

# VISION 430™

Advanced PLC integrated with a 4.3" wide aspect color touchscreen. Includes an onboard I/O configuration; expand up to 512 I/Os

## Features:

### HMI

- 1024 user-designed screens and 1000 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



V430



“ The huge advantage of this PLC was that - with everything built-in - the communications and use of tags in the HMI was so simple and intuitive. ”

Ashley Parr,  
HPS

# Vision430™ models - Onboard I/Os



Article	Summary	Inputs <sup>1</sup>				Outputs				Operating voltage
		Digital <sup>2</sup>	HSC/Shaft-encoder <sup>2</sup>	Analog	Temperature Measurement	Transistor <sup>3</sup>	PWM/HSO <sup>3</sup>	Relay	Analog	
V430-J-B1	No onboard I/Os	None	None	None	None	None	None	None	None	12/24VDC
V430-J-RH2	10 Digital, 2 D/A Inputs <sup>1</sup> 6 Relay Outputs	12	3 200kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	None	None	None	6	None	24VDC
V430-J-R34	20 Digital, 2 D/A Inputs <sup>1</sup> 12 Relay Outputs	22	3 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	None	None	None	12	None	24VDC
V430-J-TR34	20 Digital, 2 D/A Inputs <sup>1</sup> 8 Relay, 4 High-speed Transistor Outputs	22	3 200kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	None	4 nnp	4 (3 PTO) 200 kHz max	8	None	24VDC
V430-J-RH6	6 Digital, 2 D/A <sup>1</sup> , 4 Analog Inputs 6 Relay Outputs	8	1 200kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA and 4 0-20mA, 4-20mA 10-bit	None	None	None	6	None	24VDC
V430-J-RA22	8 Digital, 2 D/A, 2 TC/PT100/ Digital <sup>1</sup> 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
V430-J-TRA22	8 Digital, 2 D/A, 2 TC/PT100/ Digital <sup>1</sup> 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 nnp	4 (2 PTO) 200 kHz max	4	2 0-10V, 4-20mA 12-bit	24VDC
V430-J-T2	10 Digital, 2 D/A Inputs <sup>1</sup> 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
V430-J-T38	20 Digital, 2 D/A Inputs <sup>1</sup> , 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
V430-J-TA24	8 Digital, 2 D/A, 2 TC/PT100/ Digital <sup>1</sup> 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

<b>I/O Expansion</b>	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)
<b>Program</b>	Application Logic: 512K • Images: 12MB • Fonts: 1MB
Application Memory	15µ sec per 1K of typical application
Scan Time	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
Memory Operands	120K dynamic RAM data (recipe parameters, datalogs, etc.), up to 256K fixed data
Data Tables	Store datalogs, Alarm History, Data Tables, Trend data, export to Excel • Back up Ladder, HMI & OS, clone PLCs
SD Card (Micro)	Trends: graph any value and display on HMI • String Library: instantly switch HMI language
Enhanced Features	
<b>Operator Panel</b>	TFT LCD • 65,536 colors, 16-bit resolution • Brightness - Adjustable via touchscreen or software
Type	Resolution: 480x272 pixels • Size: 4.3"
Display	Resistive, Analog
Touchscreen	5 programmable keys.
Keys	
<b>General</b>	24VDC, except for V430-J-B1, which is 12/24VDC
Power Supply	7 years typical at 77°F, battery back-up for all memory sections and RTC
Battery	Real-time clock functions (date and time)
Clock	NEMA4X/IP66/IP65 (when panel mounted)
Environment	CE, UL
Standard	Many of our products are also UL Class 1 Div 2 and GOST certified - please contact Unitronics

<sup>1</sup> 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: V430-J-RA22 offers 12 digital inputs. Implementing 2 TC inputs requires 4 pins, leaving 8 pins free. Implementing 2 PT inputs uses 5 input pins.

<sup>2</sup> The total number of digital inputs listed includes high-speed and adaptable inputs.  
<sup>3</sup> The total number of digital outputs listed includes high-speed outputs.