

VISION 1210™ /1040™

Advanced PLC with a built-in 12.1"/10.4" high-resolution color touch screen. Snap in I/Os to expand up to 1000 I/Os.

Features:

HMI

- Size: 12.1" and 10.4"
- High quality color touchscreen
- Multi-language display
- Built-in Alarm Screens

PLC

- I/O options include digital, analog, high speed, temperature, and weight measurement
- Expand up to 1000 I/Os
- Auto-tune PID, up to 24 independent loops
- Recipe programs and data logging via data tables
- MicroSD card - log, backup, clone & more
- Function Blocks

Communication

Built-in ports:

- 1 Mini USB for programming
- 1 CANbus
- 2 Isolated RS485/RS232

Add-on ports:

- 1 Serial/Ethernet

Protocols:

- MODBUS TCP
- SNMP V1
- CANopen, CANlayer2, UniCAN
- BACnet, KNX and M-Bus via gateway
- FB Protocol: for any 3rd party protocol

General Features:

- Web server
- E-mail & SMS
- Remote access utilities
- 3G Modem support



V1210



V1040



Snap-in I/O

Plugs directly into the back of your PLC

	Vision 1040	Vision 1210
Article Number	V1040-T20B	V1210-T20BJ
I/O Options		
Total supported I/Os	1000	
I/O Expansion	Snap-in I/O Modules plug directly into the back of the Vision unit (See Snap-in I/O Modules- page 37). Local or Remote I/Os may be added via expansion port or via CANbus (See I/O Expansion Modules- page 36).	
Local I/O Expansion	Use Local Expansion Adapters to add up to 8 modules	
Remote I/O Expansion	Use EX-RC1 adapters to further extend the number of I/Os ¹	
Program		
Application Memory	Application Logic: 2MB • Images: 32MB • Fonts: 1MB	
Scan Time	9µsec 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	
HMI Panel		
Color Touchscreen	Resistive, Analog	
Cut Out Height x Width (mm)	230 x 274	228.5 x 297
Resolution	800 x 600 (SVGA)	
Keys	9 programmable function keys	Virtual Keyboard
Environment		
Protection	IP65 / NEMA4X (when panel mounted)	IP66, IP65 and NEMA4X (when panel mounted)
Operating Temperature	0 to 50°C	
Standards	UL, CE, EAC, UL Hazardous Locations, Class I, Division 2 ²	
General		
Battery	7 years typical at 25°C, battery back-up for all memory sections and RTC	
Clock	Real-time clock functions (date and time)	
Power Supply	12/24VDC ³	

¹ EX-RC1: via CANbus, integrate standard Unitronics' I/O modules at distances of up to 1000m.

² For a list of relevant models, contact Unitronics.

³ 12V applies to PLC power supply only, and not to the I/O.

“I’ve not yet encountered a job that a Unitronics PLC was unable to cover.”

Timothy Moulder,
Engineer at Black & Decker

VISION 700™

Features:

HMI

- Size: 7"
- High quality color touchscreen
- Multi-language display
- Built-in Alarm Screens

PLC

- I/O options include digital, analog, high speed, temperature, and weight measurement
- Expand up to 1000 I/Os
- Auto-tune PID, up to 24 independent loops
- Recipe programs and data logging via data tables
- MicroSD card - log, backup, clone & more
- Function Blocks

Communication

Built-in ports:

- 1 Ethernet TCP/IP
- 1 Mini USB for programming
- 1 RS485/RS232

Add-on ports:

- 1 Serial/Profibus
- 1 CANbus

Protocols:

- MODBUS TCP
- SNMP V1
- CANopen, CANlayer2, UniCAN
- BACnet, KNX and M-Bus via gateway
- FB Protocol: for any 3rd party protocol

General Features:

- Web server
- E-mail & SMS
- 3G Modem support
- Remote access utilities

Advanced PLC with a built-in 7" high-resolution color touch screen. Snap in I/Os to expand up to 1000 I/Os.



V700



“Reliability, ease of use, connectivity and competitive prices are Unitronics' main strengths.”

