



# 5000 / 5100 / 520 data terminals

Complete control where you need it most



## Flexible data capture and data entry

- ▶ WIRELESS AND WIRED CONNECTIVITY
- ▶ MULTIPLE I/O PORTS
- ▶ FULLY PROGRAMMABLE
- ▶ WITH AND WITHOUT LED DISPLAY



Quickly add control where you need it most with flexible, programmable 5000, 5100, and 520 data terminals. Keep control of your business by capturing critical data to track activities on the production line, in bin sort areas, and on the shop floor (model 520). Eliminate data errors and manage your workforce resources with strategically located CipherLab data terminals. Multiple I/O ports and flexible network connectivity let you easily match the terminals to your processes for a safer, more accurate business operation.



## Complete control is your best protection.

Paper-based logging and tracking systems waste time and energy, do not guarantee accuracy, and are insecure. Integrated area security, employee activity logging, and business operation tracking give you greater control over your most critical assets—workforce resources and line operations. Our flexible data terminals deliver front-end data capture for an integrated business security and monitoring solution.

## Advanced terminals for today's business operations.

Versatile options, easy networking—including wireless on the 5000/5100—and reliable operation make CipherLab data terminals ideal for site-wide data collection. Wireless LAN (on 5000/5100), Ethernet, RS-232, and RS-485 connectivity let you network multiple terminals to your back-end systems. Multiple ports give you many I/O options to match your exact needs for line operations, employee attendance, and area security. The 5000/5100 terminals offer up to 8MB of data memory that can be loaded with refreshable lookup tables or other data. The 520 includes a built-in barcode or magnetic stripe reader and LCD display. All terminals are programmable for custom applications across your facilities and integration with your back-end data systems.

## Which model is best for you?

The 5000 and 5100 are perfect for secure-area access. They integrate an RFID interrogator for instant badge reading, which simplifies secure access, while capturing critical data. They have a 21-key keypad, battery backup, up to 9MB of data memory, and flexible I/O, including external keyboard support. The 5100 has an LCD display, the 5000 has no display.

The 520 data terminal is ideal for line operations—production, shop floor, bin sort—where easy data capture is needed. The 520 can be configured with a built-in barcode or magnetic stripe reader, but also supports wand, CCD, and laser scanners. It has a 30-key keypad.

## 5000/5100/520 data terminals

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520

		5000 / 5100	520
<b>Electrical</b>	Voltage	12V $\pm$ 5% DC	
	Power consumption	Operating 50 mA with all card devices attached and battery charging status 200 mA	0.5 W maximum with LCD backlight off and no external devices attached
<b>Environmental</b>	Temperature	0° to 45°C operating -20° to 60°C storage	0° to 50°C operating -20° to 70°C storage
	Humidity (non-condensing)	20% to 90% operating 10% to 90% storage	20% to 90% operating 10% to 95% storage
<b>Physical</b>	Weight	1.6 kg maximum including backup batteries	1 kg including all batteries
	Housing	Black ABS plastic	Dark grey ABS plastic
	Dimensions L x W x H	150 x 150 x 50 mm	234 x 182 x 65 mm including battery holder
<b>Indicators</b>	Buzzer	Programmable, 1 kHz to 4 kHz	External volume control
	External speaker/earphone	–	Popular 8 $\Omega$ -type earphone or amplifier optional
	LCD display	5100 only: 128 x 64 graphic dots FSTN with LED backlight; displays 8 x 4 lines Chinese characters	Supports 128 x 64 or 240 x 64 STN-type graphic LCD display with LED backlight
	LED	4 color LEDs	2 LEDs
<b>Memory</b>	Program memory	2MB flash memory	512K flash memory
	Data memory	1MB SRAM on-board, 2MB to 8MB available	128K on-board, 512K to 2MB available
	CPU	16-bit CPU running at 22.1184 MHz	16-bit CPU running at 14.7456 MHz
<b>Input device</b>	Built-in slot / RFID reader	Mifare or EM	Optional barcode slot reader or magnetic stripe reader
	Reader ports	1 external reader port; can attach TTL RS232 reader	2 reader ports for barcode slot, wand, laser or up to dual-track magnetic stripe readers
	Symbology supported	–	Codabar, Code 39/Full ASCII, Code 93, Code 128, EAN 8 & 13, GS1-128, Industrial 2 of 5, Interleave 2 of 5, Italian Pharma Code, Matrix 2 of 5, MSI, Plessey, UPCA & E
	Built-in keypad	21 backlit rubber keys including 6 function keys	30 rubber keys including 8 function keys
	External keyboard	PS/2 type through mini-DIN connector (optional)	PS/2 type through mini-DIN connector
<b>Battery</b>	Operation battery	Optional 7.4V 2000 mAh rechargeable CGR18650A Panasonic battery	Up to 2 mobile phone battery pack, optional 1.2V x 6 1200 or 1800 mAh rechargeable NiMH batteries
	Operation battery control	Battery voltage can be monitored. On-board self-shutdown circuit prevents over-discharge of battery.	
	Backup battery	7.4V, 2000 mAh Li-ion battery (optional)	3.6V, 60 mAh NiMH battery
<b>Calendar</b>		Calendar chip with battery backup	Fine-tunable calendar chip with battery backup
<b>Digital input/output</b>	Input/output	Up to 4 digital inputs and 4 digital outputs	
	Types of input	Photo coupler can monitor external devices	CMOS level or photo coupler can monitor external devices
	Types of output	Relay output can control external devices such as alarm, door lock switches	CMOS level, open collector or relay output can control external devices such as alarm, door lock switches
<b>Communication ports</b>		RS232 and RS485 (standard)	COM1 and COM2 configurable for RS232/RS485 (half and full duplex)/20mA current loop, COM3 is fixed to RS232
<b>Optional cards</b>		TCP/IP, 10/100 Base, IEEE 802.11 b	On-board TCP/IP
<b>Safety and regulatory approval</b>		CE, C-Tick, FCC Class-A	



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