Vision[™]PLC+HMI

Order Information

Item

V130-33-B1	PLC with Classic panel, Monochrome display 2.4"
V130-J-B1	PLC with Flat panel, Monochrome display 2.4"
V350-35-B1	PLC with Classic panel, Color touch display 3.5"
V350-J-B1	PLC with Flat panel, Color touch display 3.5"
V430-J-B1	PLC with Flat panel, Color touch display 4.3"

You can find additional information, such as wiring diagrams, in the product's installation guide located in the Technical Library at <u>www.unitronics.com</u>.

Power Supply			
Item	V130-B1 V130J-B1	V350-B1 V350J-B1	V430J-B1
Input voltage	12VDC or 24VDC		
Permissible range	10.2VDC to 28.8VDC with less than 10% ripple		
Max. current consumption	See Note 1		
	200mA@12VDC	220mA@12VDC	220mA@12VDC
	100mA@24VDC	110mA@24VDC	110mA@24VDC

Notes:

1. To calculate the actual power consumption, subtract the current for each unused element from the maximum current consumption value according to the values below:

	Input voltage	Backlight	Ethernet card
V130/J	1011	20mA	70mA
V350/J/V430J	12V	40mA	70mA
V130/J		10mA	35mA
V350/J/V430J	24V	20mA	35mA

Graphic Display Screen V130-B1 V350-B1 V430J-B1 Item V130J-B1 V350J-B1 LCD Type TFT, LCD display STN, LCD display TFT, LCD display Illumination backlight White LED White LED White LED Display resolution 128x64 pixels 480x272 pixels 320x240 pixels Viewing area 2.4" 3.5" 4.3" Colors Monochrome 65.536 (16-bit) 65.536 (16-bit) Screen Contrast Via software Fixed Fixed (Store value to SI 7, values range: 0 to 100%) Touchscreen None Resistive, analog Resistive, analog 'Touch' indication None Via buzzer Via buzzer Screen brightness control Via software Via software (Store value to SI 9, (Store value to SI 9, values range: 0 to 100%) 0 = Off, 1 = On)Virtual Keypad None Displays virtual keyboard when the application requires data entry.

Keypad						
Item	V130-B1 V130J-B1		V350 V350)-B1)J-B1		V430J-B1
Number of keys	20 keys,including 10 5 pr user-labeled keys		5 pro	rogrammable function keys		
Key type	Metal dome, se	ealed membr	ane sw	tch		
Slides	Slides may be installed in the operating panel faceplate to custom-label the keys. Refer to V130 Keypad Slides.pdf. A complete set of blank slides is available by separate order		Slides may be installed in the operating panel faceplate to custom-label the keys. Refer to V350 Keypad Slides.pdf. Two sets of slides are supplied with the controller: one set of arrow keys, and one blank set.		nel tom-label to V350 odf. es are e et of	None
Program	V130-B1		V350	N D 1		V/120 L B1
Item	V130-B1 V130J-B1			и-ва J-B1		V430J-B1
Memory size						
Application Logic	512KB		1MB			1MB
Images	128KB		6MB			12MB
Fonts	128KB		512K	В		512KB
Operand type		Quantity Symb		Symbol	Value	
Item	V130-B1 V130J-B1	V350-B1 V350J-B V430J-B	81			
Memory Bits	4096	8192		MB	Bit (coil)	
Memory Integers	2048	4096		MI	16-bit sigr	ned/unsigned
Long Integers	256	512		ML	32-bit sigr	ned/unsigned
Double Word	64	256		DW	32-bit uns	igned
Memory Floats	24	64		MF	32-bit sigr	ned/unsigned
Fast Bits	1024	1024		XB	Fast Bits ((coil) – not retained
Fast Integers	512	512		XI	16 bit sigr (fast, not i	ned/unsigned retained)
Fast Long Integers	256	256		XL	32 bit sigr (fast, not r	ned/unsigned retained)
Fast Double Word	64	64		XDW	32 bit uns	igned (fast, not retained)
Timers	192	384		Т	Res. 10 m	ns; max 99h, 59 min, 59.99s
Counters	24	32		С	32-bit	
Data Tables	120K dynamic data (recipe parameters, datalogs, etc.) 192K fixed data (read-only data, ingredient names, etc) Expandable via SD card. See Removable Memory below					
HMI displays	Up to 1024					
Program scan time	20µs per 1kb of typical application	15µs per of typical applicatio				