Mr. Andrea Della Bosca,
EV srl

I/O Options	
Total supported I/Os	1000
I/O Expansion	Snap-in I/O Modules plug directly into the back of the Vision unit (See Snap-in I/O Modules- page 37). Local or Remote I/Os may be added via expansion port or via CANbus (See I/O Expansion Modules- page 36).
Local I/O Expansion	Use Local Expansion Adapters to add up to 8 modules
Remote I/O Expansion	Use EX-RC1 adapters to further extend the number of I/Os ¹
Program	
Application Memory	Application Logic: 2MB • Images: 40MB • Fonts: 1MB
Scan Time	9µsec 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
HMI Panel	
Color Touchscreen	Resistive, Analog
Cut Out Height x Width (mm)	125 x 193
Resolution	800 x 400 (SVGA)
Keys	Virtual Keyboard
Environment	
Protection	IP66, IP65 and NEMA4X
Operating Temperature	0 to 50°C
Standards	UL, CE, EAC, UL Hazardous Locations, Class I, Division 2 ²
General	
Battery	7 years typical at 25°C, battery back-up for all memory sections and RTC
Clock	Real-time clock functions (date and time)
Power Supply	12/24VDC ³

¹ EX-RC1: via CANbus, integrate standard Unitronics' I/O modules at distances of up to 1000m.

² For a list of relevant models, contact Unitronics.

³ 12V applies to PLC power supply only, and not to the I/O.

VISION 570™ /560™

Features:

HMI

- Size: 5.7"
- High quality color touchscreen
- Multi-language display
- Built-in Alarm Screens

PLC

- I/O options include digital, analog, high speed, temperature, and weight measurement
- Expand up to 1000 I/Os
- Auto-tune PID, up to 24 independent loops
- Recipe programs and data logging via data tables
- MicroSD/ SD card – log, backup, clone & more
- Function Blocks

Communication

Built-in ports:

- 1 Mini USB for programming in V570
- 1 CANbus
- 2 Isolated RS485/ RS232

Add-on ports:

- 1 Serial/Ethernet

Protocols:

- MODBUS TCP
- SNMP V1
- CANopen, CANlayer2, UniCAN
- BACnet, KNX and M-Bus via gateway
- FB Protocol: for any 3rd party protocol

General Features:

- Web server
- E-mail & SMS
- 3G Modem support
- Remote access utilities

Advanced PLC with a built-in 5.7" high-resolution color touch screen. Snap in I/Os to expand up to 1000 I/Os.



V570



V560



“For a first time user, I had a great experience. I look forward to incorporating this brand of product on future jobs.”

Jeremy Charles Keene,
Controls Manager at General Broach Company

	Vision 570	Vision 560
Article Number	V570-57-T20B-J	V560-T25B
I/O Options		
Total supported I/Os	1000	
I/O Expansion	Snap-in I/O Modules plug directly into the back of the Vision unit (See Snap-in I/O Modules- page 37). Local or Remote I/Os may be added via expansion port or via CANbus (See I/O Expansion Modules- page 36).	
Local I/O Expansion	Use Local Expansion Adapters to add up to 8 modules	
Remote I/O Expansion	Use EX-RC1 adapters to further extend the number of I/Os ¹	
Program		
Application Memory	Application Logic: 2MB • Images: 16MB • Fonts: 1MB	
Scan Time	9µsec 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	
HMI Panel		
Color Touchscreen	Resistive, Analog	
Cut Out Height x Width (mm)	124.5 x 182	126.0 x 209
Resolution	320 x 240 (QVGA)	
Keys	Virtual Keyboard	24 programmable keys Labeling options – function keys or customized
Environment		
Protection	NEMA4X, IP66, IP65 (when panel mounted)	NEMA4X, IP65 (when panel mounted)
Operating Temperature	0 to 50°C	
Standards	UL, CE, EAC, UL Hazardous Locations, Class I, Division 2 ²	UL, CE, EAC
General		
Battery	7 years typical at 25°C, battery back-up for all memory sections and RTC	
Clock	Real-time clock functions (date and time)	
Power Supply	12/24VDC ³	

¹ EX-RC1: via CANbus, integrate standard Unitronics' I/O modules at distances of up to 1000m.

² For a list of relevant models, contact Unitronics.

³ 12V applies to PLC power supply only, and not to the I/O.

