Vision™ OPLC™

The Unitronics V350-35-B1 offers the following features:

I/O configurations can include up to 512 I/Os via Expansion Modules.
Available by separate order: Ethernet, additional RS232/RS485, CANbus.

You can find additional information, such as wiring diagrams, in the product's installation guide located on the Unitronics' Setup CD and in the Technical Library at www.unitronics.com.

Technical Specifications

Power Supply

Input voltage	12VDC or 24VDC
Permissible range	10.2VDC to 28.8VDC with less than 10% ripple
Max. current consumption	See Note 1
	220mA@12VDC
	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:

	Backlight	Ethernet card
12V	40mA	70mA
24V	20mA	35mA

Graphic Display Screen

LCD Type	TFT, LCD display
Illumination backlight	White LED, software-controlled
Display resolution	320x240 pixels
Viewing area	3.5"
Colors	256
Touchscreen	Resistive, analog
'Touch' indication	Via buzzer
Screen brightness	Via software (Store value to SI 9)
Keypad	Displays virtual keyboard when the application requires data entry

Keypad

Number of keys	5 programmable function keys
Key type	Metal dome, sealed membrane switch
Slides	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

Program

Memory size	Application Logic – 1Mb, Images – 3Mb, Fonts – 512 Kb		
Operand type	Quantity	Symbol	Value
Memory Bits	8192	MB	Bit (coil)
Memory Integers	4096	MI	16-bit signed/unsigned
Long Integers	512	ML	32-bit signed/unsigned
Double Word	256	DW	32-bit unsigned
Memory Floats	64	MF	32-bit signed/unsigned
Timers	384	T	32-bit
Counters	32	C	16-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	15µS per 1kb of typical application

Removable Memory

Micro SD card	Compatible with fast SD cards of up to 2GB of memory; 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. See Note 3
Galvanic isolation	No
Baud rate	300 to 115200 bps
RS232	
Input voltage	±20VDC
Cable length	15m maximum (50')
RS485	
Input voltage	-7 to +12VDC
Cable type	Shielded twisted pair, in compliance with EIA 485
Cable length	1200m maximum (4000')
Nodes	Up to 32
Port 2 (optional)	See Note 4
CANbus (optional)	See Note 4

Notes:
 3. 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.

I/O Expansion

	I/Os may be added. Configurations vary according to module. Supports digital, high-speed, analog, weight and temperature measurement I/Os.
Local	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-A1).
Remote	Via CANbus port. Connect up to 60 adapters to a distance of 1000 meters from 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

Dimensions

Size	109x114.1x68mm (4.29x4.49x2.67"). See Note 5
Weight	261.2 (9.21oz)

Notes:

5. 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/NEMA4X)
	DIN-rail mounted (IP20/NEMA1)