



Powerful Software

Outstanding Support

Complete Range of PLCs

UNISTREAM°
VISION™
SAMBA™
JAZZ®







Powerful Software

Single, intuitive, feature-rich programming environment & utilities suite

Unitronics provides a powerful solution; our software is more than a match for any requirement. Hardware configuration, HMI design and communications are all programmed in an single, intuitive software environment, which includes a extensive utilities suite with DataExport, Remote Access and more. This all-in-one approach reduces the time and effort needed to program a unit. Not only is our software user-friendly, all of Unitronics software and utilities are provided at no extra cost.

Outstanding Support

Expert support without fees or tiers

"The support, both via telephone, email and the Unitronics forum, is among the best in the industry" says Jose Padro, President of Alpha Systems, Inc. Unitronics offers best-of-breed technical support to every user without added fees, tiers, or hoops to jump through. Every question we receive is answered by an experienced member of our support team. The same team of experts is available at every step of the project for continuous coverage.

Complete Range of PLCs

A range of product lines to match your exact requirements

With 25 years of experience in automation, Unitronics has established several PLC lines with options to meet a diverse range of requirements. Our R&D strategy is to stay close to the market; we listen to our customer's current needs and future plans and develop new solutions accordingly. This strategy enables us to offer simple, tried-and-true solutions alongside cutting edge innovations.



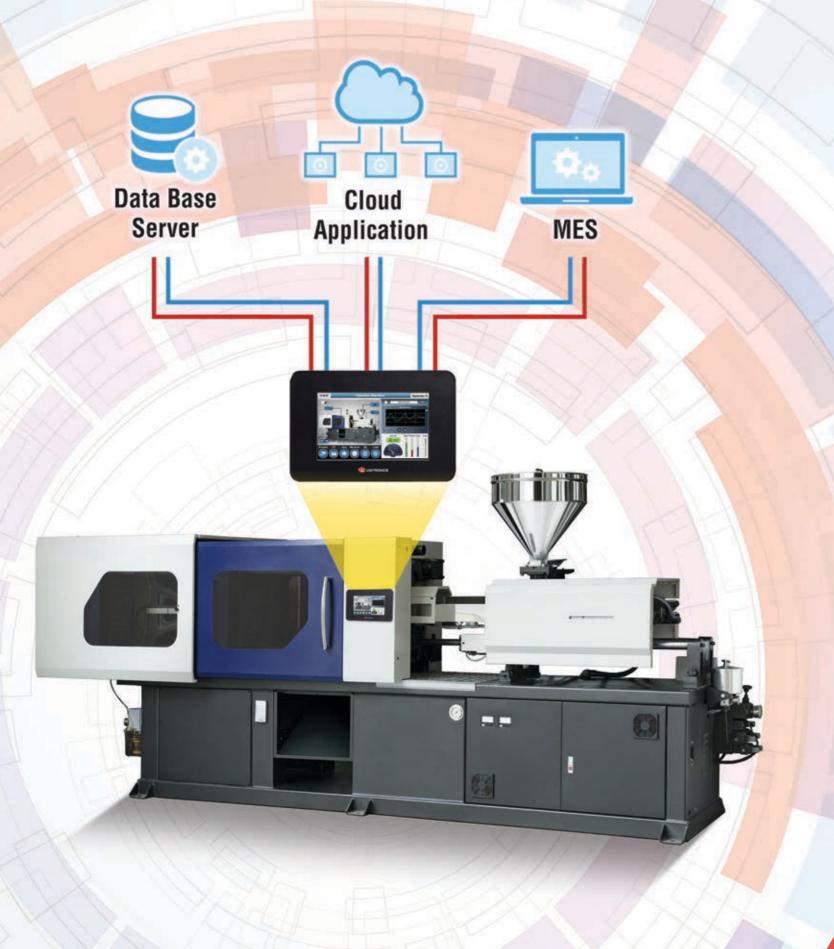
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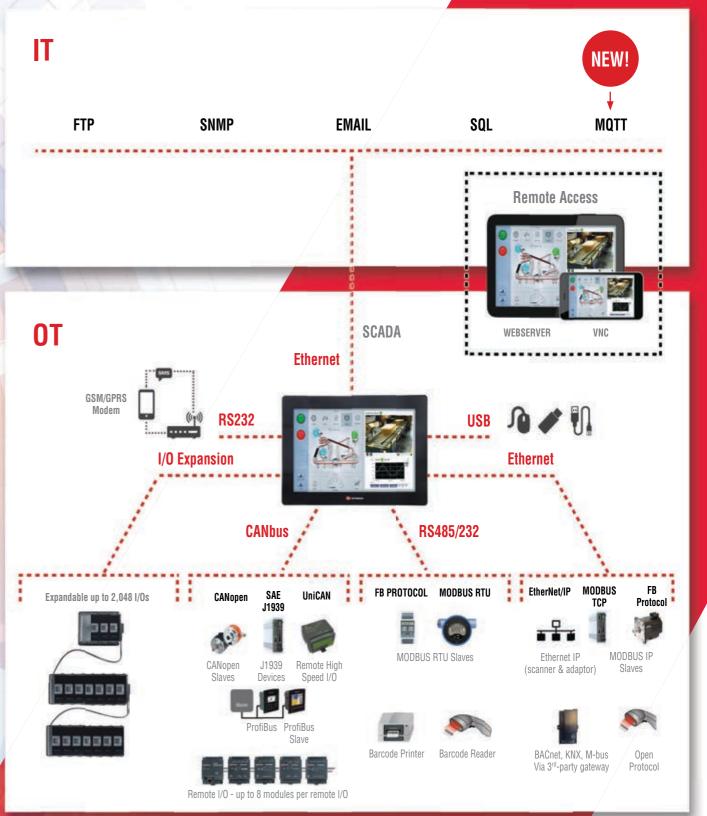
This catalog provides a general overview of Unitronics products. Before you place an order, please check the complete technical specifications for each product, located in the Unitronics website.



Enter the world of Industry 4.0 with Unitronics



Bridge the gap between OT and IT with UNISTREAM® PLC+HMI



UNISTREAM®

Powerful Award-winning Programmable Logic Controllers

For high-end automation projects, available in two All-in-One series: Modular & Built-in.

UniStream® Modular

Create custom control solution, perfectly matched to your requirements

Its unique design enables you to create a custom control solution in three steps: select an HMI panel, snap in a CPU, and add any I/O or communication modules necessary for your specific application.





UniStream® Built-in

Space-saving PLC that delivers the functionality to control complex machines

PLC+HMI+I/O built into a single, superbly compact unit in a range of built-in I/O configurations. Available in two versions: 5" and 5" Pro.



Add-on COM modules:







I/O Expansion Adaptor

UniLogic®-UniStream®

All-in-One Programming Software

Ultimate All-in-One programming environment: configure hardware, communications, program Ladder, design HMI, web pages and more.