VISION 430™

Features:

HMI

- Size: 4.3"
- High quality color touchscreen
- Multi-language display
- Built-in Alarm Screens

PLC

- I/O options include digital, analog, high speed, temperature, and weight measurement
- Expand up to 512 I/Os
- Auto-tune PID, up to 24 independent loops
- Recipe programs and data logging via data tables
- Micro SD card - log, backup, clone & more
- Function Blocks

Communication

Built-in ports:

- 1 Mini USB for programming
- 1 RS485/RS232

Add-on ports:

- 1 Serial/Ethernet/Profibus
- 1 CANbus

Protocols:

- MODBUS TCP
- SNMP V1
- CANopen, CANlayer2, UniCAN
- BACnet, KNX and M-Bus via gateway
- FB Protocol: for any 3rd party protocol

General Features:

- Web server
- E-mail & SMS
- 3G Modem support
- Remote access utilities

Advanced PLC with a built-in 4.3" wide-aspect color touch screen. Includes built-in I/O configuration, expand up to 512 I/Os.



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

I/O Options	
Total supported I/Os	512
Built-in	According to model (See Built-in I/Os table below)
I/O Expansion	Add Local I/O via expansion port • Add Remote I/Os via CANbus (See I/O Expansion Modules- page 36)
Local I/O Expansion	Use Local Expansion Adapters to add up to 8 modules
Remote I/O Expansion	Use EX-RC1 adapters to further extend the number of I/Os ¹
Program	
Application Memory	Application Logic: 1MB • Images: 12MB • Fonts: 320KB
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
HMI Panel	
Color Touchscreen	Resistive, Analog
Cut Out Height x Width (mm)	91.5 x 122.5
Resolution	480 x 272
Keys	5 programmable
Environment	
Protection	NEMA4X, IP66, IP65 (when panel mounted)
Operating Temperature	0 to 50°C
Standards	UL, CE, EAC, UL Hazardous Locations, Class I, Division 2 ²
General	
Battery	7 years typical at 25°C, battery back-up for all memory sections and RTC
Clock	Real-time clock functions (date and time)

Vision430™ models - Built-in I/O configurations

¹ EX-RC1: via CANbus, integrate standard Unitrionics' I/O modules at distances of up to 1000m.
² For a list of relevant models, contact Unitrionics.

Article	Summary	Inputs ¹				Outputs				Operating Voltage
		Digital ²	HSC/Shaft-encoder ²	Analog	Temperature Measurement	Transistor ³	PWM/HSO ³	Relay	Analog	
V430-J-B1	No onboard I/Os	—	—	—	—	—	—	—	—	12/24VDC
V430-J-RH2	10 Digital, 2 D/A Inputs ¹ 6 Relay Outputs	12	3 200kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	—	—	—	6	—	24VDC
V430-J-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	—	—	—	12	—	24VDC
V430-J-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	—	4 npn	4 (3 PTO) 200 kHz max	8	—	24VDC
V430-J-RH6	6 Digital, 2 D/A ¹ 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	—	—	—	6	—	24VDC
V430-J-RA22	8 Digital, 2 D/A, 2 TC/PT100/ Digital Inputs ¹ 8 Relay, 2 Analog Outputs	12	1 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 14-bit	2 Thermocouple, PT100	—	—	8	2 0-10V, 4 -20mA 12-bit	24VDC
V430-J-TRA22	8 Digital, 2 D/A, 2 TC/PT100/ Digital Inputs ¹ 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
V430-J-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	—	12 pnp	7 0.5kHz	—	—	24VDC
V430-J-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	—	16 pnp	7 0.5kHz	—	—	24VDC
V430-J-TA24	8 Digital, 2 D/A, 2 TC/PT100/ Digital Inputs ¹ 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	—	2 0-10V, 4 -20mA 12-bit	24VDC

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: 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.

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.

VISION 350™

Features:

HMI

- Size: 3.5"
- High quality color touchscreen
- Multi-language display
- Built-in Alarm Screens

PLC

- I/O options include digital, analog, high speed, temperature, and weight measurement
- Expand up to 512 I/Os
- Auto-tune PID, up to 24 independent loops
- Recipe programs and data logging via data tables
- Micro SD card - log, backup, clone & more
- Function Blocks

Communication

Built-in ports:

- 1 Mini USB for programming
- 1 RS485/RS232

Add-on ports:

- 1 Serial/Ethernet/Profibus
- 1 CANbus

Protocols:

- MODBUS TCP
- SNMP V1
- CANopen, UniCAN, CANlayer2
- BACnet, KNX and M-Bus via gateway
- FB Protocol: for any 3rd party protocol

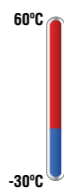
General Features:

- Web server
- E-mail & SMS
- 3G Modem support
- Remote access utilities

Palm-sized All-in-One: advanced PLC with a 3.5" color touchscreen. Includes built-in I/O configuration, expands up to 512 I/Os.



