

Falcon 4400 Series

Data Sheet

Windows® Based Mobile Computer



Features

- Industry leading ergonomics combine superb balance, light weight and arched grip for ease of use
- Flexible configurations provide choice of two operating systems, six bar code scan engines and seven keypads
- Rugged construction survives industrial environments and multiple drops to concrete

Accessories

- Powered Vehicle Dock
- Single-Slot Dock and Four-Slot Dock
- Four-Slot Battery Charger
- Handle/Handstrap Conversion Kit
- Holsters/Softcases
- USB Data Cable
- Serial Charging Cable
- Serial Printer Adapter



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The Falcon 4400 Series has tested compatible with Cisco's wireless solution. The Cisco Compatible logo signifies that Datalogic's product has undergone interoperability testing by datalogic together with Cisco and a third-party test house based on testing criteria set by Cisco. Datalogic is solely responsible for the support and warranty of its product. Cisco makes no warranties, express or implied, with respect to datalogic's product or its inter-operation with the listed Cisco product(s) and disclaims any implied warranties of merchantability, fitness for a particular use or against infringement.

Mechanical

Dimensions

Length: 9.0" / 22.6 cm Width at display: 3.5" / 8.6 cm
Width at grip: 2.5" / 6.4 cm Height at grip: 1.6" / 4.1 cm

Weight: 23.3 oz / 724 g (Will vary depending upon the configuration selected. Falcon 4400 model shown with radio, scanner, and battery pack.)

Display: 3.5" active matrix TFT QVGA display; 320x240, pixels; 64K colors, up to 400 NIT, anti-reflective

Indicators: Good read LED; scan LED

Keypads: 26-key Standard Alphanumeric; 48-key (handed version only) full alphanumeric and 5250 support; 52-key full alphanumeric and 5250 support; 52 key numbers up and 5250

Construction: Industrial, polycarbonate/ABS-blend plastic shell with thermoplastic urethane overmold

Environmental

Temperature Rating

Operating: 14° to 122° F / -10° to 50° C
Storage: -13° to 158° F / -25° to 70° C

Humidity: 5 to 95% NC

Shock: Up to multiple 5.0' / 1.5 M drops to concrete

Water & Dust: CIE IEC 60529, Rating IP54

Optical	Laser Scan Engine		Linear Imager
	SR*	LR*/ALR*	
Light Source	650 nm	650 nm	645 nm
Scan Rate	35 ± 5 scans/sec.	35 ± 5 scans/sec.	36 ± 5 scans/sec.
Ambient Light Immunity			
Artificial Light	4,844 Lux	4,844 Lux	100,000 Lux
Sunlight	86,112 Lux	86,112 Lux	100,000 Lux

* Key: SR = Standard Range, LR = Long Range, ALR = Advanced Long Range.

DEPTH OF FIELD TABLE Typical Range Comparisons						
Label Density	Standard Range	Long Range	Advanced Long Range	Linear Imager	2D SR Imager	2D HD Imager
5 mil	3-5" / 8-13 cm	—	—	3.0-5.0" / 8-13 cm	—	—
6.6 mil PDF-417	—	—	—	—	4.0-6.5" / 11-16 cm	1.8-5.0" / 4-13 cm
7.5 mil	2.5-9" / 6-23 cm	—	—	—	—	1.5-5.0" / 4-13 cm
8 mil	—	—	—	—	3.3-8.0" / 8-20 cm	—
10 mil	2.5-13" / 6-33 cm	14.5-16.5" / 37-42 cm	—	1.5-9" / 4-23 cm	3.2-9.2" / 8-23 cm	1.2-6.6" / 3-17 cm
8.3 mil DataMatrix	—	—	—	—	—	2.4-4.7" / 6-12 cm
8.3 mil QR Code	—	—	—	—	—	2.4-4.4" / 6-11 cm
13 mil / 100% UPC	—	—	9-22" / 23-56 cm	1.5-10.5" / 4-27 cm	2.5-12.5" / 6-32 cm	1.0-7.9" / 3-20 cm
15 mil	2.5-19" / 6-48 cm	9-33" / 23-84 cm	20-50" / 51-127 cm	—	2.1-12.8" / 5-33 cm	—
15 mil DataMatrix	—	—	—	—	—	3.7-6.5" / 9-17 cm
20 mil	*2.5-21" / 6-53 cm	8-40" / 20-101 cm	—	1.5-12" / 4-30 cm	—	—
30 mil	—	—	33-89" / 84-226 cm	—	—	—
35 mil MaxiCode	—	—	—	—	2.0-13.0" / 5-33 cm	—
40 mil	*2.5-30" / 6-76 cm	13-83" / 33-211 cm	—	1.5-17" / 4-43 cm	—	—
55 mil	*2.5-36" / 6-91 cm	19-93" / 48-236 cm	38-120" / 97-305 cm	—	—	—
70 mil (reflective)	—	43-148" / 119-376 cm	85-260" / 215-660 cm	—	—	—
100 mil (reflective)	—	50-210" / 127-533 cm	125-320" / 241-813 cm	—	—	—

