



Automation for a Changing World

Delta Barcode Scanners

DFS/DAH Series

(Fixed-mount Type / Handheld Type)



www.deltaww.com

 **DELTA**
Smarter. Greener. Together.

Wide Target Area, Fast, Precise and Reliable Capture

With the advance of technology today, manufacturing industries are facing a huge transformation. Production lines need more precise and high-speed field devices to help achieve smart manufacturing and IoT worldwide.

To meet the growing demand for barcode reading on production lines, Delta provides a variety of barcode scanning products, including fixed and handheld scanners. These products can efficiently decode a variety of 1D and 2D barcodes on the market using self-developed decoding algorithms.

Delta Barcode Scanners not only can read 1D/2D barcodes, but can also read defective, damaged barcodes. Delta scanners are suitable for electronics manufacturing, food packaging, as well as logistic industry applications, including communications and production tracking, achieving automation for a changing world for our customers!



Table of Contents

Delta Fixed-mount Barcode Scanner DFS131 Series	3
Delta Handheld Barcode Scanner DAH1000S / DAH2000H Series	5
Applications	8
Specifications	9
Reading Range	12
Symbologies	13
Product Dimensions	17
Ordering Information	19

Delta Fixed-mount Barcode Scanner

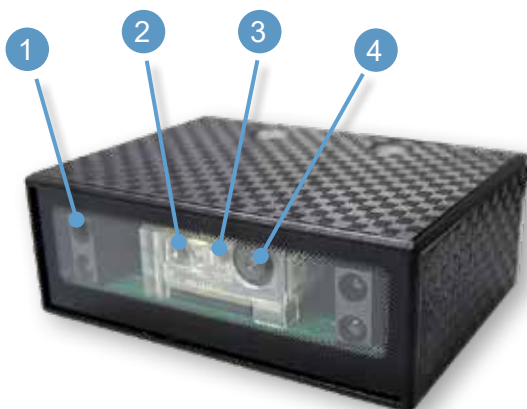
DFS131 Series

Delta Fixed-mount Barcode Scanner DFS131 Series adopts built-in LED indicators and a CMOS Sensor. It ensures product barcodes are effectively detected when passing through a scanning area without manual adjustment, achieving highly accurate barcode reading capability under any lighting conditions. The DFS131 Series is applicable to industrial conveyors and can easily complete scanning through the operating route during manual handling for fully automatic barcode scanning. In addition, the DFS131 Series supports various installations for independent and embedded applications, providing a flexible and highly efficient barcode scanner.

Product Features

- Flexible design, suitable for independent, embedded applications and various installations
- Built-in LED indicators and CMOS Sensor to ensure valid reading under any lighting conditions
- Barcodes attached to products or components can be effectively detected when passing through a scanning area, without manual operation
- Manual-free image trigger function is matched with delivery structures and conveyors to achieve fully automatic barcode reading capabilities

Part Names



No.	Name
1	IR Sensor
2	LED Light (White)
3	LED Aimer (Red)
4	CMOS Sensor

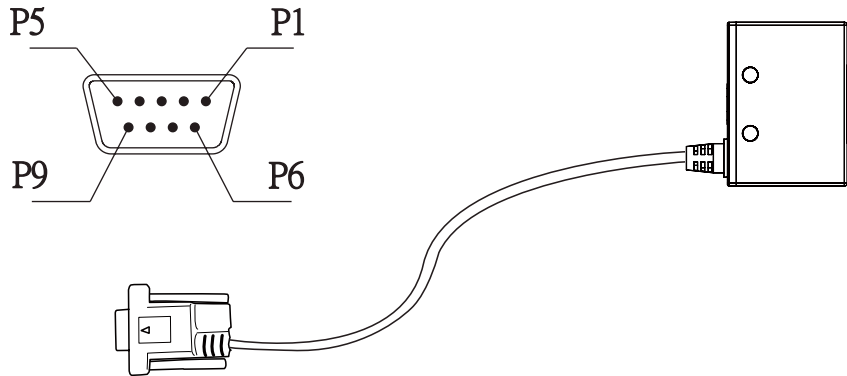
Installation

RS-232 Connection

1. Connect the barcode scanner to a computer
2. Supply power to pin 9, or install a power adapter to a DC terminal

RS-232 (D-Sub 9 female terminal)

Pin	Signal
2	TXD (Out)
3	RxD (In)
5	GND
7	CTS (In)
8	RTS (Out)
9	+5VCC



System Interface

1. The default communication format is 9600-8-N-1
2. RS232 interface supports a communication trigger

Delta Handheld Barcode Scanner

DAH1000S/DAH2000H Series

Delta's latest handheld barcode scanner DAH Series offers high sensing and fast capture capabilities with high-end barcode reading algorithms. With advanced and stable reading ability, it can easily capture 1D and 2D barcodes within the range of 5-20 cm without the need for manual interference to fulfill the application demands for various environments. In addition, the DAH1000S Series is anti-static and provides high-precision and high-speed reading capabilities.