V350



Extended temperature unit available:
Operational temperature range between -30°C to 60°C, available for panel Article: V350-JS-TA24.
Extended temperature available for Ethernet (Article: V100-S-ET2) and CANbus (Article: V100-S-CAN).

I/O Options	
Total supported I/Os	512
Built-in	According to model (See Built-in I/Os table below)
I/O Expansion	Add Local I/O via expansion port • Add Remote I/Os via CANbus. (See I/O Expansion Modules- page 36)
Local I/O Expansion	Use Local Expansion Adapters to add up to 8 modules
Remote I/O Expansion	Use EX-RC1 adapters to further extend the number of I/Os ¹
Program	
Application Memory	Application Logic: 1MB • Images: 8MB • Fonts: 320KB
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
HMI Panel	
Color Touchscreen	Resistive, Analog
Cut Out Height x Width (mm)	92 x 92
Resolution	320 x 240 (QVGA)
Keys	5 programmable keys. Labeling options - function keys, arrows, or customized
Environment	
Protection	NEMA4X, IP66, IP65 (when panel mounted)
Operating Temperature	0°C to 50°C, For V350-JS-TA24: -30°C to 60°C ²
Standards	UL, CE, EAC, UL Hazardous Locations, Class I, Division 2 ³
General	
Battery	7 years typical at 25°C, battery back-up for all memory sections and RTC
Clock	Real-time clock functions (date and time)

Vision350™ models - Built-in I/O configurations

¹ EX-RC1: via CANbus, integrate standard Unitronics' I/O modules at distances of up to 1000m.
² Extended temperature cards: CANBus p/n: V100-S-CAN, Ethernet p/n V100-S-ET2.
³ For a list of relevant models, contact Unitronics.

Article ⁵	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	No onboard I/Os	—	—	—	—	—	—	—	—	12/24VDC
V350-J-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	—	2 npn	2 (2 PTO) 200 kHz max	6	—	24VDC
V350-J-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	—	—	—	12	—	24VDC
V350-J-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	—	4 npn	4 (3 PTO) 200 kHz max	8	—	24VDC
V350-J-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	—	2 npn	2 (2 PTO) 200 kHz max	6	—	24VDC
V350-J-RA22	8 Digital, 2 D/A, 2 TC/PT100/ Digital Inputs ¹ 8 Relay, 2 Analog Outputs	12	1 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 14-bit	2 Thermocouple, PT100	—	—	8	2 0-10V, 4 -20mA 12-bit	24VDC
V350-J-TRA22	8 Digital, 2 D/A, 2 TC/PT100/ Digital Inputs ¹ 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	10 Digital, 2 D/A Inputs ¹ 12 Transistor Outputs	12	3 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	—	12 pnp	7 0.5kHz	—	—	24VDC
V350-J-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	—	16 pnp	7 0.5kHz	—	—	24VDC
V350-J-TA24 V350-JS-TA24 ⁴	8 Digital, 2 D/A, 2 TC/PT100/ Digital Inputs ¹ 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	—	2 0-10V, 4 -20mA 12-bit	24VDC

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.
⁴ Extended temperature unit.
⁵ To order a classic V350 with a Bezel panel, switch the 'J' in the model number to '33', ex: V350, V350-33-TR20

VISION 130™

Features:

HMI

- Size: 2.4"
- Monochrome
- Multi-language display
- Built-in Alarm Screens

PLC

- I/O options include digital, analog, high speed, temperature, and weight measurement
- Expand up to 256 I/Os
- Auto-tune PID, up to 24 independent loops
- Recipe programs and data logging via data tables
- Micro SD card - log, backup, clone & more
- Function Blocks

Communication

Built-in ports:

- 1 RS485/RS232

Add-on ports:

- 1 Serial/Ethernet/Profibus
- 1 CANbus

Protocols:

- MODBUS TCP
- SNMP V1
- CANopen, UniCAN, CANlayer2
- BACnet, KNX and M-Bus via gateway
- FB Protocol: for any 3rd party protocol

General Features:

- Web server
- E-mail & SMS
- 3G Modem support
- Remote access utilities

Palm-size, powerful PLC with built-in black & white LCD 2.4", keypad and I/Os, expands up to 256 I/Os.



