



1D & 2D



Megapixel



USB



Infrared



IP42



EasySet



Warranty
5 Years



FR50 Pearl

Presentation
Scanners

Features

Megapixel Barcode Scanner

Armed with Newland's cutting-edge 2D megapixel barcode technology, the FR50 Pearl has an excellent scanning performance on 1D and 2D barcodes. Its higher resolution means even small barcodes can be read from a longer distance. Inverse and rectangular 2D codes, even if printed with challenges, are no issue.

Sophisticated design.

Designed to be the jewel in the crown, the FR50 Pearl is made with high-quality materials and presented to be the next generation scanner. As a stunner in both in black or white (project only), it blends into its environment perfectly, or can function as a true eyecatcher. The stationary scanner is particularly suited to non-food retail or boutique point-of-sale countertops.

IR & light sensors.

The FR50 Pearl has an excellent combination of both an IR sensor and a light sensor. The light sensor works best in well-lit conditions, sensing the changes in light as a barcode is presented to it. The IR sensor has a shorter range but activates the scanner even in a poorly lit environment.

Automatic Exposure Control (AEC)

The sensor in the FR50 Pearl automatically adjusts the duration of the light it projects, adapting to the glare reflected back off the barcode. Switching from scanning a code printed low-contrast on paper to scanning codes presented on highly reflective phone screens, is no issue. This makes the Pearl a great solution for customer-facing applications.

Mount anywhere.

The FR50 Pearl's magnetic socket clamps easily and firmly to a variety of mounting options. Offering not only versatility in mounting style and function, the simple design of the scanner's connection point also makes for effortless cleaning with our recommended cleaning solutions.

Safe aiming.

Whether staff-attended or self-service, the FR50 Pearl uses safe LED aiming to help position the presented barcodes without any of the health risks associated with laser-class aiming solutions.



Suggested industries



Entertainment



Healthcare



Hospitality



Retail

FR50 Pearl Technical specifications

Data Capture

1D	All major 1D symbologies, including EAN-13, EAN-8, UPC-A, UPC-E, Code 128, Code 39, Codabar, UCC/EAN 128, RSS, ITF, ITF-14, ITF6, Standard 25, Matrix 25, COOP 25, Industrial 25, Plessey, MSI Plessey, Code 11, Code 93, Code 49, Code 16K.
2D	All major 2D symbologies, including PDF417, QR Code, Data Matrix, AZTEC, CSC, Maxicode, Micro QR, Micro PDF417, GM, Code One.
Image Sensor	1280 x 800 CMOS
Illumination	Red LED
Aiming	Green LED
Scan Modes	Sense mode, Continuous mode
Depth of Field EAN 13 (13mil)	55-360mm
Depth of Field Code 39 (5mil)	80-170mm
Depth of Field PDF417 (6.67mil)	55-160mm
Depth of Field Data Matrix (10mil)	50-170mm
Depth of Field QR (15mil)	40-210mm

Performance

Minimal Print Contrast	30%
Scan Angle Roll	360°
Scan Angle Pitch	±55°
Scan Angle Skew	±55°
Field of View Horizontal	51°
Field of View Vertical	32°

Physical

Dimensions (mm)	Scanner: 68(W) x 61.8(D) x 68.2(H) mm; Stand: 75(W) x 75(D) x 153.5(H) mm
Weight	Scanner: 202g; Stand: 324g
Interfaces	USB HID & USB CDC
Notifications	Beep, LED indicator
Input Voltage	5VDC±5%
Current @ 5VDC Operating	306mA (typical), 311.5mA (max.)
Current @ 5VDC Standby	173.9mA
Power Consumption	1530mW (typical)

Environmental

Operating Temperature	-20°C to 60°C (-4°F to 140°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Humidity	5% to 95% (non-condensing)
Electro Static Discharge (ESD)	±14 kV (air discharge), ±8 kV (direct discharge)
IP Rating	IP42

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Feel free to contact us or a partner near you

visit newland-id.com/partners

Specifications are subject to change without notice

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FR50 Pearl Technical specifications

Accessories	
Standard	Desktop Stand, Mounting Plate
Software	
Configuration Tools	EasySet
Certifications	
Hardware	FCC Part 15 Class B, CE EMC Class B, RoHS, IEC62471
Warranty	
Standard	5 years