Build-it-Once ... Reuse Library: Functions, HMI & Webpages

Toolbox for Ladder, HMI & Web Elements

Power from C ... Structs & C Functions



UNILOGIC®



Via MQTT, UniStream bridges between the production floor all the way up to the MES. Supports MQTT as a 'client' that can both publish and subscribe to messages.



You create Structs - groups of data tags of different types organized into a single, logical unit - and reuse them across programs, especially with UDFBs (User Defined Function Blocks). UniLogic's built-in Structs enable you to configure and control hardware and complex functions such as Communications and PID.

Speed Ladder Programming - plus "C" Power

Build your Ladder: drag & drop elements that snap into place, error-free. Use the built-in C Function editor to write C functions. UniLogic means you 'write-it-once': create code to use, reuse, and export across projects.

Create UDFBs (User Defined Function Blocks) - self-contained functions for tasks such as oven control



Data Samplers record dynamic application data, such as output values, at fixed intervals into files and display it as Trend graphs on the HMI.

Data Tables organize and manipulate data via Ladder, create data logs, implement Recipes, import/export values from/to Excel, allow users to enter/edit data into Data Tables via HMI panel, and more.

NEW SQL Connector: Access SQL databases, run Queries, connect Data Tables to SQL.

Web Server: Web Pages - No HMTL Required

Design elegant web pages via a drag & drop interface, identical to the HMI editor. A rich graphic library is at your disposal.

The Web toolbox offers user controls and widgets, enabling the end user to view and enter application data via any web browser.



Design Beautiful HMI Displays -Stream Video, Audio, PDF

UniLogic's extensive free graphics library and HMI widgets enable you to be a graphic artist. The simple HMI editor supports layers, image transparency, overlap, and rotation. The Toolbox offers drag & drop widgets: Video and Audio players, Data Tables, complex Trend graphs and gauges for the display of run-time values, and more.

New Custom Controls: design controls, store in Library - reuse anywhere!



Build-it-Once, then Reuse - the Ultimate Time Saver

Add your UDFBs, HMI screens, Custom Controls, and Web Pages to the Library. Then, drag & drop them where you need them - UniLogic takes care of the tags. You can import your Library into any project, and share it with others.



Languages - from Italian to Chinese at the Touch

UniLogic supports any language that you can type - including Asian languages such as Chinese, Japanese, and Korean. You simply enter translated text into the Language Table Translation. Instantly switch HMI language via user actions or program events.



Built-in Alarms - Easily Boost Application Safety

Compliant with ISA 18.2 standard guidelines for Alarm Management systems in the process industries. Intuitive features allow operators to detect Alarms, analyze them, and take action. Export your Alarm Log via FTP, send it via email, or copy it directly from the controller via a DOK. Alarms feature full multi-language support.



Communications - Configuration not Programming

Incredibly fast, easy to configure and implement, UniStream data communications run independently of Ladder.

A single PLC can contain multiple slave definitions—and multiple master definitions. Communicate with any device: plug-and-play protocols such as MODBUS, CANopen, SNMP, MQTT, and EtherNet/IP.

Use Message Composer for data communications with devices such as frequency converters and bar-code readers via any Ethernet, CANbus or serial 3rd -party protocol. Also supports CANLayer 2, FTP Client/Server, SMS, email. GSM/GPRS modem

UNISTREAM® Modular

Features:

HMI

- Size: 7". 10.4" or 15.6"
- High quality touch screen. UniStream 10.4" is also available with Multi-Touch screen
- Multi-language display
- Built-in Alarm Screens
- · Media support: Video, Audio and PDF viewer
- · Multi-level password protection easy and fast

PLC

- I/O options include digital, analog, high speed, temperature, and weight measurement
- Expand up to 2048 I/Os
- Auto-tune PID, up to 64 independent loops
- · Recipes & data logging via data tables & sampling
- · MicroSD card log, backup, clone & more
- Function Blocks & Structs

Communication

Built-in ports:

- 1 CANbus
- 2 Ethernet TCP/IP
- 1 RS485
- 2 USB host
- 1 Mini USB for programming

Add-on ports:

- Up to 8 RS232 (Using UAC-02RS2)
- Up to 4 RS232 + 4 RS485 (Using UAC-02RSC)

Protocols:

- MQTT Client
- EtherNet/IP
- MODBUS: Serial & TCP/IP
- CANopen, CANlayer2, UniCAN
- SNMP
- · BACnet, KNX and M-Bus via gateway
- · Message Composer for 3rd party protocols

General Features:

- SQL Client
- · Web Server
- FTP server & client
- E-mail & SMS
- · Remote access via VNC
- 3G Modem support

3 steps to an All-in-One controller: select HMI panel, add the powerful CPU, and snap on any I/O and COM modules. Expands up to 2048 I/Os.



UniStream® 7"



Available with Multi-Touch

UniStream®10.4"



UniStream®15.6"

UniStream 7 UniStream 10.4 UniStream 15.6 **Article Number** USC-P-B10 • USP-070-B08/USP-070-B10 USC-P-B10 • USP-104-B10/USP-104-M10 USC-P-B10 • USP-156-B10 I/O Options 2048 Total supported I/Os (See I/O Expansion Modules- page 15) Onboard I/O modules Fit up to 3 slim or 2 wide I/Os1 Fit up to 5 slim or 3 wide I/Os1 I/O Expansion Add Local I/O via expansion port • Add Remote I/Os via CANbus Local I/O Expansion Use Local Expansion Adapters to add up to 80 slim or 50 wide modules¹ Remote I/O Expansion Use EX-RC1 adapters to add I/Os via CANbus² **Onboard COM modules** Supports up to 3 COM modules Supports up to 4 COM modules¹ **Program** 8 MB **Application Memory HMI Panel** Touch screen Resistive, Analog Resistive, Analog / Multi-Touch Resistive, Analog Viewing Area USP-070-B08: 152.4 x 91.44 211.2 x 158.4 344.23 x 193.53 Height x Width (mm) USP-070-B10: 154.08 x 85.92 Cut Out 134.0 x 196.0 214.0 x 281.0 249.0 x 395.0 Height x Width (mm) Resolution 800 x 480 (WVGA) 800 x 600 (SVGA) 1366 x 768 Kevs Virtual Keyboard Environment Protection IP66, IP65 and NEMA4X when panel-mounted³ -20°C to 55°C 0°C to 50°C Operating Temperature UL, CE, Class 1 Div 2 and GOST Standard General 4 years typical at 25°C, battery back-up for memory and RTC Battery Real-time clock functions (date and time) Clock Power Supply 12/24VDC4

Local Expansion Adapters

	UAG-XK125	Short Range Kit, 125 cm
UAG-XKP125 Short Range + embedded Power S		Short Range + embedded Power Supply Kit, 125 cm
	UAG-XK300	Short Range Kit, 300 cm
	UAG-XKP300	Short Range Kit + embedded Power Supply, 300 cm
	UAG-XKPLXXXX	Long Range + embedded Power Supply, lengths: 600, 1200, 1500, 2000, 3000cm

Uni-COM™ Communication Modules

UAC-01RS2	1x RS232
UAC-02RS2	2x RS232
UAC-02RSC	1x RS232 port and 1x RS485 port

Onboard Modules, I/O and COM: the total number of modules, both I/O and COM that you can snap onboard an HMI panel is limited by the size of the panel. I/O modules are "Slim" &" Wide". 1 "Wide" I/O module = 1.5 "Slim" or COM module.