*Minimum distance determined by symbol length and scan angle. Dependent upon printing resolution, contrast, and ambient light.

System

Operating System: Windows® CE v5.0, Windows Mobile® v5.0

Microprocessor: Intel® XScale™ PXA255, 400 MHz

Memory:

64 MB RAM / 64 MB FLASH

128 MB RAM / 128 MB FLASH

Dock Communications: USB 1.1 (ActiveSync) & RS-232 (ActiveSync and other RS-232 protocols)

PC Card: Internal card slot

Beep Tone: 86dB(A) (at 24" / 61 cm) / 100dB(A) (at 10 cm) (typical)
Programmable for pitch and duration

Power Options

Rechargeable Lithium Ion Battery Pack

Falcon Single and Four-Slot Dock with power supply

Advanced Power Management (without PC Card & backlight):
Sleep/off mode with programmable timeout: 5 mA; Idle mode: 60mA (typical); Operating mode: 155mA (typical). Rechargeable lithium backup battery; Low battery indicator (display icon)

Radio Support

WLAN: IEEE 802.11 b/g

WLAN Security: Cisco CCX; Windows Zero Configuration

Bluetooth® wireless technology: Class 2 Version 1.2

System Support: VT100/220, HP700/92, IBM 3270/5250 terminal emulators; Browser support via Microsoft® Internet Explorer; TCP/IP Communications

Management Tools: Falcon® Desktop Utility (FDU) for security & configuration. Falcon Management Utility (FMU) or Wavelink® Avalanche for remote device management & software distribution.

Development Environments:

Embedded Visual C++, Visual C#.NET, Visual Basic .NET, Personal Java 1.1, Java Virtual Machine (JVM), Falcon® CE Developers Toolkit, Visual Studio 2005 and Wavelink® Studio.

Decoding Capability (auto-discrimination)†

1D Codes

- Code 32, 39, 93
- Codabar
- Code 128
- Code 128 ext.
- Code 128 ext.
- Interleaved 2/5
- EAN/JAN 8, 13
- EAN 128
- UPC A, E
- Matrix 2/5
- MSI / Plessey
- Standard 2/5
- Code 39 Full ASCII
- EAN/UPC 2 digit ext.
- EAN/UPC 5 digit ext.
- EAN/UCC Composite
- RSS-14/RSS Limited

2D Codes

- PDF-417
- Micro PDF-417
- U.S. Currency Serial Number
- RSS Expanded
- Aztec Code
- MICR E 13 B
- Data Matrix
- Maxi Code
- QR Code
- OCR-A/B
- Postal Codes

† Please refer to the appropriate Product Reference Guide (PRG) for specific symbology support for the laser scan engine or imaging scan engine options.

Safety and Regulatory

Electrical: EN60950, UL60950, CSA60950

Battery: IATA/UN

Emissions: FCC Part 15C, EN55022, VCCI, ICES-003, CNS13438, AS/NZS3548

Radio: FCC Part 15.247, EN 300 328

Laser Classification: CDRH Class II;

(CAUTION: Laser Radiation—do not stare into beam);

IEC 60825-1, Class 2; Class 3R for ALR devices

Restriction of Hazardous Substances: RoHS version



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