The DAH Series adopts a lightweight and ergonomic design with a comfortable grip, for engaging in prolonged operations. With the built-in centralized aimer, beeper, and indicator lights, it can precisely locate any barcodes and provide real-time operating feedback to users. It is especially suitable for harsh industrial environments such as machining, electronics, and energy industries, as well as in the common service, logistics and medical industries.

Product Features

- Fast code capture speed without aiming precisely
- Easy to read barcodes under low contrast, optical noise, uneven exposure or damaged conditions
- Easy commands for users to set up functions such as:
 - Manual illumination adjustment based on various environments
 - Single and multiple trigger modes
 - Selective barcode types based on user requirements
 - Self-defined exported content of the scanning codes for flexible data acquisition
- Stable and reliable operation for high-speed image capturing with no need for manual interference or aiming in precise barcode direction
- No detached components, saving maintenance cost
- Robust design: drop impact resistance at 1 m high
- Lightweight and ergonomic design
- The DAH1000S Series features an anti-static function



Part Names and Functions



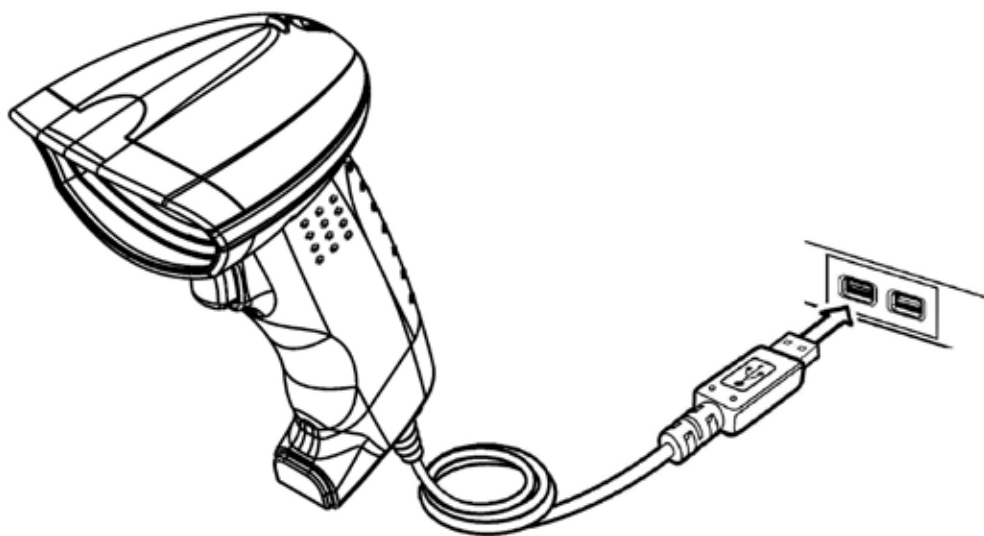
DAH2000H Series

DAH1000S Series

No.	Name	Description
1	Centralized aimer	Barcode reading
2	Trigger	Press and hold to read
3	Handle	Gripping point
4	Cable	USB communication

Installation

Direct USB connection to PCs, no installing configuration required



Applications

- Retail



- Logistics



- Manufacturing



- Medical Services



Specifications

DFS131 Series

Optics & Performance	Light Source	White LED LED red dot aiming
	Sensor	Area image sensor
	Resolution	5 mil (1D barcode) / 6.67 mil (2D barcode)
	Scan Rate	30 frame/sec.
	Scan Angle	Horizontal 37.8° / Vertical 28.8°
	Contrast Ratio	30%
Product Spec.	Dimensions	56 x 41 x 20 mm (W x H x D)
	Weight	120 g
	Material	ABS (housing), PC (back side)
	Communication Interface	RS-232
	Cable	90 cm
	Trigger	Automatic induction; command trigger
	Indicators	LED, buzzer
Power Supply	Power Operation Voltage	5V _{DC} ± 5%
	Working Current	< 320 mA
	Standby Current	< 130 mA
Environment	Operating Temperature	-10~55°C
	Storage Temperature	-20~65°C
	Humidity	0%~95%RH (non-condensing)
Certifications	IP Rating	IP55
	Ambient Light	30,000 Lux (sunlight)
	Regulatory ESD	Functional after 4KV contact, 8KV air discharge
		FCC Part 15B Class B, CE EN55024/32
	Safety Certification	EN/IEC62471 (exempt group)
Environmental Safety Certification	WEEE, RoHS 2.0	

