

# WS408 / WS412 4-inch Thermal Desktop Printer | WS4 Series



productoverview



Direct Thermal



Thermal Transfer

## The WS4 Thermal Printer

### Maximizing Performance, Versatility and Investment



Ribbon Up  
To 300M



Standard Ethernet  
Serial & USB



Clear User  
Indicators



Drop-In  
Easy Load Media

### Features

- User-Friendly Operation and Serviceability
- Printing Resolution of 203 / 300 dpi
- Thermal Transfer and Direct Thermal Models
- Standard Ethernet
- Prints Labels, Receipts, Tags and Wristbands
- Long 300m (984.2 ft) Ribbon - Face-in/out
- Emulations (SZPL®, SEPL®, SDPL®, SIPL®)
- Wireless Operation via Bluetooth™ or Wi-Fi™

### Industries

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





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)	300 dpi (12 dots/mm)
<b>Maximum Print Area</b>	<b>Width</b>	4.09" (104.0 mm)	4.09" (104.0 mm)
	<b>Length</b>	39.33" (999.0 mm)	39.33" (999.0 mm)
<b>Print Speed</b>		6 ips (Up to 152.4 mm/sec)	4 ips (Up to 101.6 mm/sec)
<b>Printer Memory</b>		Flash ROM: 16MB, RAM: 32MB	
<b>Dimension</b>		TT Model: W: 8.69" (220.6 mm) D: 10.96" (278.5 mm) H: 7.38" (187.5 mm) DT Model: W: 7.24" (183.8 mm) D: 8.89" (225.9 mm) H: 6.54" (166.0 mm)	
<b>Weight</b>		DT Model: 3.88 lbs. (1.74 kg) / TT Model: 5.46 lbs. (2.48 kg)	

## MEDIA SPECIFICATIONS

### Sensor Type

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

### Media Type

Roll or Fan-fold Die Cut Labels, Plain Paper Face Stock, Synthetics and Continuous Stock, Ticket

### Media Thickness

0.002" – 0.007" (0.06 mm – 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 / 38.1 mm)

### Media Width

0.88" (22.4 mm) to 4.53" (115.0 mm)

### Media Length

#### Continuous

TT/DT: 0.31" (10.0 mm) to 39.21" (996.0 mm)

#### Tear-Off

TT/DT: 0.31" (25.4 mm) to 39.21" (996.0 mm)  
DT Mode on TT Model: 1.18" (30.0 mm) to 39.21" (996.0 mm)

#### Cutter

TT/DT: 0.76" (25.4 mm) to 39.09" (993.0 mm)  
DT Mode on TT Model: 1.37" (35.0 mm) to 39.09" (993.0 mm)

#### Dispenser

TT/DT: 0.92" (25.4 mm) to 5.92" (150.4 mm)  
DT Mode on TT Model: 1.37" (35.0 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 (328.0 ft) / 1.0" (25.4 mm) for 300m (984.2 ft)

### Wind Direction

Face-out / Face-in, No Setting Change Required

### 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

### Wireless

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

### LAN Protocols

ARP, IP, ICMP, UDP, TCP, HTTP, DHCP, Socket, LPR, IPv4, IPv6, SNMPv2

### Emulations

Auto Detect - SBPL®, SZPL®, SEPL®, SDPL®, SIPL®

## BARCODE SYMBOLOGIES

### Linear

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

### 2D Symboleges

PDF417 Including Micro PDF, MAXI Code, QR Code, GS1 Data Matrix (ECC200)

### Print Rotation / Character Data - Barcode

0°, 90°, 180°, 270°

## FONT SPECIFICATIONS

### Internal Fonts

7 Bitmap SATO Fonts, 2 Scalable SATO Fonts, Multi-National Language Support, Single and Double Byte Fonts (Korean, Chinese and Japanese)

## OPERATING & ENVIRONMENT CHARACTERISTICS

### Environment

#### Operating Temperature

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

#### Storage Temperature

-4 to 140°F (-20 to 60°C), 10 – 90% RH, Non- condensing

### Status Indicators

2 Tricolor LEDs (Red, Green and Orange)

### Power Requirements

Energy Star™ Input Voltage Adapter: AC100V-240V (Auto Switching) ;  
DT: 60W / TT: 90W

## OPTIONS

Dispenser, Full Cutter, Real Time Clock Module (future option),  
Wireless LAN, Bluetooth Interface, External Unwinder

## MISCELLANEOUS

### Standards & Agency Approvals

EN60950-1, UL60950-1/CSA C22.2 No.60950-1, CE Marking, FCC,  
TUV GS, ICES-003, RCM, CCC, KC, EAC, S-Mark

### 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