- ² EX-RC1: via CANbus, integrate standard Unitronics' I/O modules at distances of up to 1000m.
- ³ UniStream complies with IP66 and NEMA4X only if audio-jack seal is installed. Refer to HMI panel installation guide.

⁴12V applies to PLC power supply only, and not to the I/O.

UNISTREAM® Built-in

Features:

HMI

- Size: 5"
- · High quality touchscreen
- · Multi-language display
- Built-in Alarm Screens
- Media support: Video*, Audio* and PDF viewer
- · Multi-level password protection -easy and fast

PLC

- I/O options include digital, analog, high speed, temperature, and weight measurement
- Expand up to 2048 I/Os
- Auto-tune PID, up to 64 independent loops
- · Recipes & data logging via data tables & sampling
- MicroSD card log, backup, clone & more
- Function Blocks & Structs

Communication

Built-in ports:

- 1 Ethernet TCP/IP
- 1 USB host
- 1 Mini USB for programming

Add-on ports:

- 1 CANbus
- 1 RS485
- 1 RS232

Protocols:

- MQTT Client
- EtherNet/IP
- MODBUS TCP
- · CANopen, CANlayer2, UniCAN
- SNMP
- · BACnet, KNX and M-Bus via gateway
- Message Composer for 3rd party protocols

General Features:

- SQL Client*
- Web Server*
- E-mail & SMS
- Remote access via VNC
- FTP server & client
- · 3G Modem support
- * Pro version only. Model numbers including B5 refer to Built-in, B10 to Built-in Pro.

Powerful PLC in a superbly compact hardware profile: PLC+HMI+I/Os built into one single unit. Available in two versions: 5" and 5" Pro. Expands up to 2048 I/Os.



UniStream®5"





I/O Options	
Total supported I/Os	2048
Built-In	According to model (See Built-in I/Os configurations- page 14)
I/O Expansion	Add Local I/O via expansion port • Add Remote I/Os via CANbus. (See I/O Expansion Modules- page 15)¹
Local I/O Expansion	Use Local Expansion Adapters to add up to 80 slim, or 50 wide modules¹
Remote I/O Expansion	Use EX-RC1 adapters to add I/Os via CANbus ²
Onboard COM Modules	Add up 3 COM modules ³
Program	
Application Memory	8 MB
HMI Panel	
Touch screen	Resistive, Analog
Viewing Area Height x Width (mm)	108 x 64.8
Cut Out Height x Width (mm)	93.2 x 148.2
Resolution Height x Width (mm)	800 x 480 (WVGA)
Keys	Virtual Keyboard
Environment	
Protection	IP66, IP65 and NEMA4X
Operating Temperature	-20°C to 55°C
Standard	CE
General	
Battery	4 years typical at 25°C, battery back-up for memory and RTC
Clock	Real-time clock functions (date and time)
Power Supply	12/24VDC ⁴

Uni-COM™ Communication Modules

Article Number	Communication Ports
UAC-CX-01RS2	Uni-COM: 1x RS232 port
UAC-CX-01RS4	Uni-COM: 1x RS485 port
UAC-CX-01CAN	Uni-COM: 1x CANbus port

Local Expansion Adapters

Article Number	Communication Ports		
UAG-CX-XKP125	UniStream CX IO Exp.Kit 1.25m		
UAG-CX-XKP300	UniStream CX IO Exp.Kit 3m		

UniStream 5" I/O Expansion: the first unit plugged into the I/O expansion jack must be from the CX series I/O expansion - UAG-CX-XKP125 or UAG-CX-XKP300.

The CX end unit may be followed by Uni-I/O modules or UAG-XKPLxxxx adapters.

² EX-RC1: via CANbus, integrate standard Unitronics' I/O modules at distances of up to 1000m. Refer to website for more information.

³ Up to 2 serial modules and one CAN bus module.

⁴12V applies to US5-XX-B1 only.

Samba" Series | V

UniStream 5" Built-in I/O Configurations

		Inputs			Outputs				Operating	
	Summary	Digital (Isolated)	HSC/Shaft- encoder ¹	Analog	Temperature inputs, RTD/TC	Transistor ² (Isolated)	PWM ²	Relay	Analog	Voltage
US5-B5-B1 US5-B10-B1	No built-in I/Os	_	-	-	-	-	-	-	-	12/24VDC
US5-B5-TR22 US5-B10-TR22	10 Digital Inputs, 2 Analog Inputs, 2 Transistor Outputs, npn, including 2 PWM Outputs. 8 Relay Outputs	10 Sink/ Source	-	2 0-10V, 0-20mA, 4-20mA 12-bit	-	2 Sink (npn)	2 30kHz	8	-	24VDC
US5-B5-T24 US5-B10-T24	10 Digital Inputs, 2 Analog Inputs, 12 Transistor Outputs, pnp, including 2 PWM Outputs	10 Sink/ Source	-	2 0-10V, 0-20mA, 4-20mA 12-bit	-	12 Source (pnp)	2 3kHz	-	-	24VDC
US5-B5-RA28 US5-B10-RA28	14 Digital Inputs, including 2 HSC, 2 Analog Inputs, 2 Temperature Inputs, 8 Relay Outputs, 2 Analog Outputs	14 Sink/ Source	2 90kHz 32-bit	2 (isolated) 0-10V, 0-20mA, 4-20mA 14-bit	2 (isolated) Thermocouple, PT100/NI100/ NI120/ PT1000/NI1000	-	-	8	2 0-10V 12-bit, ±10V, 11-bit+sign 0-20mA, 4-20mA 12-bit	24VDC
US5-B5-TA30 US5-B10-TA30	14 Digita Inputs, including 2 HSC, 2 Analog Inputs, 2 Temperature Inputs, 10 Transistor outputs, pnp, including 2 PWM Outputs, 2 Analog Outputs	14 Sink/ Source	2 90kHz 32-bit	2 (isolated) 0-10V, 0-20mA, 4-20mA 14-bit	2 (isolated) Thermocouple, PT100/NI100/ NI120/ PT1000/NI1000	10 Source (pnp)	2 3kHz	-	2 0-10V 12-bit, ±10V 11-bit+sign 0-20mA, 4-20mA 12-bit	24VDC
US5-B5-R38 US5-B10-R38	24 Digital Inputs, including 4 HSC, 2 Analog Inputs, 12 relay Outputs	24 Sink/ Source	4 90kHz 32-bit	2 0-10V, 0-20mA, 4-20mA 12-bit	-	-	-	12	-	24VDC
US5-B5-T42 US5-B10-T42	24 Digital Inputs, including 4 HSC, 2 Analog Inputs, 16 Transistor Outputs, pnp, including 2 PWM Outputs	24 Sink/ Source	4 90kHz 32-bit	2 0-10V, 0-20mA, 4-20mA 12-bit	-	16 Source (pnp)	2 3kHz	-	-	24VDC

¹ Note that the high-speed inputs are included in the total number of digital inputs.

