

# Code Reader™ 900FD

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## Features & Benefits

- High speed, omnidirectional imaging of 1D bar code symbologies
- Future proof investment with upgradeability to Stacked bar codes and 2D bar codes with the purchase of a license key
- Wide Area Image Sensor
- Manual or Automatic triggering
- 2 programmable indicators: LED and tone
- All-inclusive Kits available
- Reads bar codes reliably off cell phone screens
- Uses Code's rapid disconnect Affinity™ cables
- Low power consumption
- Available in dark gray
- IP54 Housing



## Overview

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If you are thinking about adding the capability of reading 2D symbologies to your application but are not quite ready to make the investment, Code's CR900FD is the smart choice and the right choice. The CR900FD is Code's entry-level, area imaging device come standard with the ability to read all of the most popular 1D bar codes, but is designed with flexible decoding capabilities that give you the option to upgrade to a selection of Stacked or 2D bar code symbologies. When the timing is right, you can add all 2D or stacked symbologies, or even select a single 2D or stacked symbology, simply and affordably with the purchase of a license key.

The CR900FD has several major advantages over single-line laser scanners and linear imagers by providing full omnidirectional reading of standard 1D symbologies, as well as the ability to read bar codes off of mobile phone screens, all at linear scanner prices. The CR900FD has both a manual trigger as well as an auto-detection mode when used with the Universal Stand. Other features include a bright blue aiming bar, rapid disconnect cables and a dark gray housing that is sure to match your system.

Applications for the CR900FD include Retail Point-of-Sale, Manufacturing, Work-in-Process, Document Processing and more.



# Code Reader™ 900FD Specifications

## Physical Characteristics

CR900FD Dimensions:	5.5" H x 2.75" L x 2.0" H (140 mm H x 70 mm L x 50 mm W)
CR900FD Weight	3.9 oz (110 g)
IP Rating	54

## Performance Characteristics

Field of View:	Wide Field: 50° horizontal by 33.5° vertical
Focal Point:	Approximately 100 mm
Sensor:	CMOS gray scale
Optical Resolution:	Wide Field: 960 x 640 pixels
Pitch:	± 60° (from front to back)
Skew:	± 60° from plane parallel to symbol (side-to-side)
Rotational Tolerance:	± 180°
Print Contrast Res.:	25% (1D symbologies) or 35% (2D symbologies) absolute dark/light reflectance differential, measured at 650 nm
Target Beam:	Single, blue targeting bar
Ambient Light Immunity:	Sunlight: Up to 9,000ft-candles/96,890 lux
Shock:	Withstands multiple drops of 6' (1.8 Meters)
Power Requirements:	Reader @ 5vdc (mA): Typical = less than 450 mA; Idle = less than 80 mA; Sleep = less than 31 mA
Memory Capacity:	128MB Flash ROM, 32MB RAM
Communication Interfaces:	RS232, USB 2.0 (Generic HID, HID Keyboard, Virtual Com Port)

## Accessories

- 6ft. Straight USB Affinity™ Cable
- 8ft. Coiled USB Affinity™ Cable
- 8ft. Coiled RS232 Affinity™ Cable
- Universal Stand



CR900FD with Universal Stand

## User Environment

Operating Temperature:	-20° to 55° C / -4° to 131° F
Storage Temperature:	-30° to 65° C / -22° to 150° F
Humidity:	5% to 95% non-condensing
Decode Capability:	1D: UPC/EAN/JAN, Code 39, Code 93, Code 128, Interleaved 2 of 5, Codabar, GS1 DataBar (RSS)

Decode Capability with Additional License:	Stacked 1D: PDF417, Composite Codes 2D: Data Matrix, QR Code, Aztec Code, Maxicode
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Proprietary 2D: GoCode®

Image Output Options: Formats: Bitmap or JPEG

Field Selection: Wide Field

Data Editing: JavaScript (Additional License Required)



## Working Ranges

CR900FD Performance		
Test Code	Min Inches (mm)	Max Inches (mm)
4 mil Code 39	1.6" (40 mm)	3.1" (78 mm)
7.5 mil Code 39	1.3" (34 mm)	7.2" (182 mm)
9.5 mil Code 128	0.6" (15 mm)	8.3" (212 mm)
10.5 mil UPC	0.8" (20 mm)	9.0" (228 mm)
13 mil UPC	1.1" (28 mm)	11.0" (280 mm)
4.2 mil DM*	1.9" (48 mm)	2.6" (66 mm)
5 mil DM*	1.7" (43 mm)	3.0" (76 mm)
6.3 mil DM*	1.3" (33 mm)	4.1" (104 mm)
10 mil DM*	0.8" (20 mm)	6.5" (165 mm)
20.8 DM*	1.1" (28 mm)	13.5" (343 mm)

Note: All samples were high quality codes and were read along a physical center line at a 10° angle. Default AGC settings were used.

\*Data Matrix is used to for configuration codes on the CR900FD, however additional licensing is required to enable full Data Matrix reading. Expect other 2D symbologies to perform similarly to Data Matrix.

**code**

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Specifications subject to change without notice.

