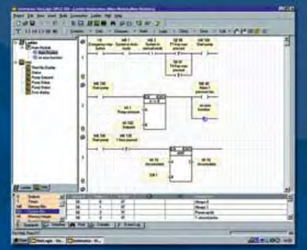
Vision. There's more than meets the eye

All *Vision* OPLCs™ include:

- Up to 12 PID loops, including internal auto-tune, ramp-soak programmer and bumpless transfer.
- 120K Database. Enables dynamic data logging and production recipes.
- 2 Shaft encoder inputs/ High-speed counters/Frequency measurers, 10 kHz, in all Snap-in I/O modules.
- 2 High-speed outputs for stepper motor or PID control via PWM, in all Snap-in I/O modules.
- Vast display options via "List" Variables. Lists of 150 messages/images can be linked to a single variable; up to 24 variables can be shown per display. "List" Variables allow easy scrolling among pre-programmed recipes/menus.
- Easy graphic display design using the Images Library and user-friendly editing tools.
- Built-in Information mode. Provides you with powerful diagnostic capabilities via the operating panel.

VisiLogic Ladder Software

One Windows-based program for both PLC & HMI



PLC editor:

- Click & drop Ladder elements
- Modular program function; create subroutines and call them from anywhere in your program
- Built-in utility that saves application capacity and cuts programming time
- Embedded modem support for remote access and SMS messaging

HMI editor:

- Design and import any image (according to screen resolution)
- Create and display text messages
- Use bar graphs to represent real-time values
- Assign functions to the keyboard and softkeys

Product Specifications and Ordering Information

	V230	*V260*
Graphic Display Screen		
Type	STN LCD	Negative blue STN LCD
Illumination Backlight	LED, yellow-green	CCFL (Fluorescent lamp)
Display Resolution	128 x 64 pixels	240 x 64 pixels
HMI Displays	Up to 255	Up to 255
Keyboard		
Number of Keys	24, user-labeled, includes soft keys & numeric keypad	33, user-labeled, includes soft keys & numeric keypad
Program		
Application Memory	1000K	
Execution Time for Bit Operation	0.5μsec	
Memory Bits (coils)	4096	
Memory Integers (registers)	2048	
Long Integers (32 bit)	256	
Memory Floats	24	
Double Word (32 bit unsigned)	64	
Timers (32 bit)	192	
Counters	24	
Data Tables	Up to 120K (RAM), 64K (Flash)	
Communication		
RS232/RS485	2 RS232 ports + 1 optional RS232 or RS485 (see additional communication modules)	
Ethernet	1 port (optional - see additional communication modules)	
CANbus	1 port	
MODBUS	Supports MODBUS protocol, Master/Slave	
GSM/CDMA	SMS messages to/from any quantity of phone numbers, Remote Access-enabled	
GPRS	Use a GPRS modem to establish a Vision-PC data connection via Internet, and transmit IP packets of data over the cellular network, SMS-enabled	
General		
Power Supply	12VDC or 24VDC	
PID	Up to 12 independent PID loops, including internal auto-tune, ramp-soak programmer and bumpless transfer (up to 32 loops without auto-tune)	
Battery Back-up	7 year typical battery back-up, at 25°C, for all memory sections and real-time clock (RTC)	
Environment	IP65/NEMA4X (front panel, when mounted)	
Expansion option	Up to 128 additional I/Os, via plug-in expansion modules (No. of I/Os may vary according to expansion model)	
Dimensions	184 x 155 x 61.4 mm (7.24" x 6.1" x 2.4")	260 x 155 x 72 mm (10.24" x 6.1" x 2.8")
Article Number	V230-13-B20B	V260-16-B20B