V130



“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

I/O Options	
Total supported I/Os	256
Built-in	According to model (See Built-in I/Os table below)
I/O Expansion	Add Local I/O via expansion port • Add Remote I/Os via CANbus. (See I/O Expansion Modules- page 36)
Local I/O Expansion	Use Local Expansion Adapters to add up to 8 modules
Remote I/O Expansion	Use EX-RC1 adapters to further extend the number of I/Os ¹
Program	
Application Memory	Application Logic: 488KB • Images: 128KB • Fonts: 128KB
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
HMI Panel	
Touch screen	-
Cut Out Height x Width (mm)	92 x 92
Resolution	128 x 64
Keys	20, including 10 user labeled keys (slide kit sold separately)
Environment	
Protection	NEMA4X, IP66, IP65 (when panel mounted)
Operating Temperature	0 to 50°C
Standards	UL, CE, EAC, UL Hazardous Locations, Class I, Division 2 ²
General	
Battery	7 years typical at 25°C, battery back-up for all memory sections and RTC
Clock	Real-time clock functions (date and time)

Vision130™ models - Built-in I/O configurations

¹ EX-RC1: via CANbus, integrate standard Unitronics' I/O modules at distances of up to 1000m.
² For a list of relevant models, contact Unitronics.

Article ⁴	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	No onboard I/Os	—	—	—	—	—	—	—	—	12/24VDC
V130-J-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	—	2 npn	2 (2 PTO) 200 kHz max	6	—	24VDC
V130-J-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	—	—	—	12	—	24VDC
V130-J-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	—	4 npn	4 (3 PTO) 200 kHz max	8	—	24VDC
V130-J-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	—	2 npn	2 (2 PTO) 200 kHz max	6	—	24VDC
V130-J-RA22	8 Digital, 2 D/A, 2 TC/PT100/ Digital Inputs ¹ 8 Relay, 2 Analog Outputs	12	1 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 14-bit	2 Thermocouple, PT100	—	—	8	2 0-10V, 4-20mA 12-bit	24VDC
V130-J-TRA22	8 Digital, 2 D/A, 2 PT100/ TC/ Digital Inputs ¹ 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	10 Digital, 2 D/A Inputs ¹ 12 Transistor Outputs	12	3 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	—	12 pnp	7 0.5kHz	—	—	24VDC
V130-J-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	—	16 pnp	7 0.5kHz	—	—	24VDC
V130-J-TA24	8 Digital, 2 D/A, 2 TC/PT100/ Digital Inputs ¹ 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	—	2 0-10V, 4-20mA 12-bit	24VDC

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.

⁴ To order a classic V130 with a Bezel panel, switch the 'J' in the model number to '35' ex. V130, V130-33-TR20.

I/O Expansion Modules & Accessories- Vision Series

Expand your system with local or remote I/O expansion modules.