Expandability Modular, Built-in, Local & Remote I/Os

t-in, Local & Remote I/Os spand up to 2048 I/Os.

Local & remote I/O modules for UniStream® series. Expand up to 2048 I/Os.

		Inputs				Outputs			
	Article Number	Digital (Isolated)	HSC/Shaft- encoder ⁴	Analog	Temperature Measurement	Transistor ⁵ (Isolated)	PWM/ HS0 ⁵	Relay	Analog
	UID-1600	16 Sink/Source	_	_	_	_	_	_	_
	UID-0808T	8 Sink/Source	_	_	_	8 Source(pnp)	_	_	_
	UID-W1616T ³	16 Sink/Source	_	_	_	16 Source(pnp)	_	_	_
Digital	UID-0808THS ¹	8 Sink/Source	2 250kHz 32-bit	_	_	8 Source(pnp)	2 ² 250kHz 2 3kHz	_	_
	UID-0016T	_	_	_	_	16 Source(pnp)	_	_	_
	UID-0808R	8 Sink/Source	_	_	_	_	_	8	_
	UID-W1616R ³	16 Sink/Source	_	_	_	_	_	16	_
	UID-0016R	_	_	_	_	_	_	16	_
Analog and Temperature	UIA-0006	_	_	_	_	-	_	_	6 (Isolated) 0-10V 14-bit, ±10V 13-bit+sign, 0-20mA, 4-20mA 13-bit
	UIA-0402N	_	_	4 0-10V, 0-20mA, 4-20mA 13-bit	_	_	_	_	2 0-10V 14-bit, ±10V 13-bit+sign, 0-20mA, 4-20mA 13-bit
	UIA-0800N	_	_	8 0-10V, 0-20mA, 4-20mA 13-bit	_	_	_		_
	UIS-04PTN	_	_	_	4 PT100/NI100/NI120	_	_	_	_
-	UIS-04PTKN	_	_	_	4 PT1000/NI1000/NI1200	_	_	_	_
	UIS-08TC	_	_	_	8 (Isolated) Thermocouple	<u>—</u>	_	_	_
Digital/Analog	UIS-WCB1 ^{1,3}	10 Sink/Source	2 10kHz 32bit	2 (Isolated) 0-10V, 0-20mA, 4-20mA 14-bit	2 (Isolated) Thermocouple, PT100/NI100/NI120	2 ⁶ Sink (npn)	2 250kHz	8	2 0-10V 14-bit, ±10V 13-bit+sign, 0-20mA, 4-20mA 13-bit
	UIS-WCB2 ^{1,3}	10 Sink/Source	2 10kHz 32bit	2 (Isolated) 0-10V, 0-20mA, 4-20mA 14-bit	2 (Isolated) Thermocouple, PT100/NI100/NI120	8 Source (pnp) 2 ⁶ Sink(npn)	2 250kHz (Sink outputs only)	_	2 0-10V 14-bit, ±10V 13-bit+sign, 0-20mA, 4-20mA 13-bit

This module utilizes two high speed blocks that can each be assigned either
Tilis illoudie, utilizes two flight speed blocks that call each be assigned either
a the inpute or to the outpute

² of the implication at the coupling of the

ote that the high-speed inputs are included in the total number of digital inputs.

ote that the high-speed outputs are included in the total number of digital outputs.

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

DIN Rail Power Supplies

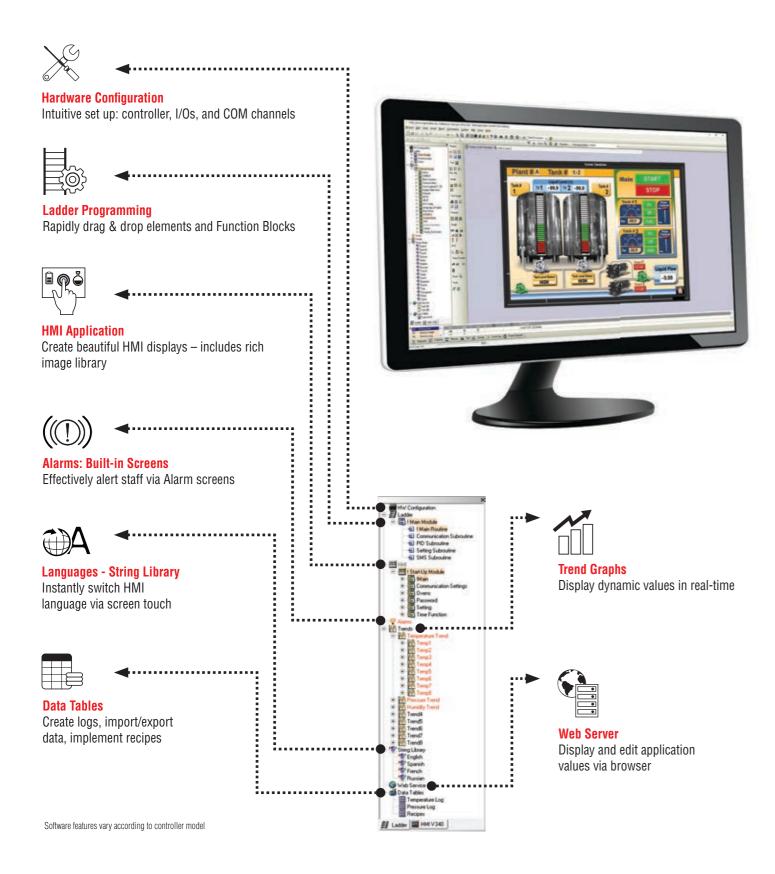
GSM-KIT-17J-3G Cinterion GPRS modem, EHS6T, 3G

 $^{^{\}rm 2}$ Note that the PWM outputs are included in the total number of transistor outputs.

unction as normal-speed PWM outputs (same freq. and sa Vidth: 1 'wide' I/O module = 1.5 'slim' I/O modules

