensor Resolution	2048 x 1536
Electronic Shutter Speed	Min. exposure: 15 μs Max. exposure: 1000 μs with internal illumination/10000 μs with external illumination
Max Acquisition	Up to 80 Hz
Lens Options	S-mount 10.3 mm (optional liquid lens), C-mount 24 mm liquid lens, C-mount; 12 mm, 16 mm, 25 mm, 35 mm, 40 mm
Trigger and Tune Buttons	Yes; Quick Setup Intelligent Tuning
Aimer	Optional
Discrete Inputs	2 fixed + (*) opto-isolated
Discrete Outputs	2 fixed + (*) opto-isolated
*Other I/O Points	2 user-configurable
Status Outputs	Beeper, 5 multifunctional LEDs, 10 LED bar array, 360 degree indicator
Lighting	Integrated LEDs, red, blue, or IR; diffuse, polarized, high powered integrated light (HPIL), various controllable external light options
Communications	Ethernet and Serial
Protocols	RS-232, TCP/IP, PROFINET, EtherNet/IP(TM), SLMP, Modbus TCP, NTP, SFTP, FTP, M/S Java Scripting enabled for custom protocols
Power	24 VDC ±10%
Power Consumption	24 VDC ±10%, 1.5 A maximum (HPIL[1]) 24 VDC, 250 mA maximum (non-HPIL[1]) Supplied by LPS or NEC class 2 only
Weight	373 g
Dimensions	126.8 mm (L) x 60.5 mm (W) x 77.1 mm (H)
Operating Temperature	0–57 °C (32–134.6 °F)[2]
Storage Temperature	-20–80 °C (-4–176 °F)
Operating and Storage Humidity	< 95% non-condensing
Protection	IP67 with cables and appropriate lens cover attached
RoHS Certified	Yes
Approvals (CE, UL, FCC)	Yes

[1] HPIL denotes one of the DM360-HPIL-RE or DM360-HPIL-RE-P accessories.
[2] In situations where the operating temperature exceeds 40 °C, an external heat sink is required.

www.cognex.com