Technical Specifications

	V120-22-R1 10 Digital Inputs 6 Relay Outputs 1 Analog Input	V120-22-R2C 10 Digital Inputs 6 Relay Outputs 2 Analog Inputs	V120-22-R6C 6 Digital Inputs 6 Relay Outputs 6 Analog Inputs	V120-22-T1 12 Digital Inputs 12 Transistor Outputs	V120-22-T38[1] 22 Digital Inputs 16 Transistor Outputs	V120-22-T2C 10 Digital Inputs 12 Transistor Outputs 2 Analog/Digital Inputs[3]	V120-22-UN2 10 Digital Inputs 12 Transistor Outputs 2 PT100/TC/Analog/ Digital Inputs[3]	V120-22-UA2 10 Digital Inputs 10 Transistor Outputs 2 TC/Analog/Digital Inputs[3] 2 Analog Outputs
I/Os								
Digital Inputs	10 pnp/npn (source/sink) 12/24VDC	10 pnp/npn (source/sink) 12/24VDC	6 pnp/npn (source/sink) 24VDC	12 pnp/npn (source/sink) 12/24VDC	22 pnp/npn (source/sink) 24VDC	12[3] pnp/npn (source/sink) 12/24VDC	12[3] pnp/npn (source/sink) 12/24VDC	12[3] pnp/npn (source/sink) 24VDC
High-speed counter/ Shaft-encoder/ Frequency measurer[2]	Three 10 kHz 32 bit resolution	Three 10 kHz 32 bit resolution	One 10 kHz 32 bit resolution	Two 10 kHz 32 bit resolution	Two 10 kHz 32 bit resolution	Three 10 kHz 32 bit resolution	Two 10 kHz 32 bit resolution	One 10 kHz 32 bit resolution
Analog Inputs	One 10 bit input: 0-10V, 0-20mA, 4-20mA	Two 10 bit input: 0-10V, 0-20mA, 4-20mA	Six 10 bit input: Two 0-10V, 0-20mA , 4-20mA, Four 0-20mA, 4-20mA	None	None	Two 10 bit inputs[3]: 0-10V, 0-20mA, 4-20mA	Two 14 bit inputs[3]: 0-10V, 0-20mA, 4-20mA	Two 14 bit inputs[3]: 0-10V, 0-20mA, 4-20mA
Temperature measurement	None	None	None	None	None	None	Two PT100 or Thermocouple inputs[3]	Two Thermocouple inputs[3]
Digital Outputs	6 relay outputs	6 relay outputs	6 relay outputs	12 pnp (source)	16 pnp (source)	12 pnp (source)	12 pnp (source)	10 pnp (source)
High-speed Outputs/PWM	None	None	None	First 2 outputs are HSO, 2 kHz maximum				
Analog Outputs	None	None	None	None	None	None	None	Two 12 bit Outputs: 0-10V, 4-20mA
I/O Expansions	Up to 128 I/Os may be added via I/O expansion port							
Operator panel								
Screen Type	Graphic STN LCD, LED backlight							
Display Resolution	128 x 64 pixels							
HMI Displays	Up to 255							
Keyboard	16 programmable sealed membranes keys							
Program								
Application memory	448K							
Bits/Coils	4096							
Integers/Registers	2048							
Long Integers (32 bit)	256							
Double Word (32 bit unsigned)	64							
Floats	24							
Timers (32 bit)	192							
Counters	24							
Data Tables	120K (RAM) / 64K (FLASH)							
Execution Time for bit Operation	0.8µsec							
Communication								
Serial communication	2 RS232/RS485 ports (selectable)							
MODBUS	Supports MODBUS protocol, Master/Slave							
GPRS	Access your Vision using a remote PC, via wireless data transmission, SMS enabled							
CDMA/GSM	SMS messages to/from any quantity of phone numbers, Remote Access-enabled							
CANbus	None	1 port	1 port	None	None	1 port	None	None
General								
Power Supply	12/24VDC	12/24VDC	24VDC	12/24VDC	24VDC	12/24VDC	12/24VDC	24VDC
PID	Up to 12 independent PID loops, PID FB includes internal auto-tune (shared memory with other FBs)							
Clock (RTC)	Real-time clock functions (date and time)							
Battery Back-up	7 year typical							
Dimensions	3.78" x 3.78" x 2.52" (96 x 96 x 64 mm)							
Environment	NEMA4X/IP65 (from panel, when mounted)							

[1] V120-22-T38 is not yet UL certified

[2] Certain inputs can function as high-speed counters, shaft-encoder inputs, frequency measurers or normal digital inputs.

