Industrial Thermal Printer

CL4NX

www.satoeurope.com

Run All-in-One functions anywhere at any time.

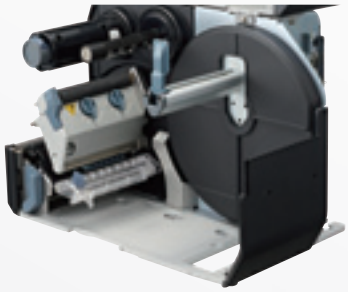
SATO, Beyond Expectations

SATO's First Truly UNIVERSAL Industrial Label Printer
Engineered for the Most Demanding Printing Needs.

Durable Design

▸ Metal Construction, Heavy Aluminum Durability

- Built with strength to withstand the demands of industrial printing applications and environments
- Die-Cast Aluminum print head mechanism provides consistent label and ribbon movement, virtually eliminating label shift or ribbon wrinkling
- Base plate design enables the printer to be secured to raised and uneven platforms and for media to be fed from underneath



Plug-and-Play

Support for a variety of media types

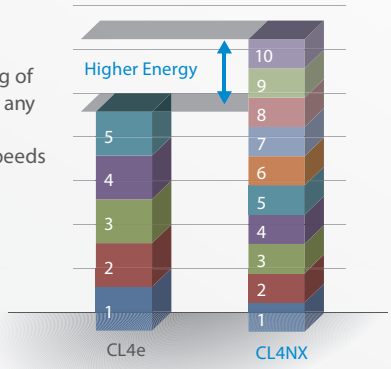
▸ Inside or outside wound ribbons & labels

- New mechanism allows the use of a wide variety of media including media produced for other popular makes of industrial barcode printers
- No adjustments or accessories are required

Superior Print Accuracy and Quality

▸ New Darkness Range for Higher Energy Settings

- Enhanced settings allow printing of challenging materials in almost any environment
- Excellent quality print at high speeds



Space Saving Design

▸ Bi-fold Side Cover

- Reduces overall area required for operation by 54%
- The CL4NX has a reduced horizontal footprint and requires less headroom in under-table applications

LTDS (Label Tension Damper System)

- The innovative LTDS system enables the use of large label rolls
- LTDS provides a controlled backfeed tension and label tracking to ensure top quality print and accuracy

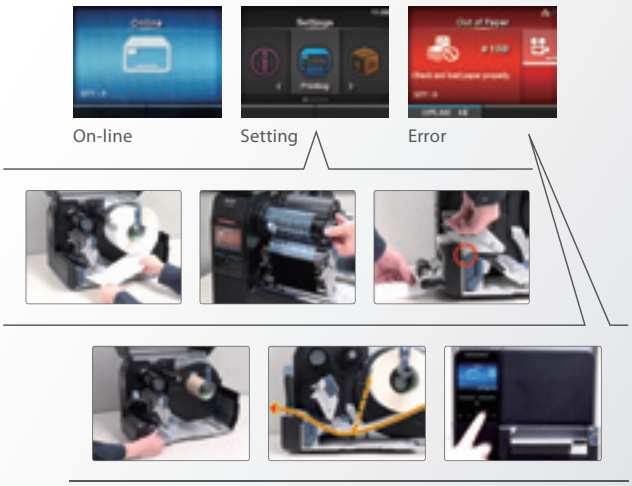
User Friendly Operation

Easy to Use

- Ultimate User-friendly icons and multi-national language support on the full-colour display
- Highly prominent power-on button and status indicator
- Password facility to avoid unintentional adjustment

Full Color Interactive LCD Display

- Assembly of on-display video tutorials show the operation of the CL4NX and valuable instruction to new operators
- Under error conditions, comprehensive messages are displayed and help videos guide the corrective action needed



Multiple on-board interfaces as standard

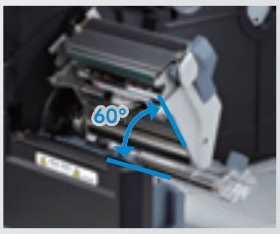
Includes built-in LAN

- New design allows for multiple communication port connection with auto-selection
- Support for Internet Protocol version 6
- Simplifies installation in both legacy and new applications using a single printer model
- USB ports at front and rear for printing and downloading fonts, firmware, emulations and the copying of printer settings
- Send print data from external devices such as tablets via the Bluetooth interface using SATO AEP

Easy Set-up and Maintenance

Industry best design of high-lift printhead mechanism

- Best in class printhead opening of 60° (across the full width) for easy access, fast maintenance and media loading
- Fully tool-less printhead and platen system for quick and easy replacement