	Expansion Modules Article	Inputs					Outputs				Operating Voltage	
		Digital ¹	HSC ²	Analog	Temperature Measurement	Weight Measurement	Transistor ⁵	PWM/HSO ⁶	Relay	Analog		
Digital	IO-DI8-T08	8 pnp/npn	1 5kHz 16-bit	—	—	—	8 pnp	—	—	—	24VDC ⁹	
	IO-DI8-R04	8 pnp/npn	1 5kHz 16-bit	—	—	—	—	4	—	—	24VDC ⁹	
	IO-DI8-R08	8 pnp/npn	1 5kHz 16-bit	—	—	—	—	—	8	—	24VDC ⁹	
	EX90-DI8-R08 ³	8 pnp	1 5kHz 16-bit	—	—	—	—	—	8	—	24VDC	
	IO-DI16	16 pnp/npn	1 5kHz 16-bit	—	—	—	—	—	—	—	24VDC ⁹	
	IO-T016	—	—	—	—	—	16 pnp	—	—	—	24VDC	
	IO-R08	—	—	—	—	—	—	—	8	—	24VDC ⁹	
	IO-R016	—	—	—	—	—	—	—	16	—	24VDC ⁹	
	IO-DI8ACH	8 AC	—	—	—	—	—	—	—	—	110/220 VAC	
Analog, Temperature and Weight/Strain Measurements	IO-AI4-A02	—	—	4 0-10V, 0-20mA, 4-20mA 12-bit	—	—	—	—	—	2 ±10V 12-bit+sign, 0-20mA, 4-20mA 12-bit	24VDC	
	IO-PT400	—	—	—	4 PT100/NI100/NI120	—	—	—	—	—	Not relevant	
	IO-PT4K	—	—	—	4 PT1000/NI1000	—	—	—	—	—	Not relevant	
	IO-A06X	—	—	—	—	—	—	—	—	6 (Isolated) 0-10V, 0-20mA, 4-20mA 12-bit	24VDC	
	IO-LC1	1 pnp	—	—	—	—	1 Loadcell / Strain gauge	2 pnp	—	—	—	24VDC
	IO-LC3	1 pnp	—	—	—	—	3 Loadcell / Strain gauge	2 pnp	—	—	—	24VDC
	IO-ATC8	—	—	—	8 Thermocouple, 0-10V, 0-20mA, 4-20mA 14-bit	—	—	—	—	—	—	Not relevant
	IO-AI8	—	—	8 0-10V, 0-20mA, 4-20mA 14-bit	—	—	—	—	—	—	—	Not relevant
XL Digital/ Analog	IO-D16A3-R016	16 pnp/npn	2 30kHz 16/32-bit ⁸	3 0-20mA, 4-20mA 10-bit	—	—	—	—	16	—	24VDC	
	IO-D16A3-T016	16 pnp/npn	1 30kHz 16/32-bit ⁸	3 0-20mA, 4-20mA 10-bit	—	—	15 pnp, 1 pnp/npn	1 pnp 0.5kHz nnp 50kHz	None	—	24VDC	
	EX-D16A3-R08 ⁷	16 pnp/npn	2 30kHz 16/32-bit ⁸	3 0-20mA, 4-20mA 10-bit	—	—	None	None	8	—	24VDC	
	EX-D16A3-T016 ⁷	16 pnp/npn	1 30kHz 16/32-bit ⁸	3 0-20mA, 4-20mA 10-bit	—	—	15 pnp 1 pnp/npn	1 pnp 0.5kHz nnp 50kHz	None	—	24VDC	
High-speed Remote I/O Module	EXF-RC15 ^{2,4,10}	9 pnp/npn	3 200kHz 32-bit	—	—	—	—	4 nnp	4 (up to 3 PTO)	2	—	24VDC

I/O Expansion Module Adapters

I/O Expansion Module Adapters	Article	Description
	EX-A2X ¹	Local I/O module adapter, Galvanic isolation. Up to 8 modules may be connected to a single PLC ¹ . Supports both 12/24 VDC
	EX-RC1 ^{1,4}	Remote I/O module adapter, via CANbus. Multiple adapters may be connected to a single PLC, with up to 8 modules to each adapter ¹ . Supports both 12/24 VDC.

¹ Number of supported I/Os & I/O modules varies according to module.
² The EXF-RC15 functions as a node in a Vision UniCAN network and connects to the Vision controller via CANbus and programmed in VisiLogic. The EXF-RC15 cannot be extended as regular I/O unit. High-speed inputs are configurable as either high-speed counter (HSC) or shaft-encoder.
³ The EX90 is housed in an open casing. Only one EX90 can be connected per PLC, as a single expansion module; Expansion adapter not required.
⁴ Supported by Samba, Vision and UniStream series.
⁵ The total number of digital inputs listed includes high-speed inputs. Example: the IO-D16A3-T016 offers a total of 16 pnp/npn inputs. You can configure 14 as a HSC and 15 as a Counter reset; this reduces the available number of digital inputs to 14.
⁶ The total number of digital outputs listed includes high-speed outputs. Example: the IO-D16A3-T016 offers a total of 16 transistor outputs. You can configure 1 to High-speed output, reducing the number of available digital outputs to 15.
⁷ Functions as local adapter. Can support up to 7 I/O modules.
⁸ 16-bit or 32-bit, depending on the PLC.
⁹ Also available as 12VDC – contact us for part number.
¹⁰ One HSC may be configured as a shaft encoder.