[3] In these models certain inputs can function as either digital, analog, thermocouple or PT100 inputs (model dependent). When using these inputs as thermocouple or PT100, the number of free digital inputs is reduced to 8 or 7, respectively.

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Get the Big Picture

Vision120™ OPLC™

Graphic Operator Panel & Programmable Logic Controller

UNITRONICS

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Vision120™

A palm-sized PLC with an embedded graphic display & keypad

PLC Side:

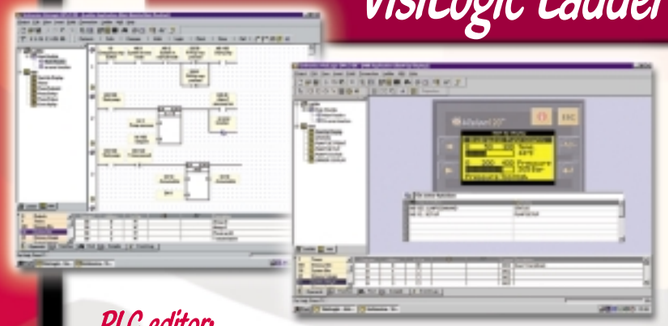
- Onboard Inputs: Digital (including Shaft-encoders), Analog, Thermocouple or PT100
- Onboard Outputs: Analog, Relay or Transistor, including high-speed/PWM
- Up to 128 additional I/Os, via a variety of expansion modules
- Two RS232/RS485 ports
- Built-in autotune PID
- Windows-based Ladder Logic software
- Application Memory: 448K
- Execution time: 0.8µsec for bit operation
- Mounting: Panel or DIN-rail

HMI Side:

- Display images, text and graphs according to run-time conditions
- Up to 255 user-designed displays
- 24 variables per display; up to 150 messages/ images can be linked to each variable
- Use hundreds of images in one application
- HMI Graphs and Trends
- Graphic display screen: 128 x 64 pixels
- Text messages: Up to 8 lines x 22 characters
- LCD illuminated screen
- 16-key keypad

The Vision120™ standard package includes software, manual, cable and connectors.

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 Function Blocks & utilities save application capacity and cut programming time
- Embedded modem support for remote access and SMS messaging

HMI editor:

- Import any image (according to screen resolution)
- Design .bmps with the HMI editor
- Create and display text messages
- Use images & graphs to reflect current variable values and historical trends
- Assign functions to keys

Networking and Communication

SMS Control

The Vision120™ can send and receive SMS messages to/from any CDMA/GSM cellular phone. You can send text and variable SMS messages to modify parameters in your system. The controller can auto-acknowledge the message and answer your data requests.

New CDMA Support

The Vision120™ can send text and variable messages to many different CDMA/GSM phone numbers, to alert or report of any pre-defined event.

Remote Access utilities

Download, upload and debug remote Vision120™ units, operate the controllers, and export application data (including database) to PC, via network connections, or via GPRS/CDMA/GSM/landline modem.

MODBUS

Establish master/slave MODBUS communication via two RS232/RS485 ports.

OPC Server / DDE Server

Unitronics' OPC and DDE Servers enable the Vision120™ to exchange data with any Windows-based application.

CANbus

Integrate up to 63 units into a high-speed network, using Unitronics' CANbus protocol (CANbus models only).

Additional Communication Protocols

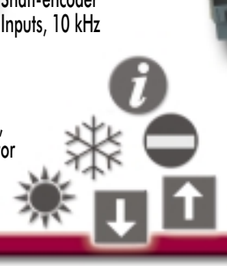
The "Protocols" Function Block enables Vision120™ to communicate with a broad variety of external devices, such as bar-code readers, printers & servos.

More Features

Up to 12 PID, loops including Auto-tune

Up to 3 onboard Shaft-encoder Inputs, 10 kHz

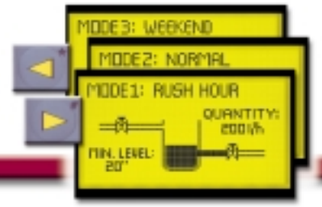
2 High-speed Outputs, up to 2 kHz (in transistor Output models)



Images library plus HMI images & text editors

Selection of 18 I/O expansion modules includes Digital and Analog I/Os, Thermocouple, PT100, and Loadcell Inputs

Easy scrolling between recipes/menus, via HMI "List" Variables



Information Mode: Powerful diagnostics via the Operator Panel

Built-in 120K database enables dynamic data logging.