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

A single, intuitive environment for all your application needs



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	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	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	Easily place HMI panels side-by-side to monitor distributed systems or applications in several locations Run the HMI applications via PC keyboard + mouse	Control room operators Installation managers
DataXport DataXport	Create Data Logs from Data Tables and operand values in PLCs	Harvest data from multiple PLCs on demand or according to time/date Export the data to ± Excel/.csv files Automatically email files	Data analystsPlant managersProcess engineers
UniDownload Designer	Create compressed VisiLogic / U90Ladder applications(.udc files) for secure installation in local or remote PLCs	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: 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	Download Manager: installs the same application in multiple PLCs UniDownloader: installs an application in a single PLC	OEMs / System Integrators in installations with high security requirements
SD Card Suite	Remotely access and manage SD cards and their data	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	Data analysts Plant managers Process engineers
UniVision Licensing	Safeguard your PLC application security	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	System integrators OEMs
UniOPC Server	Exchange data between Unitronics PLCs and OPC-supported software	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

16 17

Features:

HMI

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

PLC

- I/O options including 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
- 1 port may be added for an additional Serial/Ethernet

Protocols:

- MODBUS TCP
- SNMP*
- · 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
- * SNMP V1 Trap, SNMP community Name



Advanced PLC from the back—big,

solutions, expand up to 1000 I/Os.

high-resolution color touch screen from

the front. Snap in I/Os for an All-in-One

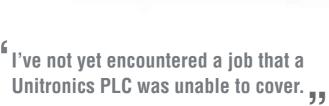
V1210



V1040

l've not yet encountered a job that a

Timothy Moulder, Engineer at Black & Decker



Snap-in I/O

Plug a Snap-in module directly into the back of a Vision PLC.

	Vision 1040	Vision 1210			
Article Number	V1040-T20B	V1210-T20BJ			
I/O Options					
Total supported I/Os	1	000			
I/O Expansion	Snap-in I/O Modules plug directly into the back of Local or Remote I/Os may be added via expansion pol	the Vision unit (See Snap-in I/O Modules- page 35). rt or via CANbus (See I/O Expansion Modules- page 34).			
Local I/O Expansion	Use Local Expansion Adap	oters to add up to 8 modules			
Remote I/O Expansion	Use EX-RC1 adapters to furt	her 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					
Touch screen	Resistiv	ve, Analog			
Cut Out Height x Width (mm)	230 x 274	228.5 x 297			
Resolution	800 x 60	00 (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	0 50°C			
Standards	CE, UL Many of our products are also UL Class 1 Div 2 and GOST - please contact Unitronics				
General					
Battery	7 years typical at 25°C, battery back-up for all memory sections and RTC				
Clock	Real-time clock fun	ctions (date and time)			
Power Supply	12/2	4VDC ²			

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

² 12V applies to PLC power supply only, and not to the I/O.

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VISION 700™

Features:

HMI

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

PLC

- I/O options including 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
- 2 Ports may be added: 1 Serial/Profibus and 1 CANbus

Protocols:

- MODBUS TCP
- SNMP*
- 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
- * SNMP V1 Trap, SNMP community Name

Advanced PLC from the back—high-resolution color 7" touch-screen from the front. Snap in I/Os for an All-in-One solutions, 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 35). Local or Remote I/Os may be added via expansion port or via CANbus (See I/O Expansion Modules- page 34).
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/Os1
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	
Touch screen	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	CE, UL Many of our products are also UL Class 1 Div 2 and GOST - please contact Unitronics
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 ²

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

² 12V applies to PLC power supply only, and not to the I/O.

20 C€/UL 2

VISION 570[™]/560[™]

Features:

HMI

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

PLC

- I/O options including 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
- 1 port may be added for an additional Serial/Ethernet

Protocols:

- MODBUS TCP
- SNMP*
- 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

* SNMP V1 Trap, SNMP community Name

Advanced PLC from the back- big, high resolution color 5.7" touchscreen from the front. Snap-in I/Os for an All-in-One solution, expands 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 ²	V560-T25B								
I/O Options										
Total supported I/Os		1000								
I/O Expansion	Snap-in I/O Modules plug directly into the back Local or Remote I/Os may be added via expansion p	of the Vision unit (See Snap-in I/O Modules- page 35). oort or via CANbus (See I/O Expansion Modules- page 34).								
Local I/O Expansion	Use Local Expansion Ad	apters to add up to 8 modules								
Remote I/O Expansion	Use EX-RC1 adapters to fu	orther extend the number of I/Os1								
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), 25 32 counters. Additional non-retainable operands: 1024)	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										
Touch screen	Resis	tive, 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		CE, UL 1 Div 2 and GOST - please contact Unitronics								
General										
Battery	7 years typical at 25°C, battery ba	ack-up for all memory sections and RTC								
Clock	Real-time clock fo	unctions (date and time)								
Power Supply	12	V/24VDC³								

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

22

² To order a classic V570 with a Bezel panel, order V570-57-T20B.

³12V applies to PLC power supply only, and not to the I/O.

VISION 430™

Features:

HMI

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

PLC

- I/O options including 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
- 2 ports may be added: 1 Serial/Ethernet/Profibus and 1 CANbus

Protocols:

- MODBUS TCP
- SNMP*
- · 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
- * SNMP V1 Trap, SNMP community Name

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



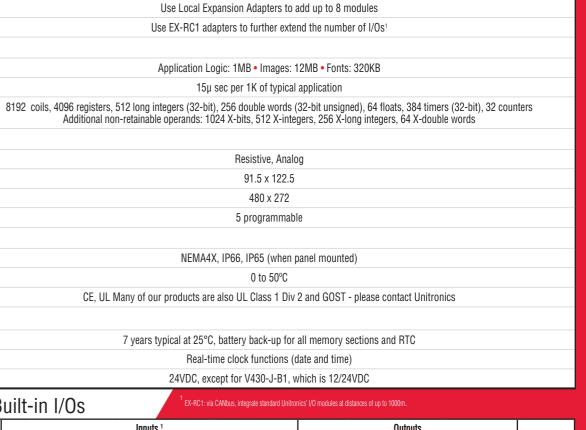
V430



Ashley Parr, HPS

66	
The huge advantage of this PLC was that - w	ith
everything built-in_the communications and	
tags in the HMI was so simple and intuitive.	"

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 nine. This reduces the



Vision430™ models - Built-in I/Os

I/O Options Total supported I/Os

I/O Expansion

Program Application Memory

Scan Time

Memory Operands

Cut Out Height x Width (mm)

HMI Panel

Touch screen

Resolution

Protection

Standards

General

Power Supply

Battery

Clock

Environment

Operating Temperature

Keys

Local I/O Expansion

Remote I/O Expansion

Built-in

512

According to model (See Built-in I/Os table below)

Add Local I/O via expansion port • Add Remote I/Os via CANbus (See I/O Expansion Modules- page 34)

				Inputs ¹			Onovotina			
Article	Summary	Digi- tal²			Temperature Measurement	Transistor ³	PWM/HSO ³	Relay	Analog	Operating Voltage
V430-J-B1	No onboard I/Os	<u> </u>	_	_	_	-	_		_	12/24VDC
V430-J-RH2	10 Digital, 2 D/A Inputs ¹ 6 Relay Outputs		3 200kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	_	_	_	6	_	24VDC
V430-J-R34	20 Digital, 2 D/A Inputs¹ 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 Inputs¹ 8 Relay, 4 High-speed Transis- tor 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/A¹ 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 Inputs¹ 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

VISION 350™

Features:

HMI

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

PLC

- I/O options including 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
- 2 ports may be added: 1 Serial/Ethernet/Profibus and 1 CANbus

Protocols:

- MODBUS TCP
- SNMP*
- · 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
- * SNMP V1 Trap, SNMP community Name

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



There were significant cost savings using the Unitronics PLC.