Specifications

DAH1000S Series

Optics & Performance	Light Source	640 nm visible red LED / 5000K CCT White LED
	Sensor	Area image sensor
	Resolution	5 mil (Code39 / 1D barcode) / 6.67 mil (PDF417 / 2D barcode)
	Scan Rate	30 frames/sec.
	Scan Angle	Horizontal 37.8° / Vertical 28.8° / Pitch angle ±45° / Skew angle ±45° / Roll angle 360°
	Print Contrast Ratio	30%
	Width of Field	116mm (13mil Code39)
Product Spec.	Dimensions	71 x 166 x 84 mm (W x L x H)
	Weight	172g
	Color	Black & Gray
	Material	ABS
	Connector	USB Type A
	Cable	2.1 M
	Trigger	Scan button
	Indicators	LED, buzzer, vibrator
Power Supply	Operation Voltage	5V _{DC} ±5%
	Working Current	< 210mA
	Standby Current	< 85mA
Connectivity	Interface / Profile	USB HID / USB VCP
Environment	Operating Temperature	-10~40°C
	Storage Temperature	-20~65°C
	Humidity	0%~95% RH (non-condensing)
	Drop Durability	1M
	IP Rating	IP42
	Ambient Light	100,000 Lux (sunlight)

Specifications

DAH2000H Series

Product Spec.	Dimensions	74 mm x 186 mm x 91 mm (W x H x D)
	Weight	320 g
Power Supply	Power Voltage	5 V _{DC} ± 10%
	Rated Current Consumption	500 mA
Optics & Performance	Light Source	White LED / Red LED
	Field of View	28.8°(V) x 37.8°(H)
Connectivity	Communication Interface	USB 2.0
	Sensor	Regional image sensor
	Indicators	LED and beeper
Environment	Certifications	CE
	Operating System	Windows XP, Windows 7 or above
	Operating Temperature	0°C ~ 50°C
	Storage Temperature	-40°C ~ 85°C
	Relative Humidity	30% ~ 90% RH (non-condensing)
	Operating Height	Below 2000 m
	Vibration	No error: 3-axis; 10 ~ 50 Hz; 10 m/s ² (1.0 G); 10 minutes No damage: 3-axis; 10 ~ 50 Hz; 20 m/s ² (2.0 G); 2 hours
	Drop Impact Resistance	Drop at 1 m/5 ft on concrete








Reading Range

Model	Type	Operating Distance
DFS131	5 mil Code39	45 mm ~ 154 mm
	10 mil Code39	65 mm ~ 270 mm
	13 mil EAN/UPC	64 mm ~ 313 mm
	6.67 mil PDF417	52 mm ~ 136 mm
	10 mil Data Matrix	45 mm ~ 135 mm
	20 mil QR Code	47 mm ~ 246 mm
DAH1000S	5 mil Code39	50 mm ~ 120 mm
	20 mil Code39	55 mm ~ 370 mm
	13 mil UPC	55 mm ~ 270 mm
	6.67 mil PDF417	50 mm ~ 115 mm
	10 mil DataMatrix	50 mm ~ 120 mm
	20 mil QR Code	40 mm ~ 220 mm
DAH2000H	5 mil Code 39	40 mm ~ 120 mm
	20 mil Code 39	50 mm ~ 320 mm
	13 mil UPC	65 mm ~ 205 mm
	6.67 mil PDF417	40 mm ~ 130 mm
	10 mil Data Matrix	40 mm ~ 120 mm
	20 mil QR code	40 mm ~ 190 mm