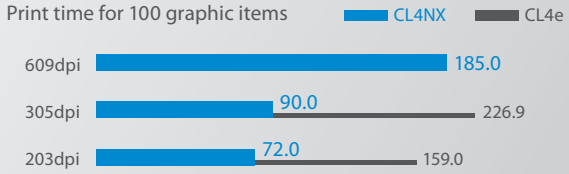
Standard Emulations on-board

- Auto-detect function provides straightforward switching from SATO legacy models or other popular makes of barcode printers
- Supports SBPL, SDPL, SZPL, STCL, and SIPL

High Speed Processing and Throughput

Industry Leading Throughput

- 100MB user accessible memory allows for storage of formats, large graphics, custom fonts and other downloads allowing for faster throughput



Multi-National Language Support

30 Display & 47 Print Languages Support

- All major world languages covered
- Remote maintenance capabilities allow users to control and monitor printers anywhere in the world regardless of language setting

TECHNICAL INFORMATION

PRINTING SPECIFICATION			CL4NX		
Printing Method			Direct Thermal / Thermal Transfer		
Print Resolution			8 dots / mm (203 dpi)	12 dots / mm (305 dpi)	24 dots / mm (609 dpi)
Max. Print Speed			10 ips (254 mm/sec)	8 ips (203 mm/sec)	6ips (152 mm/sec)
Max. Print Area	Width, mm (inch)		104mm(4.1″)		
	Length, mm (inch)		2500mm(98.43″)	1500mm(59.1″)	400mm(15.7″)
Processor			Dual CPU & Dual OS: CPU 1: 2GB ROM, 256MB RAM for Linux OS, CPU 2: 4MB ROM, 64 MB RAM for ITRON OS		
Printer Memory			2GB ROM, 256MB RAM		

CONSUMABLES SPECIFICATION (Recommended to use printer supplies manufactured or certified by SATO)					
Sensor Type			I-Mark Sensor (Reflective), Label Gap Sensor (Transmissive)		
Media Type			Roll or fan-fold die cut labels, Plain paper face stock, Synthetics and Continuous stock		
Media Thickness			0.06 - 0.26mm (0.002″ to 0.01″)		
Label Shape	Diameter		Maximum 220mm (8.6″) on 76mm (3″) internal core diameter Core diameter: Ø 76mm (3.0″), Ø 101mm (4.0″)		
	Wind Direction		Face In / Face Out. No Setting Change Required		
Label Size	Continuous	Width	22 to 128mm (0.87″ to 5.0″)	22 to 128mm (0.87″ to 5.0″)	22 to 128mm (0.87″ to 5.0″)
		Length	6 to 2497mm (0.24″ to 98.3″)	6 to 1497mm (0.24″ to 58.9″)	6 to 397mm (0.24″ to 15.6″)
	Tear-Off	Width	22 to 128mm (0.87″ to 5.0″)	22 to 128mm (0.87″ to 5.0″)	22 to 128mm (0.87″ to 5.0″)
		Length	17 to 2497mm (0.24″ to 98.3″)	17 to 1497mm (0.24″ to 58.9″)	17 to 397mm (0.24″ to 15.6″)
	Cutter	Width	22 to 128mm (0.87″ to 5.0″)	22 to 128mm (0.87″ to 5.0″)	22 to 128mm (0.87″ to 5.0″)
		Length	17 to 2497mm (0.24″ to 98.3″)	17 to 1497mm (0.24″ to 58.9″)	17 to 397mm (0.24″ to 15.6″)
	Dispenser	Width	22 to 128mm (0.87″ to 5.0″)	22 to 128mm (0.87″ to 5.0″)	22 to 128mm (0.87″ to 5.0″)
		Length	27 to 397mm (0.67″ to 15.6″)	27 to 397mm (0.67″ to 15.6″)	27 to 397mm (0.67″ to 15.6″)
	Linerless	Width	32 to 128mm (1.3″ to 5.0″)	32 to 128mm (1.3″ to 5.0″)	32 to 128mm (1.3″ to 5.0″)
		Length	30 to 120mm (1.2″ to 4.9″)	30 to 120mm (1.2″ to 4.9″)	30 to 120mm (1.2″ to 4.9″)
Ribbon	Size		Max. Length: 600m(1969′) Max. Length will be 450m (1476′) when ribbon width is 39.5mm. Max. Roll Diameter: 90mm(3.5″), Ribbon width : 39.5mm(1.55″) to 128mm(5.04″)		
	Other		Core diameter: Ø 25.4mm (1″), Wind direction : Face In/ Face Out, No Setting Change Required		