Justin Butler,

Senior Electrical Engineer at Energy Plant Solutions

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 34)
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	
Touch screen	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 & V350-S-TA24: -30°C to 60°C⁴
Standards	CE, UL Many of our products are also UL Class 1 Div 2 and GOST - please contact Unitronics
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	24VDC, except for V350-J-B1, which is 12/24VDC
// L 0507M	1

Vision350™ models - Built-in I/Os

			Inputs ¹				Outputs				
	Article ⁵	Summary	Digital ²	HSC/Shaft- encoder ²	Analog	Temperature Measurement	Transistor 3	PWM/HSO ³	Relay	Analog	Operating Voltage
ſ	V350-J-B1	No onboard I/Os	_	_	_	_	_	_	_	_	12/24VDC
	V350-J-TR20	10 Digital, 2 D/A Inputs¹ 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/A¹ 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	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

VISION 130™

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

I/O Options Total supported I/Os

I/O Expansion

Program Application Memory

Scan Time

Memory Operands

Cut Out Height x Width (mm)

HMI Panel

Touch screen

Resolution

Protection

Standards

General

Power Supply

Article 4

V130-J-B1

V130-J-TR20

V130-J-R34

V130-J-TR34

V130-J-TR6

V130-J-RA22

V130-J-TRA22

V130-J-T2

V130-J-T38

V130-J-TA24

Vision130™ models - Built-in I/Os

Summary

No onboard I/Os

10 Digital, 2 D/A Inputs¹

6 Relay Outputs

High-speed Transistor Output

20 Digital, 2 D/A Inputs1

12 Relay Outputs

20 Digital, 2 D/A Inputs1

Outputs

6 Digital, 2 D/A1

4 Analog Inputs

6 Relay Outputs

2 High-speed Transistor Outputs

8 Digital, 2 D/A, 2 TC/PT100/

Digital Inputs¹

8 Relay, 2 Analog Outputs

8 Digital, 2 D/A, 2 PT100/TC/

Digital Inputs1

Transistor Outputs 10 Digital, 2 D/A Inputs1

12 Transistor Outputs

20 Digital, 2 D/A Inputs 1

16 Transistor Outputs

8 Digital, 2 D/A, 2 TC/PT100/

Digital Inputs 1

Relay, 2 Analog, 4 High-Speed

Relay, 4 High-speed Transistor

Battery

Clock

Environment

Operating Temperature

Keys

Local I/O Expansion

Remote I/O Expansion

Built-in

Features:

HMI

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

PLC

- · I/O options including 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
- · 2 ports may be added: 1 Serial/Ethernet/Profibus and 1 CANbus

Protocols:

- MODBUS TCP
- SNMP*
- 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
- * SNMP V1 Trap, SNMP community Name, SNMP V2C Trap



V130



The perfect solution for our need, the Vision130™ is easy to program, user-friendly and backed up with responsive tech support. $_{\P \P}$

> Michael Lamore. President of Barrier1



10 Transistor, 2 Analog Outputs

Thermocouple, PT100

256

According to model (See Built-in I/Os table below)

Add Local I/O via expansion port • Add Remote I/Os via CANbus. (See I/O Expansion Modules- page 34)

Use Local Expansion Adapters to add up to 8 modules

Use EX-RC1 adapters to further extend the number of I/Os1

Application Logic: 488KB • Images: 128KB • Fonts: 128KB

20µ sec per 1K of typical application

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

92 x 92

128 x 64

20, including 10 user labeled keys (slide kit sold separately)

NEMA4X, IP66, IP65 (when panel mounted)

0 to 50°C

CE, UL Many of our products are also UL Class 1 Div 2 and GOST - please contact Unitronics

7 years typical at 25°C, battery back-up for all memory sections and RTC

Real-time clock functions (date and time)

24VDC, except for V130-J-B1, which is 12/24VDC

Temperature

Measurement

2

Thermocouple, PT100

hermocouple, PT100

Inputs 1

Analog

0-10V, 0-20mA, 4-20mA

0-10V. 0-20mA. 4-20mA

10-bit

0-10V, 0-20mA, 4-20mA

and

0-20mA, 4-20mA

10-bit

0-10V, 0-20mA, 4-20mA

14-bit

0-10V, 0-20mA, 4-20mA

0-10V, 0-20mA, 4-20mA

0-10V, 0-20mA, 4-20mA

200kHz, 32-bit 0-10V, 0-20mA, 4-20mA

200kHz, 32-bit 0-10V, 0-20mA, 4-20mA

HSC/Shaft-

encoder²

3

200kHz, 32-bit

30kHz. 32-bit

200kHz, 32-bit

30kHz, 32-bit

30kHz. 32-bit

30kHz, 32-bit

30kHz, 32-bit

Digital²

8

12

12

22

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

ransistor³

2

2

npn

npn

pnp

16

pnp

pnp

Outputs

Relay

6

12

6

8

4

Analog

0-10V, 4 -20mA

12-bit

0-10V, 4 -20mA

12-bit

0-10V, 4 -20mA

PWM/HSO³

(2 PTO)

200 kHz max

(3 PTO)

200 kHz max

(2 PTO)

200 kHz max

(2 PTO)

0.5kHz

0.5kHz

0.5kHz

200 kHz ma

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

3 The total number of digital outputs listed

switch the 'J' in the model number to '35' e V130, V130-33-TR20.

0	0
2	ŏ

Operating

12/24VDC

24VDC

24VDC

24VDC

24VDC

24VDC

24VDC

24VDC

24VDC

24VDC

SAMBATM

Features:

HMI

- Size: 3.5", 4.3", 7"
- · High quality touchscreen
- Multi-language display
- Built-in Alarm Screens

PLC

- I/O options including digital, analog, and high speed
- Auto-tune PID, up to 2 independent loops
- Recipe programs and data logging via data tables
- Function Blocks



Built-in ports:

- 1 Mini USB for programming for 4.3" & 7"models, 1 RS232 for 3.5" model
- 2 ports may be added: 1 Serial/Ethernet and CANbus

Protocols:

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

General Features:

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

Full-function PLC with built-in, highresolution full-color touch screen and built-in I/O configuration. Great look, incredible price.





