

VISION 350™

Advanced PLC integrated with a 3.5" color touchscreen. Includes an onboard I/O configuration; expand up to 512 I/Os

Features:

HMI

- 1024 user-designed screens
- 500 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 mini-USB programming port and 1 RS232/RS485; 2 ports may be added: 1 Serial/Ethernet/Profibus and 1 CANbus



V350-J
Flat Panel



V350
Classic Panel



NEW! Extended temperature range unit, operational temperature between -30°C to 60°C.
Available with classic or flat panel design
Extended temperature options also available for Ethernet and CANBus cards.

Classic panel p/n: V350-S-TA24, Flat panel p/n:
V350-JS-TA24, CANBus p/n: V100-S-CAN Ethernet p/n V100-S-ET2



281-612-WRXS (9797)

“There were significant cost savings using the Unitronics PLC.”

Justin Butler,
Senior Electrical Engineer at Energy Plant Solutions



Vision350™ 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	
V350-J-B1	V350-35-B1	No onboard I/Os	None	None	None	None	None	None	None	None	12/24VDC
V350-J-TR20	V350-35-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
V350-J-R34	V350-35-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
V350-J-TR34	V350-35-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
V350-J-TR6	V350-35-TR6	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
V350-J-RA22	V350-35-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
V350-J-TRA22	V350-35-TRA22	8 Digital, 2 D/A, 2 TC/PT100/ 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
V350-J-T2	V350-35-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
V350-J-T38	V350-35-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
V350-J-TA24 V350-S-TA24	V350-35-TA24 V350-JS-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 512 I/Os (See I/O Expansion Modules- page 28)
Program	
Application Memory	Application Logic: 1MB • Images: 8MB • Fonts: 512K
Scan Time	15µ sec per 1K of typical application
Memory Operands	8192 coils, 4096 registers, 512 long integers (32-bit), 256 double words (32-bit unsigned), 64 floats, 384 timers (32-bit), 32 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 • String Library: instantly switch HMI language
Operator Panel	
Type	TFT LCD • 65,536 colors, 16-bit resolution • Brightness - Adjustable via touchscreen or software
Display	Resolution: 320 x 240 pixels (QVGA) • Size: 3.5"
Touchscreen	Resistive, Analog
Keys	5 programmable keys. Labeling options - function keys, arrows, or customized
General	
Power Supply	24VDC, except for V350-35-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: V350-35-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.