Snap-in I/O Modules

Article Number	*V200-18-E1B*	*V200-18-E2B*	*V200-18-E3XB²*	*V200-18-E4XB²*	*V200-18-E5B²*
Digital Inputs (Isolated)	16 pnp/npn Inputs (24VDC)	16 pnp/npn Inputs (24VDC)	18 pnp/npn Inputs (24VDC)	18 pnp/npn Inputs (24VDC)	18 pnp/npn Inputs (24VDC)
High-speed Counter/Shaft Encoder/Frequency Measurer[1]	Two 10 kHz pnp/npn Inputs	Two 10 kHz pnp/npn Inputs	Two 10 kHz pnp/npn Inputs	Two 10 kHz pnp/npn Inputs	Two 10 kHz pnp/npn Inputs
Analog Inputs	Three 10 bit Inputs, 0-10V, 0-20mA, 4-20mA	Two 10 bit Inputs, 0-10V, 0-20mA, 4-20mA	Four Isolated 14 bit Inputs, 0-10V, 0-20mA, 4-20mA. May also be set to Thermocouple or PT100 (Res. 0.1°)	Four Isolated 14 bit Inputs, 0-10V, 0-20mA, 4-20mA. May also be set to Thermocouple or PT100 (Res. 0.1°)	Three 10 bit Inputs, 0-10V, 0-20mA, 4-20mA
Temperature Measurement	None	None			None
Digital Outputs (Isolated)	4 pnp/npn Outputs (24VDC)	4 pnp/npn Outputs (24VDC)	2 pnp/npn Outputs (24VDC)	2 pnp/npn Outputs (24VDC)	2 pnp/npn Outputs (24VDC)
	10 Relay Outputs	10 Relay Outputs	15 Relay Outputs	15 pnp Outputs (24VDC)	15 pnp Outputs (24VDC)
High-speed Output/ PWM	2 Transistor Outputs are high-speed outputs, 50 kHz for npn / 2 kHz for pnp				
Analog Outputs	None	Two 12 bit Outputs, 0-10V, 0-20mA, 4-20mA	Four Isolated 12 bit Outputs, 0-10V, 4-20mA	Four Isolated 12 bit Outputs, 0-10V, 4-20mA	None

Additional communication modules

Add one of the following COM ports:

Article Number	
V200-19-ET1	1 Ethernet port
V200-19-R4	1 RS485 port
V200-19-RS4-X²	1 RS232/RS485 port (Isolated)

CE c UL us LISTED

[1] Certain digital inputs can function as high-speed counters, shaft-encoder inputs, frequency measurers or normal digital inputs.
[2] V200-18-E3XB, V200-18-E4XB, V200-18-E5B and V200-19-RS4-X are not yet UL certified.

V200-SCEU905 Printed Sept. 2005

UNITRONICS

International Headquarters:
Unitronics Building, Airport City, P.O.B. 300, Ben Gurion Airport, Israel 70100
Tel: +972 3 977 88 88, Fax: +972 3 977 88 77
www.unitronics.com · export@unitronics.com

Vision OPLC™

Graphic Operator Panel & Programmable Logic Controller

Vision230™

Vision260™

CE c UL us LISTED

UNITRONICS

Vision230™/ Vision260™ OPLC™

The Vision package includes:

PLC with graphic HMI, programming software, mounting hardware, connectors, extra set of key labels, communication cable and user guide.

PLC with integrated Graphic Operator Interface

The PLC

- Supports up to 171 I/Os via Snap-in I/O modules and Expansion modules (number may vary according to I/O module)
- I/O types: Digital (including High-speed/PWM), Analog & direct temperature/weight measurement
- Windows-based Ladder Logic software
- Application memory: 1000K
- Execution time: 0.5µsec for bit operations

The Graphical HMI

- Displays images, graphs & text according to run-time conditions & historical values
- Graphic Display Screen
  V260: 240 x 64 pixels
  V230: 128 x 64 pixels
- 100 user-designed displays per typical application
- Text messages:
  V260: Up to 8 lines x 40 characters
  V230: Up to 8 lines x 22 characters
- Hundreds of user-designed graphic images can be implemented in one application
- Customizable keyboard
- LCD illuminated screen