SAMBA 3.5"





SAMBA 4.3"





SAMBA 7"



		SAMBA										
Article Number	SAMBA 3.5	SAMBA 4.3	SAMBA 7									
I/O Options		'										
Total supported I/Os		22										
Built-in	According to model (See Built-in I/Os table below)											
I/O Expansion		-										
Remote I/O Expansion	Use	EX-RC1 adapters to further extend the number of	I/0s ¹									
COM Modules		Fit up to 1 CANbus, 1 RS232/RS485³ or 1 Ethernet	t									
Program												
Application Memory	Application Logic: 80KB • Images: 1.5 MB • Fonts: 320 KB	Application Logic: 192KB • Images: 3 MB • Fonts: 320 KB	Application Logic: 192KB • Images: 8 MB • Fonts: 512 KB									
Scan Time		15µS per 1K of typical application										
Memory Operands	512 coils, 256 registers, 32 long intege Additional non-retainable operand:	ers (32-bit), 32 double words (32-bit unsigned), 24 s: 64 X-bits, 32 X-integers, 16 X-long integers, 16 X	floats, 32 timers (32-bit), 16 counters. (-double words (32-bits unsigned)									
HMI Panel												
Touch screen		Resistive, Analog										
Cut Out Height x Width (mm)	92 X 92	122.5 X 91.5	193 X 125									
Resolution	320 X 240 (QVGA)	480 X 272	800 x 480 (WVGA)									
Keys	Displays	s virtual keyboard when the application requires da	ata entry									
Environment												
Protection		NEMA4X/IP66/IP65 (when panel mounted)										
Operating Temperature		0 to 50°C										
Standards	CE, UL Many of our p	roducts are also UL Class 1 Div 2 and GOST - plea	se contact Unitronics									
General												
Battery	7 years typical at 25	5°C, battery back-up for RTC and system data, incl	luding variable data									
Clock		Real-time clock functions (date and time)										
Power Supply		24VDC										

Samba™ models -Built-in I/Os

				Inputs ¹		Onorating				
Article	Article Summary		HSC/Shaft- encoder ²	Analog Temperature Measurement		Transistor ³	PWM/HSO ³	Relay	Analog	Operating Voltage
SM35-J-R20 SM43-J-R20 SM70-J-R20	10 Digital, 2 D/A Inputs ⁴ , 8 Relay Outputs	12	1 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA — 10-bit		_ _		8	_	24VDC
SM35-J-T20 SM43-J-T20 SM70-J-T20	10 Digital, 2 D/A Inputs, 8 Transistor Outputs	12	3 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	_	8 7 pnp 0.5kHz		_	_	24VDC
SM35-J-RA22 SM43-J-RA22 SM70-J-RA22	12 Digital, 1 HSC/Shaft- encoder, 2 AI , 2 PT100/TC, 8 Relay, 2 AO	12	1 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 12/14-bit	2 PT100/TC	_	_	8	2 0-10V, 4-20mA, 12-bit	24VDC
SM35-J-TA22 SM43-J-TA22 SM70-J-TA22	12 Digital, 1 HSC/Shaft- encoder, 2 AI, 2 PT100/TC, 8 Transistor, 2 AO	12	1 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 12/14-bit	2 PT100/TC	8 pnp	5 0.5kHz	_	0-10V, 4-20mA, 12-bit	24VDC

^{*} SNMP V1 Trap, SNMP community Name

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

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

When selecting NPN for the digital inputs, the 2 Analog



Features:

HMI

- Up to 60 user-designed screens
- Multi language

PLC

- I/O options including digital, analog, temperature and high speed
- Auto-tune PID, up to 4 independent loops (according to model*)

Communication

Built-in ports:

- 1 Mini USB for programming
- 1 port may be added: Serial/Ethernet (see page 35)

Protocols:

- PC access via MODBUS or OPC server
- Supports MODBUS protocol (according to model)

General Features:

- SMS via GSM
- 3G Modem support
- · Remote access utilities
- * Up to 4 loops: models UA24 / UN20 1 loop: all other models 1



built-in I/Os.

An All-in-One unit affordable as a "smart relay". Full-function PLC combined with a textual HMI and keypad, with up to 40

Jazz®



I/O Options	
Total supported I/Os	40
Built-in	According to model (See Built-in I/Os table below)
I/O Expansion	-
Program	
Memory Operands	256 coils, 256 registers, 64 timers
Ladder Memory	48K
HMI Panel	
Touch screen	.
Cut Out Height x Width (mm)	117 x 89
Resolution	2 lines, 16 characters
Keys	16 keys, including 10 user-labeled keys
Environment	
Protection	NEMA4X/IP65 (when panel mounted)
Operating Temperature	0 to 50°C
Standards	CE, UL Many of our products are also UL Class 1 Div 2 and GOST - please contact Unitronics
General	
Battery	10 years typical at 25°C, battery back-up for RTC and system data, including variable data
Clock	Real-time clock functions (date and time)
Power Supply	24VDC

Jazz® models - Built-in I/Os

		Inputs ¹					Outputs			
Article ⁴	Summary	Digital ²	HSC/Shaft-encoder ²	Analog	Temperature Measurement	Transistor ³	PWM/HSO ³	Relay	Analog	Operating Voltage
JZ20-J-R10	6 Digital Inputs 4 Relay Outputs	6		_	_	_	_	4	_	24VDC
JZ20-J-R16	6 Digital, 2 D/A, 2 Analog Inputs ¹ 6 Relay Outputs	8	2 10kHz, 16-bit	2 0-10V 10 or 12-bit 2 0-20mA, 4-20mA 10 or 12-bit	_	_	_	6	_	24VDC
JZ20-J-R16HS	6 Digital, 3 3HSC/Shaft-encoder, 2 A/D, 2 AI, 6 Relay outputs	8	3 10kHz, 16-bit	2 0-10V 10 or 12-bit 2 0-20mA, 4-20mA 10-bit	_		_	6	_	24VDC
JZ20-J-R31	16 Digital, 2 D/A , 2 Analog Inputs ¹ 11 Relay Outputs	18		2 0-10V 10 or 12-bit 2 0-20mA, 4-20mA 10-bit	_	_	_	11	_	24VDC
JZ20-J-T10	6 Digital Inputs 4 Transistor Outputs	6	2 10kHz, 16-bit	_	_	4 pnp	_	_	_	24VDC
JZ20-J-T18	6 Digital, 2 D/A, 2 Analog Inputs ¹ 8 Transistor Outputs	8		2 0-10V 10-bit 2 0-20mA, 4-20mA 10-bit	_	8 pnp	_	_	_	24VDC
JZ20-J-T20HS	6 Digital, 3 3HSC/Shaft-encoder, 2 A/D, 2 AI, 10 Transistor outputs	8	3 10kHz, 16-bit	2 0-10V 10-bit	_	8 pnp 2 npn	2 32kHz	_	_	24VDC
JZ20-J-T40	16 Digital, 2 D/A, 2 Analog Inputs ¹ 20 Transistor Outputs	18	2 10kHz, 16-bit	2 0-10V 10-bit 2 0-20mA, 4-20mA 10-bit	_	20 pnp	_	_	_	24VDC
JZ20-J-UA24	9 Digital Inputs, 1 HSC, 2 A/D, 2 AI, 2 TC/PT100, 5 Relay Outputs, 2 Transistor Outputs, 2 AO	11	2 10kHz, 16-bit	2 0-20mA 4-20mA 2 0-10 VDC	2 Thermocouple, PT100	2 pnp	2	5	2 +/-10V, 4 -20mA 12-bit	24VDC
JZ20-J-UN20	9 Digital, 2 D/A, ¹ Analog 1 TC/PT100 Inputs ¹ 5 Relay 2 Transistor Outputs	11	1 5kHz, 16-bit	2 0-10V 10-bit 1 0-20mA, 4-20mA 10-bit	1 Thermocouple, PT100	2 pnp	2	5	_	24VDC

