



WS4



Direct Thermal



Thermal
Transfer

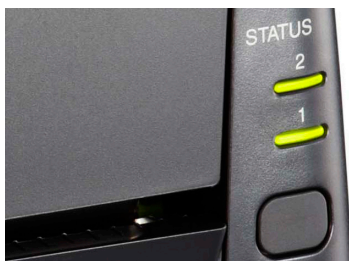
Maximising performance, versatility and investment

SATO, Beyond Expectations

World standard desktop printers for multiple applications

EASY OPERATION

- Wide-open access
- One-touch control
- Simple label setting
- Clear User indicators
- Easy maintenance



FLEXIBLE MEDIA

- 4" Direct & Thermal Transfer models
- 300M ribbon
- Face-in/Face-out media
- Adjustable I-mark sensor
- Auto-calibration



EASY INTEGRATION

- 5 Emulations as standard
- Bluetooth & WLAN options
- Cutter, Dispenser, Offwinder options
- Management utilities
- USB firmware upgrade



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WS4 Printer Series

PRINTING SPECIFICATION		WS408	WS412
Printing Method		Direct Thermal and Thermal Transfer models	
Print Resolution, dots/mm (dpi)		8 dots/mm (203dpi)	12 dots/mm (305dpi)
Max. Print Area	Width, mm (inch)	104mm (4.09")	105.7mm (4.17")
	Length, mm (inch)	999mm (39.33")	999mm (39.33")
Print Speed, mm/sec (ips)		Up to 152.4mm/sec (6 ips)	Up to 102mm/sec (4 ips)
CPU		ATMEL 9260 RISC	
Printer Memory		Flash ROM: 16MB, RAM: 32MB User Memory: 3MB	

CONSUMABLES SPECIFICATION				
Sensor Type		Adjustable I-Mark Sensor (Reflective), Label Gap Sensor (Transmissive), Label Taken sensor, Head Open sensor		
Media Type		Roll or fan-fold die cut labels, Plain paper face stock, Continuous stock, tag, ticket		
Media Thickness		0.06 – 0.19mm (0.002” – 0.007”)		
Label Shape	Diameter	Roll Max. outside diameter: Ø 127mm (5”), Core diameter: 25.4mm / 38mm (1” / 1.5”)		
	Wind Direction	Face-in/out		
Label Size	Continuous	Width	22.4 – 115m	22.4 - 115mm
		Length	8 - 997mm	8 - 997mm
	Tear-Off	Width	22.4– 115mm	22.4 – 115mm
		Length	8 – 997mm	8 – 997mm
	Cutter	Width	22.4 – 115mm	22.4 – 115mm
		Length	19.4– 993mm	19.4 – 993mm
	Dispenser	Width	22.4 – 115mm	22.4 – 115mm
		Length	23.4 – 150.4mm	23.4 – 150.4mm
Ribbon TT model	Size	Max Length 300m. Centre justified		
	Core Diameter	Ø 12.7mm for 100m ribbon 25mm for 300m ribbon		
	Wind Direction	Face-out / Face -in		

FONTS / SYMBOLOGIES		
Internal Fonts. Unicode supported	Standard Fonts	Bitmap Fonts SBPL, SZPL, SEPLII AND SDPL: U, S, M, WB, XS, XU, XM, XB, XL, OCR A, OCR B, Chinese (GB18030, Big 5), Korean (KSX1001
	Scaleable Fonts	CG Times, CG Triumvirate
Barcode	1D Barcode	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, Industrial 2 of 5, Matrix 2 of 5, Bookland
	2D Barcode	PDF417 including Micro pdf, MAXI Code, QR Code, GS1 Data Matrix (ECC200) AZTEC
Print Rotation	Character Data / Barcode	0°, 90°, 180°, 270°

COMMUNICATION INTERFACES	
Interfacing	USB + LAN models, USB + RS232C + LAN models, Optional Wireless LAN, Optional Bluetooth
	LAN protocols: ARP, IP, ICMP, UDP, TCP, DHCP, Socket, LPR, SNMP. Printer Management: SATO Settings Utility
Command languages (Emulations)	
SBPL SATO Barcode Printer Language, SZPL, SEPL, SDPL, SIPL	

OPERATING CHARACTERISTICS		
Power Requirements		Input voltage adapter: AC100V-240V (auto switching)/60W (peak) – Input voltage printer: 19V/3A
Environment	Operating	5 – 40°C / 25 – 85% RH (without condensation)
	Storage	-40 – 60°C / 10 – 90% RH (without condensation)
Dimension		TT Model (W x D x H): 220.6 x 278.5 x 188.3mm DT Model (W x D x H): 183.8 x 225.9 x 166mm
Weight		TT model: 248Kg. DT model: 1.74Kg
Indicators		2 x 2-colour LED

MISCELLANEOUS	
Certifications	FCC, UL, CSA, CCC, CE, TUV GS, EAC, ROHS compliant, Energy Star™
Self-diagnostics	Error detection functions, Printhead overheat function, printhead element check
Ease of service	Thermal printhead and Platen roller easily replaced

OPTIONS	
Accessories	Dispenser, Full cutter, Real Time Clock Module, Wireless LAN, Bluetooth Interface, Large Media Roll Offwinder

SATO SUPPORT	
	Full range of SATO-manufactured labels, tags and ribbons. SATO Value Support after-sales maintenance