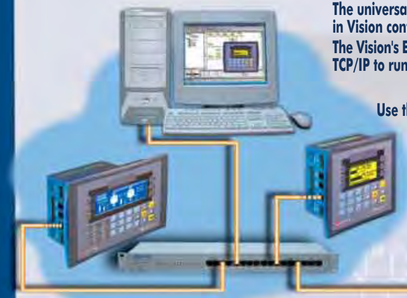
Communication

- 2 RS232 ports
- Ethernet or RS232/RS485 port (optional)
- CANbus port
- MODBUS, Master-Slave
- GPRS/CDMA/GSM, SMS support

An integrated HMI: a built-in advantage

- One programming environment for both PLC & HMI
- Eliminates PLC-HMI communication
- Saves I/O points, reduces hardware
- Simplifies assigning functions to keys and data entry via the keyboard
- Requires less wiring and less space

Ethernet via TCP/IP



The universal COM standard, now embedded in Vision controllers.
The Vision's Ethernet port enables MODBUS commands over TCP/IP to run on existing LAN wiring.

Use the Ladder function blocks to easily implement:

- PC access via SCADA, VisiLogic or Remote Access utilities
- PLC to PLC data exchange via TCP/IP
- External slave device access (for any MODBUS over TCP/IP supporting device)

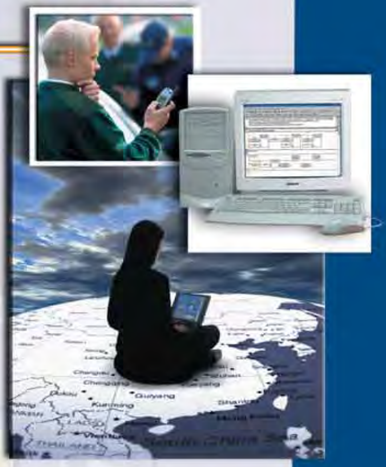
Cellular Remote Control

Remote monitoring:

The Vision OPLC™ can send/receive SMS messages to/from a GPRS/GSM/CDMA cell phone in response to any user-defined event.

Remote trouble-shooting:

Send SMS messages from your GPRS/GSM/CDMA phone to monitor and modify set-points or run-time parameters in your system.



The GPRS/GSM/CDMA enabled Vision OPLC™:

- Sends and receives SMS messages containing both fixed text and variable data
- Sends messages to different GPRS/GSM/CDMA cell phones
- Can route different messages to different phone numbers
- Protects your system: prevents unauthorized callers
- Auto-acknowledges received messages
- Answers data requests from your cell phone
- Contains up to 1k of user-defined messages

Networking: Powerful Distributed Control

MODBUS via RS485/RS232

Use RS485/RS232 to create a multi-device network. Establish master-slave communications between Vision OPLC™ units and any connected device that supports the MODBUS protocol.
Any Vision230™/260™ in the network may function as either master or slave.

CANbus Networking

Integrate up to 63 Vision and M90/M91 OPLC™ units into an efficient high-speed network, using Unitronics' CANbus protocol.

OPC Server / DDE Server via RS232

Use RS232 to gain PC access to your Vision OPLC™ network. Unitronics' OPC/DDE server enables the Vision230™/260™ to exchange data with any Windows-based application.

Additional Communication Protocols

The "Protocol" Function Block enables Vision OPLC™ to communicate with a broad variety of external devices, such as bar-code readers, printers and servos.

Remote Access via Wireless/Landline Modem

Use a modem to trouble-shoot and program a remote Vision OPLC™

Connect your Vision230™/260™ to a GPRS, GSM, CDMA, CDPD or a landline modem to:

- Operate the controller's panel via a remote PC
- Download, upload or debug the Vision230™/260™ program from remote locations
- View real-time parameter-data on your office/portable PC