



# The WS4 Thermal Printer

## Compact Label Printer

### *Features*

- User-Friendly Operation and Serviceability
- Printing Resolution of 203 / 305 dpi
- Thermal Transfer and Direct Thermal Models
- Standard Ethernet
- Prints Labels, Receipts, Tags and Wristbands
- Long 300m Ribbon - Face-in/out
- Emulations (SZPL, SEPL, SDPL, SIPL)
- Wireless Operation via Bluetooth™ or Wi-Fi™

### *Application*

- Logistics
- Transportation
- Retail
- General Office
- Government
- Entertainment
- Manufacturing
- Healthcare





# GENERAL SPECIFICATIONS / WS400 Series

PRINTING SPECIFICATIONS		WS408	WS412
<b>Printing Method</b>		Direct Thermal (DT) and Thermal Transfer (TT) Models	
<b>Print Resolution</b>		203 dpi (8 dots/mm)	305 dpi (12 dots/mm)
<b>Maximum Print Area</b>	<b>Width</b>	4.25" (108.0 mm)	4.17" (105.7 mm)
	<b>Length</b>	39.33" (999.0 mm)	39.33" (999.0 mm)
<b>Print Speed</b>		6 ips (Up to 152.4mm/sec)	4 ips (Up to 102.0 mm/sec)
<b>Printer Memory</b>		Flash ROM: 16MB, RAM: 32MB	
<b>Dimension</b>		TT Model: W: 8.68" (220.6 mm) D: 10.96" (278.5 mm) H: 7.41" (188.3 mm) DT Model: W: 7.23" (183.8 mm) D: 8.76" (222.6 mm) H: 6.53" (166.0 mm)	
<b>Weight</b>		DT Model: 3.88 lbs. (1.76 kg) / TT Model: 5.29 lbs. (2.4 kg)	

## MEDIA SPECIFICATIONS

### Sensor Type

Adjustable I-Mark Sensor (Reflective), Label Gap Sensor (Transmissive), Label Taken sensor (Dispenser model)

### Media Type

Roll or fan-fold die cut labels, Plain paper face stock, Synthetics and Continuous stock

### Media Thickness

0.002" – 0.007" (0.06 – 0.19 mm)

### Media Roll Diameter

#### Diameter

Roll Max. Outside Diameter: 5.0" (127.0 mm), Core Diameter: 1.0" / 1.5" (25.4 mm / 38.0 mm)

#### Wind Direction

Face-in/out

### Media Width

0.88" (22.4 mm) to 4.52" (115.0 mm)

### Media Length (Linerless)

#### Continuous

0.31" (8.0 mm) to 39.25" (997.0 mm)

#### Tear-Off

0.31" (8.0 mm) to 39.25" (997.0 mm)

#### Cutter

0.76" (19.4 mm) to 39.09" (993.0 mm)

#### Dispenser

0.92" (23.4 mm) to 5.92" (150.4 mm)

### Ribbon (Thermal Transfer Model)

#### Length

Max. 984.2 ft (300m) Center justified

#### Core Diameter

0.5" (12.7 mm) for 100m ribbon / 1.0" (25.0 mm) for 300m ribbon

### SATO Genuine Consumables

For maximum print quality and optimum use, SATO recommends the use of SATO genuine consumables.

## COMMUNICATION INTERFACES

### Standard

USB (Type A, Type B), LAN, RS232C

### LAN Protocols

UDP, TCP, DHCP, LPR, SNMP, IPv4, HTTP

### Emulations

SBPL SATO Barcode Printer Language, SZPL, SEPL, SDPL, SIPL

### Wireless

Optional WLAN, 802.11 b/g/n, Optional Bluetooth, V2.1 + EDR

## BARCODE SYMBOLOGIES

### Linear

UPC-A/E, JAN/EAN-8/13, Code 39, Code 93, Code 128, GS1-128 (UCC /EAN128), Codabar (NW-7), Interleaved 2 of 5, MSI, GS1 Databar (RSS14) Truncated, Stacked, Limited, Expanded, Composite JAN/EAN-8/13, Composite UPC A/E, Postnet

### 2D Symbologies

PDF417 including Micro pdf, MAXI Code, QR Code, GS1 Data Matrix (ECC200) AZTEC

### Print Rotation / Character Data (Barcode)

0°, 90°, 180°, 270°

## FONT SPECIFICATIONS

### Internal Fonts

10 Bitmap SATO Fonts, 15 Scalable SATO Fonts, Multi-National Language Support (47 Languages/Unicode), Single and Double Byte Fonts (Korean, Chinese, Japanese)

## OPERATING & ENVIRONMENT CHARACTERISTICS

### Environment

#### Operating Temperature

41 to 104°F (5 to 40°C), 25 – 85% RH, Non- condensing

#### Storage Temperature

-40 to 140°F (-40 to 60°C), 10 – 90% RH, Non- condensing

### Status Indicators

2 Tricolor LEDs (red, green, orange)

### Power Requirements

Energy Star™ Input voltage adapter: AC100V-240V (auto switching) / 60W (peak) – Input voltage printer: 19V/3A

## OPTIONS

Dispenser, Full cutter, Real Time Clock Module, Wireless LAN, Bluetooth Interface, External Media Stand

## MISCELLANEOUS

### Certifications

FCC, UL, CSA, CCC, CE, ROHS compliant, Energy Star™

### User Serviceable

Thermal printhead and platen roller can be replaced without tools

## SATO SUPPORT

Ensure top quality and long-lasting performance with SATO's Onsite Service Plans and Depot Service Contracts.

Note: Specifications subject to change without notice

## SATO AMERICA CORPORATE

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## LABEL MANUFACTURING, SERVICE & SALES

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CANADA CARIBBEAN