Snap-in I/O Modules

Compatible with Vision models:
V560, V570, V700, V1040 and V1210.

Snap-in I/O Article	Inputs				Outputs				Operating Voltage
	Digital (isolated) ¹	HSC/Shaft-encoder ¹	Analog	Temperature Measurement	Transistor (isolated) ²	PWM/HSO ²	Relay	Analog	
V200-18-E1B	16 pnp/npn	2 10kHz 32-bit	3 0-10 V, 0-20mA, 4-20mA 10-bit	—	4 pnp/npn	2 pnp 0.5kHz nnp 50kHz	10	—	24VDC
V200-18-E2B	16 pnp/npn	2 10kHz 32-bit	2 0-10 V, 0-20mA, 4-20mA 10-bit	—	4 pnp/npn	2 pnp 0.5kHz nnp 50kHz	10	2 0-10 V, 0-20mA, 4-20mA 12-bit	24VDC
V200-18-E3XB	18 pnp/npn	2 10kHz 32-bit	4 (Isolated) Thermocouple, PT100, 0-10V, 0-20mA, 4-20mA 14-bit	—	2 pnp/npn	2 pnp 0.5kHz nnp 50kHz	15	4 (Isolated) 0-10 V, 4-20mA 12-bit	24VDC
V200-18-E4XB	18 pnp/npn	2 10kHz 32-bit	4 (Isolated) Thermocouple, PT100, 0-10V, 0-20mA, 4-20mA 14-bit	—	15 pnp 2 nnp/pnp	2 pnp 0.5kHz nnp 50kHz	—	4 (Isolated) 0-10 V, 4-20mA 12-bit	24VDC
V200-18-E5B	18 pnp/npn	2 10kHz 32-bit	3 0-10 V, 0-20mA, 4-20mA 10-bit	—	15 pnp 2 nnp/pnp	2 pnp 0.5kHz nnp 50kHz	—	—	24VDC
V200-18-E6B	18 pnp/npn	2 10kHz 32-bit	2 Thermocouple, PT100, 0-10V, 0-20mA, 4-20mA 14-bit 3 0-10V, 0-20mA, 4-20mA 10-bit	—	2 pnp/npn	2 pnp 0.5kHz nnp 50kHz	15	2 (Isolated) 0-10 V, 4-20mA 12-bit	24VDC
V200-18-E46B	18 pnp/npn	2 10kHz 32-bit	6 0-10 V, 0-20mA, 4-20mA 14-bit 3 0-10 V, 0-20mA, 4-20mA 10-bit	—	2 pnp/npn	2 pnp 0.5kHz nnp 100kHz	15	2 (Isolated) 0-10 V, 4-20mA 12-bit	24VDC
V200-18-E62B ³	30 pnp/npn	2 10kHz 32-bit	2 0-10 V, 0-20mA, 4-20mA 10-bit	—	28 pnp 2 nnp/pnp	2 pnp 0.5kHz nnp 100kHz	—	—	24VDC

¹ The total number of digital inputs listed includes high-speed inputs.
² The total number of digital outputs listed includes high-speed outputs.
³ Not yet UL certified

Vision & Samba COM Modules

Enhance Vision's communication capabilities

Model	Ethernet	RS232/RS485	Isolated RS232/RS485	CANbus	Profibus
SAMBA	V100-17-ET2	V100-17-RS4	V100-17-RS4X	V100-17-CAN	—
V130, V350, V430 ¹	V100-17-ET2, V100-S-ET2 ²	V100-17-RS4	V100-17-RS4X	V100-17-CAN, V100-S-CAN ⁵	V100-17-PB1
V560, V570, V1040, V1210 ²	V200-19-ET2	V200-19-RS4	V200-19-RS4-X	Built-in	—
V700 ⁴	Built-in	V100-17-RS4	V100-17-RS4X	V100-17-CAN	V100-17-PB1

