



HANDHELD INDUSTRIAL BARCODE SCANNER

NLS-NVH220-HD

Scanning made simple.

The NVH220-HD reads demanding DPM codes — laser-etched and dot-peened — with Newland's latest UIMG® engine and an upgraded dual-core platform. Red/blue direct and white diffuse illumination handle reflective, curved and low-contrast marks, all in an IP64 housing built for repeated 1.8 m drops.



NEWLAND AIDC, AVAILABLE THROUGH VERITRONICS

FEATURES

Excellent DPM Decoding

The latest UIMG® engine lifts success rates on complex and DPM barcodes, including laser-etched and dot-peened marks.

Advanced Illumination

Red and blue direct plus white diffuse lighting adapts to reflective surfaces, curved shapes and varied barcode colors.

AI-Powered & Rugged

AI barcode positioning aids low-contrast reads; an IP64 body withstands repeated 1.8 m drops to the ground.

KEY SPECIFICATIONS

Image Sensor 1280×800 CMOS

Aiming 650nm crosshair laser

Interface USB, RS232, Ethernet

Field of View Horizontal 42°, Vertical 28°

Motion Tolerance 2 m/s (6.56 ft/s)

Dimensions (W×D×H) 68×86×180mm (2.68×3.39×7.09in)

Weight 160g (5.64oz, w/o cable)

Drop 1.8m / 5.91ft

Sealing IP64

Operating Temperature -20°C to 50°C (-4°F to 122°F)

Technical Specifications

NLS-NVH220-HD

PERFORMANCE

Illumination	Direct: red & blue LEDs; Diffuse: white LED
Aiming	650nm crosshair laser
Symbologies	2D: QR Code, PDF417, Micro QR, Data Matrix, Aztec 1D: EAN-13, EAN-8, UPC-A, UPC-E, ISSN, ISBN, Codabar, Code128, Code93, ITF-6, ITF-14, Interleaved 2 of 5, Industrial 2 of 5, Standard 2 of 5, Matrix 2 of 5, Code39, AIM 128, GS1 Composite, GS1-128 (UCC/EAN), ISBT 128, Code11, MSI-Plessey, Plessey
Resolution*	1D: ≥1.85 mil (0.047mm) · 2D: ≥3 mil (0.076mm)
Typical Depth of Field*	EAN-13 (13mil): 10–280mm (0.39–11.02in) Code39 (5mil): 30–180mm (1.18–7.09in) · Code39 (20mil): 50–440mm (1.97–17.32in) Data Matrix (10mil): 15–140mm (0.59–5.51in) · QR Code (20mil): 10–250mm (0.39–9.84in)
Motion Tolerance*	2 m/s (6.56 ft/s)
Min. Symbol Contrast*	15%
Scan Angle**	Roll: 360°, Pitch: ±50°, Skew: ±50°
Field of View	Horizontal 42°, Vertical 28°

PHYSICAL & ELECTRICAL

Interface	USB, RS232, Ethernet
Operating Voltage	5VDC±5%
Rated Power	1500mW (typical)
Current @5VDC	300mA (typ.), 450mA (max.)
Dimensions (W×D×H)	68×86×180mm (2.68×3.39×7.09in)
Weight	160g (5.64oz, w/o cable)
Notification	Beep, LED indicator, vibrator
Communication Protocols	USB CDC, USB HID-KBW, RS232, TCP/IP, EtherNet/IP, Profinet, MELSEC/SLMP

ENVIRONMENTAL

Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Humidity	5% to 95% (non-condensing)
ESD	±16kV (air); ±8kV (direct)
Drop	1.8m / 5.91ft (repeated)
Sealing	IP64

CERTIFICATION

Certifications	CE, FCC, RoHS 2.0, IEC60825-1, IEC62471, BIS, KC, ISO 16750-5:2023
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*Test conditions: T=23°C; Illumination=300lux incandescent; sample barcodes made by Newland. **Scan Distance=(min.+max. DOF)/2; 2D: QR Code, 10 Bytes, 15mil, PCS=0.8. Specifications are subject to change without notice. Version: V1.1