

VISION 130™

Palm-size, powerful PLC with built-in, black & white LCD 2.4" graphic display, keypad, & onboard I/O configuration, expand up to 256 I/Os

Features:

HMI

- 1024 user-designed screens
- 400 images per application
- HMI graphs - color-code Trends
- Built-in alarm screens
- Text String Library - easy localization
- Memory and communication monitoring via HMI - No PC needed

PLC

- I/O options include high-speed, temperature & weight measurement
- Auto-tune PID, up to 24 independent loops
- Recipe programs and datalogging via Data Tables
- Micro SD card - log, backup, clone & more
- Date & Time-based control

Communication

- TCP/IP via Ethernet
- Web server: Use built-in HTML pages, or design complex pages to view and edit PLC data via the Internet
- Send e-mail function
- SMS messaging
- GPRS/GSM
- Remote Access utilities
- MODBUS protocol support
- BACnet, KNX, M-bus – via 3rd-party converter
- CANbus: CANopen, UniCAN, SAE J1939 and more
- DF1 Slave
- SNMP Agent V1
- FB Protocol Utility: enables serial or TCP/IP communications with 3rd-party device; barcode readers, frequency converters, etc.
- Ports: supplied with 1 RS232/RS485; 2 ports may be added: 1 Serial/Ethernet/Profibus and 1 CANbus



V130-J
Flat Panel



V130
Classic Panel

“The perfect solution for our need, the Vision130™ is easy to program, user-friendly and backed up with responsive tech support.”

Michael Lamore,
President of Barrier1



281-612-WRXS (9797)

Vision130™ models - Onboard I/Os



Article		Summary	Inputs ¹				Outputs				Operating voltage
			Digital ²	HSC/Shaft-encoder ²	Analog	Temperature Measurement	Transistor ³	PWM/HSO ³	Relay	Analog	
V130-J-B1	V130-33-B1	No onboard I/Os	None	None	None	None	None	None	None	None	12/24VDC
V130-J-TR20	V130-33-TR20	10 Digital, 2 D/A Inputs ¹ 6 Relay Outputs 2 High-speed Transistor Outputs	12	3 200kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	None	2 npn	2 (2 PTO) 200 kHz max	6	None	24VDC
V130-J-R34	V130-33-R34	20 Digital, 2 D/A Inputs ¹ 12 Relay Outputs	22	3 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	None	None	None	12	None	24VDC
V130-J-TR34	V130-33-TR34	20 Digital, 2 D/A Inputs ¹ 8 Relay, 4 High-speed Transistor Outputs	22	3 200kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	None	4 npn	4 (3 PTO) 200 kHz max	8	None	24VDC
V130-J-TR6	V130-33-TR34	6 Digital, 2 D/A ¹ , 4 Analog Inputs 6 Relay Outputs 2 High-speed Transistor Outputs	8	1 200kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA and 4 0-20mA, 4-20mA 10-bit	None	2 npn	2 (2 PTO) 200 kHz max	6	None	24VDC
V130-J-RA22	V130-33-RA22	8 Digital, 2 D/A, 2 TC/PT100/ Digital ¹ Inputs 8 Relay, 2 Analog Outputs	12	1 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 14-bit	2 Thermocouple, PT100	None	None	8	2 0-10V, 4-20mA 12-bit	24VDC
V130-J-TRA22	V130-33-TRA22	8 Digital, 2 D/A, 2 PT100/ TC/ Digital ¹ Inputs 4 Relay, 2 Analog, 4 High-Speed Transistor Outputs	12	1 200kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 14-bit	2 Thermocouple, PT100	4 npn	4 (2 PTO) 200 kHz max	4	2 0-10V, 4-20mA 12-bit	24VDC
V130-J-T2	V130-33-T2	10 Digital, 2 D/A Inputs ¹ 12 Transistor Outputs	12	3 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	None	12 pnp	7 0.5kHz	None	None	24VDC
V130-J-T38	V130-33-T38	20 Digital, 2 D/A Inputs ¹ , 16 Transistor Outputs	22	2 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	None	16 pnp	7 0.5kHz	None	None	24VDC
V130-J-TA24	V130-33-TA24	8 Digital, 2 D/A, 2 TC/PT100/ Digital ¹ Inputs 10 Transistor, 2 Analog Outputs	12	1 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 14-bit	2 Thermocouple, PT100	10 pnp	5 0.5kHz	None	2 0-10V, 4-20mA 12-bit	24VDC

Product Details

I/O Expansion	Local or Remote I/Os may be added via expansion port or via CANbus. Expand up to 256 I/Os (See I/O Expansion Modules- page 28)
Program	
Application Memory	Application Logic: 512K • Images: 256K • Fonts: 128K
Scan Time	20µ sec per 1K of typical application
Memory Operands	4096 coils, 2048 registers, 256 long integers (32-bit), 64 double words (32-bit unsigned), 24 floats, 192 timers (32-bit), 24 counters Additional non-retainable operands: 1024 X-bits, 512 X-integers, 256 X-long integers, 64 X-double words
Data Tables	120K dynamic RAM data (recipe parameters, datalogs, etc.), up to 256K fixed data
SD Card (Micro)	Store datalogs, Alarm History, Data Tables, Trend data, export to Excel • Back up Ladder, HMI & OS, clone PLCs
Enhanced Features	Trends: graph any value and display on HMI • Built-in Alarm management system • String Library: instantly switch HMI language
Operator Panel	
Type	Graphic STN LCD, white LED backlight
Display	Resolution: 128 x 64 pixels • Size: 2.4"
Keys	20, including 10 user labeled keys (slide kit sold separately)
General	
Power Supply	24VDC, except for V130-33-B1, which is 12/24VDC
Battery	7 years typical at 77°F, battery back-up for all memory sections and RTC
Clock	Real-time clock functions (date and time)
Environment	NEMA4X/IP66/IP65 (when panel mounted)
Standard	CE, UL
Many of our products are also UL Class 1 Div 2 and GOST certified - please contact Unitronics	

¹ In some models certain inputs are adaptable via wiring and software settings, and can function as digital, high-speed, analog, and in certain models as TC or PT100. Adapting requires input pins. This reduces the number of digital inputs. Pin requirements:

- Each high-speed requires 1 or 2 pins according to high-speed mode.
- Each analog input requires 1 pin.
- Each TC requires 2 pins per TC input
- The first PT input requires 3 pins, and two additional pins for each additional PT input.

Example: V130-33-RA22 offers 12 digital inputs. Implementing 2 TC inputs requires 4 pins, leaving 8 pins free. Implementing 2 PT inputs uses 5 input pins.

² The total number of digital inputs listed includes high-speed and adaptable inputs.

³ The total number of digital outputs listed includes high-speed outputs.