FONTS / SYMBOLOGIES		
Internal Fonts	Standard Bitmap	U, S, M, WB, WL, XS, XU, XM, XB, XL, OCR-A, OCR-B
	TTF Fonts	CG Times, CG Triumvirate, Sato Gamma (Bold, Italic, Bold Italic), Sato Vica (Bold, Italic, Bold Italic), Sato Folio Bold, Sato Vica Light Condensed, Sato Alpha Bold Condensed, Sato 0 Bold Condensed, Sato Futura Medium Condensed, Sato OCR-B, Sato Symbol Set, Sato Wingbats, Sato Sans(Bold), Sato Serif(Bold), HGMLAG, Sato Beta Bold Italic, Helvetica, Universal, Universal Condensed Bold, AR Hebe Sans, AR SilverS erif, AR Hebe Sans Farsi, Other Asian True Type fonts, Optional Downloaded TrueType fonts, scalable from 8 to 72 points
	Encoding	UPC-A/E, JAN/EAN-8/13, Code 39, Code 128, GS1-128 (UCC /EAN128), Codabar (NW–7), Industrial 2 of 5, Bookland
Barcode	Linear	Code 39, Code 93, Code 128, CODABAR (NW7), EAN8/13, GS1-DatabarTM, GS1-128(UCC/EAN128), Interleaved 2/5, Industrial 2/5, JAN8/13, Matrix 2/5, MS1, Bookland, PostnetTM, UPC-A/E
	2D Symbologies	PDF417, Micro PDF, Maxi Code, GS1 Data Matrix, QR Code, Micro QR Code and Composite Symbologies
Print Direction		Barcode rotation: 0º, 90º, 180º, 270º
User Downloadable Fonts, Graphics or Formats		Maximum 100MB

INTERFACE CHARACTERISTICS AND INTEGRATION		
Interfaces	RS232	RS232C Standard (XON/XOFF, RTS/CTS)
	IEEE1284	IEEE1284
	USB	USB Device type B connector 2.0 High Speed, USB Device type A (2 ports)
	LAN	Ethernet 10/100 Mbps / DHCP(ipv4 / ipv6), TCP/IP
	Bluetooth	Version 3.0 + EDR Class 2
	EXT	Amphenol D-Sub14pin female
Optional Interface		Wireless LAN (WiFi and CCX Certified), IEEE 802.11a/b/g/n, Dual band (2.4GHz, 5GHz)
Remote Maintenance		SNMP Ver. 3, HTTPs
Supported printer protocols		Standard: SBPL (SATO Barcode Printer Language) Emulation Language: Auto detect - SZPL, SDPL,SIPL or STCL

OPERATING CHARACTERISTICS		
Power Requirements		AC100V~AC240V±10%, 50/60 Hz, Auto-ranging Power Supply, Energy Star – Compliant,
Environment	Operating	0 – 40 ºC / 30 – 80 % RH (without condensation)
	Storage	-20 – 60 ºC / 30 – 90 % RH (without condensation)
Display Panel		TFT Full Color LCD, 3.5"(320 (RGB) *240)
Dimensions		271mm (10.6″) x 457mm (17.9″) x 321mm (12.6″)
Weight		15Kg (33 lbs)

MISCELLANEOUS	
Certifications	CE, UL, TUV, cMETus (USA/Canada), CCC(China), KC (Korea), C-Tick (New Zealand/Australia), S-Mark (Argentina), ROHS compliant
Regulatory Approvals	Noise: Emission –EN55022 Class A, EN55024
Functions – Useful features	Guidance Video on LCD, Multi Language support LCD message (30 Languages), Energy Saving, Large Status LED, Multiple Interfaces-Auto-switching, USB Memory for data copy, Status return, Alarm Sound
Functions – Self Diagnosis Checking	Thermal head check, Paper end detection, Ribbon end detection, Test print, Head Lift detection

OPTIONS	
Accessories	Cutter, Dispenser with Internal Backing Paper Rewinder, Linerless kit, Real-Time Clock, UHF RFID, SATO Label Gallery™

RFID SPECIFICATION (optional)		
UHF	Standard	ISO18000-6 Type C
	Frequency	868 – 920MHz
	Protocols	EPC Gen 2 Class 1, NXP, Impinj, Alien
	RFID Features	Fully integrated UHF RFID Reader / Encoder Module, RFID calibration function for optimal transponder performance, Void marking of damaged or unreadable transponders, RFID data verification after programming, Multiple RFID power settings allow users to use individual Transponder sizes, DIP (Direct Inlay Printing) allows to use short pitch labels down to 4 mm, PWP function allows flexible inlay positions, TID reading and printing as text and barcode
	Gen2 Memory	Expanded EPC (496bit), User Memory (512bit), TID (96bit), Access password, Kill password, Lock

SATO makes no guarantee that the above features are available in all models, and specifications are liable to change, without notice. version 02/14.