Vision™ OPLC™

V1210 OPLCs are programmable logic controllers that comprise a built-in operating panel containing a 12.1" Color Touchscreen.
You can find additional documentation on the Unitronics' Setup CD and in the Technical Library at www.unitronics.com.

Technical Specifications

Power Supply

Input voltage	12 or 24VDC
Permissible range	10.2-28.8VDC
Max. current consumption	1A@12V 0.5A@24V

Battery

Back-up	7 years typical at 25°C, battery back-up for RTC and system data, including variable data.
Replaceable	Yes, without opening the controller.

Graphic Display Screen

	See Note 1
LCD Type	TFT
Illumination backlight	White LED
Display resolution, pixels	800x600 (SVGA)
Viewing area	12.1"
Colors	65,536 (16-bit)
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.

Notes:
1. Note that the LCD screen may have a single pixel that is permanently either black or white.

Program

Memory size	Application Logic – 2MB, Images – 32MB, Fonts – 1MB		
Operand type	Quantity	Symbol	Value
Memory Bits	8192	MB	Bit (coil)
Memory Integers	4096	MI	16-bit
Long Integers	512	ML	32-bit
Double Word	256	DW	32-bit unsigned
Memory Floats	64	MF	32-bit
Timers	384	T	32-bit
Counters	32	C	16-bit
Data Tables	120K dynamic RAM data (recipe parameters, datalogs, etc.) Up tp 256K Flash data		
HMI displays	Up to 1024		
Program scan time	9 µsec per 1K of typical application		

Distributed by:
M.A. Selmon Company, Inc
4 Oxford Rd.
Milford, CT 06460
203-377-3525

Removable Memory

Micro-SD card   Compatible with fast micro-SD cards; 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

Serial ports   2. See Note 3
  RS232
    Galvanic isolation   Yes
    Voltage limits $\pm$20VDC absolute maximum
    Baud rate range   300 to 115200 bps
    Cable length   Up to 15m (50')
  RS485
    Galvanic isolation   Yes
    Voltage limits -7 to +12VDC differential maximum
    Baud rate range   300 to 115200 bps
    Nodes   Up to 32
    Cable type   Shielded twisted pair, in compliance with EIA RS485
    Cable length   1200m maximum (4000')
  USB   See Note 4
    Port type   Mini-B
    Galvanic isolation   No
    Specification   USB 2.0 compliant; full speed
    Baud rate range   300 to 115200 bps
    Cable   USB 2.0 compliant; up to 3m

CANbus port   1
  Nodes

CANopen	Unitronics' CANbus protocols
127	60

  Power requirements   24VDC ($\pm$4%), 40mA max. per unit. See Note 5
  Galvanic isolation   Yes, between CANbus and controller
  Cable length/baud rate

Cable length	Baud rate	
25 m	1 Mbit/s	
100 m	500 Kbit/s	
250 m	250 Kbit/s	
500 m	125 Kbit/s	
500 m	100 Kbit/s	
1000 m*	50 Kbit/s	* If you require cable lengths over 500
1000 m*	20 Kbit/s	meters, contact technical support.

    See Note 5

Optional port   User may install a single Ethernet port, or an RS232/RS485 port.
                                Available by separate order.

Notes:
 3. The standard for each port is set to either RS232/RS485 according to DIP switch settings. Refer
    to the Installation Guide.
 4. The USB port may be used for programming, OS download, and PC access. Note that COM port
    1 function is suspended when this port is physically connected to a PC.
 5. Supports both 12 and 24VDC CANbus power supply, ($\pm$4%), 40mA maximum per unit. Note that if
    12 VDC is used, the maximum cable length is 150 meters.

I/Os

	Number of I/Os and types vary according to module. Supports up to 1024 digital, high-speed, and analog I/Os.
Snap-in I/O modules	Plugs into rear port to create self-contained PLC with up to 62 I/Os.
Expansion modules	<u>Local adapter</u> (P.N. EX-A1), via I/O Expansion Port. Integrate up to 8 I/O Expansion Modules comprising up to 128 additional I/Os.
	<u>Remote adapter</u> (P.N. EX-RC1), via CANbus port. Connect up to 60 adapters; connect up to 8 I/O expansion modules to each adapter.
Exp. port isolation	Galvanic

Dimensions
Size	313.1X244.6X59.1mm (12.32"X9.62"X2.32"). See Note 6
Weight	1.7kg (60 oz)

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

Mounting
Panel-mounting	Via brackets

Environment
Inside cabinet	IP20 / NEMA1 (case)
Panel mounted	IP65/66/NEMA4X (front panel)
Operational temperature	0 to 50ºC (32 to 122ºF)
Storage temperature	-20 to 60ºC (-4 to 140ºF)
Relative Humidity (RH)	5% to 95% (non-condensing)

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