¹ V130/V350/V430: Two ports may be added: 1 for Serial/Ethernet/Profibus and 1 for CANbus.
² V560/V570/V1040/V1210: 1 port may be added: Serial/Ethernet.
³ Extended temperature cards, operational temperature: -30°C to 60°C (-22°F to 140°F) - for V350-JS-TA24 only.
⁴ V700 is supplied with an Built-in Ethernet port. One port may be added: serial/Profibus, and CANbus.
⁵ Not yet UL certified

DIN-rail Power Supplies

UAP-24V24W	UAP-24V60W	UAP-24V96W
24W 24V 1A	60W 24V 2.5A	96W 24V 4A

GSM

GSM-KIT-17J-3G
KIT, MODEM GPRS, CINTERION, EHS6T

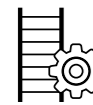
VisiLogic™ - Vision™ and Samba™ All-in-One programming software

A single, intuitive environment for all your application needs



Hardware Configuration

Intuitive set up: controller, I/Os, and COM channels



Ladder Programming

Rapidly drag & drop elements and Function Blocks



HMI Application

Create beautiful HMI displays – includes rich image library



Alarms: Built-in Screens

Effectively alert staff via Alarm screens



Languages - String Library

Instantly switch HMI language via screen touch



Data Tables

Create logs, import/export data, implement recipes



Trend Graphs

Display dynamic values in real-time



Web Server

Display and edit application values via browser

Software features vary according to controller model

Smart Utilities – Remote Access, Efficient Data Management, and more

Utility Name	Function	Key Features	Targeted Users
Remote Access 	View and control a PLC directly from PC, via local or remote connection	<ul style="list-style-type: none"> View an HMI panel: use the PC keyboard + mouse to run the HMI application Operand and Data Table values: view values during runtime, import and export values to/from Excel/.csv files 	<ul style="list-style-type: none"> Operators requiring Remote Access System integrators: remote debugging, troubleshooting, fault-finding
Remote Operator 	Simultaneously view and operate the HMI panels of multiple PLCs in multiple locations	<ul style="list-style-type: none"> Easily place HMI panels side-by-side to monitor distributed systems or applications in several locations Run the HMI applications via PC keyboard + mouse 	<ul style="list-style-type: none"> Control room operators Installation managers
DataXport 	Create Data Logs from Data Tables and operand values in PLCs	<ul style="list-style-type: none"> Harvest data from multiple PLCs on demand or according to time/date Export the data to ± Excel/.csv files Automatically email files 	<ul style="list-style-type: none"> Data analysts Plant managers Process engineers
UniDownload Designer 	Create compressed VisiLogic / U90Ladder applications(.udc files) for secure installation in local or remote PLCs	<ul style="list-style-type: none"> Prevent end-users from uploading and opening the application Include an OS to be installed at download Set a download channel, restrict end-user actions after installation and more 	OEMs / System Integrators can: <ul style="list-style-type: none"> Protect source code Enable customers to install an application without using VisiLogic or U90Ladder
Download Manager & UniDownloader 	Securely install .udc applications in local or remote PLCs	<ul style="list-style-type: none"> Download Manager: installs the same application in multiple PLCs UniDownloader: installs an application in a single PLC 	<ul style="list-style-type: none"> OEMs / System Integrators in installations with high security requirements
SD Card Suite 	Remotely access and manage SD cards and their data	<ul style="list-style-type: none"> Browse a remote PLC's SD card Read/write data, including Data Table files View SD card contents - Trends, logs, alarm history, data tables - export to Excel 	<ul style="list-style-type: none"> Data analysts Plant managers Process engineers
UniVision Licensing 	Safeguard your PLC application security	<ul style="list-style-type: none"> Embeds unique licenses in the PLC, which enables application to run only on a licensed PLC Option to activate or deactivate different sections of your application Prevents theft of applications 	<ul style="list-style-type: none"> System integrators OEMs
UniOPC Server 	Exchange data between Unitronics PLCs and OPC-supported software	<ul style="list-style-type: none"> Create channel to connect PLCs to SCADA systems, such as plant control rooms Compliant with the OPC foundation standards 	Control room operators
UniDDE 	Exchange data with Windows based applications	Enables data exchange between Unitronics PLCs and software that supports Microsoft's Dynamic Data Exchange protocols, like Excel	Control rooms operators
Programming tools for developers 	Easily implement communication between PLC & PC applications	Using ActiveX & .NET communication drivers	Developers