Removable Memory

Micro SD card

Compatible with standard SD and SDHC; up to 32GB store datalogs, Alarms, Trends, Data Tables, backup Ladder, HMI, and OS. See Note 2

Notes:

2. User must format via Unitronics SD tools utility.

Communication Ports	
Port 1	1 channel, RS232/RS485 and USB device (V430/V350/V350J only). See Note 3
Galvanic isolation	No
Baud rate	300 to 115200 bps
RS232	
Input voltage	±20VDC absolute maximum
Cable length	15m maximum (50')
RS485	
Input voltage	-7 to +12VDC differential maximum
Cable type	Shielded twisted pair, in compliance with EIA 485
Cable length	1200m maximum (4000')
Nodes	Up to 32
USB device (V430/V350/V350J only)	
Port type	Mini-B, See Note 5
Specification	USB 2.0 complaint; full speed
Cable	USB 2.0 complaint; up to 3m
Port 2 (optional)	See Note 4
CANbus (optional)	See Note 4

Notes:

- This model is supplied with a serial port: RS232/RS485 (Port 1). The standard is set to either RS232 or RS485 according to jumper settings. Refer to the product's Installation Guide.
- 4. The user may order and install one or both of the following modules:
 - An additional port (Port 2). Available port types: RS232/RS485 isolated/non-isolated, Ethernet
 - A CANbus port
 - Port module documentation is available on the Unitronics website.
- Note that physically connecting a PC to the controller via USB suspends RS232/RS485 communications via Port 1. When the PC is disconnected, RS232/RS485 resumes.

I/O Expansion	
Local	Additional I/Os may be added. Configurations vary according to module. Supports digital, high-speed, analog, weight and temperature measurement I/Os. Via I/O Expansion Port. Integrate up to 8 I/O Expansion Modules comprising up to 128 additional I/Os. Adapter required (P.N. EX-A2X).
Remote	Via CANbus port. Connect up to 60 adapters to a distance of 1000 meters from
Keniole	controller; and up to 8 I/O expansion modules to each adapter (up to a total of 512 I/Os). Adapter required (P.N. EX-RC1).
Miscellaneous	
Clock (RTC)	Real-time clock functions (date and time)
Battery back-up	7 years typical at 25°C, battery back-up for RTC and system data, including variable data
Battery replacement	Yes. Coin-type 3V, lithium battery, CR2450

Item		V130-B1	V350-B1	V430J-B1
		V130J-B1	V350J-B1	
Size	Vxxx	109 x 114.1 x 68mm (4.29 x 4.49 x 2.67"). See Note 6	109 x 114.1 x 68mm (4.29 x 4.49 x 2.67"). See Note 6	
	Vxxx-J	109 x 114.1 x 66mm (4.92 x 4.49 x 2.59"). See Note 6	109 x 114.1 x 66mm (4.92 x 4.49 x 2.59"). See Note 6	136 x 105.1 x 61.3mm (5.35 x 4.13 x 2.41"). See Note 6
Weight		255g (9 oz)	270g (9.5 oz)	300g (10.5 oz)

Notes:

6. For exact dimensions, refer to the product's Installation Guide.

Environment	
Operational temperature	0 to 50°C (32 to 122°F)
Storage temperature	-20 to 60°C (-4 to 140°F)
Relative Humidity (RH)	10% to 95% (non-condensing)
Mounting method	Panel mounted (IP65/66/NEMA4X)
	DIN-rail mounted (IP20/NEMA1)
Operating Altitude	2000m (6562 ft)
Shock	IEC 60068-2-27, 15G, 11ms duration
Vibration	IEC 60068-2-6, 5Hz to 8.4Hz, 3.5mm constant amplitude, 8.4Hz to 150Hz, 1G acceleration.

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