Symbologies - 1D Barcodes

Application		Barcode Type		DAH1000S	DAH2000	DFS131
Industrial Automation & Manufacturing	General industrial manufacturing	Code 93		O	O	O
	General industrial manufacturing/internal management system	Full ASCII Code 39		O	X	O
	General industrial manufacturing/package exterior labeling	Interleaved 2 of 5		O	O	O
	Logistics/packaging industries	Code 128		O	O	O
	General industrial manufacturing/logistics management	Industrial 2 of 5		O	X	O
Retail Market	International retail markets	EAN-13		O	O	O
		EAN/JAN-13		O	X	O
	General merchandise retailers in the United States & Canada	UPC-A		O	O	O
	Small packaged merchandise in retail markets in the United States & Canada	UPC-E		O	O	O
	International retail markets/small packaged merchandise	EAN-8		O	O	O
		EAN/JAN 8		O	X	O
	Merchandisers with additional information (e.g. serial numbers, expiry dates, batch numbers, and more)	GS1 Databar		O	X	O










Symbologies - 1D Barcodes

Application		Barcode Type	DAH1000S	DAH2000	DFS131
Warehousing & Logistics	Dispatching, product tracking, and distribution point receiving	EAN/UCC 128  <small>(01)01234567890128TEC-IT</small>	O	X	O
	Air cargo management	IATA Code 2 of 5  <small>0 1 2 3 4 5 6 7 0</small>	O	X	O
	Aeronautic industry & warehouse equipment for inventory	Matrix 2 of 5  <small>0 1 2 3 4 5 6 7</small>	O	X	O
	Warehousing for inventory	MSI  <small>012345674</small>	O	X	O
Medical/ Services Books/ Telephones	Italian pharmaceuticals	Code 32  <small>AD11149076</small>	O	X	O
	Libraries, blood banks, small parcel delivery	Codabar  <small>437764848098</small>	O	X	O
	Telephone	Code 11  <small>0123-4567</small>	O	X	O

Symbologies - 2D Barcodes

Application	Barcode Type	DAH1000S	DAH2000	DFS131
Industrial automation, blood banks	Codablock A 	O	X	O
Small labels	Codablock F 	O	X	O
Industrial automation, electronics	PDF417 	O	X	O
Objects of small site area	MicroPDF417 	O	X	O
Hospital (e.g. patient identification, medicine labels, IV, specimens, and more)	Aztec Code 	O	X	O
Occasions that can damage barcode easily (e.g. special environment of high temperature or parts contacted with chemical cleaners)	Data Matrix 	O	O	O
United States postal tracking services	MaxiCode 	O	X	O
Media	QR Code 	O	O	O
	Micro QR Code 	O	X	O
Encrypted data & information	Chinese Sensible (Han Xin) Code 	O	X	O

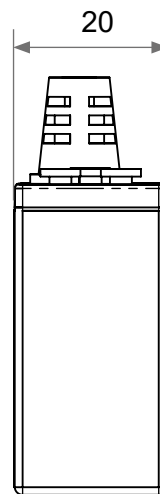
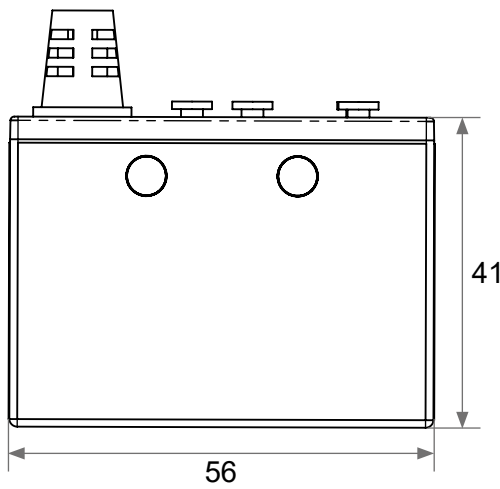
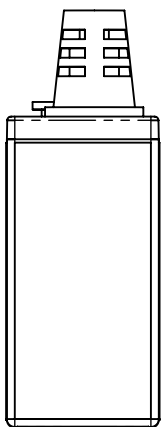
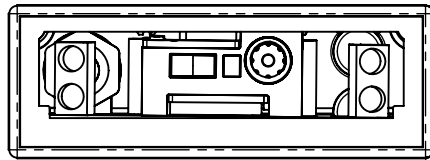
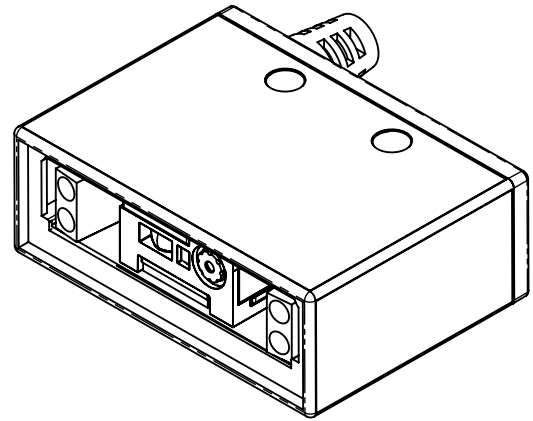
Symbologies - Postal Codes

