














FM431 Barracuda Pro

Fixed-Mount Scanners

					
1.5m drop	1D & 2D	Advanced Scripting	Dual Interface	EasySet	IP54
					
Laser aimer	LED aimer	Megapixel	OCR	Warranty 5 Years	



Features

High-Speed Scanning.

The FM431 Barracuda Pro adds high motion tolerance to the FM430 Series. Higher pass rates are designed to unlock opportunities in manufacturing and automated vending applications. The high speed also opens up new possibilities for POS fix mount scanning. Conveyors moving codes past the scanners and automated/robotic applications, where codes are constantly and steadily on the move, are ideal for the FM431.

Dual Aiming.

The FM431 Barracuda Pro packs both laser and LED aiming options into the same device. In customer-facing applications, LED aiming protects clients from harmful lasers. At the same time, the laser engine pinpoints the exact position of the scanner for presenting codes under or for use in some automated applications.

Good Read Notification.

The FM431 Barracuda Pro alerts the customer about a successful scan when using laser aiming by flooding the code with light from the LED aimer. This is useful for fixed-mount applications where the beep is not wanted or if the environment is too loud for the beep alone.

All Weather Conditions.

The FM431 Barracuda Pro has Advanced Exposure control to adapt to light volume, including bright reflection on the barcodes. The IP54 sealing and operating temperature range from -20 to +60 degrees making this Newland's best all-around fixed mount scanner suitable for most outdoor applications.

Fast Communication.

The FM431 Barracuda Pro has a higher send-and-receive communication speed making it even more responsive to the demands of a host solution.

Easy to Mount.

Thanks to the mounting points in the base of the scanner, the FM431 Barracuda Pro is easy to fix and install. The dimensions are identical to the FM430 Series scanner, making it plug-and-play into existing designs in case upgrades are needed to take advantage of all the FM431 Barracuda Pro has to offer.

5 Years Full Warranty

TECHNICAL SPECIFICATIONS

FM431 Barracuda Pro

Data Capture

1D	All major 1D symbologies
2D	All major 2D symbologies
Aiming	Red laser (650nm), Green LED (529nm)

Depth of Field Code 39 (5mil)	65 mm - 230 mm
Depth of Field DataMatrix (10mil)	50 mm - 230 mm
Depth of Field EAN 13 (13mil)	55 mm - 460 mm
Depth of Field PDF417 (6.7mil)	55 mm - 190 mm
Depth of Field QR (15mil)	40 mm - 310 mm
Field of View Horizontal	51°
Field of View Vertical	32°
Illumination	White LED (3000K)
Image Sensor	1280 x 800 CMOS
Minimal Print Contrast	25%
Resolution	≥3mil (1D)
Scan Angle Pitch	±55°
Scan Angle Roll	360°
Scan Angle Skew	±55°

Physical

Current @ 5VDC Operating	258.5 mA (typical), 400 mA (max)
Current @ 5VDC Standby	93.72 mA
Dimensions	41.5(W) × 49.5 (D) × 24.3(H) mm
Input Voltage	5 VDC ±5%
Interfaces	USB, RS-232
Notifications	Beep, LED
Weight	56 g

Environmental

Ambient Light	0 to 100,000 lux (natural light)
Drop	1.5 m
Electro Static Discharge (ESD)	±14 kV (air discharge), ±8 kV (direct discharge)
Humidity	5% to 95% (non-condensing)
IP Rating	IP54
Operating Temperature	-20°C to 60°C (-4°F to 140°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)

Certifications

Certifications Hardware	RoHS 2.0, CE EMC Class B, IEC 60825, IEC 62471
-------------------------	--

Warranty

Warranty Standard	5 Years
-------------------	---------

Accessories

Accessories Optional	USB cable, USB-C cable, Multiplug adapter, RS-232 cable
Accessories Standard	USB cable, RS-232 cable

What's in the box?

NLS-FM431-SR-U	FM431 Barracuda Pro, 2 meter USB extension cable
----------------	--

Accessories

Charging/Power

ADP100 Power Supply for HR, FR, and FM Series (ADP100)

Cables

CBL017U RJ to USB-C Cable for HR, FR and FM Series (CBL017U)
CBL025R RS232 Cable for FR and FM Series (CBL025R)
CBL026U USB Cable for FR and FM series (CBL026U)
CBL030UA USB Cable for HR12, HR32 and HR52 Series (CBL030UA)
CBL036UA USB Cable for HR, FM, and FR Series (CBL036UA)
CBL037R RS232 Cable for HR, FR, and FM Series (CBL037R)
CBL042UA USB Cable for HR, FM, and FR Series (CBL042UA)
CBL042UA V5.0 USB Cable for FM, and FR Series (CBL042UA V5.0)

Peripherals

EX232 Remora (NLS-EX232-01)

Newland AIDC EMEA

Feel free to contact us or a partner near you.

info@newland-id.com - newland-id.com

Specifications are subject to change without notice

© Newland AIDC EMEA 2026 - All rights reserved