some models certain inputs are adaptable, and can function as either digital or alog. Adapting requires input pins. This reduces the number of digital inputs. Pi

2 Note that the high-speed inputs are included in the total number nat the high-speed outputs

4 To order a classic Jazz with a
luded in the total number

Bezel panel, omit the 'J' from t
model number ex J720-R10

I/O Expansion Modules & Accessories- Vision Series

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

				Inputs				Ou	tputs	Operating	
	Expansion Modules Article	Digital⁵	HSC⁵	Analog	Temperature Measurement	Weight Measurement	Transistor ⁶	PWM/HSO ⁶	Relay	Analog	Voltage
	IO-DI8-T08		1 5kHz 16-bit	_	_	_	8 pnp	_	_	_	24VDC ⁹
	IO-DI8-R04	8 pnp/npn		_	_	_	_	_	4	_	24VDC ⁹
	IO-DI8-R08	8 pnp/npn	1 5kHz 16-bit	_	_	_	_	_	8	_	24VDC ⁹
Digital	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
	I0-R08			_	_				8	_	24VDC 9
	IO-R016	—	—	_	_	_	—	_	16	-	24VDC 9
	IO-DI8ACH	8 AC	_	_	_	_	_	_	_	_	110/220 VAC
	IO-AI4-AO2	_	_	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
Analog, Temperature and	IO-A06X	_	_	_	_	_	_	_	_	6 (Isolated) 0-10V, 0-20mA, 4-20mA 12-bit	24VDC
Weight/Strain Measure- ments	IO-LC1	1 pnp	_	_	_	1 Loadcell / Strain gauge	2 pnp	_	_	_	24VDC
	IO-LC3	1 pnp	_		_	3 Loadcell / Strain gauge	2 pnp	_	_	_	24VDC
	IO-ATC8	_	_	Thermocouple, 0-10V,		_	_	_	_	_	Not relevant
	IO-AI8	_	_	8 0-10V, 0-20mA, 4-20mA 14-bit	_	_	_	_	_	_	Not relevant
	IO-D16A3-R016	16 pnp/npn	2 30kHz 16/32-bit ⁸	3 0-20mA, 4-20mA 10-bit	_	_	_	_	16	_	24VDC
XL Digital/	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 npn 50kHz	None	_	24VDC
Analog	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 npn 50kHz	None	_	24VDC
High-speed Remote I/O Module	EXF-RC15 ^{2,4,10}	9 pnp/npn	3 200kHz 32-bit	_	_	_	4 npn	4 (up to 3 PTO)	2	_	24VDC

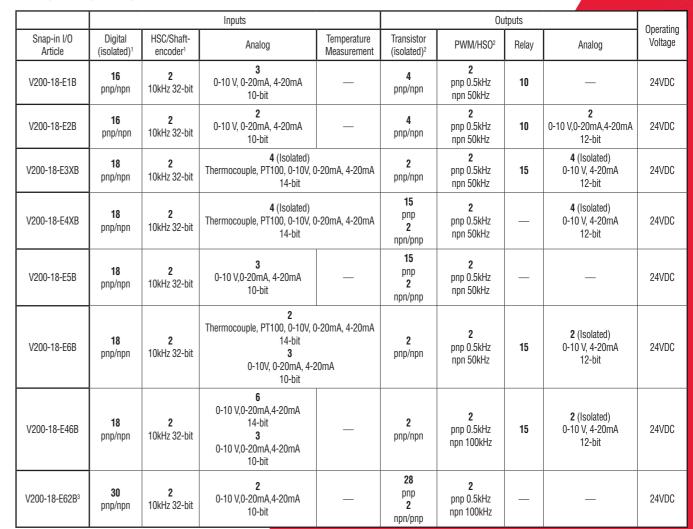
I/O Expansion Module Adapters

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.	

Number of supported I/Os & I/O modules varies according to module.

Snap-in I/O Modules

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



¹ The total number of digital inputs listed includes high-speed inputs. The total number of digital outputs listed includes high-speed outputs.

Vision&Samba COM Modules

Enhance Vision's communication capabilities¹

Vision Model	Ethernet	R\$232/R\$485	Isolated R\$232/R\$485	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 ³	V100-17-RS4	V100-17-RS4X	V100-17-CAN, V100-S-CAN ³	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

V130/V350/V430: 1 optional port for serial or Ethernet & 1 optional port for CANbus/ Profibus.

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			

Jazz Add-on ports and accessories

COM Port kit	Ethernet Communication Port	Program Cloner module	Keypad Slide kit
RS232/RS485 Add-on port (isolated) Article No.: JZ-RS4	Ethernet Add-on port Article No.: MJ20-ET1*	Copy applications from PLC to PLC Article No.: MJ20-MEM1	Customize the Jazz® keypad to your application Article No.: MJ20-JZ-SL1

Not vet UL certified

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.

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.

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 I4 as a HSC and I5 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.

Functions as local adapter. Can support up to 7 I/O modules. 16-bit or 32-bit, depending on the PLC.

⁹ Also available as 12VDC – contact us for part number.

One HSC may be configured as a shaft encoder.

³ Not yet UL certified

² V560, V570/V1040/V1210: 1 optional port for serial or Ethernet.
³ Extended temperature cards, operational temperature: -30°C to 60°C (-22°F to 140°F) - for V350-JS-TA24 only.

V700 is supplied with an onboard Ethernet port. 1 port may be added: serial, Profibus. and CANbus





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