Country	Barcode Type	
Australia		
United Kingdom		
Canada		
China		
Japan		
Korea		
Netherlands		
United States	Postal Alpha Numeric Encoding Technique (PLANET) Code	
	(Postal Numeric Encoding Technique) POSTNET Code	

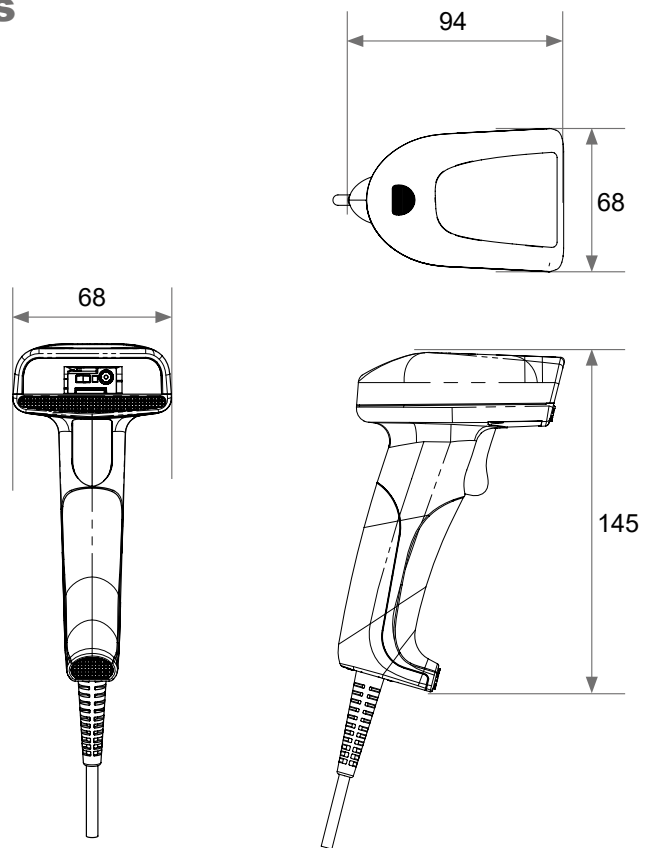
Dimensions

DFS131 Series

Unit: mm

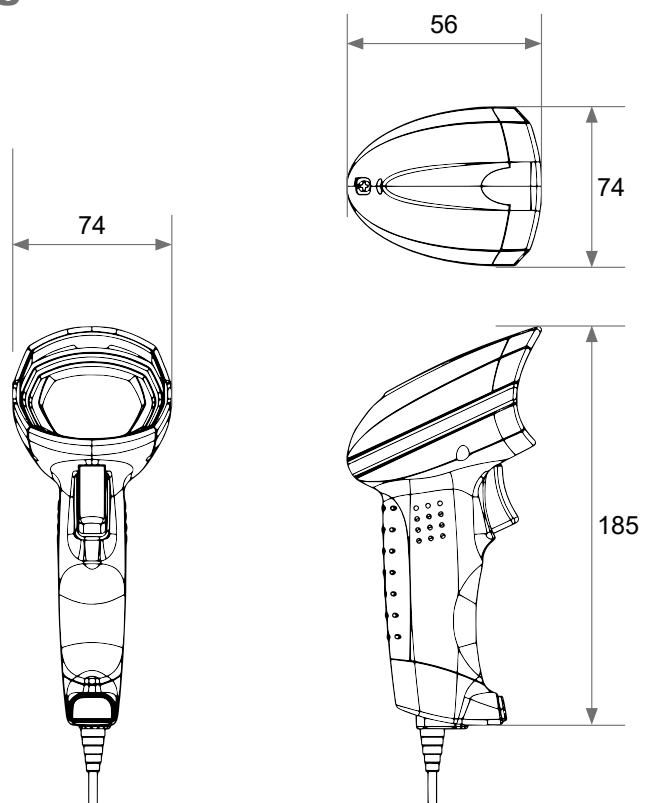


DAH1000S Series



Unit: mm

DAH2000H Series



Unit: mm

Ordering Information

Product Series	Model	Communication Interface
DFS131	DFS131-232	RS-232
DAH1000S	DAH1000S-USB	USB
DAH2000H	DAH2000H-USB	USB



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