



1D & 2D



Mobile  
Reading



Visual  
Feedback



CMOS



Dual  
Interface



IP67



NFC



EasySet



Warranty  
2 Years



**FM3281  
Grouper**  
Stationary Scanners

## Features

### A True Outdoor Solution

An IP67-rated seal renders the FM3281 Grouper impervious to dust, water, and other contaminants. The high sealing ensures that transitioning from cold to hot temperatures won't cause condensation that prevents reading the barcodes. With minimized glare and reflection, the FM3281 Grouper is the best choice for reading codes even in the brightest sun conditions, making it the ultimate fixed-mount reader for outdoor applications.

### 24/7 Feedback

The FM3281 Grouper can provide ongoing status updates to the host, ensuring solution providers with remote applications can guarantee the scanner's operational status and receive timely alerts regarding any potential issues before customers attempt to use it.

### Advanced Barcode and OCR Reading

Armed with Newland's sixth-generation technology, the FM3281 Grouper excels at reading onscreen barcodes containing large amounts of data. With its Megapixel technology, this fixed-mount scanner is also perfect for OCR reading applications like ID cards.

### IR & Light Triggers for Precise Data Capture

By combining IR and light sensors, the FM3281 Grouper achieves higher sensitivity to activate the scanner to capture barcodes as they are presented. This leads to higher throughput and productivity. The infrared sensor is particularly useful for remote applications with low ambient light conditions, enabling the scanner to read the code even if there are no discernible changes in light.

### Full NFC Functionality

The FM3281 Grouper combines excellent barcode and OCR scanning capabilities with full NFC functionality. This versatile scanner supports both contactless RFID cards and barcodes and, when authorized, can potentially be used in payment solutions.

### Extra Protocols for Additional Applications

The FM3281 Grouper offers additional communication protocols, including Wiegand and RS485. Wiegand is most suitable for secure access control solutions, while RS485 is an ideal choice for longer cabling or when multiple devices run in parallel over a wider area, as is often the case in industrial settings.

## Suggested industries



Retail



Logistics



Hospitality



Entertainment



Healthcare



# FM3281 Grouper Technical specifications

## Data Capture

1D	All major 1D symbologies
2D	All major 2D symbologies
OCR	Passport OCR, ID Cards, Travel Permit OCR
Image Sensor	1280*1088 CMOS
Illumination	3000K white LED
Resolution	≥3mil
Depth of Field EAN 13 (13mil)	0-290mm
Depth of Field Code 39 (20mil)	15-310mm
Depth of Field Code 128 (10mil)	0-280mm
Depth of Field QR (20mil)	0-270mm
Scan Angle/Field of View	Roll: 360°, Pitch: ±60°, Skew: ±60°; Horizontal 58.2°, Vertical 66°
Minimal Print Contrast	25%

## Physical

Current @5VDC Operating/Standby	NFC version: 220mA/175mA; Non-NFC version: 172mA/118mA
Dimensions (mm)	78.7(W)×47.7(D)×67.7(H)mm (max.)
Input Voltage	5-24VDC±5%
Interfaces	RS-232, USB. Optional: RS-485, Wiegand
Notifications	Beeper, multi-colored LED indicator

## Wireless

NFC: Reading Distance	0-30mm
NFC: Supported Functions	Supports reading card number and card type, reading and writing sectors, file operations, key operations, contactless CPU card operation (ISO14443 Type A) and APDU.
NFC: Supported Cards	ID card, NFC-equipped phone, Mifare one (M1), S50, S70, Mifare plus, Mifare plus Evx, Mifare Ultralight/C/EV1, Mifare Desfire, CPU card, NTAG2x series, NTAG42x series, ICODE 2, Type B card, Felica card

## Environmental

Operating Temperature	-20°C to 60°C (-4°F to 140°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% (non-condensing)
Electro Static Discharge (ESD)	±15 kV (air discharge), ±8 kV (direct discharge)
IP Rating	IP67

## Software

Configuration Tools	EasySet
---------------------	---------

## Certifications

Hardware	FCC Part15 Class B, CE EMC Class B, RoHS
----------	--

## Warranty

Standard	2 years
----------	---------